

Letter from the EXECUTIVE DIRECTOR



ETHAN AUMACK

"

Elders taught me that life can be beautiful and dangerous. We should remember that while we are blessed with many things, we live life on the tailbone of a deer, a precipice. We shouldn't be paralyzed by fear or doubt. We should stand tall at the precipice because we always have and because we must.

— Jim Enote

Dear Friends.

These are times of uncertainty, change, and consequence. We are living through an era of rapid climate change, climate-driven water scarcity, biodiversity loss, and political upheaval. It isn't entirely clear when and how these pressures on our planet will alleviate. What we can be assured of though is that we must do our absolute best, individually and collectively, to advocate for that which we hold dear: places like the Grand Canyon and so many others across the Colorado Plateau, and principles that bind us to one another, and to this place — love, hope, respect, and care for life in its many forms.

Over nearly 40 years, the Grand Canyon Trust's commitment to place, people, and principle has not wavered. We have, however, adapted our strategies to meet the challenges of the day. Whether working with allies who hold the levers of power in the White House or Congress, working on the ground and in community, or working to defend against retrenchment in the courts, we persist forward when we can and hold the line when we must.

Much more so in the midst of challenging times, when we must hold the line, collective power is vital. You, as members of the Grand Canyon Trust, give us this power, and we magnify it working with and supporting partners and allies from Supai Village to Washington D.C..

No matter the outcome of any court decision, ballot referendum, or election determining who sits in the Oval Office, we will continue to work relentlessly, to channel our collective power on behalf of the Colorado Plateau.

We do indeed find ourselves at a precipice, as so many generations have in the past. And, with your support, we stand tall in the face of danger and beauty, struggles and victories yet to come.

For the Colorado Plateau,

Ethan Aumack Executive Director

OUR MISSION

To safeguard the wonders of the Grand Canyon and the Colorado Plateau, while supporting the rights of its Native peoples.

ON THE COVER

Irina Tabarana examines a remarkable array of gypsum flowers while mapping a passage deep underground. STEPHEN EGINOIRE

EDITOR'S NOTE

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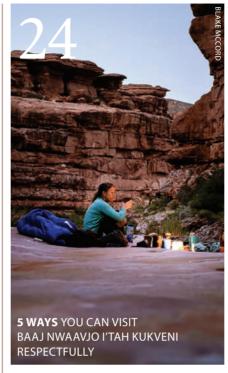


Meet the researchers studying the hidden world of Grand Canyon caves and working to unravel the mysteries contained in strands of ancient DNA.



THE LANDS LEAD US: INDIGENOUS LEARNINGS IN CONSERVATION, LEADERSHIP, AND MOVEMENTS By Charissa Miijessepe-Wilson

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Before setting out to visit the new Grand Canyon national monument, learn how to visit respectfully with advice from Stuart Chavez, Timothy Nuvangyaoma, Carletta Tilousi, and Dianna Sue White Dove Uqualla.



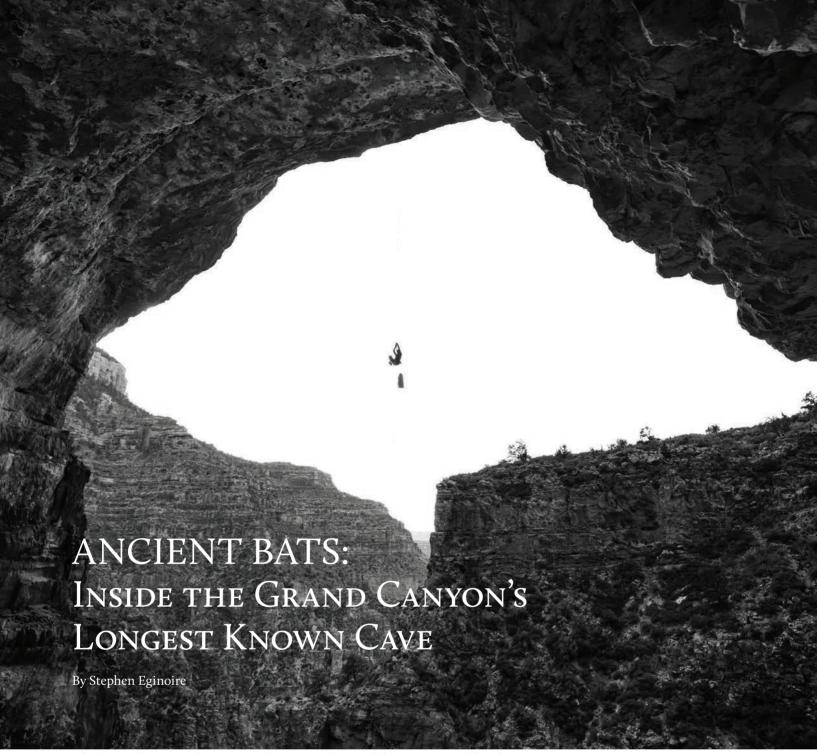
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By Daryn Akei Melvin

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A fixed rope allows researchers to access the cave — a dramatic daily commute to and from base camp. $\mathsf{stephen}$ Eginoire

IT'S A LUMINOUS OCTOBER MORNING IN THE GRAND CANYON. And, ironically for us, it's a beautiful day to be outside. We've just rappelled 250 feet from the rim of the Redwall Limestone to reach an exposed alcove partway down the cliff's face. This inconspicuous feature, hidden among a sea of vertical rock, is, in fact, not an alcove, but an entrance to a vast and complex cave system, older than the Grand Canyon and unlike anywhere else known to exist on Earth.



Miriam Schaffer and Ben Phillips gear up for a day underground. STEPHEN EGINOIRE

■ nside, it is completely dark. We ■ switch on our headlamps. I'm with expert cavers Shawn Thomas and Jason Ballensky, and we're en route to continue survey and inventory efforts deep underground. Three additional teams are also heading to points unknown, all taking part in a collective effort to systematically map the cave. This small group of specialists are members of the Grand Canyon Cave Research Project, an organization with the goal of finding, studying, documenting, and preserving subterranean environments in the Grand Canyon region.

While many caves in the area contain signs of passage or use by Indigenous peoples, in this instance, perhaps because its entrances are located on vertical cliff faces, there is no discernible evidence that humans entered it prior to its modern discovery and exploration, which began in 2008.



Sam Perry adds scale to one of the cave's main passages, the Rocky Balboa Borehole. STEPHEN EGINOIRE

Since then, those investigating the cave continue to add to a remarkable, ever-growing list of findings, including what are likely some of the oldest intact vertebrate remains ever discovered. All manner of small mammals, including ringtails, foxes, racoons, and wood rats, as well as thousands of desiccated bats so perfectly preserved that some — Townsend's big-eared bats, silver-haired bats, hoary bats, and at least nine other documented species are identifiable with a passing glance. Throughout the cave's more than 40 known miles of interconnected passageways, many of these deceased bats dangle from rare gypsum flowers, glass-like crystal formations that extrude from the walls and ceilings in such abundance that the spaces where they occur carry the aura of an otherworldly dimension.

It was in 2010 when Carol Chambers, professor of wildlife ecology at Northern Arizona University, first caught wind of a surprising find made during an ongoing cave inventory project in a remote part of the Grand Canyon — a

huge cave filled with lots of dead animals, mainly bats.

Meanwhile, the inventory project continued to turn up incredible specimens of remains, many still with their skin and fur and so well preserved that it was difficult to distinguish them from live animals, begging the question. "How old are they?"

Chambers, already at work dating a single bat sample from a different cave, met with Shawn Thomas and former Grand Canyon National Park biologist Hattie Oswald, who presented her with photo documentation of 170 individual bats and their respective locations inside the giant cave.

