GRAND CANYON TRUST *COLORADO PLATEAU*

Advocate

FALL/WINTER 2018

THE CENTENNIAL COUNTDOWN ISSUE

We're Still Here: Native Voices on 100 Years of Grand Canyon National Park

PLUS

Could a Fossil Connect Ancient Peoples of the Grand Canyon to Bears Ears?

Detours Along the Road to Mighty—Utah's National Monuments

LETTER from the Board Chair

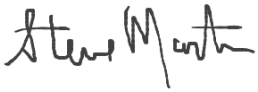
STEVE MARTIN

I am truly excited about this issue of the Advocate. The fast-approaching 100-year anniversary of Grand Canyon National Park—February 26, 2019—is a time for all of us who care about the Grand Canyon to reflect upon our journey as stewards of these remarkable lands.

For a place that measures time in millennia, you might ask how significant 100 years is compared to millions of years of Grand Canyon geologic history and thousands of years of Native American history associated with the Grand Canyon.

The answer is that without the last 100 years of protection by the National Park Service, the Grand Canyon would be very different today. The pressures of population, economic expansion, and tourism over the past century have been constantly increasing. If they had been left unchecked, the Grand Canyon landscape would have been riddled with change. Even with the strong protection mission of the park service, much has impacted the canyon. Two dams have dramatically altered its heart, and tourism threatens to overrun some of its most fragile and sacred places. Uranium mining, climate change, and water usage could all significantly impact the canyon in the next 100 years.

One important lesson of the last century is that the National Park Service cannot protect the park on its own. New, creative, and focused citizen advocacy will be essential. In this issue we explore some of the strategies needed to continue our role as stewards. These include welcoming the ideas and energy of the Native American tribes back into the management of the park, exploring the park service's role over the next 100 years, considering protection strategies for the other important landscapes of the Colorado Plateau, and exploring ways to make sure the economic benefits of the region are shared by local residents. Please join us in anticipating the centennial, and work with us to ensure that the Colorado Plateau remains the beautiful, diverse, and dynamic landscape that we all treasure.



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ON THE COVER
Sheree Denetsosie is a natural boatwoman, and what an honor it was to capture her beautiful spirit.
DAWN KISH, DAWNKISHPHOTOGRAPHY.COM

EDITOR'S NOTE
The views expressed by the contributors in this issue are solely their own and do not necessarily represent the views of the Grand Canyon Trust.

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grandcanyontrust.org

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contents

PLUS

WE'RE STILL HERE

JAKE HOYUNGOWA

By Sarana Riggs

Grand Canyon National Park turns 100 years old in 2019, but the centennial anniversary is a mere slice compared to the indigenous history of the Grand Canyon region.

For the 11 tribes that call the canyon home, the park's milestone is muddied with mistreatment. The creation of Grand Canyon National Park pushed the canyon's original inhabitants off their ancestral lands and excluded them from stewardship, management, and economic opportunities in the park. But the centennial opens the door to redefine relationships, have tough conversations, and bring new ideas to the table.

ED MOSS

Native Voices on the Grand Canyon National Park Centennial

Building on the intertribal gatherings we've hosted in the past, the Grand Canyon Trust is facilitating meetings with tribal members to discuss the centennial of Grand Canyon National Park. We are committed to bringing indigenous voices together, listening to their priorities, and supporting their vision.

Centennial gathering members are looking at the 100th year of Grand Canyon National Park as an opportunity to recognize the past and chart a path forward. In the five meetings we've hosted so far, they have discussed protecting resources, developing economic opportunities, and addressing educational needs, while honoring their teachings, cultures, and ways of life. For Native people of the Colorado Plateau, the canyon is their heartbeat. Let that guide us into the next century and beyond.

Meet some of the centennial gathering members:

Ophelia Watahomigie. JAKE HOYUNGOWA

Georgie Pongyesva. JAKE HOYUNGOWA

OPHELIA WATAHOMIGIE-CORLISS, Havasupai

What does the canyon mean to you?

On a personal level, it really makes you feel small. And I think that's important. The Grand Canyon from the Havasupai perspective is the embryotic, the emergence, the origin of how we came to be. We try to take care of it, we've always wanted to take care of it, and we still feel like we do take care of it. Living at the bottom of the canyon, I feel like I hear the heartbeat of Mother Earth a lot closer than I would on higher ground. So it would seem to me that the Havasupais, in their blood and with every breath, already know how to take care of the Grand Canyon.

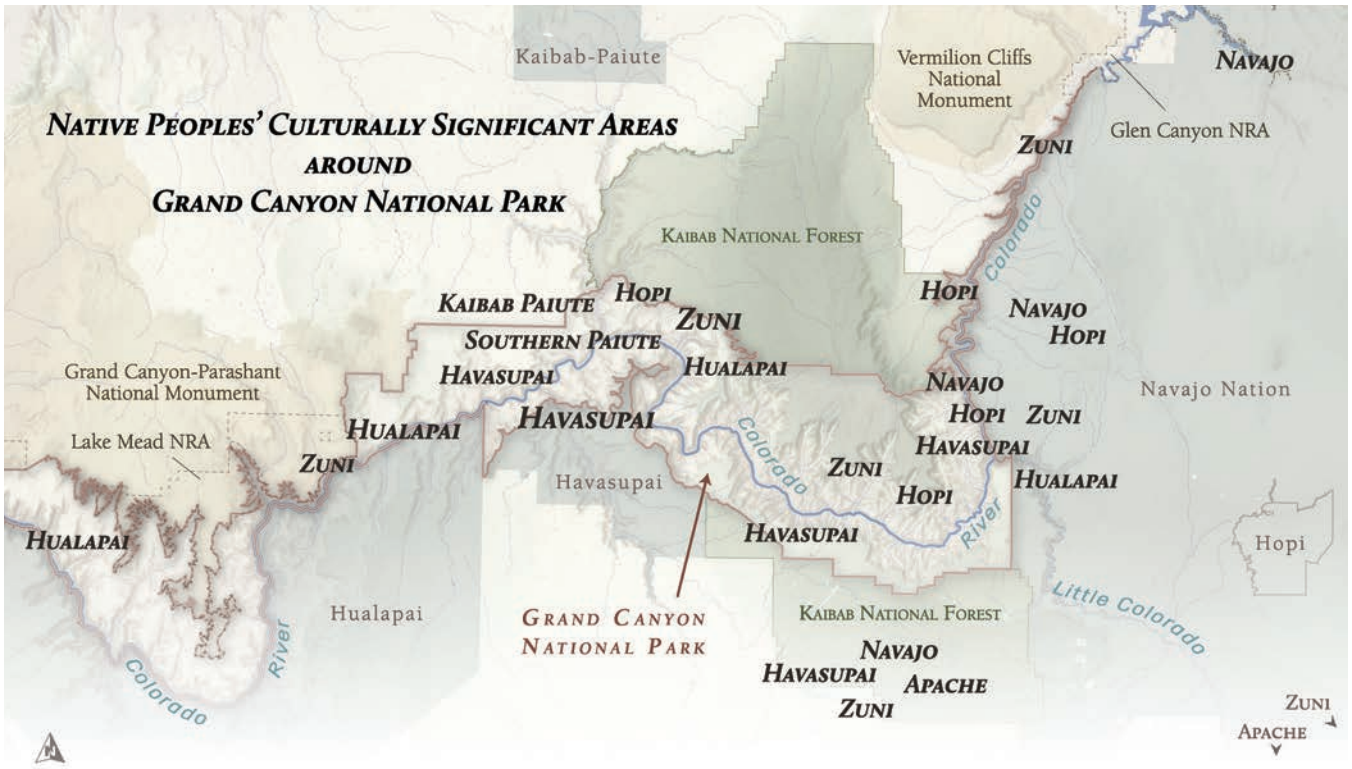
What has been a challenge in the past 100 years of Grand Canyon National Park?

Borders. The park service showed up and told us what the borders were. And it was really hard to understand that we couldn't enter park service land anymore, but the Supais kept doing it. Supais lived in Indian Gardens for a long time.

I think one of the issues has been the national park's original inability to communicate with the source communities who either lived there or would come there for ritual pilgrimages. So, the original partnership lacked and never existed. And then after about 80 years, then they wanted to start creating partnerships. And I appreciate that, I just wish they would acknowledge the years before. To acknowledge that they didn't want us involved, and to say they're sorry would allow most tribes to move forward in a productive manner.

What do you see coming out of the centennial conversations?

I'm still excited, maybe because I'm young and optimistic. But I feel like the people in positions inside the national park are listening to our perspective and they want to know what we have to say. And I'm excited that we



The locations of the tribe names represent general areas, both past and present, that are culturally significant to Native people of the Grand Canyon region. This may not be a complete representation of all culturally significant areas to Native peoples around the Grand Canyon, or the only tribes that may hold these areas culturally significant.

might actually get somewhere. I feel like when I talk to these individuals in the park service that they want to help. So it's a matter of teaming up with them and finding a way for them to make it through the red tape of the federal agency they work for.

