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LANDSCAPE AND THE DIVINE

PRAYING FOR LIGHT

Scott Thybony visits a monastery, a mosque, a shrine to
Dawn Woman, the Navajo Chantway, and other sacred spaces
in search of connection between place and belief.

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THE HIDDEN LIFE OF TREES

Who knew that trees are highly social, in constant communication, and care for their young? Greer Price reviews a new book by Peter Wohlleben, The Hidden Life of Trees.

Sojourns is a regular publication of the Peaks, Plateaus and Canyons Association.

Each issue explores the extraordinary Colorado Plateau through a different theme.

Purchasing *Sojourns* or subscribing to it through membership helps protect this rare region. For more information please see page 48.

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clanging comes from a tower reaching into the night sky above us. Each swing of the bell sends a hairline crack through the stillness, soon absorbed by the deep solitude along the Chama River. My wife and I are following a path toward the abbey church in a remote canyon of northern New Mexico. We walk without talking to observe the Great Silence, a monastic rule setting aside the hours of darkness for thoughts to turn inward. It's not yet 4:00 in the morning at the Monastery of Christ in the Desert.

Wherever I turn in the Four Corners country I find myself in a place sacred to one tradition or another. It might be a spring considered holy, a river known as the Long Soul, or a mountain anchoring the sacred geography of the region. I have traveled to those places with people who see the earth as alive, animated by spiritual forces needing to be treated with the utmost respect.

TEXT AND PHOTOS BY SCOTT THYBONY

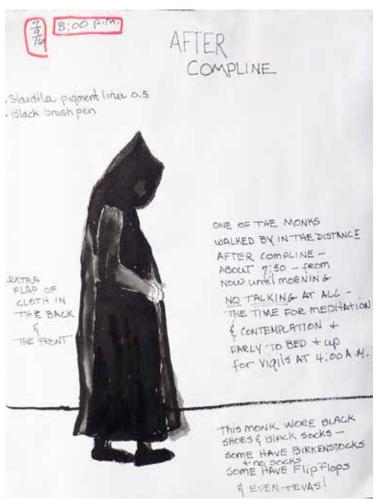
And I have traveled to living shrines and ruined churches with those whose religious practices are not embedded in the land itself. By coming to a Benedictine monastery I will join those who have found, rather than a sacred place, a place to pursue the sacred.

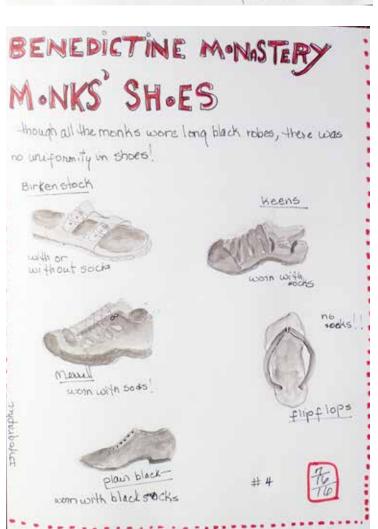
With a handful of other guests, Sandy and I enter a church with massive adobe walls resembling the vertical facets of cliffrock behind it. The monks, wearing black habits, file in from behind the tabernacle, and the only sound is the shuffling of feet. They take their seats before the stone altar, half on the north side and half on the south. No one speaks until the Gregorian chants begin, and the haunting melodies will continue through the day and into the evening. At first I only listen. The current of song flows as steady and sure as the river below the monastery, running deep for a moment before breaking the surface with a riffling of notes. Song follows ancient song, inducing a steady, hypnotic effect. Holding a choir book I struggle to follow along, singing tunelessly under my breath to keep any mistakes to myself.

The monks pray by chanting, and find the music draws them closer together as a community. On certain songs the facing choirs take turns alternating between lines until reaching the finish as one voice. The Benedictines sing everything from psalms to hymns with a mix of Latin and English, and they even intone the readings. When Vigils draws to a close, we return in silence to our guest quarters knowing the next round will begin soon. Following a monk's strict regimen, I realize, will take some adjustment. As I wait, my thoughts drift across the sacred landscapes of the region.

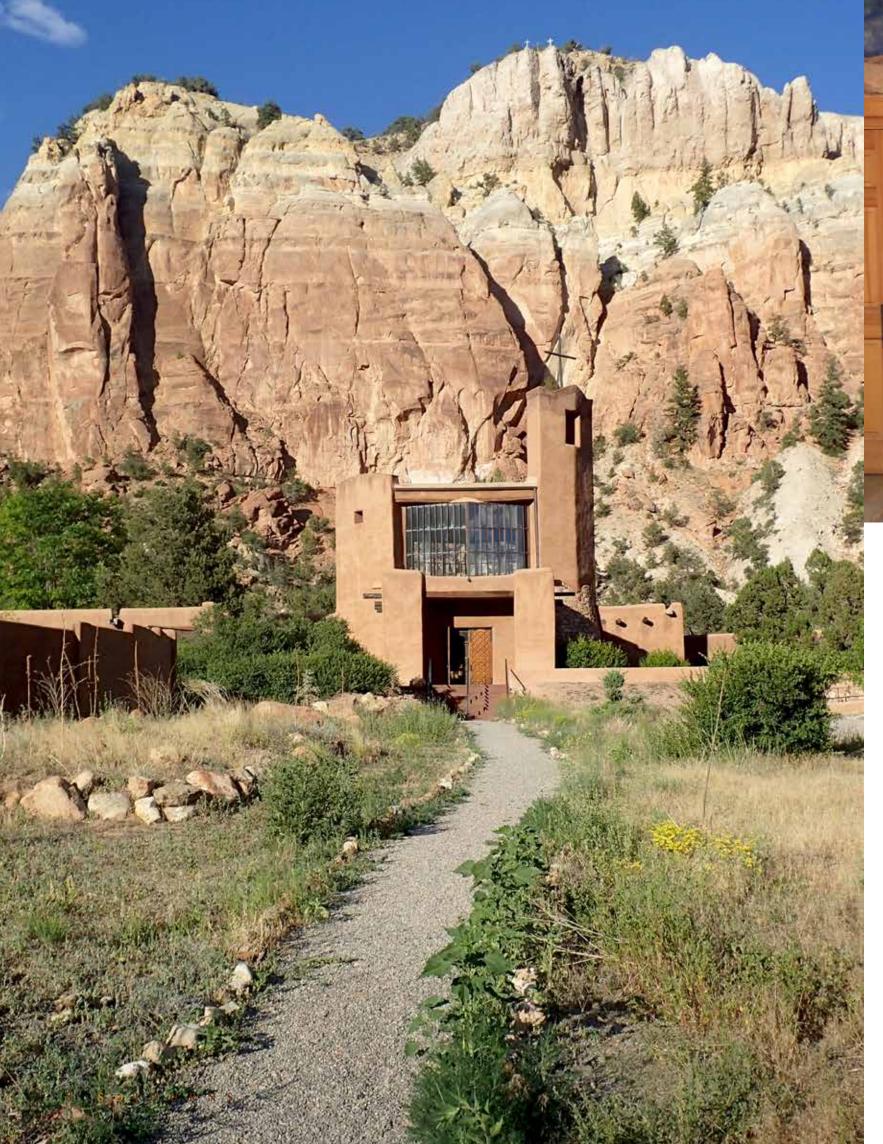
My own religious practice amounts to little more than taking in the immensities and sometimes making a desperate prayer when caught in a tight bind. On the other hand I feel close to those who follow a spiritual path, and have learned to show respect for their traditions by participating in them. And sometimes participation isn't exactly voluntary.

Drawings from the journal of Sandy Thybony, July 2016. Facing page: A shrine at Santa Rosa de Lima, built by the Spanish in 1743. The church's adobe walls are still standing.













OVER THE YEARS I'VE COME TO KNOW A WIDER AND STRANGER WORLD THAN THE ONE I GREW UP IN.

During a break in an otherwise solemn ceremony on the Hopi mesas, the Yellow Clowns grabbed me and a few bystanders without giving us much choice. They led us into the plaza and made us dance with exaggerated motions to the laughter of those crowded on the rooftops above.

Over the years I've come to know a wider and stranger world than the one I grew up in. I have found myself praying for rain with the Navajo high on their sacred mountain of the west and carrying prayer feathers deep into the Hopi land of the dead. I have climbed a mountain named for the Paiute spirit of strange happenings, said grace with Mormon cowboys after a morning of branding cattle, and shared Seder with an Israeli sent to teach farming to a medicine man who prayed to his plants. I have joined the chanting inside ceremonial hogans, hummed along with the *alabados* sung by the Penitentes in their morada, and joined a Paiute singing a Ghost Dance song inside a sweat lodge.

And I've listened. In camp on the Green River a Ute boatman with Sun Dance scars on his chest drummed to a song he learned on a long Greyhound bus ride. It happened, he said, while he sat for hours staring out the window. Each time he saw a hawk sitting on a fence post, he would say a prayer until the song suddenly came to him. Afterwards he had to fast four days without food or water to learn its meaning. All of this has something to do with what I know as religion, experiences as variable as the weather on these high plateaus.

Facing and at top: The Monastery of Christ in the Desert near Abiquiu.

FORTY-FIVE MINUTES later the two of us return from our quarters to church for the singing of prayers at daybreak. The brothers resume their chanting, celebrating the release from darkness as the rising sun streams through the clerestory windows.

The moment before dawn has traditionally been a time of prayer throughout the region. As a Nightway chant ended on the Defiance Plateau, I watched dancers, embodying the presence of the Holy People, file away. A Navajo medicine man and his patients were left standing alone, facing the growing light. They held a basket of finely ground corn, and while reciting a final prayer tossed it skyward. At that moment they inhaled deeply, breathing in the dawn.

Zuni Indians not only pray for rain, they pray for light. And light has been used ceremonially throughout the ancient Southwest. A sense of mystery pervades the sites where sunlight and shadow interact with rock art and other ritual features. On summer solstice I've stood in silence as a shaft of light pierced a circular design carved into a rock face at Petrified Forest. And on winter solstice I've stood on Fajada Butte and watched the dawn light break across the ceremonial landscape of Chaco Canyon.

Below First Mesa the Hopi have a shrine to Dawn Woman. Early in the morning, a tribal judge told me, someone reported seeing an Anglo woman dancing in front of it. As the Hopi rangers responded to the call, she jumped in her car and raced down the sandy track to get away. She took a corner too fast and flipped, but luckily was not seriously hurt.

"I guess she shouldn't have been dancing in front of that shrine," I said.

"Maybe," the Hopi judge said, "she shouldn't have been trying to outrun the police."

THE MONASTERY STANDS at the end of a one-lane, cliff-edged road thirteen miles from pavement. The monks prefer it that way to preserve their solitude, and don't seem troubled by the lack of cell phone reception. Living off the grid, the community runs on solar power with a garden to provide some of their food and the hops they use in making a craft beer sold commercially to help support the monastery. In a conversation with Abbot Philip Lawrence after Mass I remark on the great beauty of the canyon and wonder if the setting has influenced their religious practice. He says the founder of the monastery who chose the site was obsessed with beauty, but the land has not affected how they worship. "It has," he says, "influenced how we live."

The nearest town, Abiquiu, lies farther down the Chama River and twenty-nine miles by road. Georgia O'Keeffe located her home and art studio in the old pueblo, and on the ridge above stands a morada, the adobe-walled chapter house used by a secretive brotherhood known as the Penitentes. We pull in next to the place of worship where three crosses stand in front with a heavy-timbered cross leaning against them. The brothers practice severe forms of penance, such as dragging a cross through the night to share the sufferings of Christ. A Penitente leader once told me it teaches them compassion for the suffering

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From the early 19th century, the brothers reenacted the passion and death of Christ. Image by William Penhallow Henderson (1877–1943). Black and white reproduction published in *Eighth Annual Exhibition by the Santa Fe Artists at the Museum of New Mexico*, September 1921. Cropped from full page scan at archive.org., Public Domain, https://commons.wikimedia.org/w/index.php?curid=11727188.



Above: The morada of the brotherhood of the Penitentes.

At right: What remains of the church of Santa Rosa de Lima, built in 1743.



SEEING CONNECTIONS 11



of others. A sign welcomes visitors while requesting no cameras beyond the gate, "Out of Respect for This Sacred Place."