"When I first looked at the bats, I was totally amazed," Chambers said, during a recent interview.

She was instantly sold on helping to determine the bats' ages, but it wasn't until 2018 that the initial funds for radiocarbon dating were secured.

With the wheels in motion, she spent hours reviewing Thomas's and Oswald's photos, agonizing over which bats to sample.

"I was trying to figure out what looks old," she said, eventually deciding on nine bats representing five different species. "It turned out everything was old."

The samples ranged in age from 3,700 to 31,000 years before present — shockingly ancient.

"I thought, holy smokes, we are really on to something here," Chambers said.

The ages were astonishing, and only the tip of the iceberg. Needless to say, all were eager to date more of these exceptionally rare bat remains found throughout the cave.

After false starts in 2019 and 2020 due to wildfires and the coronavirus epidemic, Thomas returned to the cave in 2021 and collected samples from a different set of bats. Chambers sent them off to a well-regarded lab for dating. When her phone rang with the results, they asked her if she was sitting down.

The samples revealed ages beyond the limit of radiocarbon dating, which caps out around 50,000 years before present.





A perfectly preserved Townsend's big-eared bat dangles from tiny aragonite crystals.

"I don't know of anything else like it in the world. It just blows me away," Chambers said. "There have been other bats radiocarbon dated that are quite old, but there's nothing preserved like these individuals. Elsewhere, remains are mostly skeletonized, and nothing like what you see in this cave. It's truly astonishing."

The cave contains hundreds to possibly thousands of undisturbed individual bats, all of which are in their original places. Their age range and the sample size are simply unheard of, and the research opportunities are just now unfolding. While Townsend's big-eared bat is the dominant species, at least 11 other species of preserved bats have been found in the cave system.

"I'm interested in ancient DNA work," Chambers said. "How have these species changed across time? Because we have such a large sample size, are we looking at the same kinds of genetics in these animals [today] as they were 50,000 years ago?"

Questions like this highlight the important role that caves play as habitat for wildlife and environments for preservation. Over the past 20 years or so, Jason Ballensky, who founded the

Grand Canyon Cave Research Project, has located, mapped, and inventoried more caves than any other individual in the modern recorded history of the Grand Canyon, revealing countless wonders in the process. The most significant, of course, being the aforementioned "bat cave," which now ranks as one of the world's longest known caves. This documentation has opened doors for people like Shawn Thomas and Carol Chambers to make their own findings that contribute to a deeper understanding of the Grand Canyon and its natural history.

Recently, I caught up with Vince Santucci, senior paleontologist with the U.S. National Park Service, to chat about the exciting news. Reiterating the significance of caves in the Grand Canyon and the rare opportunities they provide researchers, he said:

"There are portions of the fossil record that are preserved within this cave that may not be preserved in any other environmental setting in the Grand Canyon, or anywhere else in the world. We tend to have the hard parts, the bones, the shells, things like that. We're finding that there has been this rare preservation of soft tissue.







ABOVE: The intact remains of a Townsend's big-eared bat rest on a gypsum flower. BOTTOM: A stunningly well-preserved gray fox.

What is encountered in this particular cave is an anomaly. The value of being able to look at soft tissue preservation enables us to look at morphological characteristics: coloration of hair, size of ears, things that aren't necessarily revealed when you look at bone. And then of course, the Carol Chambers component enables us this extremely rare opportunity to potentially look at ancient DNA."

Impassioned, Santucci continued, "There is no other source of DNA known today, on planet Earth, of a large enough sample size that will enable us to look at those micro-genomic changes of a species over 50,000 years. This is revolutionary."

The remarkably stable conditions found throughout the entirety of the cave account for the animals' remarkable state of preservation. Inside the cave, it is cool, arid, and well-ventilated with multiple entrances, and, of course, absolutely dark. The alignment of elements that enable this unique harmony to exist is truly special. First, a big cave is needed to provide a stable environment. Then, a spread of more enigmatic factors must align to yield an internal temperature and relative humidity that can remain unchanged for at least 50,000 years. This calibration is distinct. Fifty thousand years is only a minimum age, a value



established at the outer limits of radiocarbon dating. It's possible that the environment inside the cave, including many of the deceased animals, has been in a state of preservation for far longer.

Amazingly, the cave continues to provide important habitat to bats to this day; the mammals have been seen flying in and out of the cave where their ancestors have roosted for tens of thousands of years.

So how old is this cave, exactly? The current answer, like much of the canyon's geology, is: It's a complicated mystery. What is known about the cave's origin and development — what scientists call its "speleogenesis" — extends into the realm of deep time, well before the Colorado River and

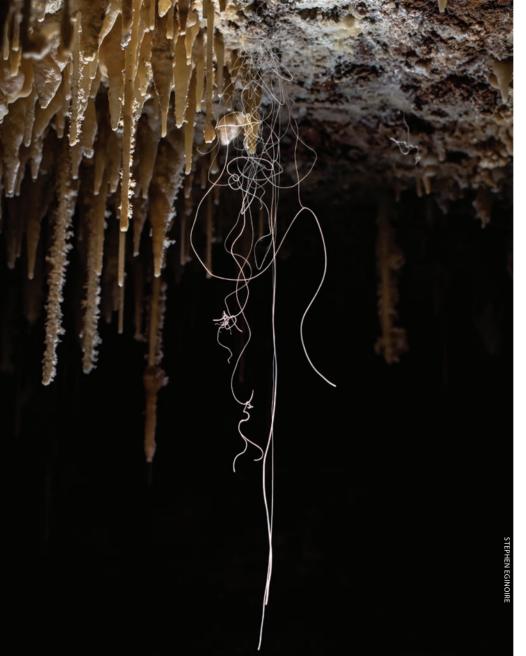
its tributaries began carving through layers of rock to form the Grand Canyon we know today. What exists today as a cave was once part of an ancient aquifer that formed deep below an ancient water table. The aquifer, contained entirely inside the Redwall Limestone, was dissolving, saturated with acidic water until it was crosscut by developing Grand Canyon tributaries. The system, essentially an intricate water tank, was sliced open by aggressive erosional forces occurring on the surface, causing fluids inside the cave to drain away completely.

Dating calcite formations in the cave's former pool basins has provided researchers with enough data to establish a four million year timeline during



ABOVE: The nearly transparent tip of a selenite crystal.

BELOW: An ultra-rare and ultradelicate display of gypsum hair, about three feet in length.



which aridification took charge. It was during this extensive dry-out period that another anomaly occurred: profuse sulfate deposition. As moisture left the system, mineral deposits left behind as water evaporated — mainly gypsum - began forming crystals, crusts, needles, and other rare structures. Today, breathtaking examples of these crystalline minerals are on display throughout much of the cave. Among them are gypsum flowers, a seldom-encountered formation extruding from the porous walls and ceilings of the cave like ribbons of glass. They occur in such dazzling numbers that those studying the cave are often left in a state of speechless disbelief.

These anomalies — the crystals, the perfectly preserved animals, the vastness of the cave, and the stable environment within — are exceedingly rare, only made possible through the harmonious alignment of so many nuanced factors.

Shawn Thomas, who has been a key investigator since the surveying of this remarkable cave began in 2008, said, "My takeaway is that it highlights the importance of caves as habitats and as habitat anchors. This cave, and possibly others like it, is providing long-term habitat through climate change, not just for bats, but other wildlife as well. They might be some of the most stable



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ABOVE: Andrew Chandler takes a break from mapping beneath a ceiling decorated with gypsum flowers. BELOW: Beth Cortright contemplates a distinct display of dense gypsum needles and hairs.

environments to help support species through those changes."