What's the main message you'd like people to know?

I want people to know that the cultural history of the Grand Canyon is not the history you read in colonial books. I want them to honor and respect our oral history and to understand that the history of the Grand Canyon doesn't start with Mary Colter, Fred Harvey, and the Santa Fe Railway. But rather, to find in the timeline where the creation of Grand Canyon National Park fits into our oral history. So then we can see the history as a whole, not separate. They are one history, and we should be recognizing all of it at once.

GEORGIE PONGYESVA, Hopi

What does the Grand Canyon mean to you?

The canyon is a very sacred place. It's awe, without words. For the Hopi, it's a very spiritual place because of the Sipapuni, where we emerged from into this world. And it's where we go back to when we leave this world. I've felt an energy down there that is unreal. They say our ancestors dwell in the canyon, and I definitely feel that.

What would you like to see within the park in the next 100 years?

I would love to see more Native presence, and not like the fake trinkets you see at the park. It's laughable that people really believe these things are true authentic Native. I'd like to have everyone's voices represented in a respectful way. And I am excited to have our youth more present in the park. Some of our youth have never even been to the Grand Canyon because there are no opportunities for them to visit, or go there, or afford to go there. So overall to create more access for our tribal members and have us be able to tell our stories.

What would you like everyone to know in the centennial year of Grand Canyon National Park?

We're still here. We're still in active communities. We still care very deeply for the lands and this landscape. We still use it and are stewards. The reciprocity of respect—what you give comes back to you. This is a one-of-a-kind place. It provides so much on so many different levels—spirituality, sustenance, and water. And it's so important to protect it, and all these resources, because they're not renewable.

ED KABOTIE, Hopi

What does the canyon mean to you?
The canyon is a place of origin. The canyon is a place where the spirits return to the afterlife. The canyon is a place of wonder, of fear, of life and death. The canyon teaches you humility by its vastness, by its hostility, and by its peace at the same time. The canyon is many things to me. When I think about the canyon, I sense power, and strength, and holiness.

What do you want people to know about the canyon?
People come to the canyon to appreciate its beauty while being totally ignorant of the suffering that's taken place there, of how the landscapes have been abused, are being abused, and how the indigenous people of those landscapes are suffering. But I'm very encouraged by what's taking place in the park right now. I see very pointed efforts to reestablish relationships within our communities.

What excites you the most about the centennial conversations?
I'm most excited about the outreach to Native communities in an effort to help educate outside cultures about who we are. In the indigenous communities involved with the Grand Canyon, all of us are experiencing some type of environmental, historic, personal, or cultural trauma. The affiliated tribes of the Grand Canyon have all been severely assaulted over the last 125 years by government entities, mining companies, BIA (Bureau of Indian Affairs) boarding schools. It's hard to describe to an outsider what has taken place in our culture. So I think what I'm most excited about is our voice. That is what brings healing and understanding, not only to victimized individuals and communities, but also to the greater culture and the world.

What change would you like to see within the park in the next 100 years?
I would love to see an increase in the awareness of the First Nations' cultures and our relationships to the canyon. We get visitors from all over the world who are interested in seeing our landscape, and I'd hope that stories of our people would be elevated through the park service and our voices would be heard to the world.


Ed Kabotie. JAKE HOYUNGOWA

RENAE YELLOWHORSE, Navajo

What does the canyon mean to you?
The canyon is a sacred space. You only go there with prayers in your heart. With purpose on your mind, with purpose in your steps. Then you leave it the way you found it. You don't look back. You don't wander there. All those spaces are protection places for us. That's where life began. It's where I get my cultural identity. The emergence place, where the waters meet together, that's where life begins. When I go to the canyon, when I go to that sacred space, it links me to all the people that came before me. That is where we come from, and it makes me feel grounded to know that.

What do people need to know about the history of the Grand Canyon?
The Grand Canyon itself, the whole area, is older than the park. There are original people that are there, and for it to continue on into the next 100 years, to the next millennia, is to recognize the original people from there are still there. We're not in the history books, we're not back then. We're here right now. We work in the parks. We work to defend and protect the parks. Talk to me, ask me about my history. Ask me about how I feel about the canyon. Don't ask a historian. Don't ask an archaeologist that's not Diné or a Native. Ask me, I'm right here.

What's your vision for the Grand Canyon in the next 100 years?
I'd like to see my progeny—all my great-grandchildren, and their grandchildren—be able to go to the canyon and realize and know that those places are protected and preserved for them. I don't want them to come to face what we had to. The humiliation, the attempts to make us so ashamed of where we come from. I want them to be happy. I want them to go there and realize that that's what we worked for, that's what we fought for, and that it will still be there for their own grandchildren, for their own great-grandchildren.

Renae Yellowhorse. JAKE HOYUNGOWA

RIchard Powskey. JAKE HOYUNGOWA

The canyon is a place of wonder, of fear, of life and death. The canyon teaches you humility by its vastness, by its hostility, and by its peace at the same time.

— Ed Kabotie

RICHARD POWSKEY, Hualapai

What does the canyon mean to you?

The Grand Canyon is a place where the Hualapai live and farm, and move back and forth with our sister tribe, the Havasupai. There are a lot of ties with all the dwellings and all the different areas, the sacred sites, the springs, the different elements that we gather in the Grand Canyon—like salt, red paint, different plants like tobacco. It's scenic, it's beautiful, it's awe-inspiring. We protect it as much as we can.

What's on your mind as you think about the centennial of Grand Canyon National Park?

Since the creation of the national park at Grand Canyon, their whole approach was not very accommodating to the tribes. Theodore Roosevelt went there, designated it, and had all the tribes moved out of that area, claiming it a natural treasure for the American people. We are the American people too, and that's our homeland. That's where we're from. So when we look back on our ties to the canyon, we can't just abandon that and go by somebody's proclamation that moved us out. We're still there, and we've been there forever, and we're still going to be there in the future forever.

What's your vision for the next 100 years of Grand Canyon National Park?

I'd like to see more people involved that are from the area, that know the history of the environment in that local region. People need to feel welcome there, and we can share our histories and our cultures with people who are genuinely interested. I think that's one of the things we want to promote and also help people understand that, as Indian people and Natives, we have a way of life and a quality of life that we hold on to and value.

What would you like people to know?

Come to the Grand Canyon. Experience it. Enjoy the spiritual aspect that it will bring to you. Be thankful for all that you have. You come to a place as beautiful as the canyon with no words to describe it, just sit there and don't say anything, and honor it.

Sarana Riggs manages the Grand Canyon Trust's Grand Canyon Program.

Go Grand in 2019

Grand Canyon National Park Turns 100

By Chris Lehnertz

ED MOSS

NATIONAL PARK SERVICE

On February 26, 2019, the Grand Canyon will celebrate 100 years as a national park. After 100 years, whether it's hiking a corridor trail, taking a stroll on the rim, or enjoying the Colorado River, the Grand Canyon continues to provide a space for all people to connect with the outdoors. In 2019, Grand Canyon National Park will commemorate the past and inspire future generations to experience, connect with, and protect the park's unique natural, cultural, and historical resources. I hope you'll join us.

Grand Canyon National Park is more than just a scenic landscape; it is a place of residence and worship for America's first people, a collection of geologic records and natural resources, a place of learning and reflection. While experiencing the Grand Canyon, visitors gain a deeper understanding of the natural world and are able to see themselves as a part of something bigger and appreciate how interconnected we are with one another. It is this power to inspire connection that encouraged President Teddy Roosevelt to help establish Grand Canyon National Park and protect it for generations to come.

Today, some of those generations have arrived and have brought with them challenging opportunities for park staff and managers. A UNESCO World Heritage site, Grand Canyon National Park welcomes over 6 million visitors every year. The National Park Service's mission is to protect America's heritage and its natural, historical, and cultural resources, as well as to ensure that the public has an opportunity to understand and value these resources. For many visitors, it's not only their first time at the Grand Canyon but their first time visiting a national park. Due to a lack of knowledge and experience in national parks, some visitors act in ways that are harmful to park resources. The best way to guarantee a sustainable balance between resource protection and visitor experience is education. If park staff can connect with visitors before

2019 Grand Canyon National Park Centennial EVENTS

January 15
Fee-Free Day

February 26
100th Birthday Celebration

March 1
ASU Mapping Grand Canyon Conference

April 20
Fee-Free Day

June 22–29
Centennial Summerfest & Star Party

August 25–26
Grand Canyon Music Festival

September 28
Fee-Free Day

October 12–13
"Of Time, Wind and the River" Centennial Composition, U.S. Army Band & West Point Orchestra

November 11
Fee-Free Day

Desert View Watchtower, Grand Canyon National Park. BRISTLECONE MEDIA, COURTESY OF NATIONAL PARK SERVICE

they arrive or during their visit on issues such as Leave No Trace principles, wildlife safety, and the protection of historical and archeological sites, Grand Canyon National Park will be better prepared for the future.

