Where Time Stands Still, But Secrets Still Emerge

Certainly the sight of massive stone tree trunks scattered about an undulating lunar-like landscape stills the tongue. The muted greens and tans encourage silent awe in this vast visual sweep. Cross sections of great shattered columns expose brilliant color bands of crimson, violet, yellows, and blues frozen in crystalline form. The very ground is carpeted with gems of different visual delight. Fragments and chunks of fossilized time betray the subterranean existence of other giants to match the surface leavings.

Here, in Petrified Forest National Park, these clues, now coupled with high technology, are today opening vast new areas for research. The petrified trees (Araucarioxylon arizonicum) have pointed the way to other companions such as the gigantic alligator-like plesiosaurs. Paleontologists, paleobotanists, and other scientists are all sharing in the excitement of discovery. Dozens of hitherto unknown creatures, including one the size of a bus, fuel the search for our past conjunctively with new insights into prehistoric man’s role in the area. Among the hundreds of petroglyphs within the park, no fewer than 16 sites have been identified as ancient solar calendars.

Also, from this land of gigantic dimensions come two giants in the world of art... Allan Houser, an Apache, and Dan Namingha, a Hopi-Tewa. International acclaim has come to these two very individual artists who have expressed their heritage in monumental works of art.

The blending of such seemingly diverse elements is not really a paradox in this land of paradoxes but a fulfillment of the Southwest’s continually unfolding destiny. So with images and prose as our propelling force, we again invite you to join us in discovering Arizona.
Spin of Earth a day. An orbit, a year. To these we relate. A thousand orbits. Our minds rebel. Labor. Falter. Now we try to conceive of a million loops around the Sun. Now four and a half-thousand million orbits. Impossible.

It helps not at all to convert the abstraction into 4.5 billion years. Yet this is the span the Creator required to assemble and solidify, deposit and compress, elevate and lower, fracture and erode, irrigate and drain, plant and stock the Earth of this our orbit.

Through a glass darkly, Science pursues Truth, although cautioned by the great Einstein: "The real nature of things, that we shall never know—never."

Still, there are windows in the world where clues to creation are seen more clearly. Grand Canyon is such a place—an open page of geology—and so is Petrified Forest, Arizona's other national park. In the past year, our orbit, if we will, science has made astounding discoveries within the ancient expanses of the park. New insights into prehistory are on display there for veteran visitor and neophyte tourist alike. Non-experts need not be intimidated by these revelations of the ages. For the scientists, also, in the presence of timeworn creation, are filled with wonder.

The ages-old muds, silts, and clays of Blue Mesa, in the Petrified Forest, surrender to forces of wind, water, and temperature. David Muench. (Inset) Kachina Point and the Painted Desert Inn. Built in 1924, the structure is now on the National Register of Historic Places. James Talon
Petrified Forest
A Vast New Storehouse of Ancient Scientific Treasures

(Pages 6-7) Russet, mahogany, and ochre vie for prominence in the park’s Jasper Forest area, one of the world’s largest exposures of the opaque usually reddish form of quartz. David Muench

The back country of Petrified Forest National Park, seen here from Kachina Point, offers an abundance of curious and beautiful geological structures to the wilderness hiker. David Muench

Amidst eroded shale beds, a petrified log becomes a dramatic centerpiece. Kaz Hayashi (Left) In majestic park areas similar to this one, scientists are finding fossilized animal skeletons from the Dawn Ages, creating an explosion of knowledge. David Muench

But our hero this day is no make-believe French nobleman, prancing upon the boards of the Old Globe. This man is a real-life modern, striding among the foundations of the Earth. He is a paleontologist, from the University of California, Berkeley. By name, Robert Long.

His golden tan—even to eyelids, palms, and armpits—testifies to months outdoors. So, too, his luxurious beard of spun honey, and his bright, shaded eyes. Aches and strains seem to drain from his lean frame as he rises to address a small band of visitors.

“Welcome to the most exciting spot in North America,” he says.

“Here, right beneath your feet, is the richest new source of large vertebrate fossils on the continent.”