The Grand Canyon is like nowhere else on Earth, so maybe it shouldn't come as a surprise that a cave like nowhere else would be found hiding within its endless web of canyons. It begs the question: What other kinds of places are yet to be realized in the Grand Canyon, and what can we learn from them? This cave is only one of

an unknown number, and efforts to understand the mysteries found within have only just begun.

Caves undoubtedly play an integral role within the Grand Canyon land-scape, and there are a huge variety of them. Many caves in the park are conduits for freshwater springs that nurture plants and animals and provide clean drinking water to Indigenous communities and park visitors. While

these kinds of places are protected directly within the national park, the risk of pollution from uranium mining, among other activities taking place outside the park, requires direct action from all of us to ensure a healthy future for the Grand Canyon. An outstanding example of this forward-thinking mentality was clearly demonstrated by the recently designated Baaj Nwaavjo I'tah Kukveni national monument. The monument ensures that 917,618 acres of forests and grasslands to the north and south of Grand Canyon National Park, including cultural and religious areas, plants, animals, and important water sources flowing into the Colorado River, are stewarded responsibly, including caves.

In the words of Vince Santucci, "We... have only just begun to scratch the surface. Most of what is to be learned about the history of life on planet Earth is yet to be realized. It's still out there, buried in caves and in badlands ... how we manage and how we protect these resources in the Grand Canyon ... is of the utmost importance."

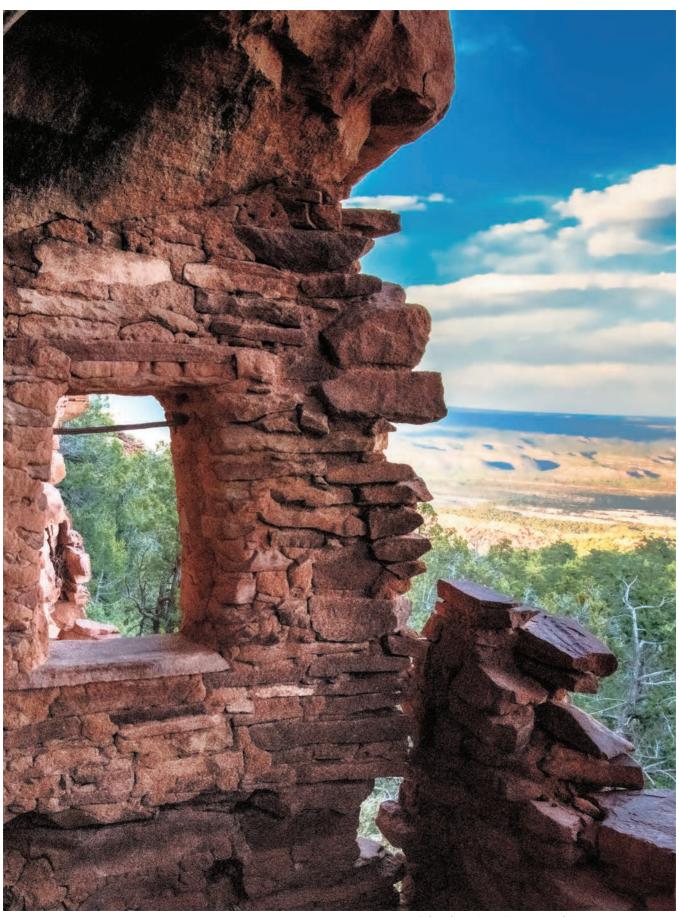


TEPHEN EGINOIF





...l can't help but feel like an interdimensional traveler, passing from one world and into another.



Cultural site, Bears Ears National Monument. TIM PETERSON

THE LANDS LEAD US: INDIGENOUS LEARNINGS IN CONSERVATION, LEADERSHIP, AND MOVEMENTS

By Charissa Miijessepe-Wilson



ED MOSS

My government name is Charissa Miijessepe-Wilson, and my ancestral name is Zii-Bii-Kwe, meaning "River Woman" in Potawatomi. I belong to the Fish Clan. Clans are important to my Potawatomi people because they teach you important life lessons. Fish work in big groups, so they teach you that, to be successful, you must work together. Through my father, I am also Kickapoo, but being from a matrilineal tribe, I identify as Potawatomi.



Charissa Miijessepe-Wilson, codirector of the Bears Ears Inter-Tribal Coalition, at the unveiling of the Bears Ears National Monument sign. TIM PETERSON

Potawatomi translates to "Keepers of the Fire." Traditionally, we are part of the Council of Three Fires. Of those three fires, Potawatomi are the youngest sibling; our older brothers are the Ojibwe and the Odawa.

Our responsibility as the Potawatomi is to care for fire. We were gifted with the knowledge of how to create fire, how to maintain fire, and how to use fire as medicine. Back on my

reservation, there are a lot of ceremonies involving fire and our sacred fireplace. They teach us that fire is our relative. We call it misho, which means "grandfather."

Our Ojibwe brother is responsible for carrying on our traditional languages. Our Odawa brother is responsible for our traditional medicines. Together in our brotherhood, we provide for each other. We each have our role.



The author addresses Celebrate Bears Ears in Bluff, Utah on March 9, 2024.

One of our number one values as Indigenous people is utility. We know our roles. This value underlies many of our worldviews and lifeways.

I think about this value a lot in my work with the Bears Ears Inter-Tribal Coalition, the coalition of five tribes — Hopi, Zuni, Ute Mountain Ute, Diné, and Ute — that proposed Bears Ears National Monument and continue to work to protect it. I often reflect on the words of my grandfather, Francis "Big Man" Wahwasuck, who used to say, "There will be a time when people will be lost because they don't know where they come from. And during this time, they'll look to Indigenous people to lead, to help them remember how to be in this world." I believe that that time is now as a lot of eyes look to Indigenous people for guidance, wisdom, and leadership.

So how do we know where we belong and how to show up in the world as Indigenous people? My own story started, believe it or not, with a dandelion.

When I was young, I was playing outside, picking dandelions. When I'd picked a good-sized handful, I gave it to



The Bears Ears buttes, TIM PETERSON

my father. He looked at me and asked, "Did you give anything for picking these dandelions?"

"No," I said.

"Oh, so you just picked them because you thought they were pretty?" he asked.

"Yes," I answered, confused.

"What you need to understand, Charissa," my father said then, "is that when you did that, you took that dandelion's life. A dandelion doesn't have any less value than you do. You need to go back and give an offering. You took a lot of these dandelions and you need to give something in return. All things have a living spirit. And all living things deserve respect. Just because it's littler than you and it doesn't have the same purpose as you as a human doesn't mean that it doesn't deserve the respect that you deserve as a human."

In Potawatomi we revere plants as relatives, so my dad was teaching me that I needed to respect this dandelion as such.

He continued, "The reason that we give offerings when taking the life of other living things is that one day our bodies will return to the earth. Our return to earth is our offering in

exchange for consuming all this water, consuming our plant and non-human relatives. All of these things that we take from the earth while we exist, we will give back in energy and spirit and form when we return to the earth. Now, go make that offering. You need to care for things the way they care for us."

Life is cyclical. This is how we look at the world. I'm not better than a dandelion. We're equal and we all have something to contribute. We're all connected. We all have our place.

In this worldview, relationships are everything. For Indigenous people, that means relationships with community, with people, with your body, with food, with our non-human relatives, with land. Land is one of our most important relationships because how we treat land reflects how we treat ourselves, other people, and our non-human relatives. Western society devalues things that aren't human. Even in conservation, they are seen as "resources." But relatives aren't resources.