Education also creates a gateway for visitors to appreciate and become good stewards of intangible resources such as dark skies, natural quiet, and clean air. Through education, visitors will have a better understanding of the fragility and uniqueness of the Grand Canyon's resources and be inspired to protect them.

In addition, external challenges and threats to the Grand Canyon area have increased and diversified. Resource extraction and structural developments threaten the stability and quality of the Grand Canyon's water resources. Trends in increasing temperatures and decreasing precipitation threaten the habitat of plant and animal species already at risk. For the Grand Canyon to thrive in the future, it is imperative that Grand Canyon National Park is able to continue to protect these resources. As we look forward to the next century, the National Park Service will continue to use the wisdom that has preserved our heritage and lessons learned from the past to protect the Grand Canyon.

How can you help? The easiest way is to share your Grand Canyon experience. Talk about your first experience hiking into the canyon, seeing the Colorado River or a soaring California condor. Talk about seeing the Milky Way over the canyon and the importance of dark skies. Then help educate others about the importance of traveling green by using refillable water bottles and riding Grand Canyon shuttle buses, or share your Leave No Trace knowledge and encourage others not to litter at the Grand Canyon (and all national parks).

If there's one thing we have learned from the past 100 years, it's that people will carry the Grand Canyon forward. Long before the Grand Canyon was established as a national park, people were a significant driving force on the Colorado Plateau. For thousands of years and continuing today, American Indians cared for, shared knowledge of, and admired this spectacular place. Early pioneers, scientists, and entrepreneurs explored and documented its beauty and shared it with the world. In 2019, we will not only celebrate the Grand Canyon, but we will acknowledge and celebrate its people. It is and continues to be people who are traditionally from this area, and people from around the country and world, who dedicate their time and effort to support the Grand Canyon. The strength of the National Park Service's stewardship at the Grand Canyon comes from the diversity of its park supporters.

Park supporters and volunteers help with critical science research, keep hikers safe, staff our visitor centers, support dark skies, and allow visitors from around the world the opportunity to experience the Grand Canyon. You are a vital part of our next 100 years.

I invite you to come reconnect with the Grand Canyon during park events throughout 2019 at the South Rim, North Rim, Desert View, inner Canyon, and in other surrounding communities. Whether you are a regular visitor, a national park traveler, or a virtual explorer, we hope you are moved to experience and connect with a park that has inspired 100 years of stewardship and will continue to delight visitors and stewards for another 100 years!

Come, be inspired, and Go Grand.

Chris Lehnertz is the superintendent of Grand Canyon National Park.

Volunteer Spotlight

Mimi Trudeau

HOMETOWN: Moab, UT transplanted from New York City, NY

PROFESSION: Retired horticulturist and school principal

MEMBER and VOLUNTEER SINCE: 2014

TOTAL HOURS DONATED:
400 and counting

WHAT'S YOUR FAVORITE TRUST VOLUNTEER TRIP?

I love Johnson Lakes Canyon. It's a private inholding in Grand Staircase-Escalante National Monument. We go every year, and there is this big effort to restore it to its natural state, and there's a lot of experimentation going on. It's wonderful to see what works, what doesn't work, what has potential for the future, and it's wonderful to see plants coming back. And the same people come back every year! So they become your friends. They're your family.

WHY DO YOU KEEP VOLUNTEERING?

I felt like I found my people! When I first moved here, I wanted to know the name of every plant. I studied and studied, but there was no reason to know the plants except for my own personal enjoyment. So to find a purpose to apply what I was learning gave me a reason to keep studying!

WHAT'S IT LIKE TO BE IN THE FIELD?

It's always an adventure. You go out, and you don't know what's going to happen. And even if it's a hardship, like it's an unbelievably hot day or it's snowing when you're doing fieldwork and freezing, regardless of what happens it's a good memory. That's what sustains me. You always get something good out of it.

Thank you, Mimi!

Start your own volunteer adventure at grandcanyontrust.org/volunteer

The Perks of Volunteering
A Grand Canyon Love Story

By Liz Blair

When I decided to volunteer with the Grand Canyon Trust, I knew the landscape would be breathtaking, the work would be rewarding, and that I'd meet some amazing individuals. That said, I didn't expect to go on a date with one of those individuals.

For most couples, the first date might include dinner, drinks, maybe even a movie. If the first time you meet, however, is in the Grand Canyon, it only makes sense that the first date also be in the Grand Canyon.

At the time, Michael was living in Flagstaff and I was living in Durango, so most of our communication was over the phone. Just 30 minutes into one phone conversation we had planned a three-day backpacking trip in the Grand Canyon. We never actually called it a date, but we both knew there were intentions beyond just friendship.

While backpacking may sound like an aggressive first date, there are a lot of upsides to it. For one, it will show you every side of someone: elation, frustration, hunger, impatience. Pretty quickly into the trip, you're going to know if you get along or not.

There's nowhere to hide when you're backpacking, which means the other person gets to see you—like really see you—and probably smell you too. With no distractions and no social media, backpacking provides a perfect opportunity to really get to know someone.

The Grand Canyon certainly has some rugged terrain and harsh temperatures, which could prove challenging when you're trying to find a connection with another person. In the end, it turned out to be a pretty magical place for our first date. So much so, we decided to go back there for our one-year anniversary this spring.

Writer Liz Blair and photographer Michael Remke live at the base of the San Juan Mountains in Durango, Colorado. Whether by ski, foot, or bike they love exploring the Colorado Plateau. When not playing outside, you can find them practicing yoga, nerding out over plants, dabbling in fermentation, or dueling in cribbage (Liz usually wins).

Share Your Grand Canyon Love Story

Was it love at first sight? Love at first dip? We're collecting stories about first impressions of the Grand Canyon. Tell us why you love it. Send your story to Ellen at **eheyn@grandcanyontrust.org** for a chance to be featured in our next issue.

MICHAEL REMKE

"My dad took me rafting through the Grand Canyon as a college graduation present. After hiking down the Bright Angel Trail in scorching June heat to meet the boats and our guides, I plunged into the 50-degree water—refreshing and painful at the same time. My head hurt like I'd just gulped down ice cream. Little did I know I'd be making hundreds more dunks and getting hundreds more brain freezes in the Colorado River in the years to come."

—Ellen Heyn, Grand Canyon Trust communications manager

GRAND CANYON NATIONAL PARK TURNS 100 IN 2019.

Amplify your annual gift to help ensure the Grand Canyon and the Colorado Plateau are protected for the next 100 years and far beyond.

Become a member of the Trust's Turquoise Circle with an annual gift of $1,000 or more today.

Turquoise Circle members provide the cornerstone of support for the Trust's work.

Exclusive benefits include:

- Field-trip invitations to extraordinary locations on the Colorado Plateau
- Live conservation updates and Q&A sessions with our executive director, Ethan Aumack, and staff experts
- Insider electronic updates from staff experts

This season, become a member of the Turquoise Circle and receive Pete McBride's extraordinary new photo-essay book, *The Grand Canyon: Between River and Rim.*

Please join us in celebrating the Grand Canyon by joining the Turquoise Circle today.

A Very Old Horn

The Grand Canyon and Greater Bears Ears as a Continuous Cultural Landscape

By R.E. Burrillo

This is a story that begins over 13,000 years ago inside the Grand Canyon and ends—if indeed it does—in New York City. At its center is the horn of one very old goat.

History is, of course, all about perspective. Constructing it involves weaving together ideas, facts, theories, interpretations, and stories from and about the past. In a similar way, the ways in which we perceive landscapes are often reflections of the concepts and values of our own cultural viewpoints. As Thomas Greider and Lorraine Garkovich point out in an excellent 1994 essay:

> *Every river is more than just one river. Every rock is more than just one rock. Why does a real estate developer look across an open field and see comfortable suburban ranch homes nestled in a quiet cul-de-sac, while a farmer envisions endless rows of waving wheat and a hunter sees a five-point buck cautiously grazing in preparation for the coming winter?*

Where these two threads braid together is where you will find *conservation archaeology*.

Here I present a conservation archaeology tale—a story of landscape and history. It's a story about the cultural landscapes of the Grand Canyon and Bears Ears, two of the most culturally important places in the Southwest to the indigenous peoples of the Colorado Plateau, and how their material history indicates that this has always been the case.

It begins with a mountain goat.

Harrington's mountain goat occupied much of the Southwest up until about 13,000 years ago, or roughly the time human beings first appeared in North America. Fossil specimens have been found in dry caves throughout the entire intermountain West, although the goats evinced a particular love for the Grand Canyon. Like modern mountain goats, their fleetness-of-foot likely evolved as a strategy for avoiding predators, allowing them to scramble up and down steep, rocky slopes that bears and wolves couldn't effectively navigate. Fecal pellet analyses have shown that, also like modern mountain goats, they were versatile eaters, following the flow of nutritious growth up and downhill depending upon the season. At the canyon, this meant occupying dry caves within the gorge from late winter to early summer, then grazing on the rims from late summer to early winter. Precontact peoples of the Grand Canyon practiced an almost identical type of seasonal round, occupying the inner gorge during the winter when wild resources were still available and then moving up to the rim to grow crops and avoid the blasting heat of summer.