By training and temperament, Rob Long is not one given to exaggeration. But at the moment his enthusiasm overflows as if his puny rock pick has broken through...
In the early decades of this century, scientists first explored the Chaco formations finding many plant fossils but relatively few ancient animal fossils within the Petrified Forest National Park. Dr. Charles L. Camp, a scientist of boundaries curious and boundless energy, discovered five reptile fossils from the Triassic era in the Petrified Forest. He began his fieldwork in the early 1930's continuing with it nearly every year into the 1950's. (Far left) Dr. Camp's bivouac at his Blue Mesa excavation in 1927. Dr. Charles L. Camp (Left) Dr. Camp at Jasper Forest, 1923. Alexander (Right) Artist's conception of the Phytosaurus. The fossilized skeleton of this one-ton, 40-foot-long reptile was one of the first discovered by Dr. Camp and motivated him to further explore the Petrified Forest area. John L. Ridgway.
In the realm of modern science, too, much curiosity focuses upon the origins and processes of the Universe—the mechanics and chemistry of the planets and moons—the structure and dynamics of the Earth. And for science, at least, more understanding of the fundamentals of the Earth’s geology has emerged in the past decade than in all the years before.

Most revolutionary are the discoveries of the Glomar Challenger, of the International Deep Sea Drilling Project. In voyages to drill in all the ocean bottoms, the little ship has shown:

- Some 200 million years ago all the continents formed a single land mass. At that time, the place we now call Arizona lay near the mouth of the Amazon River.
- Continental plates moved only inches a year, forming new oceans, jamming some land masses into others, and erecting mountains five-miles high.
- India and Australia once were one.
- At least once, Europe and North America rammed into each other (uplifting the Appalachian range), then drifted separate ways. Africa and South America likewise were joined.
- Nor are the enormous forces at rest. Predictably, some day Africa will collide with Southern Europe. The Red Sea will open into a great ocean. Within 65 million years, Los Angeles, California, will slide past San Francisco and dive into the Aleutian Trench.

In the calendar of eons now generally accepted by science, the Triassic period lasts from 235 million years to 185 million years before the present. Presumably, during the Late Triassic, primordial Arizona occupied a southern warm latitude. The Petrified Forest was an area of low relief near sea level on which many slow-moving rivers flowed. At this time the sea was where California is now.

Among numerous types of plants were large trees similar to pines. Floods may have felled these forests, buried the timber with silt, mud, and ash. Logs were probably also washed in from the mountains, which were where Tucson is today. There were even ferns which looked like small trees, and cycads with small thick bee hive-like trunks!

As time wore on, many other geological changes intervened until the land mass rose, and erosion exposed the thousands of petrified trees on view today. In and around Petrified Forest, fossils of plants and animals occur mainly in the Chinle formation of sandstones and mudstones—the colorful and inconsistent horizontal layers which wind and water have sculpted into canyons and mesas and rearranged as dunes and rockpiles. About 60 years ago, to the Chinle was attracted a scientist of heroic energy and boundless curiosity—Charles L. Camp.

**SERMONS IN STONES**

“I knew Dr. Camp personally at Berkeley, at a time when he could have been my grandfather,” says Paleontologist Bob Long today.

“Dr. Camp started poking about the Chinle in the early 1920s, and his field work continued nearly every year into the 1950s. And although Camp and his contemporaries found plenty of fossils in the Chinle elsewhere, only five ancient animals were identified within the park. Surprisingly few.”

“Still, when our renewed interest centered on the Chinle, we not only had access to Dr. Camp’s fossil collections, but also to his original field notes and portfolio of splendid photographs. We were able to draw upon a great deal of work of many other scientists who’ve explored the Chinle over a four-state region. I say this with humble appreciation for the published findings of fellow scientists. With all of that guiding us, together with Dr. Camp’s notebooks, during the summer of 1982, we completed the most extensive paleontological reconnaissance, ever, of Petrified Forest.”

From numerous formations throughout Petrified Forest, scientists have recovered the fossil remains of some 60 species of Triassic plants. (Far left) Paleontologist Robert Long with a giant fossilized horsetail recently uncovered, still embedded in the soil in which it once grew. It may have reached a height of 45 feet; yet, curiously, it is botanically similar to the living horse tail of today, left.

(Above) Carl Bowman, park aid, sits amidst a bed of fossilized fresh water clams, near the south end of the forest. Wes Holden

Peter Kresan

Jeff Kula

Wes Holden

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In the Triassic period, when the high desert of the Petrified Forest/Painted Desert (right) was little more than a huge swamp, the giant metoposaur (below)—one of the largest amphibians of all time—roamed the land. The huge size of its fossilized skull dwarfs the tiny present-day salamander perched on its nose.