The land knows how to take care of itself. It's regarded as one of the wisest beings with many things to teach. This is true at Bears Ears. Nature is already

in balance and our role as human beings is to help maintain that balance. When we visit Bears Ears, our responsibility is to listen and reflect. What does this land know? What is this land teaching us? We need to be observant. We need to give back because we take a lot from this earth. Ultimately what the land teaches us is that everything returns back to it.

What does this reflection tell me despite not being a member of any of the Bears Ears Inter-Tribal Coalition tribes? Ancestral wisdom doesn't recognize colonial borders. It transcends Western space and time. We hear that we're losing our traditional ways, but ancestral knowledge is in our blood. We look at our surroundings and we already know these things. We just need to remember them. Our ancestral wisdom is still here. We need to reconnect, heal, and remember.

I'm a guest at Bears Ears. As such, when I come to this landscape, that means there are protocols to follow. I need to introduce myself to it. I need to speak my language because even though I'm not from one of the tribes that have an ancestral connection to



Bears Ears, when I speak my language, the spirits, the ancestors, they know that I'm Anishinaabe, Indigenous. They know me and they know that I know how to treat the land and how to be respectful.

To be a good guest, I need to listen and observe. I've learned so much from the coalition tribes. I observe how they interact with the land at Bears Ears to see how I should interact.

From this, I've learned to be humble. When you're a guest, you will make mistakes. Don't be afraid of that. When you make a mistake, you say, "I'm sorry. How can I do better?" Or, "I'll do it differently next time. I'm listening, I'm learning." Being a good guest means leaving things better than you found them. That's our responsibility.

The lands lead us, they teach us. What is Bears Ears telling us? A lot. It's a very wise landscape. Bears Ears teaches us the sacredness of the land. There's a lot of hurt, not only at Bears Ears, but around the greater community. Part of what we're doing is trying to heal all that. Most tribes in the United States were removed from their ancestral homelands. To heal, we must restore our connections because we were illegally removed from our homelands, lands that remain our home with or without our physical presence.

Healing is prevalent in our work. One of the most beautiful things I get to experience working for the coalition is seeing the five coalition tribes work together and support each other. At one of my first tribal leader meetings six years ago, two tribes — you can probably guess which ones — who had been in conflict a long time were bickering. Finally, one leader said, "Well, we've been here all day and we've aired what we needed to air. Now I'm going to put everything aside and listen to

my brother because we're here to protect Bears Ears."

Bears Ears heals. It really does.

To continue healing we must ask, "What do we want for our future ancestors?" Everything we're doing now is not for us. It's for people who aren't even born yet. We're always thinking seven generations ahead. We need to focus on what Earth needs to heal.

One of the coalition's values is abundance. Colonial systems teach us to act out of scarcity. There's a limited amount of pie. Tribes get slivers of that pie from the federal government. This has taught us that we have to fight with other tribes over those scarce resources. We still operate like that sometimes because we have to.

But what if we adopted a mentality of abundance instead of scarcity? What could we do together? What could we do for this place?

We know that we likely aren't going to get everything we want with respect to the Bears Ears landscape. We have to be able to bounce back, to say, "Okay, that didn't work. How are we going to pivot?"

To support this idea of abundance, this culture of trying, of pushing the envelope, of innovation, we must be curious. In colonial systems, we are taught, "There are certain ways to do things. You can only do things this way." Indigenous people, if you remember, we're very utilitarian. There are a lot of ways to do things. We must remain open and abundant.

How does this all tie into Bears Ears? I don't come from a conservation background. Our federal agency partners will sometimes speak in really technical terms and I have to ask, "What does that mean?" Then I hear the explanation and I think, "Oh, well, I do that back home all the time."

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I'd never thought of myself as a leader. I'm soft-spoken, but at Bears Ears right now, I'm being asked to lead. I don't feel ready. I have to remember that Creator knows that even when I make mistakes my heart is in the right place.

To all my relatives, I want to say,
Bears Ears needs you to step up and
lead, whether you're ready, whether
you feel like you're the right person,
or not. That's what this movement is
going to require.

My point is that Indigenous people, we already have a lot of this knowledge. We've been here for a long time. We were practicing conservation before conservation was a thing. What conservation means to me is we need to listen. We need to remember how to care for the land. We need to reconnect. A lot of us have been ripped from our homelands, and we're losing our cultural practices. We need to take the time to reconnect. We need to relearn.

So how do I show up in the conservation space? It sounds cheesy, but I operate as an "aspiring ancestor." How are my actions contributing to ancestors who aren't born yet?

When we think about our actions, we have this belief in Indigenous culture of "transference." That's what Western society calls it. It relates to the energy and the words that we put into things. There was a study done on water. Water that they spoke to with good words, when it froze, developed beautiful crystalline structures. Water into which they put bad intentions, bad words, froze into irregular structures. It revealed that what you do and how you speak matters. It has a physical effect on the world.

I have learned from the Bears Ears tribes that this entire landscape is sacred. I can't be in a bad heart or a bad mind when I approach this place. If hard things are happening in my life, I have to resolve them before I come to Bears Ears because transference happens. It's not appropriate for me to be in Bears Ears with a heavy heart.

This tells us our intentions matter. We're trying to do things differently here at Bears Ears. One of the biggest issues is generational sustainability, uplifting our youth as future leaders and uplifting our elders. I can't wait until I'm an elder because in my culture,

elders are revered. They walk into a room and you ask, "What do you need? You need some coffee? You need me to go run and get you some cookies?" And when an elder speaks, people listen. They have a lot of wisdom to share. Our elders need to be involved; they are our knowledge keepers.

At Bears Ears, we're pushing for a lot of things that haven't been done before. Sometimes we're getting pushback and that's okay. That's been our experience with colonial systems. We've always had to fight and we know that we're going to have to fight into the future for Bears Ears.

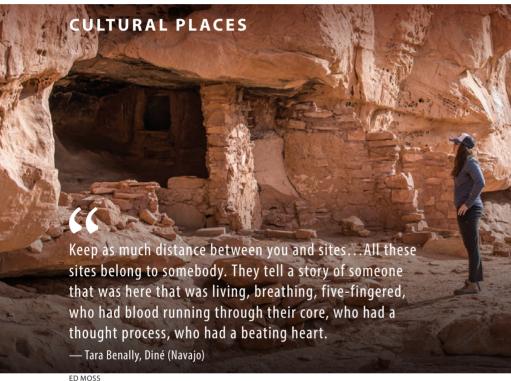
I want to leave you with something I learned from an elder, Gene Tagaban. "There will be a time in your life when you will be called to lead," he said. "You won't feel ready. You won't feel worthy. You won't feel like you have the right knowledge. But despite all of that, you will still step up to lead because that's what your people require of you."

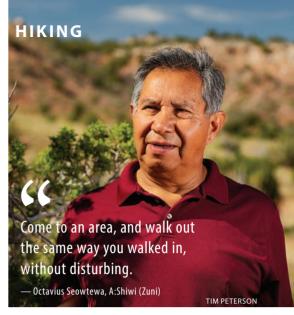
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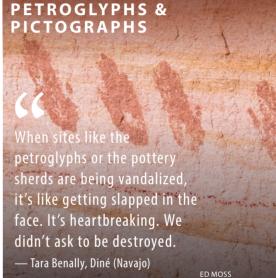
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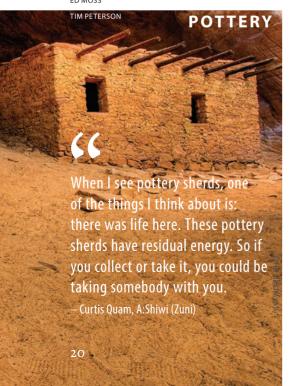
Charissa Miijessepe-Wilson serves as codirector of the Bears Ears Inter-Tribal Coalition.