Between about 4,000 and 2,000 years ago, during what researchers call the Late Archaic period, people began utilizing—but not living in—many of these same dry caves. Evidence of this includes one of the most intriguing and enigmatic Late Archaic-period developments: the split-twig figurine tradition. Split-twig figurines were usually made from a single willow twig that was split down the middle and carefully wrapped into complex forms, usually in the shape of deer or bighorn sheep. They were first discovered in the Grand Canyon in 1933, with hundreds of documented figurines coming from a total of just 15 caves. A second iteration occurs around the Green River area in Utah,

TOP: Harrington's goat skull and horns. NATIONAL PARK SERVICE BELOW: Grand Gulch. JONATHAN BAILEY

...did Late Archaic people and Ice Age animals just happen to like the same caves?

TOP: Split-twig figurine found in Grand Canyon National Park. NATIONAL PARK SERVICE
ABOVE: Moqui rock art featuring split-twig figurine petroglyphs. TIM PETERSON

although the two traditions are stylistically different.

For at least 20 years now, archaeologists have noted a strong and distinct correlation between Grand Canyon split-twig figurines and the fossils of Harrington's mountain goat. Biologist Steven Emslie and colleagues first noted this correlation in a 1987 study, musing on "a deliberate association between Archaic artifacts with the late Pleistocene fossils"—underscoring a contention voiced by archaeologist Alan R. Schroedl as early as 1977 that Archaic people visited dry caves in the Grand Canyon primarily for ritual or ceremonial purposes. Archaic period hunter-gatherers were keenly familiar with the land—as is the case with any group of people who derive their sustenance from the environment rather than the grocery store—so they would have known these were the remains of animals that weren't around anymore.

Grand Canyon National Park paleontologist Robyn Henderek dusted this topic off just a few years ago and, with the help of several colleagues, tested the existing and newer data against a series of alternative hypotheses. Was there a causal connection, for example, or did Late Archaic people and Ice Age animals just happen to like the same caves? The correlations stood up against all statistical onslaughts, and it turned out the people were deliberately targeting those caves with the most challenging access (behavioral ecologists would most likely interpret this as "costly signaling," which is a fancy way of saying "showing off"). These data also support the conclusion that the figurine makers were choosing difficult-to-get-to caves, specifically those containing the bones of Harrington's mountain goats. Robyn saliently contends that this relationship may indicate a form of "contagious magic," generally defined as the belief that things once in contact continue to be in contact with one another forever after.

Allow me to elaborate. Based on evidence from elsewhere in the canyon, we know that the Late Archaic people were hunting desert bighorn sheep and mule deer. So it would be reasonable for the Late Archaic people to assume, at the time, that the bones

of the Harrington's mountain goats that the figurine-makers encountered in the caves might be the ancestors of those animals they were hunting. Perhaps, then, placing the split-twig figurines near the bones of the ancestral animals the figurine-makers were hunting served as an offering or act of reverence to ensure successful hunts. We can't ever know what specific notions Archaic cultures may have held about these ancestral mountain goats, but they were obviously important.

This Harrington's mountain goat/split-twig figurine correlation is the earliest known example of people deliberately associating their material culture with in situ paleontological materials, although it is not the only one. In Grand Staircase-Escalante National Monument, there is a set of very distinct dinosaur tracks leading straight to the edge of a cliff, giving the impression of giant three-toed creatures having walked to the edge and leapt off (in reality, the tracks were shoved upward during the geologic uplift that created the Colorado Plateau). On the rock surface just below the tracks is an Ancestral Puebloan rock-art panel that depicts, among much else, interpretive renderings of the tracks. And at another Ancestral Puebloan site, this one in Butler Wash within the once-and-future Bears Ears National Monument, a team of paleontologists—including Bears Ears paleontology specialist Rob Gay—is working on a paper that reports the finding of a theropod track in a slab used as a door lintel.

This brings us to Cedar Mesa, heart of the Bears Ears area and location of the legendary Grand Gulch. It was there in 1894, while digging in what would come to be called Cut-in-Two Cave (don't ask), that Richard Wetherill's team unearthed a mountain goat horn in an archaeological trash dump. Following the custom of the day, it was given a label and then tossed into a box to be trundled off to the Museum of Natural History in New York City. There it sat unnoticed until 2014, when it came under the gaze of Dr. Laurie Webster and Chuck LaRue as part of the Cedar Mesa Perishables Project.

Briefly, the Cedar Mesa Perishables Project is a scholarly effort designed and directed by Laurie to examine and catalog the thousands of perishable artifacts excavated in the Cedar Mesa area—and relegated to one repository or another—over 100 years ago. She and her colleagues have catalogued over 4,000 perishable artifacts, including sandals, baskets, combs and hairbrushes, blankets, nets, and even sets of round wooden dice. Chuck's role is that of animal-identifier. He once spent almost an entire day poring over a single feather blanket, identifying the feathers of more than a dozen different bird species. And it was Chuck whose "aha" moment forms the basis of this tale: Wetherill's site dates to the early Basketmaker period, which immediately succeeded the Late Archaic, and the horn is from a Harrington's mountain goat.

Harrington's mountain goats are not known to have lived in Grand Gulch, although they probably did; there is plentiful evidence of their presence at Natural Bridges National Monument to the northwest. But the provenience doesn't imply accidental association—Harrington's mountain goats predate the early Basketmaker period by 11,000 years or so, which makes their having gotten mixed together by coincidence a hard sell. Moreover, just last summer a perfectly intact Clovis (11,400-10,800 B.C.) projectile point was found in an early Pueblo (A.D. 750-900) site atop Cedar Mesa where it was probably someone's precious antique; so the ancient peoples of the area were just

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While fun to contemplate, speculations on a Late Archaic and early Basketmaker migration from Grand Canyon to Bears Ears via the Colorado River and its tributaries engender data requirements that far exceed several rock art panels and a very old horn. But it's a start.

as fascinated by very old things as we are today.

On the other hand, split-twig figurines have also never been found in the Bears Ears area. Not in the literal sense of figurines made with split twigs, at any rate. Instead, the version one finds in Bears Ears are rock art depictions of Grand Canyon-style split-twig figurines, the most impressive of which are geographically located along riverine corridors that connect the two landforms. Their locations being coincidental are, in other words, as much a hard sell as the horn just happening to appear in archaeological rubbish.

All of this is underscored by the climatic and cultural histories of the Colorado Plateau as a whole. At the end of the Late Archaic period, or about 2,000 years ago, climatic shifts seem to have compelled people to leave the Grand Canyon altogether until later in the Holocene or modern climatic period. So where did they go?