A dirt road next takes us to the Dar al Islam north of Abiquiu on the edge of the Plaza Blanca badlands. I park by a structure with white-painted walls and a vaulted roof whose architecture sets it apart from the traditional Pueblo-Spanish styles of the area. The community of Dar al Islam opened this mosque in 1982 but it wouldn't be out of place in a desert oasis of Egypt. We enter the madrassa in search of Tariq Shafi, and he soon finds us wandering the halls. I've arranged to hear him give the call to prayer, but first he invites us in.

After removing our shoes we enter the prayer room capped by a domed ceiling. The curving arches and geometric patterns have a mathematical gracefulness to them. We then step outside to join his father, Dr. Mohammed Shafi, the chairman of the board for Dar al Islam. Tariq positions himself facing northeast, puts a finger in each ear, and cries out in Arabic for the faithful to pray. He delivers the call in a strong, clear voice with a rising pitch to carry farther.

After Tariq finishes, we learn the first call to prayer occurs at the earliest sign of dawn, about when the monks begin their round of prayers. His father then fills us in on the debate over the proper direction to face when praying, which must be the shortest distance to the Kaaba, the most sacred Muslim shrine. Located in



Facing: The domed mosque of the Dar al Islam community north of Abiquiu, New Mexico, and an inner hallway of the structure. With permission from Dar al Islam.

Mecca, it would lie southeast of Abiquiu if the world were as flat as a map. While some Islamic scholars say it should pass directly through the earth, Dr. Shafi tells us he triangulates the proper bearing using geometrical calculations. "It's the shortest distance a bird would fly," he says, "a great circle route." When I mention having heard of watches designed to point out the correct direction, he gives a slight smile. "They're usually wrong," he says.

For more than a century monumental rockforms in the Four Corners country have been named after sacred sites such as temples and tabernacles. The tradition began at Zion and Grand Canyon with geologist Clarence Dutton, an agnostic dropout from theology school. Frederick Vining Fisher, a former Methodist minister, continued the practice when he toured Zion in 1916 with a Mormon bishop and his son. Many landmarks have retained the names given by them, including Angels Landing, Altar of Sacrifice, and Court of the Patriarchs. An adjacent peak, Mount Moroni, references the angel who appeared to Joseph Smith with the golden plates of the Book of Mormon. Fisher described Zion Canyon as "a place of pilgrimage for poets, patriots, artists, dreamers and worshippers," and he went on to express his opinion that only people who pray have a right to visit the canyon.

Isaac Behunin, the first to settle there, was also the first to call it Zion. As a Mormon pioneer who had been repeatedly driven westward, he saw the cliff-walled valley as a place of refuge from religious persecution. He considered the sandstone monoliths to be "God's first temples," but church leader Brigham Young objected to the name while visiting the nearby settlements in 1870. Zion has a range of meanings for the Latter-Day Saints, from a promised land to a gathering of the faithful, but a desert canyon isn't one of them. Brigham told the locals, "It was not Zion," so they decided to take him literally and began calling it "Not Zion."

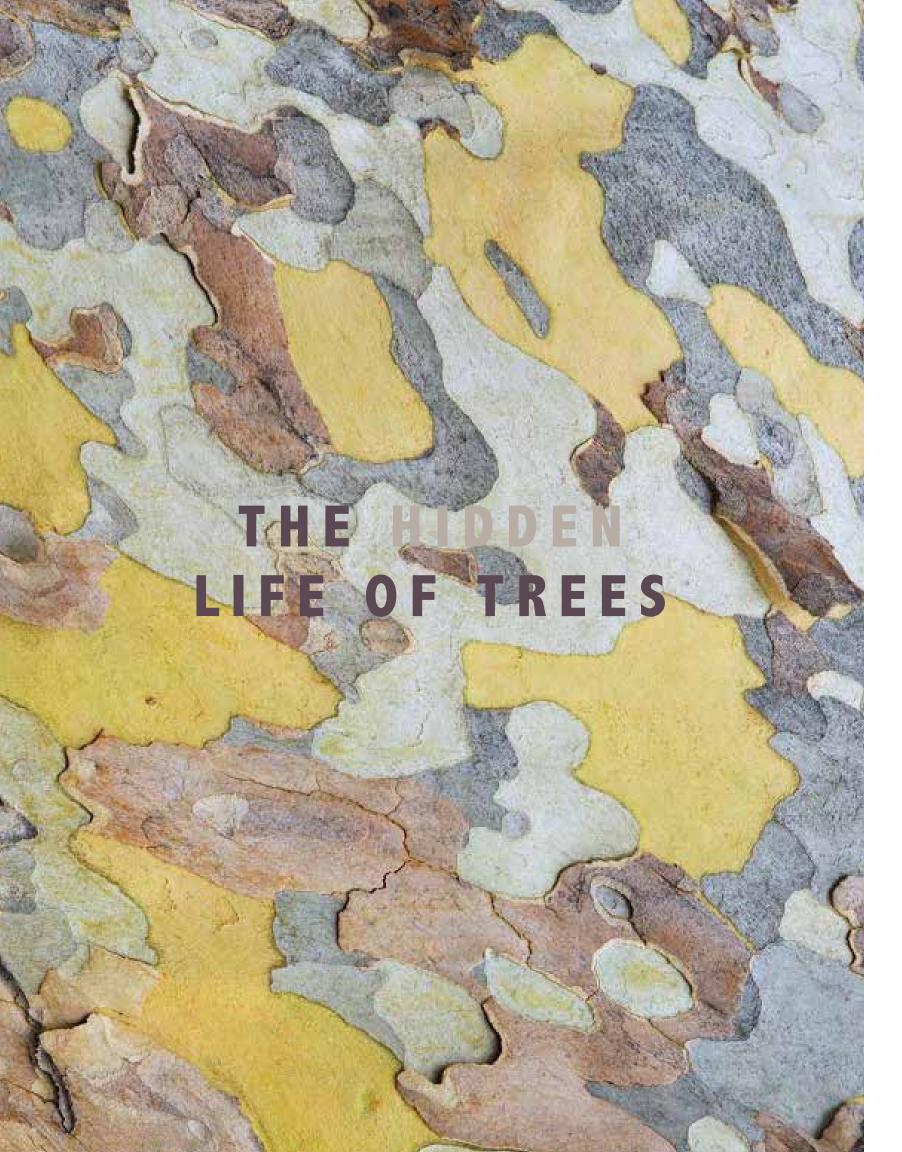
THE MOMENT REMINDS ME HOW ALL THE PIECES OF THE WORLD FIT TOGETHER. AND SOMETIMES YOU CAN HEAR ONE CLICK INTO PLACE.

the American West for magazines such as *National Geographic*, *Smithsonian*, and *Outside*. On one of his first assignments he explored the Spanish missions of Sonora with a Jesuit priest whose license plate holder read, "Damn, I'm Good." His latest book, *The Disappearances*, tells a story of exploration, murder, and mystery set in the Four Corners country.

IN THE EVENING WE JOIN THE MONKS for a turkey dinner eaten in silence. Some of the thirty-nine resident monks appear surprisingly young, and I learn the average age is forty. When everyone has finished, the abbot personally clears the dishes, moving from table to table with a practiced efficiency. Again we return to church and take our seats. By now the sun has descended toward the western rim of the canyon, and light pours through the church windows to illuminate the tabernacle, painted with images of saints and prophets.

Light floods the church as the Benedictine monks sing, and I find myself beginning to catch on, at least to the refrain. The Gregorian chants have a force to them, a sustaining beauty enhanced by the architectural setting and what now draws my attention. From where I sit the church windows frame a dramatic view of the Dakota Sandstone cliffs, lifting upward 600 feet. At that moment I hear the monks singing a line from Isaiah and have to smile. "Look to the rock from which you were hewn," they sing as the canyon wall turns luminescent in the closing light of day.

The moment reminds me how all the pieces of the world fit together. And sometimes you can hear one click into place.



The Hidden Life of Trees: What They Feel, How They Communicate by Peter Wohlleben will be published in the U.S. in September 2016 by Greystone Books.

REVIEWED BY L. GREER PRICE

n the fall of 1977, I found myself driving east on State Route 3 from Watertown, in upstate New York, into the heart of the Adirondack Mountains. I was unemployed, fancy-free, a little lonely, and looking for... adventure? Change? I didn't know. Sometime around dusk, as night fell over one of the thickest and loveliest forests in North America, I pulled off to the side of the road and hiked some distance into the forest, simply to take a rest and to experience the stillness and serenity of that place. There, far from the road and any evidence of human activity, I sat in the rapidly growing dark and felt astonishingly un-alone. I felt as if surrounded by some ethereal mist of goodwill. Gradually I connected this feeling with the community of trees around me, which seemed both aware of and welcoming to my presence.

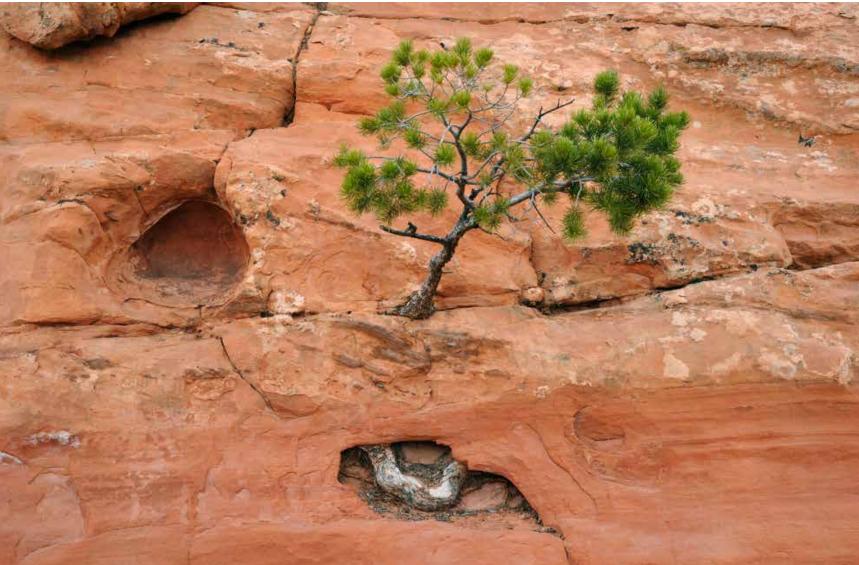
In the years that followed came similar experiences in other forests of North America: hiking from the slopes of Mt. Tamalapais in northern California through the redwoods of Muir Woods to the coast, I remember feeling as if the trees were singing to me, in high-pitched tones that were barely audible. At tree line on Wheeler Peak in the Snake Range of eastern Nevada, in what is now Great Basin National Park, bristlecone pines projected a sense of presence, if muted by age, then nonetheless real. Among the spruce-fir forests on the higher elevations of the Colorado Plateau there was a harmony and peace that I have rarely known.

For years I attributed those experiences to youthful naiveté, to transitions that came with various passages of life, or simply to wishful thinking. But recent research being done by foresters and botanists into the unexpected communicative abilities of trees suggest perhaps I was on to something real.

One source of these remarkable revelations is The Hidden Life of Trees: What They Feel, How They Communicate by Peter Wohlleben. Published in German in 2015 to broad acclaim, it is only now being translated into other languages in nineteen countries; it will appear in English this fall. The author is a professional forester who spent his career around trees and in forests, and, in doing so, often inadvertently discovered things about these communities that no one had previously suspected.

Facing: Camoufluage-like sycamore bark. Photo by Michael Collier.





He is not alone; researchers throughout the world are looking at ways in which trees communicate with one another, how they live together and support one another in communities that we call groves and forests, and the lessons they have to teach us about how life can proceed.

As unorthodox as it may at first appear, the book has been highly praised by scientists and lay readers alike. It is heavily footnoted, and it assertions are backed up by the peer-reviewed research of respected scientists in many countries. The English edition includes an afterword, "Notes from a Forest Scientist," by Dr. Suzanne Simard, professor of forest ecology at the University of British Columbia in Vancouver.

One of the basic revelations of the book is that trees communicate through a vast network of filaments, known as mycorrhizal fungi, that inhabit the shallow subsurface of a forest. Essentially an extension of tree root systems, these dense mats of filament function like—and resemble—neural networks. Through them, trees communicate with one another and transmit nutrients, water, and other resources among themselves.