Peter Kresan/ Jeff Kida
Jeff Kida photos

of 45 feet. An alligator-like creature, its jaws were set with sharp teeth, traveled in herds, and was the largest plant-eating reptile found in the Petrified Forest. (Above) Young Robert Bolt, chairman, department of paleontology, Field Museum of Natural History, Chicago, and his wife Ann Preston, an artist. (Left) Lower jaws, foreground, and skulls of phytosaur Rutiodon, named for the point on a map of Petrified Forest where John Bolt's crews excavate. John's Hill. The place-name is freshly minted for the point on a map of Petrified Forest where John Bolt's crews excavate. But the otherwise nondescript area was recognized as valuable by a woman: Ann Preston, an artist.

In the same summer of 1982 that the paleontologists were staking vanished beasts, Mrs. Preston was searching for objects quite different: prehistoric human carvings on rocks. While hiking, she literally stumbled upon the boneyard benediction at John's Hill.

Ann and her husband, Dr. Robert A. Preston, could afford to share the bone treasures with the fossil hunters. The Precious Jewels which ruled every habitation. The earliest forms of mammals may have worked to make significant fossil discoveries. It's a thrilling situation for a field scientist, on falling asleep at night, to be certain of finding something new tomorrow.

Echidna, for example, is Dr. John R. Bolt, chairman, department of paleontology, Field Museum of Natural History, Chicago. A world-ranking expert on the reptilian groups which ruled every habitat of Earth for 145 million years. Dr. Bolt is impressed with Petrified Forest's potential for filling in chapters of evolution.

"Relatively speaking, so little has been done," he explains. "And of that, so little published. We found the first dinosaurs in Petrified Forest this summer. We are always on the alert for intriguing forms of birds, why successful creatures like dinosaurs disappeared entirely, and where the earliest forms of mammals may have derived.

"So today we have the park. Much of it untouched. A mere century ago, our country couldn't imagine a worthwhile use of Petrified Forest. Now it may serve as our newest window to the distant past. What better argument for reasonable preservation? To keep our options open for the day when we learn more about our world?"

A PRECIOUS JEWEL

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Accentuating the Positive at Petrified Forest

How to Keep People from Loving it to Death

by Don Dedera

Adamanasuchus rectori will be the scientific Latin label for one of the newly discovered Triassic creatures. Adamanas is a tiny community near the excavation. Rector is the name of the superintendent of Petrified Forest National Park. Roger Rector cares for a public preserve surrounded by 92 miles of fence. The park is open every day of the year, but has no overnight facilities. While managing a hospitable community complete with firefighting, medical, restaurant, public relations, educational, police, and cavalry (some patrols travel by horseback), Rector wrestles with a dilemma unique to the park.

"How to keep people from loving it to death."

On the one hand, Rangers are the good guys - the cheerful, informative, official hosts and hostesses. On the other, they are the rule keepers - who must dissuade certain guests from packing off with part of the park. For if every visitor departed with a souvenir, the park soon would be picked clean.

One tourist hid a bit of petrified wood in a bikini. Another, that covered the crime with a baby's diaper. Other hiding places: hairdoo, garter belt, bean pot, dashboard. All failed. Federal law prohibits removal of even a tiny chip, at pain of a possible fine.

"We'd rather accentuate the positive," says Rector, general Park Service career officer. "Most citizens want to do what is right."

In opening and interpreting Petrified Forest to the public, Rector is assisted by an innovative and energetic organization, the Petrified Forest Museum Association. Non-profit, directed by a board of local businessmen, the association staffs visitor centers, publishes books and pamphlets, and contributes funds to special projects. Of note in recent times, the association has provided grants for scientific research in the park, has contributed to the auditorium at the main visitor center, and has furthered the restoration of a historic home and hotel, the Painted Desert Inn.

Underway, as this issue of Arizona Highways goes to press, are plans to provide visitors with interpretation of the astronomical petroglyphs at Puerco Ruin. Also, there are plans to return, as soon as analysis and preservation allows, some of the elements of large fossils discovered in the park during 1982. Probably these materials will join exhibits already in place at park headquarters and at the museum at the southern entrance.