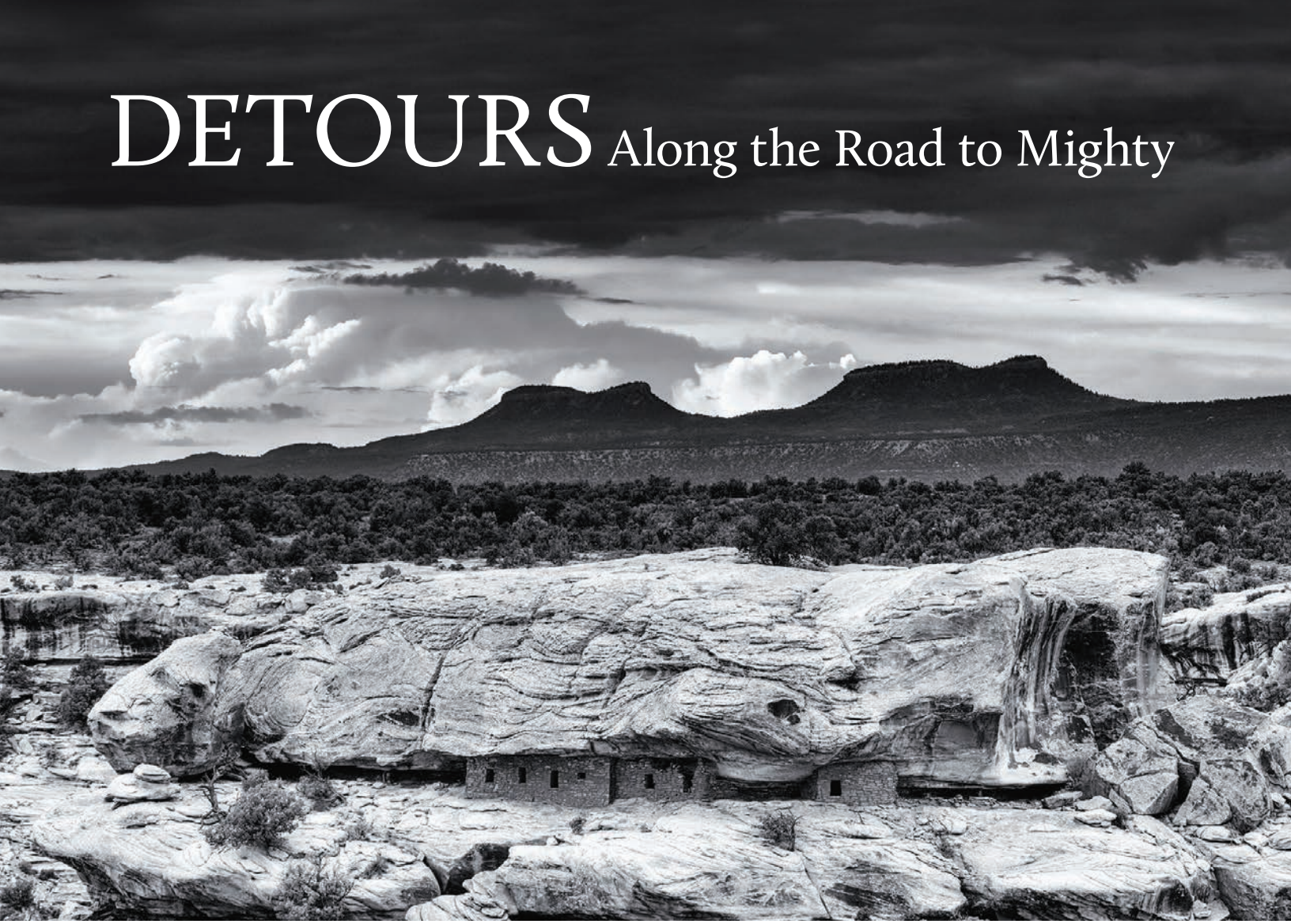
Meanwhile, according to Drs. Bill Lipe and RG Matson, who led the historic Cedar Mesa Project of the 1970s, the higher and cooler Cedar Mesa in the heart of Bears Ears was ground zero for early Basketmaker farmers. In fact, the majority of what archaeologists know about that period derives chiefly from there (Grand Gulch is the primary canyon system of Cedar Mesa, by the way). So where did they come from?

Having made the foolish decision to go hiking in both the Grand Canyon and Grand Gulch during the full blaze of summer, I can say with grim certainty that the fierceness of the latter still doesn't quite compare with the former. It wouldn't take an enormous shift in temperature to make either one more favorable than the other when you're relying on nature to provide all of your food and water.

While fun to contemplate, speculations on a Late Archaic and early Basketmaker migration from Grand Canyon to Bears Ears via the Colorado River and its tributaries engender data requirements that far exceed several rock art panels and a very old horn. But it's a start. More importantly, it demonstrates an overarching and significant connection within the greater cultural landscape of the Colorado Plateau beginning at least 2,000 years ago. Whether that connective factor was migration, cultural diffusion, or something else altogether is a question we can't answer now—and maybe never will. But the importance of both places in the sacred geography of the indigenous peoples of the Southwest appears to have very deep roots indeed.

R.E. Burrillo is an archaeologist, author, conservation advocate, and PhD candidate at the University of Utah. The author of over two dozen publications, he was the lead editor (with Ben Bellorado) of the 2018 Archaeology Southwest triple issue, Sacred and Threatened: The Cultural Landscapes of Greater Bears Ears.

DETOURS Along the Road to Mighty



TIM PETERSON

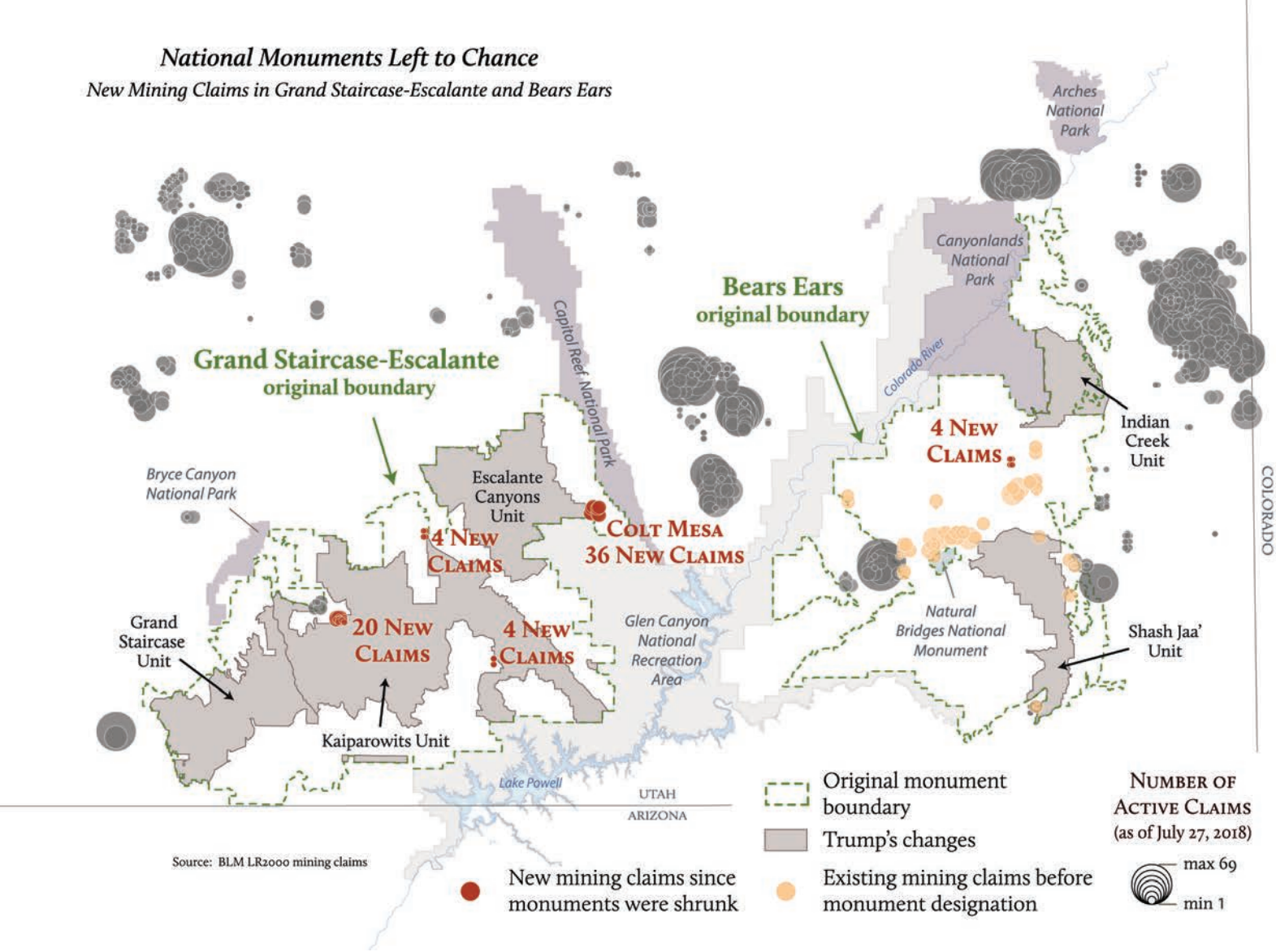
By Tim Peterson

Southern Utah seems to be everywhere you look these days—red-rock adventures advertised in airports, on the web, and on cable TV. Utah's well-financed ad campaign seeks to lure you to drop some vacation cash on a trip to the "Mighty Five" national parks, and on the "Road to Mighty," Utah's national monuments between the parks.

The ads don't mention that four of Utah's Mighty Five—Zion, Bryce Canyon, Arches, and Capitol Reef—began as presidentially proclaimed national monuments just like Grand Staircase-Escalante and Bears Ears. They also neglect to mention that the scenes enjoyed by happy families on the "Road to Mighty" contain places that the state of Utah actually wishes weren't national monuments—places in Bears Ears and Grand Staircase-Escalante that the president tried to strip of national monument protections in December 2017 at the behest of some of Utah's elected officials.

The enormous reductions in the size of Bears Ears and Grand Staircase-Escalante national monuments (85 and 47 percent, respectively) were not enough for some Utah politicians, particularly those who called for their total elimination. Senator Mike Lee, R-Utah, is one of those politicians, and he's proposed a trio of bills that would go much further than just ravaging national monuments.

The first bill, speciously dubbed the "Protect Utah's Rural Economy Act," would exempt Utah from new national monument designations made by future presidents under the Antiquities Act unless the Utah State Legislature and the U.S. Congress approve. But Congress can already create national monuments, so the bill is really just a



The administration's 85 percent reduction of Bears Ears has eased the way for development of existing mining claims, more than 200 of which are already held on lands cut from the monument.

prohibition on presidents acting in Utah when there is a need to protect important places and Congress can't get its act together to pass legislation.