Most individual trees of the same species, growing in the same stand, are connected to each other through their root systems. They can send chemical signals information—by way of the fungal networks surrounding their root tips. Perhaps most surprising, we are learning that trees survive not through competition but through cooperation, helping each other in times of need, alerting one another to danger, and sometimes even sacrificing themselves for the benefit of the community at large.

ohlleben writes about trees as if they were old friends, with a warmth and affection generally lacking in the scientific literature, and he does so unapologetically. He wants us to share his wonder and sense of joy. "I use a very human language," he explains. "Scientific language removes all the emotion, and people don't understand it anymore. When I say 'Trees suckle their children,' everyone knows what I mean." Happily for those of us not reading in German, the universality of his language comes across well in translation.

To be sure, there are others who've written about trees with a remarkable facility. To my mind, there are few who can equal the writing of Donald Culross Peattie, whose 1953 book A Natural History of Western Trees has charmed and informed generations of naturalists, myself among them (the book remains in print to this day). But Wohlleben welcomes us into his world of discovery and delight while illuminating it with the glow of new discoveries that were unknown to earlier generations of naturalists.

Many of the forests Wohlleben writes about are European forests, where he has spent his career. But he refers to researchers who've worked all over the world. And, as Suzanne Simard's afterword points out, the underground networks he describes were discovered in the inland temperate rainforests of western North America, primarily thanks to work done by Simard and others in the early 1990s. The "peculiar traits of these gentle, sessile creatures" appear to be universal.

For visitors to and inhabitants of the Colorado Plateau, this research hits close to home, as many of the trees addressed are natives here—notably the Douglas fir and the quaking aspen. There is a "single" quaking aspen on the edge of the Colorado Plateau,



A Happy Marriage

Mycorrhizal fungal filaments on the tips of a plant's roots. These fungi are present in a vast majority of plant species. After they partner with a plant by attaching to its root, their filaments radiate into the surrounding soil, greatly extending the reach of the plant into the wealth of its environment. Both partners benefit from this marriage. Mycorrhizae "bring home the bacon" by piping water and nutrients back to the plant, and, in return, they receive from the plant sugars and other compounds they need. The beneficial relationship between plants and mycorrhizal fungi is hundreds of millions of years old.

Facing, top and bottom: Lichen growing on a ponderosa trunk, Pearson Experimental Forest northwest of Flagstaff; Piñon growing out of sandstone in Muley Twist Canyon, Capitol Reef National Park. Photos by Michael Collier.



Here are some astonishing things Wohlleben tells us:

Trees are capable of learning. Just how they do this, and where they store this knowledge, is still very much a mystery, but they learn.

When trees are really thirsty, they may scream, though at ultrasonic frequencies that are registerable but inaudible to us.

Beeches, spruce, and oaks all register pain.

Trees in a single stand that are under attack from insects can not only secrete toxins that make them unpalatable to those insects, they can signal neighboring trees of the same species that danger is at hand, causing them in turn to secrete toxins to ward off impending attack.

A healthy tree that receives information on a neighboring tree in need will funnel its resources to that tree in order to help keep it alive.

A tree can only be as strong as the forest that surrounds it; its wellbeing depends upon the community.

And they seem to know it.

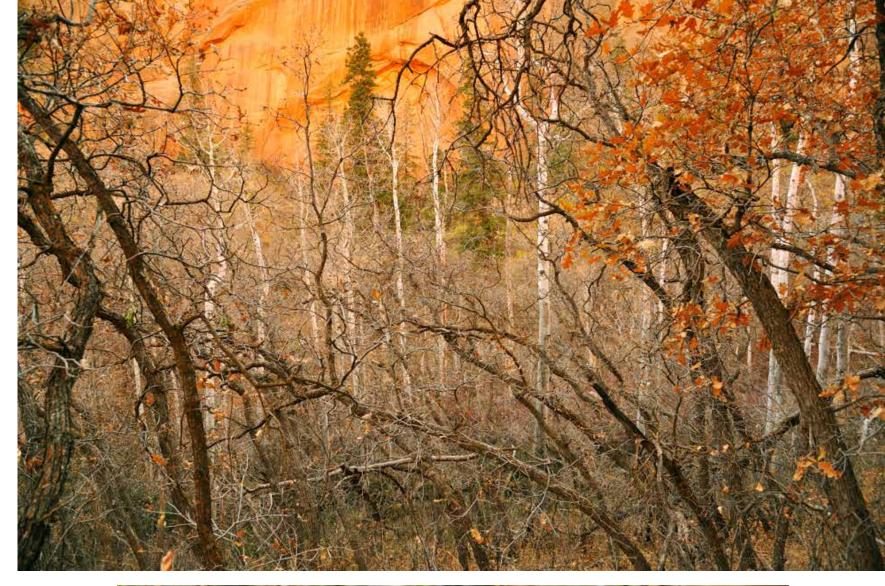
in the Fishlake National Forest, that has 40,000 trunks, covers a hundred acres, and is thousands of years old. This single grove of genetically identical trees can be seen, by a slight stretch of the imagination, as both a single organism and a community.

In closing, the author points out that we are only just beginning to understand the language of trees, but are far from deciphering it. We are learning that they communicate with one another, but that is just the beginning. As we learn more and more, and begin to decipher the language of these ancient, slow-growing creatures, what we imagine we hear and feel in these places may have a very real foundation in fact.

Here on the Colorado Plateau we are blessed with a remarkable diversity of forest landscapes: the bristlecone pines of Bryce Canyon National Park and Cedar Breaks National Monument; the sprucefir forests of the North Rim and the Kaibab Plateau, punctuated with alpine meadows and stands of quaking aspen; the piñon-juniper forests of Cedar Mesa, to name a few. We are even more fortunate in that large tracts of these forests are protected within national parks and monuments, where researchers can look at them in something that at least approximates their natural state. But perhaps the greatest good that comes from this—other than the preservation of these last stands of natural wildness—is the environment they provide to those of us who increasingly need, and seek, our own sanctuaries of peace, serenity, and the natural world. In their own way, these trees and the forest communities that contain them are not only working to guarantee their own survival. They are providing an important environment for the many creatures who depend upon them for their own survival, not least of all, human beings.

Above left: Mushrooms flourish during the monsoon season on the Colorado Plateau. Photo by Rasmussen Brothers Photography.

Facing, top and bottom: Betatakin in autumn; Mushrooms nestling among pine needles at Pearson Experimental Forest near Flagstaff. Photos by Michael Collier.





MAP OF NATIONAL FORESTS ON THE COLORADO PLATEAU

MOTHER POWER

In 2014 the Wisconsin Public Radio—produced weekly interview program To the Best of Our Knowledge invited Dr. Suzanne Simard to discuss her work as a Professor of Forest Ecology at the University of British Columbia. The show is distributed by Public Radio International. We thank the producers for permission to transcribe and publish a section of Anne Strainchamps's interview with Dr. Simard here. To hear the entire podcast (and for lots of other great interviews), go to www.ttbook.com.

TTBOOK: Do you think trees can communicate?

DR. SIMARD: Yes, absolutely. . . . The way that communication happens is that through these mycorrhizal networks that link tree after tree after tree so that they can send resources back and forth. When I say resources, I mean things like carbon, nitrogen, phosphorus, water, defense signals even. So they all send resources or nutrients out to trees that might be struggling under stress. And so we've seen that the more shaded a tree is, the more a nearby tree that's in the sunlight will send to that shaded tree.

TTBOOK: The trees are helping each other?

DR. SIMARD: Yes. It really turns upside down how we've traditionally thought and managed forests. We still manage them to this very day on this competition model, that they're individuals competing for resources.

But what I have found is that they're all connected together and that they're sharing these resources. It's doesn't mean competition's not going on as well, but there's a multiplicity of interactions.

TTBOOK: Some of your work has involved what you call "mother trees." Can you explain what's a mother tree?

DR. SIMARD: One of my graduate students, Kevin Byler, and some other colleagues and I, we did this big study where we took a forest, a Douglas fir forest, and we looked at all of the connections in the forest. We were looking at two fungi..... But keep in mind that there's a hundred other species of fungus in that forest, and we looked at two.

We found that every tree was connected to every other tree. And the bigger and older the tree, the more connected it was. So those trees we called the mother trees, or hub trees, we call them that because what we also found was that the young seedlings were regenerating within the network of the mother tree.

You can think of this like a huge brain growing out through the forest from this single tree. Basically they're like neural networks. We've actually found that the patterning of the network is just the same as a neural network.

TTBOOK: When a mother tree gets ready to die, it will deliberately pass its resources on to its children?

DR. SIMARD: We have this thing called kin recognition known in animal species. And now we're discovering that there's actually kin recognition between plants, and we've done some experiments to show that mother trees will send more carbon to genetically related individuals than strangers.

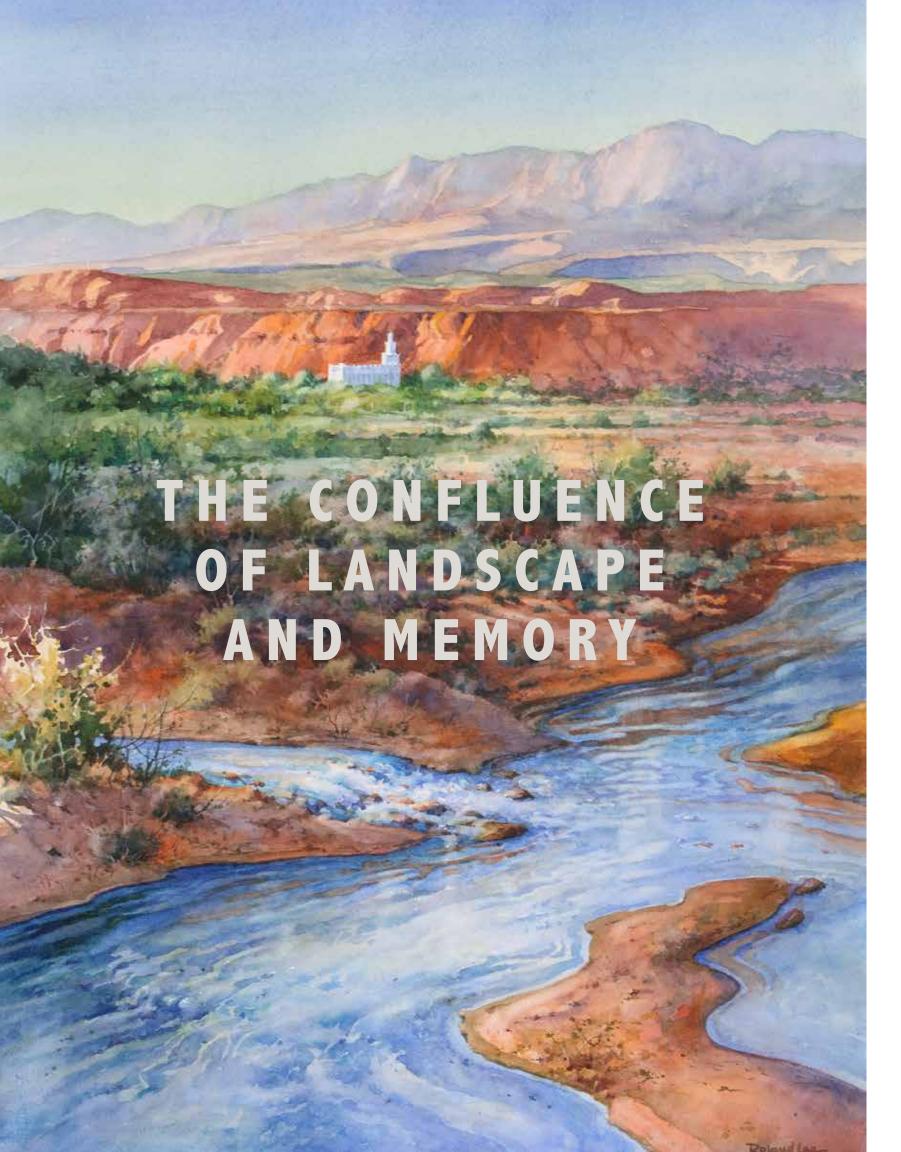
The mother tree is nurturing her young to pass on her genes to future generations. . . . we're doing experiments with this in the beetle-killed forests of the North. The management paradigm is to cut the dying trees. When a tree starts to die, and it knows it's going to die, it's on its way out, it will start shoveling carbon—sending its own carbon and nutrients—to linked trees in its understory. It's passing on what it has left to the next generation. And our studies are so simple. All we've measured is carbon and phosphorus, and we don't know if there are any other messages.