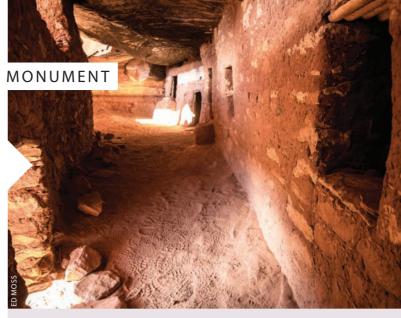


PLACES TO VISIT

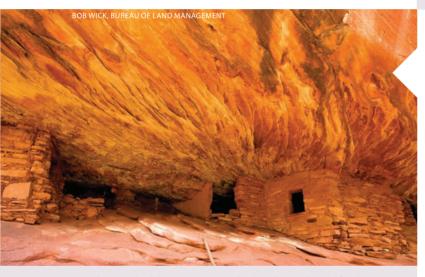
IN BEARS EARS NATIONAL MONUMENT

Moon House

This 3.4-mile hike on Cedar Mesa is short, but don't let the mileage fool you. The descent into McCloyd Canyon packs a punch with its slickrock scrambles and loose scree slopes. After you cross the bottom of the canyon, climb up a ledge to visit Moon House, an Ancestral Puebloan dwelling named for celestial pictographs painted on its walls. You are allowed to enter the interior corridor behind a large outer wall, but please do not enter the interior rooms.



*A special permit is required to visit Moon House, and the Bureau of Land Management limits access to 20 visitors per day. You can reserve permits online at recreation.gov starting 90 days before your desired date. A 4WD vehicle is required to reach the trailhead.



*A Cedar Mesa day-hiking pass is required to hike the South Fork of Mule Canyon. You can purchase a pass online at recreation.gov.

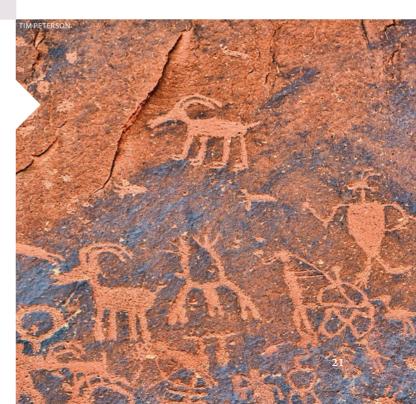
South Fork Mule Canyon

Several archaeological sites are tucked along sandstone ledges in the South Fork of Mule Canyon, located just off Highway 95 on Cedar Mesa. This flat route leaves the trailhead and heads up a shallow canyon. Follow the gravel streambed as far as you like, up to about four miles, before turning around. You'll reach a cluster of granaries called "House on Fire" in about a mile. If you continue up the deepening canyon, you'll encounter a few small pour-offs and increasing vegetation. Return the way you came.

Sand Island Campground

After your long, dusty day of hiking in Bears Ears, retreat to a shady campsite along the San Juan River. Sand Island Campground is conveniently located near Bluff, Utah near Cedar Mesa, Comb Ridge, and Butler Wash. It's open year-round and is first-come, first-served, except for the group sites, which you can reserve in advance.

During your stay, be sure to check out the petroglyph panels etched into the cliff walls. Listed on the National Register of Historic Places, these rock writings are significant to many Native American tribes today.



BEARS EARS NATIONAL MONUMENT

2015

The Bears Ears Inter-Tribal Coalition, a partnership of the Hopi, Navajo, Uintah and Ouray Ute, Ute Mountain Ute, and Zuni governments, proposes the creation of Bears Ears National Monument



2017

President Trump shrinks Bears Ears National Monument by 85%



Rock writings excised from Bears Ears National Monument by President Trump's 2017 proclamation.

2020

Deeply flawed management plan for reduced monument released

2016

President Obama designates Bears Ears National Monument



2018

Public process for new management plan for reduced monument opens — the Bears Ears Commission, an intertribal commission that collaborates with federal agencies to manage the monument, declines to participate

Begun in 2022, a new management plan for Bears Ears National Monument — the first national monument management plan written in collaboration with Native nations — is set to be finalized by the end of 2024. Most national monuments protect only lands and objects of historic and scientific interest, but Bears Ears was the first to explicitly protect traditional knowledge. The 2016 proclamation designating the monument reads:

"The traditional ecological knowledge amassed by the Native Americans whose ancestors inhabited this region, passed down from generation to generation, offers critical insight into the historic and scientific significance

of the area. Such knowledge is, itself, a resource to be protected and used in understanding and managing this landscape sustainably for generations to come."

Though public land managers have worked with tribes on collaborative management elsewhere, the Bears Ears plan represents a big step forward into a new era — one in which tribes and land managers collaborate and cooperate in management planning and decision-making while understanding and incorporating traditional Indigenous knowledge.

By its nature, a plan places limitations on management (like where to camp, ride off-road vehicles, or how





March 2024

Draft management plan written in collaboration with tribes released for public comment



2021

President Biden restores monument's original boundaries

June 2022

Landmark intergovernmental cooperative agreement signed between tribes and land managers to jointly plan for Bears Ears' future

to graze cattle), but it also opens new land managers to maximize conservation and to enact protections for Bears Ears as required by law and the monument's proclamations. Politics, bureaucratic inertia, and resistance to different ways of doing things threaten to dilute or derail the collaborative management-planning process, but

> The world is watching, and the success of new plans for other national monuments with a collaborative management component may depend on the success of the Bears Ears plan.

> the tribes are working hard to keep the

process on track.

The Trust has a long history of working in support of tribes to protect the Bears Ears cultural landscape, and we

December 2024

New management plan expected to be released

opportunities. Something new and exciting is happening at Bears Ears, with the new management plan incorporating Native worldviews, traditional Indigenous knowledge, and Indigenous science within the framework of a Western land-management plan written in English. English and Western worldviews are latecomers to the management of Bears Ears, where tribes have cared for the lands since time immemorial, and translating important concepts and ideas is meticulous and demanding work.

Throughout this process, the Grand Canyon Trust has provided technical comments on the plan, urging support the five tribal nations of the Bears Ears Commission in their efforts to strengthen Indigenous-led conservation and decision-making for Bears Ears' future.

Tim Peterson directs the Cultural Landscapes Program at the Grand Canyon Trust.

Ways You Can Visit

BAAJ NWAAVJO I'TAH KUKVENI

RESPECTFULLY



AMY S. MARTIN

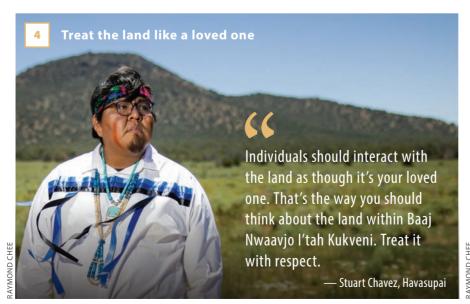


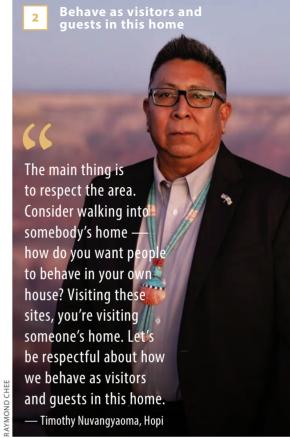
Pray before you go

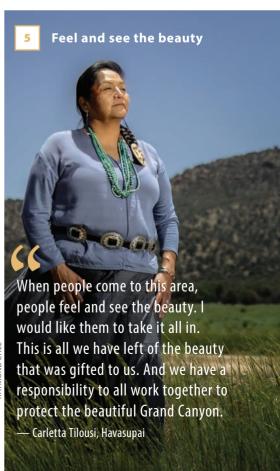
66

Pray, before you even go down a trail. You can say, 'thank you for bringing me here. Watch my feet as I go down these ancient trails.' When you do that, our ancestors acknowledge what you want to do. And the ancestors are feeling you because you're touching the ancestors' footsteps.