Senator Lee characterizes his second bill as a "new Homestead Act" that allows states, local governments, and even individuals to petition the federal government to take ownership of public lands for "affordable housing, or education, or health care, or research." Lee's radical approach promises plenty of room for "affordable" cabins for well-connected donors in prime settings on now-public lands.

As if these two bills weren't enough, Lee's third bill is the wildest pitch of the game—it would transfer all federal public lands (save for national parks, national monuments, and designated wilderness) to the states, removing the American public from public lands.

By now you must be wondering why is there such ardor in some Utah circles to strip protective status from public lands. The answer is simple and stark: more mining, drilling, logging, livestock grazing, and development of our public spaces for private gain.

Utah's anti-public-lands politicians have found fast friends in the current administration—friends who brush aside inconvenient facts about the benefits of protected public lands. An accidental release of unredacted documents in July 2018 confirmed as much in clear text—the administration expunged information on the benefits of national monuments and highlighted information that bolstered the case for eliminating them. The strategy was revealed only when an official forgot to hit the button to black out text before releasing internal

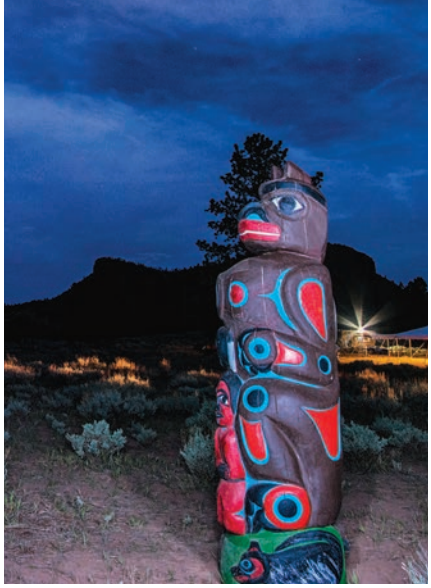
documents to news organizations and conservation groups. Oops.

The administration has long sought to keep its strategy private, releasing documents on the monuments review only after being sued. When the U.S. Department of the Interior finally dumped tens of thousands of pages under court order without organizing them (forcing groups like ours to wade through the disorganized documents), the courts stepped in again. Speaking from the bench on the administration's failure to present responsive information, Judge Emmet G. Sullivan told the Department of the Interior's lawyer: "...you can tell Mr. Zinke that I'm going to haul him into court for him to explain why he can't comply with my court order."

Elsewhere in the courts, at press time we're still waiting for a ruling from a D.C. judge as to whether she will keep our cases challenging the monument reductions in her court or transfer them to Utah where our opponents must hope their arguments in favor of eviscerating Grand Staircase and Bears Ears may find a friendlier ear.

On the ground, new mining claims have been filed in Grand Staircase and Bears Ears. Three new mining claims on the lands cut from Bears Ears seem fairly benign—one was filed by a pro-monument adventure athlete, the other two by young brothers from Dallas who seem to be without financial backers. Unfortunately, the relief for Bears Ears may be temporary. While new claims are few, that's not the whole story. The administration's 85 percent reduction of Bears Ears has eased the way for development of existing mining claims, more than 200 of which are already held on lands cut from the monument, many by companies in the uranium business.

New Acting Environmental Protection Agency Administrator Andrew Wheeler happens to be a former lobbyist for Energy Fuels Resources (USA) Inc., the uranium company that heavily lobbied the administration to reduce the boundaries of Bears Ears. The uranium industry is also pushing hard for quotas and domestic buying requirements for uranium that could put a bull's-eye on both Bears Ears and the Grand Canyon for new uranium mines.



Carved bear totem gifted to the Bears Ears Inter-Tribal Coalition by the Lummi Nation. TIM PETERSON

In June, a Canadian company announced that it would like to mine for copper and cobalt on lands cut from Grand Staircase, but it faces big hurdles. The mine it seeks to reopen only operated for a few years in the 1970s, and it closed due to a lack of water onsite. Also absent are electrical power, high-standard roads, rail access, and support from nearby communities for the mine. Furthermore, the mine is located on former Utah state lands that U.S. taxpayers paid cash for as part of a congressional land exchange in 1998. The purpose of the exchange was to add protections for the lands, not to mine them.

The Bureau of Land Management (BLM) is also rushing to write new monument management plans for the shriveled Bears Ears and Grand Staircase national monuments. The BLM hopes to have them completed in record time (by early 2019) and to make them as short as possible. Draft plan alternatives are out. As of press time, public comments are due November 15, 2018 for Bears Ears and November 30, 2018 for Grand Staircase. We need you to weigh in to ensure the lands get the most care possible.

Still, there is ample reason for hope. Efforts to restore protections for Grand Staircase, Bears Ears, and other treasured national monuments targeted by the current administration are rising, as is public support for the restoration of Utah's monuments. A recent poll found that 74 percent of Western voters surveyed opposed monument cuts in Utah. House and Senate versions of the ANTIQUITIES Act of 2018 have been introduced to codify and restore the boundaries of Grand Staircase and 25 other targeted monuments, as well as to expand Bears Ears to the full 1.9 million acres proposed by the Bears Ears Inter-Tribal Coalition in 2015.

Tribes from around the nation continue to lend their support and prayers as well. The Lummi Nation gifted a 9-foot-tall carved bear totem to the Bears Ears Inter-Tribal Coalition. It was delivered to the Bears Ears meadow this summer loaded with prayers for protection from hundreds of individuals across the West. The totem is currently on view at the Southern Ute Museum in Ignacio, Colorado.

More than just a place to camp, hike, or ride a bike, the true meaning of Bears Ears, Grand Staircase, and all protected public lands is intercultural sharing and connecting to places in ways that are both personal and universal. As Zuni Tribal Councilman Carleton Bowekaty says, "Every time we reconnect, we're bringing the world back into balance. Not just for Zuni, but for the entire world."

Tim Peterson directs the Grand Canyon Trust's Utah Wildlands Program. If you see someone who looks like him without a camera, it's probably not Tim.

A Hidden Getaway at Big Hogan

By Tony Skrelunas

"My dad wanted boys," says Alberta Henry, sweeping open the door to the lofty new hogan on her family's land near the eastern entrance to Grand Canyon National Park's south rim. For now, aside from a few traditional shade arbors, an outdoor cooking area, and an outhouse, the hogan is the only structure on this 50-acre property where Alberta's family has lived, hunted, and held ceremonies and family gatherings for five generations. But on the table in front of her are artist's renderings of what she hopes the land, with its panoramic views of the Little Colorado River gorge and well-preserved rock-art panel, will someday become: a cultural tourism destination complete with traditional hogan lodgings, campsites, RV parking, a general store, a café, and an outdoor amphitheater. Alberta plans to attract tourists from the nearly 900,000 vehicles that shuttle past each year on the popular Highway 64 corridor—which connects Little Colorado River Navajo Nation and Marble Canyon Navajo Nation parks to Grand Canyon National Park—by offering a hidden getaway where guests can enjoy traditional Navajo foods, storytelling, dancing, and entertainment, set out on guided hiking and horseback tours, and experience the Navajo "lifeway."

"My dad worked for Peabody for 40 years. He was a welder. And he got four girls," Alberta continues, smiling. "What do you do when you get four girls? You make them welders." Alberta laughs. She's quick to laugh—it's one of the first things you notice about her—and although she's alone at the hogan today, her family is never far from her mind.

Out the hogan's door—like all hogan doors, it faces east, to welcome the rising sun—juniper, cedar, and piñon trees cast small shadows in the early morning light. Alberta just got off the night shift, but you'd never know it by the way she moves around the hogan, making sure everyone is comfortable before settling down herself.

The hogan is unusually large and sits on the northern end of a clearing. Built by her brother-in-law as a surprise for her sister last November, the walls and ceiling of the octagonal dwelling are immaculately paneled in pine, and inside it feels cool, light, and airy. Two ceiling fans hang overhead to help distribute heat from a wood-burning stove in colder weather.

"My sister was married in here," Alberta says. Alberta herself was

married in this spot, in an older incarnation of the hogan whose foundation still lies under the dirt floor of the new one. An even bigger hogan once stood a short distance away.

"My family has lived on this land for 100 years," says Alberta. "We call it Big Hogan because there used to be a really big hogan up here, bigger than this one. My great-grandmother had 14 kids. My grandfather, his name was Frank Bilagody Johnson. He went to school until the eighth grade—not a lot of kids did at his age—so they called him Olta Nez ("Long Education"), because he could read a newspaper. He and my grandma, Grace, had 14 kids. Ten lived, and they raised them here. When we have family reunions, about 200 people come. We butcher sheep, sometimes a cow. We don't get our meat from the store."