As for accommodations, although no overnight facilities are maintained for the public within the park, the wilderness awaits hardsy hikers. Several dozens excellent hotels and scores of restaurants are in Holbrook, on Interstate-40. Holbrook is 25 miles west of the park's northern entrance, and 39 miles west of the park's southern entrance.

The yea or a petrified keepsake need not be sacrificed entirely. Petrified wood gathered from private land is offered for sale in concession shops inside the park, and at roadside trading posts along main highways. Cut and polished specimens suitable for bookends sell for $40 to $100, but tumbled stones are commercially offered for as little as 25 cents. Some gasoline stations give away tokens of petrified wood as incentives to customers.

The largest producer and seller world-wide and no doubt the oldest area purveyor of petrified wood is just outside the southern entrance of the park. Patton and Sons deals in both rough and polished stone, extracting from a 33,000-acre area. To cover the sometimes vast distances between sites, the company uses aircraft which does double duty acting as an "eye in the sky" for people who wander off the trails in the national park. It was on Patton land, it should be mentioned, that the largest petrified tree found to date, anywhere in the world. (Bottom, right) Patton and Sons has mineral rights to huge tracts of land adjoining the Petrified Forest.

(Above) Petrified Forest National Park Superintendent Roger Rector and wife Betty. Figuring how to keep people from loving the park to death has become a full time job. (Bottom, left) Don Patton, Patton and Sons, Inc., checks the condition of part of a giant 250-foot petrified tree trunk his firm is removing from land outside the national park. It is the largest petrified tree found to date, anywhere in the world. (Bottom, right) Patton and Sons has mineral rights to huge tracts of land adjoining the Petrified Forest. J. Peter Martimer photos.

A California woman once returned, at great expense, a 47-pound chunk of petrified wood she had stolen from the park. One small piece was returned parcel post from Great Britain. Last year the park received 22 "conscience letters" accompanying 50 pounds of pilfered petrified wood, and 85 penance to be donated to the Petrified Forest Museum Association. Typical of the letters is one displayed at a park visitor center: "I am a Christian and cannot keep the wood, and remain a Christian."
Did some romantic Don Juan carve his love-lorn thoughts on a rocky page while he waited for his dusky sweetheart?" - A Phoenix Chamber of Commerce press release: "Many of them are similar to old Egyptian and other symbols with serpents and geometric designs predominating. Scientists estimate there are between 50,000 and 100,000 petroglyphs in Arizona."

"A famous amateur (perhaps imaginative) archaeologist: "The symbols were not the work of Indians. Ten thousand years ago, highly developed humans explored and charted the entire North American continent. Identical symbols can be found on the coasts of Mexico, on the Aleutian Islands, and on the banks of the Salt River, south of Phoenix."

In unusual concentrations, rock pictures occur in Petrified Forest, occupied by human cultures by A.D. 300 or even earlier. Within the park, the pictures typically are chiseled into the patina, or desert varnish, of sandstone cliffs and boulders. Here, as elsewhere, speculation is free—and rife. To some observers, some symbols suggest suns and moons, river systems and farm maps, lizards and humanoid stick figures, slices of pie and games of tic-tac-toe. Self-appointed mandarins have ascribed to the petroglyphs religious significance, sexual meanings, and property titles.

Not so, the Prestons. Ann brought to the project a refined sense of three-dimensional art; Dr. Preston is an astronomer and supervisor of an astronomical measurements group at the Jet Propulsion Laboratory (Cal Tech and NASA) at Pasadena, California. As a disciplined scientific inquiry for the better part of a year, the Prestons packed instruments and cameras to a score of petroglyph sites. MIT-trained, Dr. Preston is more accustomed to computer language, and space probes to the planets, and to the complex control panels of gigantic radio telescopes which study the mysteries of quasar billions of light-years distant from Earth.

Not far from the Puero River, Dr. Robert Preston, a research scientist, sights from a petroglyph along the sheer cliff face and through a tall thin crevice in the rock, perhaps 25 feet away. As the sun rises during vernal and autumnal equinoxes (and only then) it will shine through the bottom of that crack as shown in the following photo.