— Dianna Sue White Dove Ugualla, Havasupai







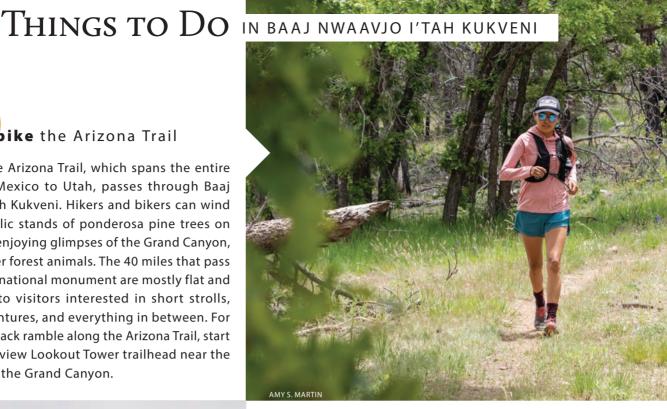
Hike or bike the Arizona Trail

The 800-mile Arizona Trail, which spans the entire state from Mexico to Utah, passes through Baaj Nwaavjo I'tah Kukveni. Hikers and bikers can wind through idyllic stands of ponderosa pine trees on singletrack, enjoying glimpses of the Grand Canyon, elk, and other forest animals. The 40 miles that pass through the national monument are mostly flat and welcoming to visitors interested in short strolls, all-day adventures, and everything in between. For an out-and-back ramble along the Arizona Trail, start at the Grandview Lookout Tower trailhead near the south rim of the Grand Canyon.



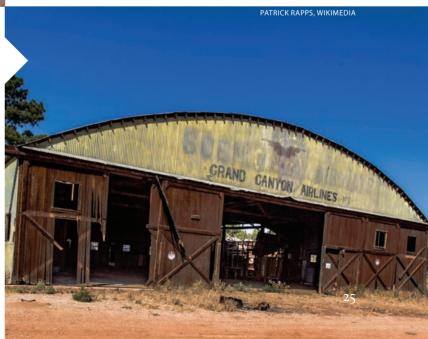
Visit the historic Grand Canyon Airport

Aviation buffs will want to buzz over to an old airport that once welcomed celebrity pilots Charles Lindbergh and Amelia Earhart. The historic airport opened in the 1920s and provided the first scenic air tours of the Grand Canyon. It closed after the modern Grand Canyon Airport opened in Tusayan in 1967. Today, the old airport hangar sits on Forest Service lands within Baaj Nwaavjo I'tah Kukveni, but the buildings are privately owned. You are welcome to visit and take photos, but do not enter any buildings. On your drive to and from this historic site, be sure to close all cattle gates behind you.

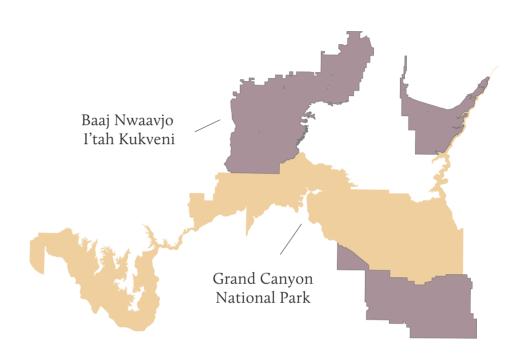


Watch condors soar above Marble Canyon

If you're driving through Marble Canyon on your way to or from the North Rim, stop and stretch your legs at Navajo Bridge near Lees Ferry on Highway 89A. You might be lucky enough to spot a California condor soaring high in the sky or resting in the shade on the bridge's trusses. With 9.5-foot wingspans, condors are the largest flying bird in the United States. They fly extensively throughout Baaj Nwaavjo I'tah Kukveni. Before you continue on your journey, look downstream for expansive views of the monument. House Rock Valley, seas of grassland above the Grand Canyon, makes up the eastern section of Baaj Nwaavjo I'tah Kukveni.



Baaj Nwaavjo I'tah Kukveni -Ancestral Footprints of the GRAND CANYON NATIONAL MONUMENT



April 2023

The Grand Canyon Tribal Coalition, a partnership of 13 tribal governments, asks President Biden to designate the monument

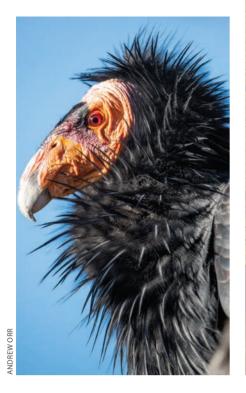


n August 2023, President Biden ioined tribes at Red Butte, south of the Grand Canyon, to designate the 917,618-acre Baaj Nwaavjo I'tah Kukveni - Ancestral Footprints of the Grand Canyon National Monument. In honoring the request of the 13 tribes of the Grand Canyon Tribal Coalition who have traditional ties to the Grand Canyon, he closed the door on new mines around the Grand Canyon and opened an opportunity for meaningful co-stewardship of the landscape.

Since designation, tribal leaders have been hard at work formalizing agreements with the U.S. Forest Service and U.S. Bureau of Land

Management, the first step in facilitating tribal co-stewardship as the Baaj Nwaavjo I'tah Kukveni -Ancestral Footprints of the Grand Canyon Commission. We are hopeful the commission will begin meeting with the agencies before the 2024 presidential election to begin the monument management-planning process.

Tribes and federal agencies are preparing to begin management planning for the monument, a lengthy process that determines how to manage recreation, motorized vehicle traffic, grazing, firewood gathering, hunting, plant harvesting, and other activities in the monument.





August 2023

President Biden designates Baaj Nwaavjo I'tah Kukveni National Monument

2024

Public process to develop management plan expected to begin



Their first step is outlining a timeline by the end of October 2024 so that a clear and streamlined planning process can begin.

The entire planning process typically takes several years, starting with scoping and then developing draft management plan alternatives, with opportunities for public involvement throughout. The Bureau of Land Management has already committed to integrating traditional Indigenous knowledge held by the tribes into the plan to elevate tribal co-stewardship, recognizing that tribes have stewarded their ancestral homelands around the Grand Canyon since time immemorial.

On another proactive note, agencies are planning to establish a monument advisory committee, which will be comprised of representatives from the business, conservation, grazing, science, and hunting communities who will advise the commission and agencies about how to manage Baaj Nwaavjo I'tah Kukveni. We will be sure to alert you about opportunities to support the tribes by commenting during the public planning process, once it begins.

Amanda Podmore directs the Grand Canyon Program at the Grand Canyon Trust.