Alberta herself has four children, including two daughters in college and a son who will graduate high school next year. "Then we started back over," Alberta jokes, speaking of her 2-year-old son. Petite, youthful, and neatly made up in traditional turquoise earrings and sporting a Big Hogan T-shirt, 42-year-old Alberta might not look like the stereotypical welder.

"Me and my sisters, that's what we grew up doing," she insists. The work often took Alberta out of state, and she worried her kids would lose their connection to family and to Big Hogan. "I decided I needed to move home so that my kids could have stronger roots and grow up here and learn about this area. So me and my husband quit our jobs, I withdrew my 401k, and we moved our home back to Cameron."

To support their family, Alberta and her husband both found jobs with Peabody Energy. Alberta works the night shift as a driller and shooter at the Kayenta Mine, on Black Mesa, some two hours away.

LEFT: The view from Big Hogan. JAKE HOYUNGOWA ABOVE: Alberta inside the big hogan. JAKE HOYUNGOWA

"We drill holes and put dynamite in there and move the earth so we can dig for coal," she explains.

To make sure she arrives in time for her 4 p.m. shift, with weather and traffic unpredictable on reservation roads, she leaves her home at 1 p.m. She gets off at midnight, returning home after 2 a.m., long after her 2-year-old has gone to bed. Her husband works the day shift at the mine, and, between commuting times and conflicting sleep schedules, the pair barely see each other. But all that driving gives Alberta time to think.

"I saw those hogans in Monument Valley that people were renting and I said, 'maybe I could do that.'" From that small seed has sprouted a project that has consumed nearly every available waking hour of Alberta's life for the past three years.

During this time, the Grand Canyon Trust has worked alongside Alberta, supporting her through the complex process of acquiring a business-site

lease from the Navajo Nation, developing the cost and revenue models and other financial plans necessary to create a prospectus, and producing a promotional video to help attract investment. Culture-based entrepreneurs like Alberta have few avenues for traditional financing. To remedy this, we are working with Alberta and several culture-based ventures to gain access to new types of impact investment featuring a mix of grants, low-interest financing, and investment.

Tourism on Navajo land is estimated to be a $1.7 billion a year industry, but the Navajo Nation captures only a small fraction of that. Fewer than 1 percent of visitors stay in Navajo-owned bed-and-breakfasts like the one Alberta hopes to break ground on at Big Hogan. Nonetheless, cultural tourism destinations on the Highway 64 corridor have the potential to relieve overcrowding at nearby Grand Canyon National Park by spreading some of the park's 6 million annual visitors east, and to inject much-needed revenue into the Navajo Nation's economy, where an estimated 38 percent of residents live below the poverty line.

Alberta picks up one of the two artistic renderings that capture her dream for Big Hogan, and points out the Hummingbird Information Center, where she plans to provide educational information about the Navajo Tribe, Navajo Code Talkers, and efforts to protect the sacred confluence, and a gallery where she'll sell Native-made jewelry and crafts.

"This is a really unique place. People who come here, they fall in love with it," Alberta says. She hops into her truck to take us out to Big Hogan's private overlook. We pass the remnants of a *táchéél*—a traditional sweat lodge—nearly a hundred years old. At the trailhead, she points out a stump whose twisted branches resemble the rack of an elk. "We call this Elk Point View," she says. The rusted hood of a Model T is propped up nearby.

"This whole area is like a little island that stands out, a plateau," Alberta says. An old Model T road that ran along the edge of the canyon is still visible in the rocky landscape.

TOP TO BOTTOM:
Rock art panel at Big Hogan.
The stump that inspired Elk Point View's name.
Awee ts'aal in bloom. Traditionally the plant was used to make cradleboards. JAKE HOYUNGOWA

"My mom's maiden name is Bighorse," Alberta explains. "That's a well-known name around here. My great-great-great grandfather, he stole horses—Clydesdales—from the Mormons so they called him Big Horse. "When tourists used to come through here and crash, they didn't have ambulances or tow trucks, so they'd get his big horses and pull the Model T off the road so that people could pass."

Alberta leads the way down a rock-lined path. The view opens up: the Little Colorado River gorge, Navajo Mountain, and the north rim of the Grand Canyon in the distance. "Way before my great-grandparents moved here, it used to be a gathering place for hunters, for the Navajo, the Hualapai, the Hopis, the Paiutes. The hunting parties would all gather here," Alberta explains.

During the Long Walk, Navajos hid out in the area, and Alberta says you can still find apricot and peach trees near hidden springs. "There are stories that the Hopi, they built their homes with logs gathered from here and they built these rope bridges," Alberta says. "They would take those logs across back over to their side, probably a hundred miles. On Google Maps, if you look at the canyons real close, you can still see those rope bridges."

With a permit from Navajo Nation Parks and Recreation, Alberta can lead hiking tours from Big Hogan all the way down to the Little Colorado River, where locals have told her about a hot spring called Blue Cove. "I haven't found it yet," Alberta says. She also intends to offer horseback tours and trail rides.

With the drought, the piñon trees haven't gotten enough water to produce nuts this year, but a flowering bush called *awee ts'aal* is blooming at the overlook. "It's what we make cradleboards out of it," Alberta says, leaning in to smell it. "It's really flexible."

On the way back, Alberta points out cactus fruits, yucca, Navajo tea, and other edible and medicinal plants her grandmother has taught her about. "My grandma says, 'I'm not going to be alive for very long. Remember these things because one day you're going to be starving, one day you're going to be thirsty.' My grandma's name is Julia Johnson and she's the matriarch of our family. In Navajo culture, the women lead the family. She knows all the stories. She's our rock."

We climb back into the truck. When we get out at the last stop, it's nearly noon. Lizards sun themselves on the rocks. Alberta leads the way down a flight of steep metal stairs welded into the cliff. At the bottom, behind a long railing, is a massive rock-art panel.

"There are a lot of petroglyphs in this area," Alberta says. "Our ancestors used to live underneath the overhangs. You can tell because of the smoke from the fires." She points up at the soot-stained ceiling. On the rock wall in front of her are dozens of petroglyphs and bright red pictographs showing elk and deer and rain. Some have been chipped off or vandalized. "There's pottery, there's arrowheads," Alberta says. "I want to protect this place."

Alberta will have to leave for her next shift at the mine soon. But as we prepare to leave, she turns in a slow circle, surveying the land, pointing out where visitors will sit in the amphitheater to watch traditional dances, as though she can see into the future. The coal Alberta helps mine powers Navajo Generating Station, which supplies electricity to pump water up and over the mountains to Phoenix, Tucson, and other desert communities. But the generating station is scheduled to close by the end of 2019, and the mine is expected to close with it. Alberta hopes, by then, Big Hogan will be up and running to support her family.

She estimates she'll need about $110,000 to get her business off the ground, including $20,000 for showers and restrooms, $50,000 to build five guest hogans, and $25,000 for a solar array that will provide electricity to light the hogans and charge visitors' cell phones.

"I'm trying to go green," Alberta says, "but going green is really expensive. Each of those compostable toilets is like $5,000."

Big Hogan is certainly a family affair. "To build the hogans, we'll have a contractor leading us, but we'll be doing most of the labor," Alberta explains.

Alberta's sisters and brothers-in-law will weld the signage, as well as a fence and gate. Her family will also help with hogan rentals, the information center, and maintenance, including driving a tanker truck to Flagstaff to replenish water in an underground tank, once installed.

For now, Alberta is starting small by hosting private groups of visitors.

With the help of the Grand Canyon Trust, she's offering a "glamping"—glamorous camping—experience to a few potential investors. She sets up tents and bedding and provides meals, including a traditional blue-corn mush breakfast, Navajo tea, and mutton stew with fry bread for dinner.

Recently, the Trust helped Alberta connect with a group of tour operators from the international adventure-travel company G Adventures, as well as representatives from the company's nonprofit arm, the Planeterra Foundation.

Alberta hosted small groups for the night, offering tents and meals, as well as traditional storytelling and a guided tour. She hopes the company could funnel a few thousand visitors per year to Big Hogan.

"I really enjoyed it," Alberta said of the Planeterra group. "We told them skinwalker stories. They were scared. Modern society has bedtime stories, well these are our bedtime stories." Alberta laughs. "It was so much fun. And I get to do it on my own time, and no one is bossing me around." She laughs again. "I get to spend time with my kids. My kids were here the whole time the group was here. And the group gave me some good advice at the end. They said, 'keep your family lifestyle, bring your kids, it's authentic.'" Alberta prepared separate meals for the vegetarians in the group and they recommended she also list those vegetarian options on her menu. They encouraged her to start with small groups, dry-camping as she'd done with them, even if it takes Alberta and her husband time to raise the money they need to build out Big Hogan.

"It was $200 per person, and, at the end, they gave us a tip. I was so surprised," Alberta says, her eyes shining at the memory. "When I go to work, I just do my job and go home, then I get paid for it. And it's really good money. But they own me. I haven't had a day off this whole month. I wish I could just quit my job and do this. But my job pays for this. And we're trying to save money to build the hogans."