Even if we can't figure out what those messages are, we know enough now to understand that those trees are hugely important, those mother trees (in aboriginal cultures they're known as grandmother trees).

We know that they're important for their genes, for what they pass on to their young, and yet what we're doing is to cut them out because we are trying to capitalize on the wood before they die so that we can sell it on the market.

To me it's like a lost legacy. We're really cheating the ecosystem out of its natural healing power.

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wo streams meet at the lower end of the valley where I grew up. I remember my father taking me there when I was s boy. We lived on the southern edge of the town of St. George, in the southwestern corner of Utah, where the western ledges of the Colorado Plateau break off at the Hurricane

Rim, and the Great Basin slopes away into the Mojave Desert. There, beneath vermilion cliffs to the north, and volcanic ridges on the east and west, the Virgin and Santa Clara Rivers meet in a place calling little attention to itself, in spite of its geographic, historic, and mythic significance.

From Sixth South Street where we lived, it was a mile or so south to the confluence of the Virgin and the Santa Clara. In the early 1960s, when I first awoke to my existence and began to perceive the world through the chaotic shapes of the surrounding landscape, ours was among the last houses on the south end of town. From there it was wide open. Broad fields of alfalfa, milomaze and sugar cane, and dew glazed pastures dotted with grazing dairy cattle covered the space between our house and the river bottoms. I could ride my bike down what is now Seventh South to what is now River Road and pedal effortlessly downhill to the old iron-trestle bridge that spanned the Virgin and marked the border of my known universe. The Virgin's confluence with the Santa Clara was a little further downstream and less accessible. I only remember going there once as a boy, in the truck with my dad.

I recall standing there with my father's hand on my shoulder and him telling me that this was why our town was here. There would not be a town, could not be a town here, if it weren't for the water that so fortunately flowed through our little valley. And it was here, where these two streams meet, that it all began.

The day my dad and I stood at the confluence you could hear nothing but the soft sigh of the merging waters and the chirping of the birds and the easy rustle

of the breeze through the tamarisk. Today, the place is bordered by a sprawling convention center parking lot and the elevated ramps of a new I-15 interchange where hundreds of automobiles zoom by every hour. Hardly any of the occupants of those cars possess an inkling of the significance of the place they are passing. They're too busy rushing from here to there to realize that this is where the waters spilling off the southern lip of the Great Basin, and the waters originating far to the northeast in the high mountains of the Markagunt Plateau, join in serene convergence before cutting through a Shinarump anticline and rolling away toward

There are rocks near this confluence upon which one-thousand-year-old etchings are still visible. They are cryptic messages left by Ancestral Puebloan people who lived beside the two streams a millennium before my great-great grandparents arrived here. As a boy I roamed the nearby Chinle slopes and picked up random shards of their beautifully curved, corrugated and painted pottery.

Just downstream, where the Virgin River breaks through the Shinarump ridge and flows out from under the freeway bridge north of Bloomington, is another message on a rock high above the stream. This one was etched by a lonely nineteen-year-old boy whose family had settled, in the late 1850s, near the place where the two streams meet. He most likely spent several Sunday afternoons chipping away at his legacy high on the cliff above the farm where he spent the other six back-breaking days of his week. He carved a large profile, presumably of himself, an image of a plant with leaves and flowers, and a line of simple words which are potentially visible from the more than 12 million vehicles that zoom by every year—but certainly not at eighty miles per hour:

I WAS SET HER[E] TO RAIS[E] COTTON MARCH 1858 JACOB PEART

BY LYMAN HAFEN

"What do people make of places? The question is as old as human attachments to portions of the earth. As old, perhaps, as the idea of home, of "our territory," as opposed to "their territory," of entire regions and local landscapes where groups of men and women have invested themselves (their thoughts, their values, their collective sensibilities) and to which they feel they belong. The question is as old as a strong sense of place—and the answer, if there is one, is every bit as complex. . . . Places, we realize, are as much a part of us as we are part of them."

— кеітн н. ваsso, Wisdom Sits in Places

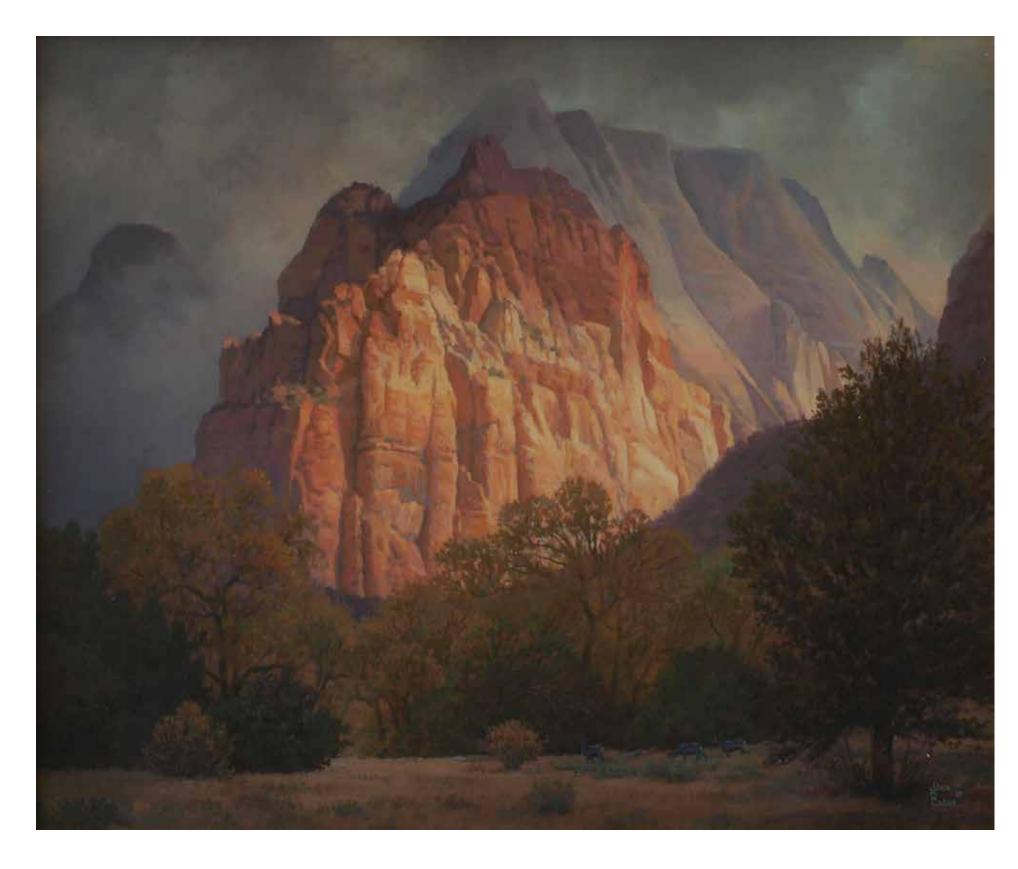
The Peart Family and a handful of others living in the area were members of the Church of Jesus Christ of Latter-day Saints. They had come to this hot, desolate and out-of-theway place at the behest of their eclesiastical leader Brigham Young. Their mission was to experiment with growing cotton. They began to call their new home Utah's Dixie, though the place where the two streams meet had long been called Tonaquint by the Southern Paiute who had lived there for centuries. Those first Mormon settlers at Tonaquint began the displacement of an indigenous way of life that had found a natural rhythm with the landscape over scores of generations. Few of those original Mormon farmers stayed, but they blazed the way for a full company of colonists who heeded Brigham Young's call late in 1861, leaving their verdant farms behind in northern Utah and trekking to the desert of Dixie to make a town.

That town, which came to be known as St. George, is where I was born in 1955. I am part of the fifth generation. My deepest roots run back to New England, Switzerland, Denmark, and Mother England herself. Yet from my earliest memories I have sensed that I am native to this place where two streams meet.

The other day I walked along the bike path that parallels the Virgin River. I strolled past the Dixie Convention Center and on across the iron walking bridge that traverses the Santa Clara River near where it flows into the Virgin. I walked out through the sand and the brush and worked my way to a spot near the confluence. To the north, beneath an azure sky, sat the City of St. George with its majestic, giant, white Mormon temple standing like an iceberg in the middle of it all. Homes and buildings sloshed up over both volcanic ridges to the east and west. The coral ledges of the Red Hill stood bright and noble to the north; and further north, the purple majesty of Pine Valley Mountain. Off to the northeast, on the other side of the black ridge, I could see the tip of

ROLAND LEE, West Temple Sunrise, 2012.





JOHN D. COGAN, In the Morning, 2012.

Shinobkaib, the Mountain of God, thrust skyward along the edge of the Virgin Anticline. It is a sacred place to the Southern Paiute, as sacred to them as the snow-white temple is to me. Further on I could see the west ledges of Zion Canyon shimmering in the distance. Zion's West Temple stood firm and splendid, in perfect symmetry on the skyline. Even further north I saw the red, almost unfathomably red, fingers of the Kolob Canyons beneath the skyline of Kolob Mountain itself. In LDS theology, Kolob is the place where God resides.

I was surrounded by sacred ground.

I focused my gaze on Shinobkaib and thought how simply, how unobtrusively, the Southern Paiute had lived upon this landscape. The circle of their lives here was as natural as that geologic feature they called the Mountain of God. Then I looked at the giant white temple my ancestors built nearly 150 years ago. I recalled how they pounded volcanic rock from the west black ridge deep into the soggy soil where Brigham Young declared the building must stand. I remembered, in fact, that there is more volcanic rock invisible beneath the temple than there is sandstone forming its massive walls above ground. The temple, a place my people call the House of God, was quite literally imposed upon this landscape, just as we have imposed our lives upon it over more than six generations. We came to grow cotton and to make the desert bloom. We did. And we stayed.

Then I looked at the magnificent West Temple of Zion, the shining icon that draws millions of visitors from all over the world every year. I considered how the West Temple stands as a monument to all who have moved here in recent years for the scenic beauty, the temperate climate, and the quality of life the area offers. First it was the native Southern Paiute who lived here because their ancestors had always lived here. Then it was my people who came because their faith in a man they deemed a prophet compelled them to come. Then, more recently, people from everywhere began to move here—because they chose to. Like streams that merge from far-flung sources, we all now find ourselves together in a place we each love for our own reasons.

And there I stood, where the waters of the Santa Clara, whose genesis is on the far side of Pine Valley Mountain, and the waters of the Virgin, which begin on the summits of Kolob and Cedar Mountain and cut through the canyon of canyons called Zion, meet in the middle of my hometown. It is here, I thought, as I gazed all around, that the story of my town begins. It is here where everything comes together. For me, it is the place where actual history and remembered experience merge. Where story and place connect. Where fact and myth become seamless. Where landscape and memory flow gently into one.

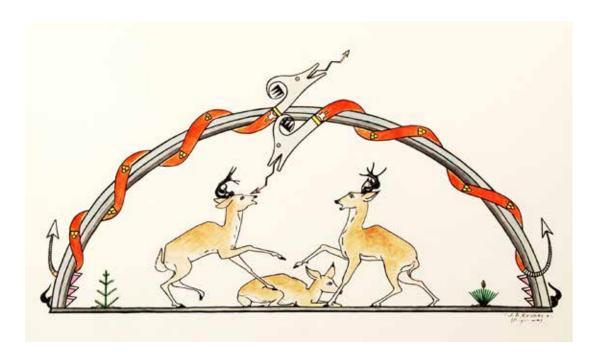
the last thirty years attempting to connect landscape and memory, story and place, in the dozen books he has written and in the work he does as executive director of Zion Natural History Association. He is the author of twelve books and is past president and a current member of the board of directors of the Public Lands Alliance.

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SEEING CONNECTIONS 27

BY MICHAEL ENGELHARD



Look closely at your fingertips. In the whorls of soft skin you can see wind eddying.

You can see corn and deer, individual futures, and the past of a people.