Grand Staircase-Escalante National Monument

2000

First management plan for monument takes effect

2018

Public process for new management plan for reduced monument opens

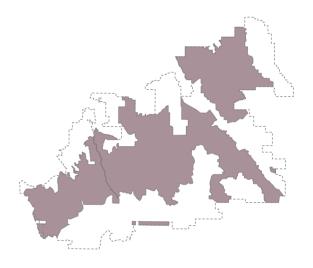
1996

President Clinton designates Grand Staircase-Escalante National Monument



2017

President Trump shrinks monument by 47%



Staircase-Escalante National Monument was the first national monument to be managed by the U.S. Bureau of Land Management and reignited efforts to protect the incredible landscapes of the West. Underlying the designation was a recognition of this land's unparalleled ecological value and beauty and a belief that it must be preserved for future generations. Over a quarter-century later, the fate of this landscape remains uncertain. As of July 2024, the Bureau of Land Management is finalizing a new management plan

for the monument, but getting here has been a long road.

Shortly after taking office, President Trump slashed the monument's boundaries by nearly half. The Grand Canyon Trust and other conservation groups used every tool available to defend it. In 2021, President Biden restored the monument and directed the Bureau of Land Management to develop a new management plan.

The world has changed dramatically since 1996, and the impacts of overgrazing, pinyon and juniper clear-cutting, heavy recreational use, climate

change, and severe wildfires pose real threats to the monument. Throughout the management-planning process, the Trust has advocated for a new management plan that takes the bold actions necessary to meet these challenges, including improving grazing management, preserving old-growth forests, collaborating with tribes, and managing for increased recreational use. We are hopeful that this new plan will improve the management and protection of Grand Staircase-Escalante's outstanding values, but we won't know for sure until the plan is finalized.

2020

New management plan for reduced monument finalized, widely viewed as woefully inadequate

2022

Public process for new management plan begins

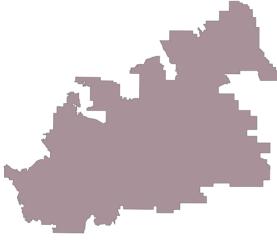
2021

President Biden restores monument's original boundaries



2024

New management plan expected to be finalized

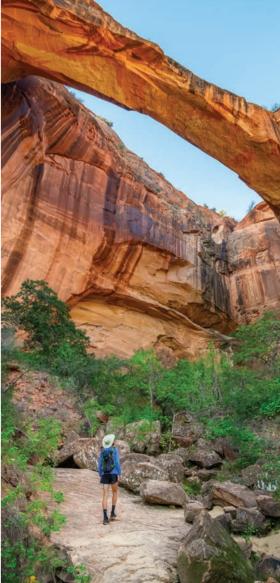


While a new and modernized management plan is a good start, more work will be needed. The Bureau of Land Management is proposing to assess the environmental conditions of monument lands used for grazing by private ranchers within the next 10 years. The Trust plans to participate in this process, contributing our detailed on-the-ground knowledge. Several tribes have spent significant time and resources outlining an approach for restoring and protecting both the ecological and cultural landscapes of the monument. The Trust will continue

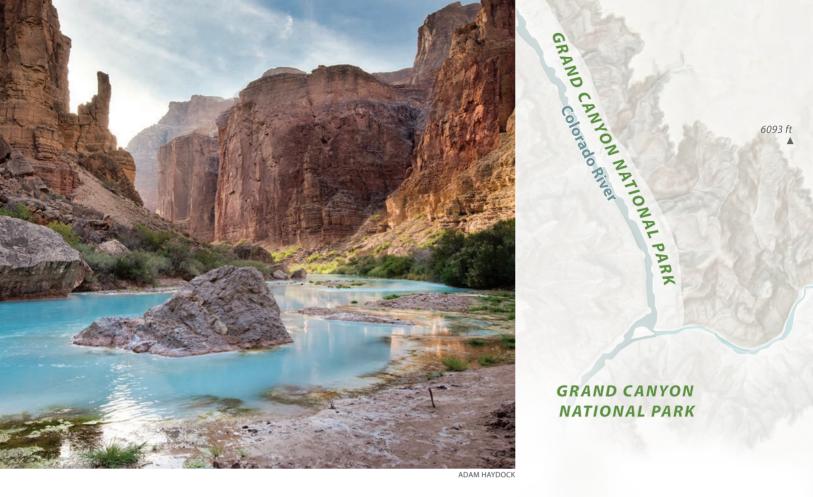
to support their vision. There will be ongoing pressure to clearcut forests in the monument, and the Trust will continue to work to protect old-growth trees and the many species they sustain.

The Trust was essential in helping to get Grand Staircase-Escalante designated in 1996, and our commitment and dedication remain unwavering. With your support, the Trust will continue to help lead efforts to protect this place we know and love.

Chaitna Sinha serves as a staff attorney at the Grand Canyon Trust.



BLAKE MCCORD



UPDATE

BIG CANYON DAM PERMIT DENIED

By Daryn Akei Melvin

n April 25, 2024, the Federal Energy Regulatory Commission denied a Phoenix-based developer's request for a preliminary permit for the Big Canyon Pumped Storage Project. The massive hydroelectric project would have dammed Big Canyon — a tributary canyon to the Little Colorado River Gorge — and would have pumped billions of gallons of groundwater near Grand Canyon National Park.

The project had faced strong opposition from several tribes including the Hopi, Havasupai, and most notably the Navajo Nation, on whose lands the project was proposed to be built. The developer's 2020 permit application had been pending for more than four years.

The commission's decision to deny the permit for Big Canyon Dam aligns with its new policy not to approve preliminary permits for projects on tribal lands without consent from the tribe on whose land a project would be built. In February 2024, the commission denied permits for seven similar projects on Navajo Nation lands following concerns raised by the Navajo Nation government and several other tribes regarding the potential impacts of the projects on their lands and communities.

In the case of Big Canyon, the Navajo Nation government wrote directly to the commission opposing the project and listed concerns about water supply and other environmental and cultural sensitivities. The would-be developer, Pumped Hydro Storage LLC, objected that its application predated the new policy requiring tribal consent. Nonetheless, the commission upheld its decision not to grant the preliminary permit for the Big

Canyon project and emphasized the importance of tribal consultation and consent in projects proposed on tribal lands. The company did not appeal the decision. After years of advocacy led by the Navajo grassroots group Save the Confluence, the Big Canyon Dam proposal is, at last, dead.

Should the developer wish to pursue damming Big Canyon in the future, it would have to restart the process entirely, including submitting a new application and obtaining tribal consent.

Daryn Akei Melvin works as a Grand Canyon manager for the Grand Canyon Trust with a focus on addressing issues related to the Little Colorado River.



PINYON PLAIN MINE: A LONG-TERM THREAT

By Amber Reimondo

This winter, not far from where President Biden had stood on August 8, 2023 to declare the new Baaj Nwaavjo I'tah Kukveni – Ancestral Footprints of the Grand Canyon National Monument, dark grey piles of uranium ore began accumulating on the ore pad at Pinyon Plain Mine (formerly Canyon Mine), inside the monument. These piles of radioactive dirt marked the first time in its nearly 40-year occupation of public lands south of the Grand Canyon that the mine had commercially operated, owing to years of depressed uranium prices. The start of mining also marked a long-dreaded threshold for Native nations and their allies.



ED MOS

s of July 31, 2024, around 9 million pounds (4,500 tons) of uranium ore were stockpiled on the mine's surface. The mine's owner, Energy Fuels Resources, is allowed to stockpile up to 26.2 million pounds (13,100 tons) in above-ground piles and is supposed to sprinkle them with water to keep radioactive dust from blowing outside the chain-link fence.

Nine million pounds was less than just a day earlier. On July 30, 2024, Energy Fuels had sent the first two trucks hauling ore from the mine roughly 300 miles through numerous communities to the company's White Mesa Mill. The start of hauling was an unwelcome surprise to tribal and local leaders who had been promised two weeks' advance notice by Energy Fuels, which they did not receive.