Ann L. Preston/Robert A. Preston

THE "CAVE OF LIFE" SOLAR CALENDAR AT WORK

Rays from the afternoon sun, 45 days, or one-eighth of a year, before winter solstice, shine through a crack in the boulders to illuminate a spiral petroglyph. The dagger-like light then moves further into the cave, as the sun lowers, passing through several other symbols. It finally comes to rest in a large cross-shaped glyph. (Photos pgs. 24-25.) It is believed to have been the Anasazi who migrated through this area and left these petroglyphs. Interestingly, one-eighth of a year before winter solstice is the approximate beginning for the Warachchim, Ceremony of the Hopi which denotes the beginning of creation and the germination of all life on earth—plant, animal, and man.  Illustration by Ann L. Preston.

On a large flat rock face, in the central area of the park, this similar equinox sighting mechanism has performed its twice-a-year feat for perhaps 800 years or more. Ann L. Preston

Kathleen Norris Cook

(Left) An inside-looking-out view from the "Cave of Life" shows how the sun slips between cracks in the boulders. The photo (top) is from the outside-looking-in. The setting sun focuses directly upon the cross-shaped petroglyph at center of photo. During their months of study, Robert and Ann Preston (above) have identified a total of 24 such "solar calendar" alignment sites within the Petrified Forest.

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During the period of summer solstice, sunlight filters through cracks in the "Cave of Life" wall and falls on a spiral petroglyph inside the cave. As the sun sinks toward the horizon, the "light-dagger" becomes bright orange, progresses from left to right through several rock features, and disappears at the center of this large cross at the moment of sunset. In this same case, at year-end equinoxes, sunlight passes through the entrance and falls on a petroglyph covered rock, far right. At the moment of sunset, the shadow from the entrance roof is perfectly tangent to a circular/spiral glyph. Winter and summer solstices are similarly marked in the cave.

At dawn on the day of the summer solstice, a sunlit image "floods" the rock face of an ancient petroglyph. The sequence shown spans about 15 minutes. On the Hopi mesa, 75 miles northwest, summer solstice signals the beginning of the Niman Katcina Ceremony, commonly called the Home Dance. Perhaps for the ancient Anasazi, like today's Hopi, the summer solstice signaled a time for religious observation. This ancient calendar will be on public display this summer at Puerto Ruidas.

One-eighth of a year from winter solstice, sunlight filters through cracks in the "Cave of Life" wall and falls on a spiral petroglyph inside the cave. As the sun sinks toward the horizon, the "light-dagger" becomes bright orange, progresses from left to right through several abstract symbols, and disappears at the center of this large cross at the moment of sunset. In this same case, at spring and fall equinoxes, sunlight passes through the entrance and falls on a petroglyph covered rock, far right. At the moment of sunset, the shadow from the entrance roof is perfectly tangent to a circular/spiral glyph. Winter and summer solstices are similarly marked in the cave.

The action of sun shafts and shadow lines is quickened and dramatized in time-lapse still photography. Light images are caught on film, darting and disappearing into exact centers of spiral petroglyphs. In other instances, streaks of sunlight intersect the outer rings of rock symbols. Shadows also appear to interplay with the petroglyphs. Other rock art seems related to the positions of the sun in geological features of the horizon. In an extreme case, the Prestons ascribe no less than seven solar functions to one petroglyph inside a "cave" of Petrified Forest National Park.

Says Ann Preston, "Perhaps it seems surprising that a culture which had to struggle for survival would sacrifice time for this elegant form of art. But once measuring time of year was not an entirely empirical pursuit for a subsistence-level farming community."

Ceremony, commonly called the beginning of the Niman Katcina.

Add her husband, "When you watch a spectacular solar interaction with a petroglyph, you can't help but feel awestruck. These places were very special to people a long time ago, yet they've stood abandoned and forgotten for a thousand years. It's a moving feeling to be the first persons again to experience these devices work."

We've restricted our inquiries to the observable astronomy. How these calendar stones were used is open to speculation. For us, for now, it's enough to know that a solar almanac existed. The intriguing questions remain, whether the profusion of rock symbols also might be related to movements of the moon, planets, and stars."

Sad to say the petroglyphs of the American Southwest may not survive long enough for scientists of this and future generations to unravel the meanings. Vandalists and collectors have obliterated and removed scandalous numbers of petroglyphs for the silliest of reasons. Off-road cyclists have ruined forever intangible (gigantic figures on the desert surface) inscriptions of the figures are just now coming to light, and what a fascinating story they may tell about the people who created them. "There are at least two reasons the petroglyphs should be preserved," says Dr. Preston.