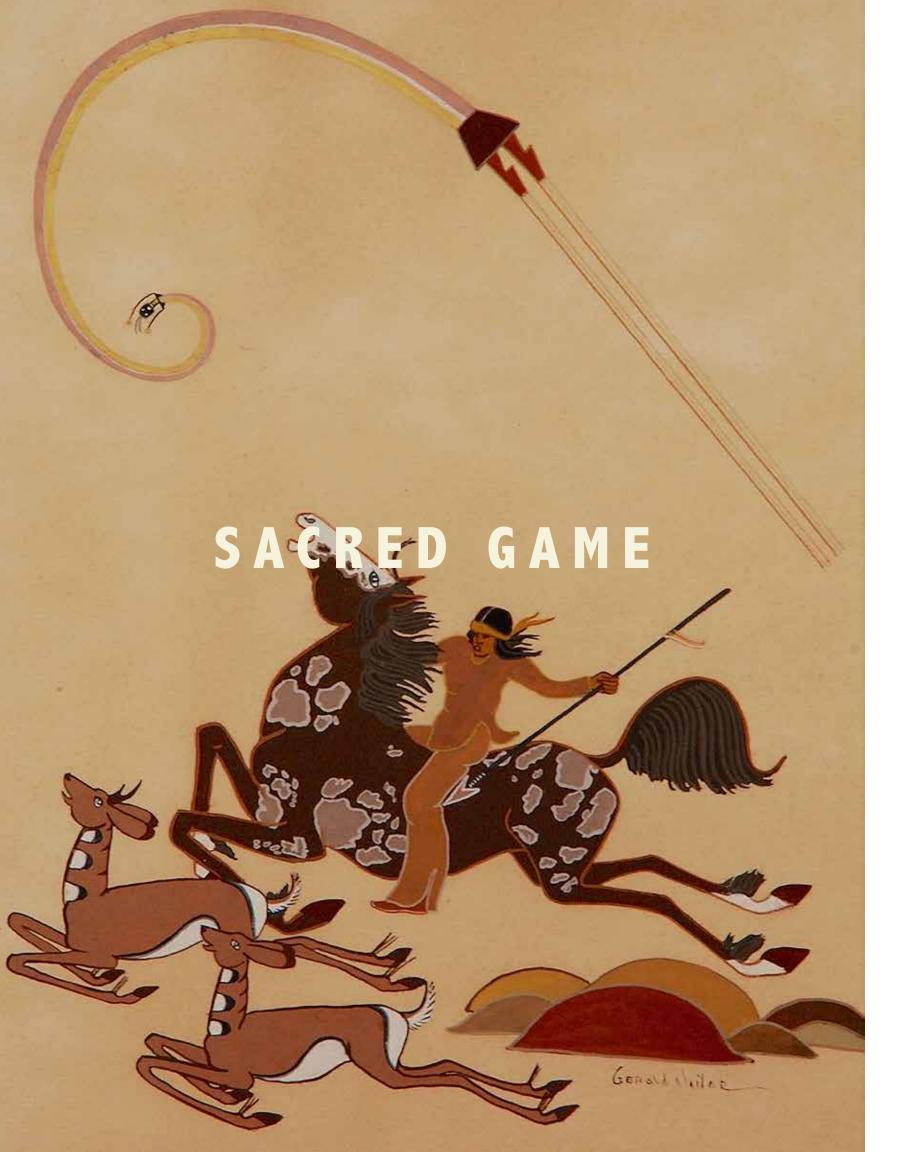
Rain God by José Disiderio Roybal (1922–1978), San Ildefonso Pueblo. The horned or plumed serpent symbolizes water, which, like deer, sustains life. Also like deer, it is associated with lightning. Courtesy of Adobe Gallery, Santa Fe, New Mexico.

Facing: A Navajo on horseback, painted by the 17-year-old Gerald Nailor at Mesa Verde in 1936. The Yei or Holy Being overhead is protecting or overseeing the rider. Courtesy of Adobe Gallery, Santa Fe, New Mexico. s recounted in Diné Bahane', the Navajo Creation Story, at the beginning of time, in a place yet unnamed—long before there was a bjjh bito' "deer's spring" (the hamlet of Deer in present-day Navajo County) or a Deer Creek, or Buckskin Gulch four Holy Beings convened in this fourth of four consecutive worlds. They brought with them two sacred buckskins and two ears of corn, one black and

one white. Silent and carefully, they placed the two skins on top of each other, the head of one facing west, the other one east. In between they put the two corn ears and under each, an eagle-down feather. Then, from the east, White Wind slipped between the two skins as if between covers, stirring the protruding feathers ever so slightly. When the Holy Beings removed the upper buckskin, the corn ears had disappeared. In their stead lay a man and a woman, the ancestors of all Diné, sprung from deer, corn, and divine inspiration.

To the descendants of First Man and First Woman, and other dwellers in the Southwest, the deer remains a source of power, a sacrament as much as physical nourishment. It absorbs its life force directly from the earth, and from herbs, many of which have healing properties. Through the deer's flesh, women and men partake of these. Traditional Diné similarly regard soil as the earth's flesh. As the earth feeds the deer, so the deer—and by extension the earth—feeds the people. And people, in their turn, in death feed the earth. In this way the cycle continues.

As a reminder and for potent magic, First Man's medicine bundle thus contained soil from the sacred mountains; the bag was made from "unwounded buckskin," from a deer killed in an unconventional manner. In the old days, but long after places and time had been named, hunters sometimes ran down a deer



instead of shooting it, suffocating it with a bag full of blessed corn pollen when it lay down exhausted. This unbloody stilling prevented the animal's life force—
nilch'i or Holy Wind—from escaping. In a way, the deer stayed alive, as all of us do, as long as nilch'i animates us. When it departs to lodge elsewhere like tumbleweed caught in a fence, we remain but empty husks. In a regular deer hunt, the ritualized butchering ended with splitting the windpipe—a symbolic severing of the animal's life force. This type of incision, as eloquent as a Zuni kiva mural of a deer with a "heartline" running from the animal's nostrils to its center, evokes the bond between spirit and respiration.

When the descendants of First Woman and First Men discovered agriculture, they fashioned hoes from deer shoulder blades for working the land. With the help of the four Holy Beings, they learned to make deer masks, to imitate the motions of deer. The gods taught people the mysteries of these delicate animals and in the process, grace. All this made them better providers, so they kept prospering. They learned to cure hides and

sew deerskin garments with deer sinew, no longer afraid of winter's steel bite. They strung and reinforced bows with sinew, giving their arrows the animal's speed. First Man in particular became very proficient and his wife therefore very round.

Before a deer hunt, traditional Diné hunters would take a sweat bath for purification and to implore Talking God and Black God, the two Holy Beings responsible for all animals. As told in the Navajo Creation Story, the gods had taught the Diné special songs and promised to grant them the means to support themselves and their families:

We will not hide the deer from you, for they are your livestock, your food. We will place them in front of you, but you must keep these songs sacred. From the time you leave the sweathouse until the time you come home, keep to the holy way.

Deer were tracked, shot from ambush, surrounded by fire, trapped in pitfalls, run down, or stalked while



Mule deer doe in southwestern pine forest. (Photo by Jane Richardson / Wikimedia Commons)

Facing: A Zuni vessel with "heartline deer." Plate 86 from *Pueblo Indian Pottery,* with an introduction by Kenneth M. Chapman, published by C. Szwedzicki, Nice, France, in 1933.



hide of an "unwounded deer." (A hunter would even pull strings tied to the hide's ears, mimicking the nervously swiveling ones of a live animal.) There was also a way of killing a deer by bewitching it through singing over its tracks. It was improper to brag or speak disrespectfully, to joke, or even to have unclean thoughts, as the deer would sense these and avoid the hunters. Each night, before going to sleep, the men would put their bows and arrows down in front of them and sing: *In the east / In the midst of dawn / Among the beautiful flowers / The best of bucks are killed.*

hile stalking, the hunters used animal voices to communicate. (Some linguists see this as the source of all human language.) They were careful not to contract "deer sickness" by inhaling the breath of a dying deer. They disposed of the animal's bones, antlers, and reproductive organs in a prescribed manner to please the Holy Beings and to ensure that more deer could be generated from the remains. The kidneys, they left—they were "Coyote's share." Hunters sought to avoid urinating or defecating in a deer track or on deer hair, which they thought would cause serious

illness. As deer are mountain creatures in the desert Southwest (but migrate to

sagebrush flats in the winter), the Diné believe that thunder and lightning protect them; deer antlers, which fork like lightning bolts, should never be taken home, because they will draw electrical storms.

During the hunt, the men ate the head, liver, and intestines by cooking them. Other meat they either broiled or roasted on hot coals.

Returning from a successful hunt, the men would make a final camp a few miles short of their hogans and in an improvised sweat lodge cleanse body and mind of shed blood. They also washed their clothes. In addition, they abstained from sexual activity for four days afterward. The spheres of life and death, of killing and procreating, human and other-than-human, male and female, wild and domestic were precarious and had to be marked continually and ceremoniously. The Navajo Creation Story relates how, after an argument with First Woman over which sex was really in charge, First Man and his male offspring for some time lived separate from the women. Lovelorn, a few men abused heated doe liver and slain does for intercourse, upon which Owl visited, warning them of the consequences. (The women likewise had strayed. Some used the bones of







Depicting Sacred Prey

Above: This 2,000-year-old charcoal pictograph from the western Grand Canyon portrays a deer. Bighorn sheep and deer were important food sources for prehistoric hunters and gatherers. Photo by Michael Engelhard.

Left, top and bottom: Two riders, possibly Navajo, pursuing a deer. Canyon de Chelly National Monument, Arizona. Petroglyphs like this one are created by incising, pecking, carving, or abrading a rock surface. Photo by Brian Minami. A hunting scene, possibly Ute, from Newspaper Rock, on a large patinated boulder near Canyonlands National Park, Utah. The rock bears images pecked by different people; the mounted archer may commemorate the deer drive in the La Sal Mountains. Photo by Randy Langstraat.

Facing: These 4,000-year-old split-twig figurines of deer and bighorn sheep were found in caves below the rim of Grand Canyon. They are thought to have represented some kind of imitative magic for the hunters who made them. NPS photo.

animals "as if they were their husbands" and gave birth to abominations.)

"Will the liver of a slain deer bear your children?" Owl mockingly asked the men.

The point, of course, is that black corn and white corn are in the buckskin together, each useless and lost without the other.

Agriculturalists valued deer as much as hunters and gatherers did. New Mexico's Laguna Puebloans routinely covered a dead deer's face before gutting it. A hunter then sprinkled cornmeal on its nose, to feed the deer's spirit and show his appreciation. "Blinding" the deer in this way perhaps masked a fear of mistakes: if wildlife was killed or dressed improperly, the animal's spirit would inform its fellow creatures, which would then shun or haunt the hunter. The idea of an animal's self-sacrifice, of prey giving itself to the humble, and the practice of hunting taboos, all reach far back in time, to vast Beringian plains, to a mindset and landscape

in which transgressions could not be concealed. Any absence of game meant that taboos had been broken. Shamans or clan priests had to intercede on behalf of the guilty, to mollify and to restore harmony in the

Subject to excessive poaching on one hand or to forest conservation on the other, the deer to this day brings forth darkness and light. It can serve as a moral compass, a bellwether for the land's health. Subtract its four-legged predators—mountain lions, bears, wolves and trees, streams, and people's cornfields will suffer.

For guidance, the Diné could also turn to the stars. Gah' heet'e'ii, or Rabbit Tracks, the tail of the constellation Scorpio, symbolized hunting. When it began tilting toward the east, the young deer no longer depended upon the does, and the hunting season began. This way, if a female was killed, her offspring could survive on its own. A big fall hunt yielded enough airdried venison to feed families through the winter.





Deer Dancing

Deer Dancer by Joseph Tapia (1959–1991), Tesuque Pueblo. The dancer holds sticks that represent deer limbs, increasing his two legs to four. Ears and antler headgear complete the transformation. Courtesy of Adobe Gallery, Santa Fe, New Mexico. Right: Deer Dancers at Zuni Pueblo, New Mexico. Photo by Bruce Blankinship.







Cradling Infants

Utes traditionally made cradleboards from willow, but during the reservation period began to insert boards into buckskin sacks like the one in the photo at left, c. 1899. Photo by Rose and Hopkins, Denver, Colorado; Library of Congress. Above, a cradleboard from southern Colorado or Utah, late 1800s. Courtesy of Buffalo Bill Center of the West.