In response, Navajo Nation President Buu Nygren sent Navajo police to intercept the haul trucks, citing the Navajo Nation's 2012 ban on uranium hauling and vowing to prevent further hauling across Navajo lands. Energy Fuels claims it can legally haul ore despite the Navajo Nation's

disapproval because the trucks are on state highways.

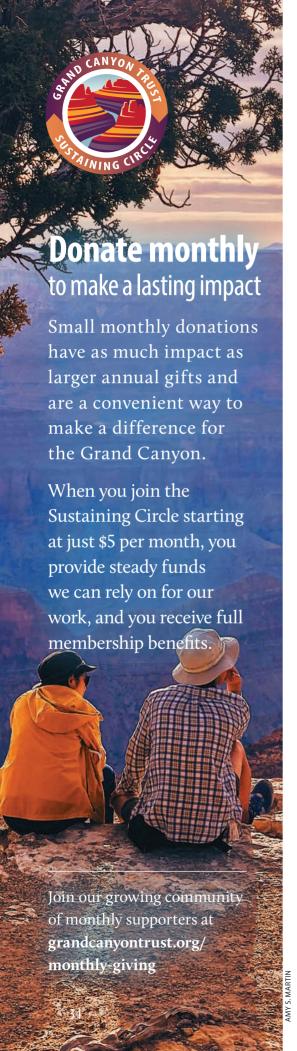
A few days later, Arizona Governor Katie Hobbs announced a temporary pause in hauling. Ultimately, this dispute may end up in the courts. If hauling does resume, Energy Fuels expects to send six to eight truckloads per day along the haul route to the mill. But so long as hauling is stopped, the mine's operational days are numbered, limited by its onsite stockpiling cap.

Since the mine hit groundwater in 2016, more than 66 million gallons of water have been pumped out of the mine shaft. Levels of some heavy metals in that water have been high over the years, but in the last quarter of 2023, around the same time as the mine began extracting uranium, levels of uranium, arsenic, and lead in water collecting in the mine shaft spiked. Uranium jumped 150%, arsenic jumped 4,700%, and lead increased 8,100% compared to the previous year.

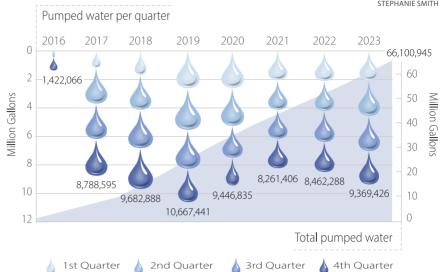
These spikes are not a surprise, nor do they prove that the mine is polluting surrounding aquifers. What's problematic is that this is a normal occurrence during mining operations, one that presents a particularly sticky engineering challenge in the complex, highly fractured layers of rock that make up the Grand Canyon region. For the conceivable future, polluted water must be kept from making its way from inside the mine into surrounding aquifers, including the deep Redwall-Muay Aquifer — the sole source of drinking water for the Havasupai Tribe.







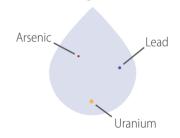
Groundwater Pumped from Pinyon Plain Mine (formerly Canyon Mine)



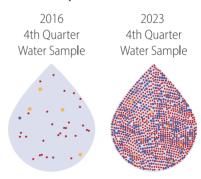
or now, Energy Fuels pumps the contaminated water out of the mine and into a lined evaporation pond. But the mine operator is not required to pump out groundwater flows indefinitely. In fact, pumping will cease when the mine closes. The company plans to stop groundwater from flowing into the mine shaft after closure by filling it with clay, concrete, remnant mine infrastructure, and the dirt and rocks that were removed while digging the mine shaft. This is an unrealistic solution in the long run. Despite claims by mining companies and some state regulators that contaminated water from the mine shaft can't reach drinking water aquifers, hydrologists who study the region say there's too much we don't understand about potential pathways for pollutants to travel.

In the long term, this mine poses an unnecessary risk to the Colorado Plateau and to the Grand Canyon region's groundwater systems, which Western science is still trying to understand. By mining, the company is opening a Pandora's box. The Grand Canyon Trust supports calls by Native nations to close the mine. Unfortunately, at this point, there is no off switch that can make the risk

EPA Maximum Safe Drinking Amount



Pinyon Plain Mine



GRAPHIC BY LUKE BENNETT, CECILY SANTIAGO, TYLER HA, TIL+

go away, but whether closure comes sooner or later, with your support, the Trust will work with allies to ensure the mine is held to the highest possible standards.

Amber Reimondo serves as energy director for the Grand Canyon Trust and has worked on energy and groundwater issues for the past II years.



From Tiny Coffee Cups to Big Smiles

decades of graphic design excellence with Joan Carstensen







Thank you, Joan

For nearly three decades, Joan (pronounced "Jo-Anne") Carstensen led graphic design for the Grand Canyon Trust. With her tiny coffee cup and big smile, Joan used her skills as an artist and designer to build the Trust brand and produce countless high-quality publications, including many beautiful and award-winning issues of this magazine. On May 31, 2024 Joan joyfully danced into her retirement era and passed the reins to our new graphic designer, Brian Skeet.

Introducing Brian Skeet



Yá'át'ééh shí éi yah Brian Skeet yinishyé Tse' Deshgizhnii Nishlí Kinyaa'annii' bashishchiin Naash'tezhi Tabaahi dashicheii Ashini aydashinalí Ahéhee'

Hello my friends and relatives, my name is Brian Skeet.
Throughout my career I have had the honor of working with Indigenous communities, using design to tell our unique stories and advocate for our future generations. I am excited to contribute to the mission of the Grand Canyon Trust and continue Joan's legacy, creating visually engaging materials that reflect the beauty and significance of the Colorado Plateau.

Brian Skeet

STAF

Adrianne Allen, Finance Manager Darcy Allen, Executive Support Director Wilda Anagal, Legislative and Policy Manager Ethan Aumack, Executive Director Lena Bain, Volunteer Manager Deon Ben, Native America Director Amber Benally, Just Transition Manager Michellsey Benally, Water Advocacy Manager Christina Brown, Finance Director Michael Chizhov, Salesforce Administrator Ashley Davidson, Communications Director Kathleen Dudine, Administrative Manager Libby Ellis, Major and Planned Gifts Director Danya Gorel, Rising Leaders Manager Ellen Heyn, Digital Media Director Cerissa Hoglander, Arizona Public Lands Director **Eric Horner**, Development Director **Doug King**, Information Technology Director Audrey Kruse, Community Engagement Director Kaya McAlister, Utah Public Lands Manager Daryn Akei Melvin, Grand Canyon Manager Josh O'Brien, Senior GIS Analyst Jerry Otero, Legislative and Policy Director Aaron Paul, Staff Attorney Jen Pelz, Water Advocacy Director Tim Peterson, Cultural Landscapes Director Amanda Podmore, Grand Canyon Director Jack Pongyesva, Grand Canyon Manager Mike Popejoy, Utah Public Lands Director Amber Reimondo, Energy Director Erica Scott, Director of People and Organizational Culture Melanie Seus, Development Writer Chaitna Sinha, Staff Attorney Brian Skeet, Graphic Design Director Stephanie Smith, GIS Director Jessica Stago, Native American Economic Initiatives Director David Taft, Foundations Manager Emily Thompson, Member Trips Manager Michael Toll, Staff Attorney Steph Wacha, Utah Public Lands Manager Kimber Wukitsch, Membership Director

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