Alberta's work has already attracted a small impact investment of $5,000. These funds will help her cover the cost of the archaeological survey the Navajo Nation requires her to conduct to ensure no archaeological sites are disturbed at Big Hogan. It's a significant undertaking and comes with a hefty price tag—$8,000—but Alberta is cheerful about it. "I want to do things the right way," she says. "I want to build something that will last for me and my family. I want to help the kids around here get jobs and stay on the reservation." Alberta knows she'll need cleaners and cooks, guides and storytellers, and she hopes to spread the benefits of Big Hogan beyond her family to the larger community.

"Once I start making money, I really want to give back, so that the people who helped me can help somebody else like me," Alberta says. "I want to be an example. If I can do this, you can do this. If you really want it. Every day I think about this. I was telling our first impact investor, when he invested the $5,000 to start, if someone handed me a large amount, I'd quit my job today. I'd come straight here and start."

Grand Canyon Trust Native America Program Director Tony Skrelunas works to promote impact investing and support sustainable economic development, including utility-scale solar power, on tribal lands.

TIM PETERSON

UTAH FORESTS

Aspen thrive on Monroe Mountain

It took four of us: a Forest Service research botanist (who found the world's oldest known ponderosa pine back in 2003 in Utah), the director of the Sevier County Extension, who helps farmers, ranchers, and residents with crops and agricultural animals, the central region coordinator of Utah's Grazing Improvement Program, and me. For three days in late July, we took photos and measured aspen inside and outside six half-acre plots scattered across Monroe Mountain in central Utah. These plots—called exclosures—are surrounded by high fences that keep deer, elk, cattle, and domestic sheep out and allow aspen sprouts to grow. Why the tape measures? We were there to find out whether—and how fast—old aspen stands that have been unable to recruit new aspen over 6 feet tall can resume growing them once their sprouts aren't being eaten. As of 2018, Monroe Mountain almost certainly sports the largest number of current aspen research studies on the Colorado Plateau—all due to federal, state, university, and nonprofit efforts to answer questions raised by the Monroe Mountain Working Group, a collaboration working to restore aspen on the mountain. The mountain is doing its part as well, with fire removing conifers that block out sunlight and the land getting some well-deserved rest from grazing, giving aspen the time and the space it needs to thrive.

Mary O'Brien
Utah Forests Program Director
Castle Valley, Utah

TIM PETERSON

URANIUM

Preventing another toxic legacy

Contamination from past uranium mining on the Colorado Plateau has created public health problems and over a billion dollars in taxpayer liability. Today, uranium continues to put communities and the environment at risk. While the saturated global uranium market has tamped down the need for new mines for three decades, the mining industry is seizing upon this administration's protectionist agenda. In May 2018, uranium was added to the U.S. Department of the Interior's list of critical minerals despite the opinions of experts in defense and nuclear power that there is no risk of a uranium shortage. Now the administration is considering quotas for uranium that would force U.S. nuclear power plants to purchase uranium mined domestically, driving up prices and making mining from our public lands profitable for internationally owned companies. The Grand Canyon Trust is bringing the truth about the disingenuous intentions of industry to the forefront. Our public lands are far too precious to risk for the profit of a few.

Amber Reimondo
Energy Program Director
Flagstaff, Arizona

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POSTCARDS from the FIELD

LIVING, BREATHING HISTORY

The ancestral peoples of the Colorado Plateau speak. If we listen, they'll teach us.

DAWN KISH

Diné archaeologist Jason Nez has spent much of his career working at the Grand Canyon. We caught up with him recently to talk time-travel and how studying Native American history around the canyon has shaped the way he sees the past and the future.

What have you learned from your work that you think more people should know?
We need to zoom out. We get focused on little things and that's just human nature. We focus on artifacts—oh, look at this projectile point—when we should be focused on where did this artifact come from? Who made it? How did our ancestors survive in this landscape? When you zoom out, archaeology becomes big, it becomes wide, and it becomes alive. It's not just one inanimate object, it's a series of what we Natives believe are living artifacts. They live, they breathe, they talk to us. And if we listen to them, they'll teach us. I can look at pottery sherds and tell you these people were the Cohonina people, probably the ancestors of the Hualapai and the Havasupai. I can pick up a sherd and say these people were Kayenta people from 1,300 years ago, the ancestors of the Hopis. I can read the shape of pottery vessels and tell you they were storing water, they were storing corn, they were cooking in this one, they were using this one to carry water. And all of those things are little voices that come together in this big river which is knowledge, just pouring out of time. It's like time-traveling. It's them talking to us from hundreds or thousands of years ago.

How can people start to see the landscape the way you do?
I think that what we're lacking in a lot of our parks and forests is a Native voice. For so long, our ancestral lands that are now parks, that are now forests, they've been managed without the most important voice: people. There's a story here, you can see it, you can talk to it. It's the Havasupai, it's the Hopi, it's the Zuni, it's the Navajo, it's the Paiute. We're all tied to this landscape and we have a story to tell. When we destroy landscapes, we destroy resources, we destroy people. Our Native identity is tied so much to these lands. The San Francisco Peaks, Bears Ears, the confluence of the Grand Canyon, when adverse things happen to these things, it affects Native people, it affects our mental state, it affects the way we live. Our songs and our prayers come from these places. We go to these places for healing. There are shrines that we still visit. So these places are us. What happens to these lands happens to us. And vice versa. We have to take care of this place so that it can take care of us.

What archaeological sites in the Grand Canyon stand out?

The confluence of the Grand Canyon where the Colorado and the Little Colorado come together. In our western Navajo belief, we emerged there, where the rivers come together, and to us that's like your mother, that's where you came from. And we should have reverence and respect for this place. That's why local people fought so hard against the Escalade development and that's why Native people want to be included in the management of these areas. And I think, as time goes on, Native people will be able to tell our stories at the canyon. We'll be able to educate people to take care of this place and love it the way we do. As a living being rather than just as a playground.

What linkages do you see to present-day cultures?

Linkages from the ancestral people of the canyon to me, as a scientist and as a Native person, they're clear as day. We can trace the evolution of pottery designs and pottery style all the way to modern Hopis and Pueblo people. There's just no question about who these people were and who they became. And I think that any Native, we know that in our hearts and we know that in our stories, and we know that in our own science. And, as an archaeologist, I also know that in the western way.

What does the Grand Canyon mean to you on a personal level?

When I was younger I didn't understand the canyon. It was a spiritual place. It was spooky. My grandmother, she would say, "the people came out over there." It wasn't until I was an adult that I understood what she meant.

How does being Diné influence your work as an archaeologist?

Being a modern Native American, we're always looking for balance. We're always looking to keep one foot in this crazy modern world and one foot in the traditions. I look back to who Native people were, that's my first foundation. I know who these people were, I know what we did. And I know who we became. I don't have any kids of my own, but I've got a niece that has kids, so I'm a grandpa in Navajo. I've got to take what I've learned from the past, my foundation, and I've got to help start building their foundation. So I'm in balance with the past and I'm in balance with the future. And I have to be in balance sideways. I have neighbors. And as a tribe, we have neighbors. We have Hopis and Zunis and Paiutes. We have the federal government. We have the Forest Service, the park service, the BLM and we're all going to be together until the end of time, so we've got to find ways to work together. And we've also got to be in balance with the sky. We breathe air and we're polluting it, the climate is changing around us and I can see it. We've got to be careful not to destroy the earth under us.

What would you say to the claim that the Ancestral Puebloans just disappeared?

I think that they need to rewrite some books. The sooner we undo the stereotype that we disappeared, the better the world is, because all of a sudden it's not just deer and birds that come back to these environments, it's the people that have been here for thousands of years. These mountains need people, these forests need people. We evolved with these places and they miss us, they want us, they call for us.

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BLAKE MCCORD

FAVORITE PLACE ON THE COLORADO PLATEAU

Most of my time has been spent in Flagstaff. Northern Arizona is so dear to my heart—it's an unexpected treasure. We have our little mountain, the Grand Canyon, and this beautiful surrounding desert. Are you kidding me? I have a love affair with the Grand Canyon.

WHY I GIVE TO THE TRUST

When I think about organizations that are actively trying to mitigate the constant pressure put on the Grand Canyon, I think of the Grand Canyon Trust. I had this assumption that the canyon is safe, but it's not! I prioritize spending time in the canyon and anyone who knows me knows how much I love it, but that only goes so far. There is another side that requires active participation. I'm not a grand contributor. I'm just a regular person who values this area so much.

We couldn't do it without you!

Here at the Grand Canyon Trust, we think the Colorado Plateau is one of the greatest places in the world. We're glad you think so, too. You know you really love a place when you want to share its beauty with generations of people you will never meet.

We cannot do this work without the canyon-sized support of members like you.

Thank you for standing up with us.