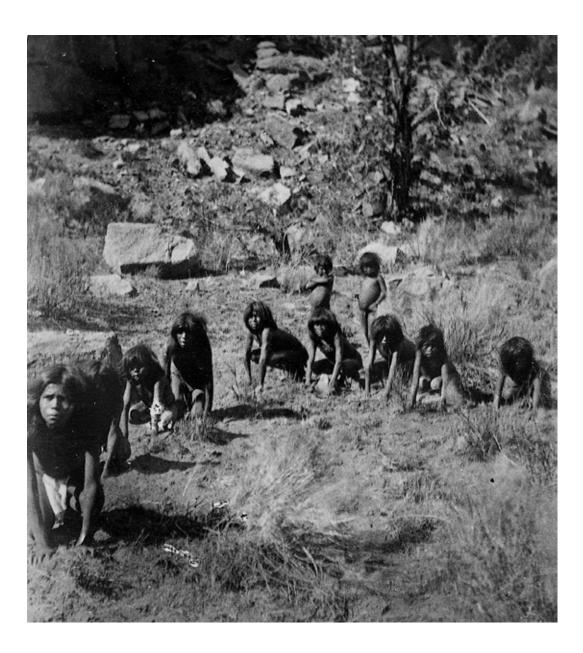
In her poem "The Deer-Star," Mary Austin recast a Southern Paiute myth about a celestial body prominent low in the eastern sky around sunrise on summer mornings, the one we know as Sirius, the "dog star" in the constellation Canis Major. Long ago, a young Paiute man tried to run down a deer in the traditional manner. (This young runner seems to have been a lazybones rising late, without having strung his bow or fletched his arrows he had no choice but to catch up on foot.) The pair was well matched. The whole village watched the youth, "in the bluish light of dawn" chasing the fleetfooted beast to "where the dawn mists lie uncurled; and over the purple barrows," away over the world's rim and into the sky, where they fused into a single hard light much to the surprise of even the rising sun. Ever since, the Paiute have believed that the best time to hunt deer is when this star is poised above the horizon.

illennia before the Diné obtained sheep—through trade or cunning, from the newly arrived Spaniards mule deer were a staple for Desert Archaic Indians, as caribou had been (and still are) for the Diné's Athabaskan predecessors in central Canada and Alaska. Charcoal and hematite outlines drawn on alcove walls in the Grand Canyon and elsewhere on the Colorado Plateau speak of ancient preoccupations with the Cervidae. Split-willow figurines unearthed from the canyon's limestone caves—some of them pierced with twig projectiles and dated from 2,000 to 4,000 years ago—represent deer, or possibly bighorn sheep. Perhaps, like Zuni prey animal fetishes, which were placed in other symbolic earth wombs (clay pots or leather pouches), they were meant to seed game numbers or, also like Zuni effigies, help in venatorial

Playing Wolf and Deer

Paiute children play a game called "wolf and deer" in this 1872 photo by John K. Hillers, taken in northern Arizona during the Powell Survey.

Speed and agility were crucial where hunters pursued game on foot. U.S. Geological Survey.



pursuits. Generations later, proto-Puebloan farmers of the Colorado River's corridor escaped summer heat to the North Rim, where they lapped up shade and cool breezes, gorging on protein: pine nuts, turkey, and venison. They, too, left behind deer images, petroglyphs pecked into black desert varnish.

Driven by famine and drought, before the Spanish arrived, these ancestral Puebloans dispersed to the Hopi Mesas and upper Rio Grande, carrying with them not only sun-dried jerky or pemmican but also the deep veneration of deer.

When deer meat was needed for a ritual at Isleta and none could be found, people implored the hunt chief, who then made a pollen circle, a symbolic enclosure, leaving a gap toward the east. Waving a feather in a circular motion as he intoned, he finished by imitating the calls of mountain lion and wolf. He next told an attendant of the ceremony to open the door, and then started to sing. Soon, in came a big deer with sweeping antlers. While Wildcat Boy, as the Isleta hunt chief was called, kept on singing, the door was closed, and the deer stepped into the pollen circle. Then the chief closed the gap and gently tapped the deer on its forehead upon which it fell down stone dead.

The idea of an animal offering itself to the hunter is much older even than this Isleta custom, and in the Americas originated in the Arctic. Pueblo dwellers either remembered or else borrowed the concept from neighboring, more nomadic groups such as the Navajo, Comanche, or Apache. Conceivably, before

the acquisition of firearms or the invention of bow and arrow or even atlatl throwing boards and projectiles, residents of the Colorado Plateau cornered deer by driving them into box canyons or onto mesa tops where they dispatched them without much effort, similar to the technique of the Isleta ritual but also its reverse, as the deer were pushed rather than lured.

Though not common, mounted drives did take place. When, at the end of the 19th century, it became clear that southeastern Utah would be lost to white settlers, some Indians, possibly Utes, decided to hunt all the deer they could, for the hides, and drive the rest as far as possible toward their reservation. Old-timers estimated that in the summer of 1882 alone, they killed more than three thousand in the La Sal Mountains. A petroglyph of a hunter on horseback on Newspaper Rock near the Needles district of Canyonlands possibly chronicles this event.

In many ways comparable to Artemis or Diana who is typically accompanied by a deer—a Pueblo deity or spirit is sometimes in charge of "releasing" the deer to worthy humans. In Hopi culture, this is the Long Horn kachina, Wupá'ala, one of numerous elemental spirits impersonated. The Shalako ceremony is held during the hunting season, and a deer hunt right before it. The Shalako kachinas themselves in part are deer impersonations, expressed in their running. (In Zuni, they are sacred messengers commuting between the deer's mountain home and the pueblo, bringing rain.) Extra-tall and feather-coated, these Shalakos or "cloud maidens" bestow power upon deer hunters. At some point during the ceremony, a man strikes a Shalako exclaiming, "I have killed a deer," and then puts it down with its head facing east—the direction of sunrise and regeneration. If one substitutes the Eucharist wafer for the flesh of this slain godhead, the sacramental nature of the Hopi ritual becomes obvious.

The incredibly elaborate Taos Deer Dance, tellingly performed around the winter solstice, also reenacts the hunt. In anthropologist Elsie Clews Parsons's pre-World War II description, some of the dancers are impressively garbed: they wear real buck heads with many-branched racks and the hides cloaking their backs. They lean on two canes, which in effect make them four-legged. The performance even alludes to humans' and mountain lions' competition for deer; when a "lion" puts a "paw" on a "deer," other dancers "kill" the deer with an arrow, snatch it from the lion, and carry it off. During one dance sequence, Deer Mothers enter, leading lines of other animals, apparently in charge, classic Keepers of Game, like the Long Horn kachina or Diné Holy Beings. In the evening, deer heads kept in a kiva are fed corn pollen and rubbed with feathers and cornmeal before each man takes one of the heads home, spreading the deer's blessings.



Dolls carved of cottonwood to represent the katsinum (tihu-tui) were traditionally given to Pueblo children.

Drawings from an 1894 anthropology book by Jesse Walter Fewkes (d. 1930).

In addition to the medicinal properties inherent in the deer's diet, venison is rich in iron and B vitamins, contains all ten essential amino acids, and compared to beef, is lower in saturated fat and cholesterol. It is no surprise that Native people associated deer with wholesomeness, fertility, and gestation. A Zuni story tells of a time when people were weak, because they only ate corn, rabbit, and seeds. The Zuni believe that a woman who eats of the wafer bread her husband brings back with him from a deer hunt will give birth to twins, because deer normally also do. Throughout the Pueblos, deer are considered bringers of water and rain. In Taos and elsewhere, a deer hair-stuffed football must be kicked about until it bursts like a big-bellied cloud, to fertilize crops. Mimicking the pitter-patter of a hard rain and hail, deer scapula rattles and deer bone rasps provide the soundtrack to various life-affirming rituals.

o the uninitiated, the belief that deer willingly deliver themselves—or that a benign deity delivers them to the butcher's blade—smacks of rationalization, the token offered to prey, of guilt or propitiation. To a degree, it perhaps is. But at least killing never is casual, let alone callous, in a cosmos ruled by reciprocity and interdependence, a world in which even clouds, mountains, and rocks are deemed animate. The act always involves risks for the hunter and his kin, risks that exceed the merely physical, such as getting hurt in pursuit. In the words of one Native elder, life's greatest danger lies in the fact that much food consists of souls, the souls of animals that in many ways resemble us. For the Diné, nílch'i animates all life forms and does so only temporarily, before it escapes and roots in another organism, human or other-than-human.

Yet another real danger is that of going feral, of reverting to wildness, which culture constantly seeks to tame and control. The risk of "regressing" was greater for men, who often roaming far hunted by dressing as deer and imitating deer behavior—they temporarily became deer, just as they did during ceremonies. There was a Tewa boy, born on a hunt, who is said to have later turned into a deer, and Little Dirt, a mythical Taoseño who married a doe. An ethnographic source from Jemez

mentions deer dancers who changed into deer and ran into the mountains and never returned. It can be disastrous for the hunter to identify too closely with his prey, and the danger of "becoming animal" seems greater in nomadic hunter-gatherer societies such as the precontact Diné compared to sedentary agriculturalists.

Perhaps this accounts for the multiple, complex treatment prescriptions encoded in Diné chantways myth-based healing ceremonies—such as the Deerway. According to a Diné informant who worked with Karl Luckert, author of the seminal study *The Navajo* Hunter Tradition, in the underlying myth a large buck pronounces ajilee or "deer sickness" as the punishment for lack of respect for deer. "You will go crazy . . . You will have no mind of your own," Luckert's source said. The mind of the afflicted "wanders from one place to another," just like a deer. Ajilee has been described as a kind of general craziness that sometimes entails unrestrained sexual passions. It can also manifest as extreme shyness in people or in livestock that becomes hard to handle—in short, all things disruptive of home life.

It has been said that western industrial society as a whole suffers from *ajilee*—alienation and restlessness—with symptoms such as excessive mobility, high divorce rates, and the pandemic consumption of drugs.

Nowadays, these also affect many younger Diné. Some would just call it the American or "modern" way of life.

Appropriately, the cure, at least for some Diné, comes from the Bringing Home ceremony during which the strayed wanderer is returned to the hogan, a symbolic center and replica of a balanced universe. Re-connecting the patient with tradition and immersing him or her in community both aid in the convalescence, as do medicines such as the Deer-plant or white umbellifer. It is a member of the carrot family that deer eat and that heals because "it carries the life-sustaining essence of the divine Deer-people of primordial times." It can make a child a fast runner and cures sick livestock.

The medical practitioner's paraphernalia by themselves can be links to deer. A Diné healer's *jish* is a deer hide pouch holding personal items of ceremonial significance, often his most-prized possession. Once, when an old *haatali* or "singer" pawned his *jish* at

Blanding's Blue Mountain Trading Post, he told the owner how as a young apprentice he had been told to ceremonially track down and kill a buck deer and fashion that *jish* from its hide. The trick was to follow the animal and never let it eat or rest, forcing it to keep running until it would surrender and offer itself. No small feat that, especially as the future *haatali* was physically handicapped. He then had skinned the deer, flawlessly, from the tip of its nose to its tail, leaving the hooves attached.

The strands that associate human wellbeing with deer run through our own culture's fabric also. The word "deer" stems from the Old English *deor*, an "animal" or "beast" as opposed to a human (still present in the German catch-all *Tier*); but sometimes it referred to wild animals only, excluding domesticated ones, such as dogs or livestock. Its Proto Indo-European root denotes a "creature that breathes" (as does "animal," from Latin *anima*—"soul" or "breath"), and pared down even more, "breath" or a "cloud."

Old English, wildeoren, the "place of deer or wild animals," lingers as "wilderness" (German: Wildnis) and thereby the circle closes with "wildness"—the spark inside each of us that can trigger conflagrations or be harnessed for creative endeavors. Complementary, Gothic gaman, "participation, communion," from "people together," reverberates as "game"—not only "a contest played according to rules," but also "wild animals caught for sport."

Despite our society's ailments, some people remain keenly aware of the links between deer and wildness and wilderness, a certain kind of hunter, biologist, or poet most likely, who hungers for the wholeness that deer once implied.