First, it is possible that the true meanings of the figures are just now coming to light, and what a fascinating story they may tell about the people who created them. "And they represent valuable recreational resources. If they can be interpreted and exhibited to the public, the petroglyph sites could become major attractions. Municipalities, states, and the federal government should see that the sites are saved."
the climate and geological processes of the Petrified Forest were
leaf of a fossil spiney plant

New Zealand, and several small islands in the southern hemisphere.

Araucarioxylon arizonicum, which today still thrives in parts of South America, Australia,
study of these fossilized plants

A spore and four pollen grains, and (right) the cuticle of a
bearing conifers related to the genus
Dinophyton spinosus.

the popular petrified tree. (Top, right)

Bloomer
giving science clues to what

(Below) Black Forest
Araucaria, 200

feet in length.

Today no spring of water

lies there that have not yet been discovered.

Some of the fossils present natural works of exquisite art—entire fern fossils, just a
few inches long, complete in every detail

All that said, the big trees may prove

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fied Forest miniatures.

Thinking small," says Dr. Sidney R.
Ash, chairman of the department of geol­
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with powerful microscopes can tell us more
about the plants and the climate processes
than the petrified logs ever can."

Clearly, "thinking small" is catching on
in a variety of disciplines. Micro-analysis
of minute fossils today helps geologists
find oil. At Koster, an extraordinary arche­
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ate students use water and chemicals to
float and sort tiny seeds, teeth, and bones
as clues to prehistoric human diets.

In California, kitchen middens are sifted
for pollen and other microscopic evidence of
past millennia's climate. At the La Brea
Tar Pits in Los Angeles, the emphasis today
is not on the dramatic saber-toothed tigers
and outsized sloths but on skeletons of
fruit flies and backbones of mice.

In Petrified Forest National Park some
60 species of plants have been identified.
However, every time Sid Ash collects in
the park he finds at least one new species.
Undoubtedly there are many other spe­
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Herb and Dorothy Mc Laughlin

Herb and Dorothy McLaughlin

and below.) seen today at petroglyph sites like Newspaper Rock (right and below).

The story of ancient man in the Petrified Forest covers a span of 1,500 years. He made his home here and farmed the valley soils. Evidence of his culture can be seen today at petroglyph sites like Newspaper Rock (right and below).

Evident evidence of his culture can be seen today at petroglyph sites like Newspaper Rock (right and below).

Yet, when Spaniards explored the region of Petrified Forest in the mid-1500s, this neighborhood was uninhabited. A myth of Hopi Indians mentioned the badlands as a place of racial origin. Far-off Utes offered another legend—petrified logs were the broken arrow shafts of their thunder god, Shimaan. Nomadic Navajos believed the stone trees to be the bones of Yavvo, a gigantic monster slain by ancestral Navajos.

Through the prism of archeology, more scholarly chronicles take shape. Some Petrified Forest ruins were populated as early as A.D. 300. During later centuries subsistence changed from hunting and gathering, to methodical agriculture. During periods of abundant rainfall, early people may have prospered as scattered suburbanites, living in small dwelling units off the fat of the land: plentiful game, wild grains, cactus fruits, greens.

But during periods of prolonged drought—documented in surrounding archeological ruins and prehistoric sites throughout the Southwest—people of Petrified Forest farmed river terraces, alluvial fans, and sand dunes. They stored large amounts of food to ward off famine; they pooled resources in larger villages near the most dependable streams. Marine shells, coral, and exotic pottery unearthed in Petrified Forest suggest extensive travel and a trading network reaching to the Pacific Ocean or Gulf of California. Capable potters in their own right, these plateau peoples may have exploited an obvious resource for barter: Scarlett any material in nature produces more handsome, keen, and durable stone tools and weapons than petrified wood.

At partially excavated sites such as the Flattops, Twin Butte, and Puerco, and at museums maintained by the Park Service, current passengers of Spaceship Earth may ponder upon the crafts and debris of a civilization which, for all of its ability to hew to the natural world, could not cope with gross environmental decline. One scientific supposition holds that intensive cultivation of crops such as corn, beans, and squash ultimately contributed to the loss of topsoil, which in turn, lessened the ability of the land to store water for permanent springs.