In her essay "Deerskin," Utah writer and activist
Terry Tempest Williams—a staunch non-hunter—
describes the passion that flowed between her father
and brothers when they spoke of deer. Williams
interprets her relatives' excitement at the sight of fresh
deer tracks in the snow in the context of the Diné deer
hunting tradition, "a model for ecological thought
expressed through mythological language." She recalls
accompanying her father on a deer hunt at age sixteen,
comparing his fastidious preparations to ritual. The

lines from the Deer Huntingway that Navajo elder Claus Chee Sonny recited for the ethnographer Karl Luckert can well serve as life philosophy and conservation manifesto for Natives and non-Natives alike:

Walk lightly, walk slowly,
Look straight ahead
With the corners of your eyes open.
Stay alert, be swift.
Hunt wisely
In the manner of the deer.

This elegant, golden creature grounds minds, bodies, and hearts in the land. As flavorful meat melts in the mouth, enhanced by the tang of juniper berries or sage smokiness, with synapses firing away, the subsistence hunter and the gourmet alike understand the entwining of senses and place. They know deer. They know venison as the true soul food of the American Southwest.

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AROUND THE COLORADO PLATEAU

CONNECTING PAST AND PRESENT



THE PURPLE HAZE DANCE HALL

ong before legendary guitarist Jimi Hendrix introduced his signature psychedelic rock anthem "Purple Haze" into the music lexicon, generations of dancers gathered to kick up their heels at an outdoor dance hall known by that name. Just a mile east of the town of Kingston, Utah, population 158, at the mouth of Kingston Canyon, the remains of a once stately dance hall rest quietly amid a dense growth of Russian olive, coyote willow, and Fremont poplar. The white stucco façade of the dance hall provides a striking contrast against the lavenderhued volcanic cliffs framing the entire scene.

As in most of the small, pastoral settlements of southern Utah that had outdoor dance halls, the Purple Haze was an important part of the social ties that connected members of the community. These pre-television gathering places were bustling with activities on most weekends from May through October.

Over the years of my youth, I recall hearing about an apocryphal encounter that is said to have occurred at this legendary dance hall. It began on a warm summer evening, when the Purple Haze was filled to capacity with couples



enjoying the sounds of the Foot Warmers, a popular swing band from nearby Richfield. As the midnight hour approached, the combination of vibrations from the dancers' movements and the beat from the band's base drum aroused a large number of *Crotalus oreganus lutosus*, a species of the western diamondback rattlesnake. According to the story, the rattlesnakes began to emerge from the fractures and cavities in the porous volcanic rock, joining the dancers on the dance floor.

The resulting pandemonium produced a variety of highly animated, but careful dance steps. The floor cleared as the screams of the fleeing crowd pierced the night air. The incompatible mix of snakes and shoe leather brought the dance to an abrupt conclusion, and the remainder of the evening was turned over to the new reptilian occupants of the Purple Haze.

On a sunny August afternoon, I visit the timeworn structure for the first time. My footsteps break the silence as I cross the concrete dance floor. A quick scan of the interior courtyard reveals the remains of an upright piano next to a cobblestone fireplace—collapsed stucco walls—and the parabolic shape of the orchestra cove now overtaken by vegetation.

On some level of consciousness, I imagine hearing the sounds of a swing band playing the Glenn Miller classic "Moonlight Serenade," couples lost in romance, and the unmistakable melody of a rattlesnake's song rising from the Purple Haze.

Gayle Pollock

Executive Director,
Bryce Canyon Natural History Association
Photos by Larry E. Davis



CONNECTING AT COLORADO NATIONAL MONUMENT

hanks to the efforts of
John Otto, a group called
Local Experienced Men,
the Civilian Conservation
Corps, the Works Progress
Administration, and
residents of Grand Junction, Fruita, and Glade
Park, twenty-three miles of Rim Rock Drive
connect the west entrance of Colorado
National Monument with the east
entrance.

Along this road,
photographers capture images
of sheer canyon walls and
sandstone formations that
connect Colorado National
Monument to viewers around
the globe. Artists set up easels
at overlooks with picturesque names
such as Book Cliffs View, Grand View, and Cold
Shivers. Dozens of couples each year connect
their memories of a lifetime to breathtaking
red sandstone canyons and rock formations

by making Colorado National Monument the setting for presenting engagement rings or taking marriage vows.

The Colorado River and the Gunnison
River connect at Grand Junction (hence the
name Grand Junction). Bands of desert bighorn
crisscross the roughly thirty-two square miles
of the monument that lies like a triangle
between the Colorado River to the north and the
Gunnison River to the east.

At the beginning of the 20th century, John
Otto forged connections with community
leaders and business owners from

Grand Junction and Fruita,
Colorado. He hosted hikes and
picnics in an effort to secure
their interest in promoting a
national park full of stunning
monoliths and 1.8 billion
years of geological history. The
proposed Monolithic National

Park eventually became Colorado National Monument in 1911.

Nowadays, bicyclists find it challenging and exhilarating to traverse Rim Rock Drive, connecting with roads outside the monument, in a grand a thirty-three-mile loop. Hikers connect with the great outdoors and with private inner peace while trekking piñon-juniper woodlands on forty-eight miles of maintained trails. Backcountry campers connect with high desert solitude. Archaeologists connect with Ute and Frémont cultures of the last thousand years through survey and discovery of wikiups and petroglyphs. Geologists contemplate the layers of time. Connections: Life, Love, Earth. Rocks, Plants, Animals. History, Culture, Science. Body, Mind, Soul. Beauty, Health, Endurance. At Colorado National Monument, the connections are strong.

Cherry Odelberg

Bookstore and Membership Manager, Colorado National Monument Association



Top: Donna Fullerton's Coke Ovens image graced the cover of the 2016 book *America's National Parks*. Road Builders logo honors the efforts of area residents, the CCC and WPA. The wedding of John Otto and Beatrice Farnham in 1911.



Clockwise: Painted Desert, petrified wood, black-tailed jackrabbit. NPS photos.

HIKING ACROSS TIME

alking through
the grassland of
Petrified Forest
National Park, I
scare up a massive
black-tailed
jackrabbit. She dashes away, long ears low to

her back. A tiny version of the adult jackrabbit follows, a single baby ready to run nearly from birth, leaping in his mother's wake. I am taking a cross-country hike through the native prairie to a ridge that overlooks one of the newer parts of the park, a break of reddish badlands that quickly descends to a tributary of one of the larger washes.

Carefully I take the ridge down, the soft clay of the Painted Desert crumbling beneath my boots. A naturally bonsai'd sand sagebrush clings



tenaciously to the colorful hillside, twisted grey stem and branches giving it the appearance of a centuries-old tree with narrow celadon leaves soft with velvety hairs. The current flora of Petrified Forest is just as fascinating to me as the ancient Triassic petrified logs that dot the highly eroded hills of the region. The plants today must survive hot summers, cold winters, the strong winds of spring, low humidity, and heavy rains. They have adapted to this demanding landscape by going dormant, capturing water in special leaves or stems, covering their surfaces with downy white hairs or resinous glands, and many other ingenious ways.

At the bottom of the hill, I follow the whispers of a wash remembering when water flowed through, ripples marking the sand and mud, flash-flooding leaving debris high above the ground level, and spot a round paw

print in the fine sediment. It looks surprisingly familiar, an inverted heart for the palm, four little beanshaped toes with no claw-marks. It is a cat, but one quite a bit larger than the creatures with whom I share my home. From the size of the track, most likely a bobcat. These beautiful spotted felines are silent predators and mainly nocturnal. I carefully step aside to preserve the lovely clue to the unseen life of the park.

I've worked at this amazing living park for nearly two decades.



It is alive with contemporary plants and animals of the semi-arid prairie, but best known for the deep past reflected in the fossils—including petrified wood—found in the colorful Chinle Formation. While this hike doesn't visit the higher concentrations of petrified wood found around Rainbow, Jasper, and Crystal Forests, there are still logs eroding out of the red hills. I pause by one, brushing my fingertips over the woody texture of the agatized log. The bark was stripped away millions of years before, but you can still see the texture of the layer beneath. Even better, there are raised ridges about the width of my finger that recall a time when bark beetles or other insects burrowed into the tissue of these ancient conifers. These are ichnofossils, or trace fossils.

Knowledge of the Late Triassic, including the discovery of new species of fossil plants and animals, has advanced since I came here. We have the advantage of devoted scientists who work here and researchers from a variety of other institutions. Petrified Forest is a veritable laboratory for study of the Late Triassic Period. This summer a fossil was discovered by one of the youth work crews who helped excavate the rather frightening phytosaur, once the scourge of Mesozoic rivers. The expansion of the park—legislated in 2004—has increased its value to future researchers and students.

From the sandstone lip of the overlook I view the eroded valley with its fallen pieces of beige stone, darkly tinted with the natural weathering of rock varnish. The dark stain is a mixture of clay minerals, oxides of iron and manganese as well as microbes that help fix the material to a surface through metabolic processes. In short, there are microscopic rock fairies that create a workable surface for the ancient people to make petroglyphs.

There is a staggering concentration of petroglyphs in the region, many of which are preserved and protected within the park. Before a ruddy wall of multilayered symbols, I imagine the hands over millennia that pecked or incised the surface to leave whispers from the past to the future. I'd been lucky enough to visit petroglyph sites with Zuni friends who recognized symbols referencing history, clan connections, and ceremonies—some now lost except on these rock walls. Our Zuni friends said that the petroglyph panels were like reference libraries for their people. The park has cultural connections with other tribes including Hopi and Navajo.

Then comes a sign of the more recent past: a barbed-wire fence. I must admit I am not fond of these ubiquitous symbols of the West, even though I was raised on a ranch. In recent years, since new lands were been added to the park, volunteers have helped park staff remove mile upon mile of fence. Hiking away from the fabric-grabbing monster, I imagine rolling up the barrier to wildlife and hikers, opening up the park even more for the future.

National park sites belong to the future. I am always mindful of this, that we are holding these places in trust for people yet to be born. In this centennial year for the national park service, I am reminded of the privilege I share with generations of park rangers. At no other place could I make such a clear a connection with past, present, and future as at Petrified Forest National Park

Hallie Larsen

Park Ranger, Petrified Forest National Park

RIVER IN THE SKY

mong those attending a night sky program at Dinosaur National Monument one warm evening were a pair of young city dwellers who had been told by their mother that there was a river in the sky above their heads. The young women had not believed their mother, who had been told this very same thing by her mother. That is, until they looked up. Above them was the river, shimmering in their irises for the first time in their lives. Never had they seen anything as beautiful.

Dinosaur National Monument, nestled in the northeast corner of Utah and northwest corner of Colorado, is a last remaining sanctuary in the U.S. for true night sky viewing, according to the Colorado Plateau Dark Sky Cooperative. With little impact from outdoor lighting and a scarce population, the area offers visitors and inhabitants an opportunity that so many do not have: to be reconnected to the universe.

The International Dark Sky Association tells us that 80 percent of the world's population lives under the glow of man-made light and 99 percent of the United States and Europe cannot experience natural skies. The heavens are hidden from us by a sheet of opaque brown from outdoor lighting that poses serious consequences



Milky Way. Photo by Jacob W. Frank.

for the natural day-night cycle, wildlife, and our health. The nearby bustling cities of Denver and Salt Lake City offer visibility of 300 to 500 stars. In surrounding suburbs, up to 2,500. But in the dark at Dinosaur National Monument, we can view an astonishing 4,500 stars on a clear night. From the top of the craggy, slanted peaks of Split Mountain spreads a veritable smorgasbord of stars and planets, and even our own Milky Way galaxy, that our light-sore eyes have forgotten.

Pre-Columbian cultures such as the Incas believed that the Milky Way was a path to the other world, guarded by animals, a river in the sky that connects heaven to earth. Few believe the river is there. We have to train our eyes to look elsewhere, away from the concrete, the bricks, the steel and the mortar, away from the streetlamps and rectangles of light holding our heads to the ground. We have only to look up to reestablish our connection with the cosmos that guided us in the beginning. Will you look up?

John Isom

Interpretive Park Ranger Dinosaur National Monument

The two aetosaurs illustrated here belonged to an extinct group of heavily armored Triassic herbivores. They made their homes in the banks of Triassic rivers; their remains have been found on the newly acquired lands at Petrified Forest National Park

A BIGGER FOOTPRINT, A BIGGER PICTURE

orty thousand acres of new

land has increased the footprint of Petrified Forest to an area roughly the size of the city of Chicago. For the last fifteen years, park paleontologists have been relocating historical sites, teasing apart the layers of rock strata of the Late Triassic Chinle Formation, and piecing together the story of plants and animals that lived in northern Arizona some 228 million years ago. As staff and research collaborators survey the newly added lands, they are able to test hypotheses based on study of the original footprint of the park. Exploring and looking for fossils on the new expansion lands allows researchers to test whether one layer is really younger or older than another, for example. Discovering new fossils on the expansion lands provides new insights into what was happening to global biodiversity during the end of the Triassic Period. One idea is that a minor extinction occurred 215 million years ago prior to the end-Triassic mass

extinction around the same time as a meteor impacted eastern Quebec.

Petrified Forest was home to an incredibly diverse group of animals during the Triassic Period. At that time, Arizona was situated as close to the equator as modern-day Costa Rica, and had a similar tropical climate. Huge amphibians waited at the bottom of small lakes and swamps for unsuspecting animals while long-snouted phytosaurs stalked riverbanks for animals thirsty enough to drink there.

The first dinosaurs in North America walked alongside members of older lineages that did not survive the end-Triassic mass extinction that came 27 million years later. Fossils of these and countless other organisms are preserved in almost every rock layer of Petrified Forest National Park. Because of such rich paleontological resources, the park is staffed with paleontologists, geologists, fossil preparators, and museum curators who work together to provide a perspective on what life was like over 200 million years ago. The huge swaths of land to the east and west added to the park by Congress were formerly grazing land and include areas of badlands, out of which petrified wood



Left: Deciphering Late Cretaceous bones in the Kaiparowits Formation on the Grand Staircase.

Photo by Gary Ladd. Above: An artist's conception of how things may have looked when the big beasts prowled the area. Depiction by Andrey Atuchin.

and vertebrate fossils have eroded. The current project to inventory and monitor fossil localities in the expansion lands will continue beyond the end of the year.

As of August of 2016, eighty-nine new fossil sites were documented and over two hundred individual fossils were collected. They will be cleaned, reassembled, and incorporated into the park's museum.

Project paleontologists are collecting fossils in danger of being lost to the natural processes of erosion, but also fossils that help identify the animals once present—for example, patterns on the armored plates on the backs of aetosaurs, which have different patterns depending on the species. The researchers also take careful notes of the geology of each fossil discovery, place its location on topographic maps, and record precise GPS coordinates. In doing this, the fossil acts as a "voucher specimen" to signify that a specific kind of animal was present in a precise place and time.

So far, the remains of at least eighteen different kinds of animals have been recorded on the expansion lands, including freshwater mussels, ferns, multiple species of armored aetosaurs and toothy phytosaurs, and burrows of invertebrate animals that made their homes in the banks of Triassic rivers.

The data and conclusions derived from the paleontological inventory are being made available to researchers and the public alike. In fact, research groups like that of the Burke Museum at the University of Washington are contributing significant fossil discoveries from these lands. The Burke Museum is actively quarrying a site that is full of hundreds of bones from shuvosaurs, which are extinct relatives of crocodiles and alligators that walked on two legs and probably behaved a lot like dinosaurs.

The park is designing new exhibits for the Rainbow Forest Museum that highlight some of the work being done for the expansion project. Park staff is hoping to include skeletal mounts of animals that have been found in these areas like gracile shuvosaurs, armored *Revueltosaurus*, and a new predatory animal related to *Azendohsaurus* from Morocco and Madagascar.

The park's fossil and rock resources may help to understand how certain animal groups respond to climate change through time, which in turn can affect how we manage energy resources, wildlife, and other biological resources at the local, state, or federal level during modern climate shifts.

Adam Marsh

Paleontologist, Petrified Forest National Park

WHERE DINOSAURS ROAMED

ack in the late 1980s I worked with the Museum of Northern Arizona doing paleontology in what would later become southern Utah's Grand Staircase-Escalante National Monument. We were working in rocks from the Late Cretaceous, near the end of the Age of Dinosaurs, between about 74 million and 95 million years ago, the formations that compose the "Grey Cliffs" of the Grand Staircase. Not the flashiest rocks on the Colorado Plateau, they are often sped by for more photogenic red rocks and sandstone walls. We were just trying to see what was there, spending long hours walking the landscape's grey, piñon- and juniper-covered badlands searching for bones and fossil plants. We found some things, but nothing that struck me as that impressive. I could not have been more mistaken. These sediments have since proven to contain one of the best records of the late Age of Dinosaurs in the world.

After the Grand Staircase-Escalante National Monument was established in 1996, a flood of researchers poured in, and it didn't take long for them to begin to find world-class fossils in almost every category of life, plants and



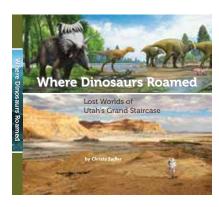
invertebrates, mammals, lizards and snakes, crocodiles and—of course—dinosaurs. Among the finds are a dinosaur with fifteen horns; a distinctive cousin of *Tyrannosaurus rex*; a peculiar scissor-clawed dinosaur with feathers; and a thirty-foot-long relative of the alligator.

Although the greedy dinosaurs usually grab the headlines, the smaller vertebrates, invertebrates, and plants are critical to this story; without them, it is impossible to recreate an ecosystem. Today, teams from institutions across the country and Canada do fieldwork in the area. Their research has created a global reference for terrestrial life of the time. The Late Cretaceous was an important era in the history of life because mammals, birds, and flowering plants—all the things that we see around us every day—were just getting their start, slowly gaining ground in the ecosystems of the time. When we peer into the late Cretaceous, we are seeing the very beginning of our current world.

We've learned that the Cretaceous world was a warm one—very warm—with very high levels of carbon dioxide. We've learned that biodiversity in the region may have been unparalleled, that southern Utah in the Late Cretaceous may have looked and felt like a very hot coastal Louisiana. We've learned to ask questions about how evolution proceeds and how diversity is affected in a warmer world. Our questions have moved from what was there to why. The answers may tell us not only about our past but also about our future.

Christa Sadler

Christa Sadler's forthcoming Where
DINOSAURS ROAMED: LOST WORLDS OF
UTAH'S GRAND STAIRCASE (Glen Canyon
Natural History Association, in celebration
of Grand Staircase—Escalante National
Monument's twentieth birthday) promises
to be filled with fascinating fossils and many
charismatic, toothy creatures (some of whom
are paleontologists!)





An NPS archaeologist records stone tools in a collapsed four-room pueblo made of petrified wood in the southern portion of the park. NPS photo.

BASKETMAKERS AND THE CCC AT PETRIFIED FOREST

eople have been traversing the North American andscape for centuries. At Petrifed Forest we are striving to document the presence of past human groups in the area and to bring this information to modern visitors, forging ties to connect the present to the past. In the summer of 2016 two archaeological field crews spent long, hot days working in the park's backcountry. In addition to park staff these NPS scientists worked with volunteers and archaeological interns. These internships connect future archaeologists with seasoned scientists to teach them about the methods and theories of southwestern archaeology.

Over the last year Petrified Forest has focused archaeological research in two avenues:
1) surveying the park's Civilian Conservation
Corps (CCC)—installed waterline, and 2) taking a new look at occupation in the center of the park on National Mesa.

The longest hand-dug CCC waterline in any national park was installed in Petrified Forest between 1934 and 1940. After more than seventy-five years of service the park has begun to replace the original CCC work.

Very little archaeology was conducted before the installation of the original line so this project was designed to mitigate potential impacts to sites within the corridor exposed while replacing the twenty-two-mile-long pipeline. Field crews recorded condition assessments, pedestrian surveys, site updates, and archaeological occurrences along the waterline and associated access roads south of Jasper Forest.

In total, crews identified six new archaeological sites, updated records for over twenty existing sites, and documented numerous isolated occurrences. They encountered historic artifacts and features along the old waterline that most likely date to the CCC period. This included recording the remains of a former backcountry CCC camp, and historic inscriptions, sandstone quarries, and sites along a former golf course built by the CCC for recreation.

In addition, crews recorded several prehistoric sites that range in time from the early Archaic (c. 8500–4000 BCE) through Pueblo IV (c. 1325–1400s CE). Among them are large areas where prehistoric people procured petrified wood for making stone tools. Additional work will allow us to better understand how prehistoric people were using the resources available to them. In July one of the crews moved to an area of the park called National Mesa, finding over a dozen new archaeological sites, including many small Basketmaker (1500

BCE–750 CE) pithouse sites that line the mesa's edge. The smaller sites offer a counterpoint to larger Basketmaker villages found in the park's new expansion lands. Work on them will help us better see how groups of past peoples begian to settle into villages and adopt agriculture in the Southwest. Park scientists also began studies of early ceramic vessels used by these Basketmaker people, how they were made and how their technology may have evolved into that of the early Pueblo period.

Overall, these new records will enhance understanding of the prehistoric and historic use of Petrified Forest National Park.

William Reitze and Melyssa Huston Petrified Forest National Park

WHERE STORY

AND PLACE CONNECT

large rectangle of sandstone, the size of a closet, lies next to the road not far inside the south gate of Zion National Park. I pass that rock

every morning on my way to the office. Until a few years ago it was nothing more to me than another random boulder scattered along the canyon floor. Had I ever thought to make the connection, I might have deduced that the rock fell away from a ridge of the Springdale Member of the Moenave Formation where it juts out to a point a few hundred feet above the road. I never made the connection until it was made for me by a 92-year-old man as we drove past it in my car.

"That's the nose of the Zion Sphinx," the man said. I did a doubletake over my shoulder as we drove on down the road. When I asked for an explanation, the man, whose name was J. L. Crawford, told me the story.

J. L. was born in 1914, not far from that rock, in Oak Creek Canyon at the foot of the Temple and Towers of the Virgin. My office sits on what was once Crawford property. I park my car in a lot that was once the Crawford family orchard. And when I sit at my desk I can look out a window that perfectly frames the West Temple of Zion National Park, a view considered by many to be the most outstanding skyline on planet Earth. For J. L. Crawford it was simply the backyard of his boyhood world.

From the south window of my office is a wonderful view of the Springdale Sandstone ridge from which fell the aforementioned rock. It takes only a little imagination to see the profile of an old man's face at the point of the ridge—the Zion Sphinx. When J. L. was a boy living beneath that ledge in the 1920s, the artist J. B. Fairbanks had dubbed it "The Sphinx."

When J. L. came home from the Second World War in 1945, the rock that formed the nose in the profile had fallen away and found its angle of repose on the canyon floor near what is now the paved road into Zion Canyon. In J. L.'s mind the rockfall distinctly transformed the ledge's profile into an uncanny resemblance to the face of his father, William L. Crawford.

To the millions of visitors who have driven past that rock in the last half-century, it is just one more giant chunk of stone among hundreds strewn across the canyon floor. To me, now that I know the story, the rock is a link that connects the exterior physical landscape with the landscape of imagination inside me. When story and place connect in such a manner, the landscape is enlivened. It becomes more than just a pretty scene. It becomes a part of you.

In Zion Natural History Association's award-winning book *Pioneer Voices of Zion Canyon*, excerpts from the oral histories of more than a dozen Zion Canyon residents share the stories that connect pioneer times with the modern era. The people, like J. L. Crawford, who bridge that gap are nearly gone now. But ZNHA has captured many of their stories on tape and transcribed them for posterity.

When J. L. Crawford was a boy, what we now call the West Temple of Zion was known as Steamboat Mountain. It was a time when a select few people were born in the shadow of that great tower of stone. They grew up in Zion Canyon, lived in it, knew it, and shaped it as individuals, families, and a community, over several generations.

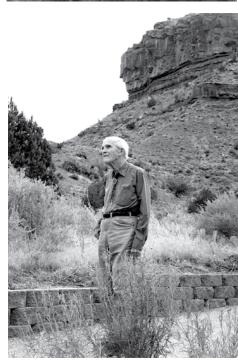
Their lives are now part of the canyon's natural history. Their stories hold the power to connect us to the place in a special way.

Lyman Hafen

Executive Director,

Zion Natural History Association





At top: Fifteen-year-old J. L. Crawford in 1929. He is standing beneath the ridge referred to in the story. Above: Mr. Crawford in the same spot at age ninety-two. In this photo you can see the profile of a man on the left edge of the ridge, facing the same way Mr. Crawford is facing. J. L. felt that after the large boulder broke away from the ridge while he was in Europe as a soldier in World War II, the ledge took on the resemblance of his father's profile. Contemporary photo by Michael Plyler.

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