Be that as it may, by A.D. 1600, long before the arrival of the first Europeans, the people were gone. No human called Petrified Forest home.

In recognition of the importance of Petrified Forest's prehistoric record, the Park Service recently completed An Archaeological Overview of Petrified Forest National Park (Yvonne G. Stewart). A revised management plan notes that:

"Prehistoric resources in the park are extensive, comprising over 300 recorded sites, including pit-houses, campsites, and multioroom pueblos, some of which were constructed from colorful petrified wood blocks. Evidence indicates that numerous unrecorded cultural sites exist throughout the park."

A few of the over 300 locations have been excavated, and the remaining archeological sites form a regionally significant data bank of future scientific information. The park was initially inhabited by sedentary farmers who entered its present area from southern origins during the early Christian centuries. These people are significant because they were among the first farmers in the northern Arizona region. Later, more developed agriculturalists from northern and western origins settled in the park area. After A.D. 1300, they built a number of villages, including Puerco and Agate House.

"The central plains of the park contain evidence of a wide variety of human travel through this region in the American Southwest, which culminated in today's Interstate highway 40 and the Santa Fe Railroad. The route of the east-west Beale Camel Trail—also known as the Whipple Route and the Prescott and Santa Fe Mail Route—can still be seen crossing the park."

Over 300 ruins are scattered throughout the park. Puerco Ruin (right), near the intersection of the park road and the Puerco River, is the remains of a large masonry pueblo consisting of about 75 rooms arranged around a plaza. Herb and Dorothy McLaughlin

The pueblo, thought to have been two stories high, included a kiva (below), used for religious ceremonies.

Wes Holden
My backpack is small and light—not much more than a square of plastic, a bedroll, dried foods. No weapon or heavy tool is worthwhile. Better a canteen and spare vessel of water. A knife. A camera.

At no additional cost, I’ve obtained a permit from a Park Ranger. Parked my car at a designated trailhead. And set off into one of two Petrified Forest wilderness areas. For most seasons the weather is bearable, even benign, windy but seldom wet, warm to hot by day, but cool to night. The country is open, devoid of confusing vegetation, blazed by heavens of the light falling on Earth tonight.

A moment, abed, on the ground, for wondering. A sliver of moon peeks over a monolith. A covey of quail exploding from a sagebrush plain. In spring the perennial grasses revive; if given rain, the summer flowers fill eyes and nose with salmon mallow, indigo lupine, and golden daisy; autumn deluge intensifies earthen hues; it may happen in winter that a dusting of snow densifies hermaphroditically, that is, all by themselves. Does this explain the riddle of the departed dinosaurs? A cool spell.


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that permitted the hatching only of males?
• Does the pronuba moth think? It has struck up a partnership with the fineleaf yucca. The yucca will not make seeds unless the moth fertilizes the flower. The moth cannot incubate eggs unless the yucca produces seeds. So the moth carries pollen to the plant’s stigma. Does the yucca think?
• If I travel tomorrow to the Hopi mesas, or to Zufii, might I meet and talk with a direct descendant of that woman who shaped and shattered the corrugated brown bowl strewn upon my mesa?
• And where does a 300-pound stegoscephalian sleep? Anywhere it wants, goes the old vaudeville routine. But seriously, how did enough of these nine-foot-long muck crawlers, with brains the size of walnuts, this thick-skulled salamander with three eyes, how did they elude the huge, predatory phytosaur?
• Of science. This is what they said: W. H. Auden, “When I find myself in the company of scientists, I feel like a shabby curate who has strayed into a drawing room full of dukes.” A. N. Whitehead, “Aristotle discovered all the half-truths which were necessary to the creation of science.” Bertrand Russell, “Science is what you know, philosophy is what you don’t know.” Paul Valery, “Science is a collection of successful recipes.” And Einstein again, “Science without religion is lame, religion without science is blind.”
• The Bible says that God breathed life into a handful of clay. Today, in a school called New Biology, scientists set a scene 3.5 billion years ago—an Earth bombarded with cosmic rays, pickled with vigorous chemistry, rent by bolts of lightning, churned by riotous volcanoes. And life beginning as proteins and nucleic acids in the sunbaked clays of the beaches of warm, rich oceans.

Now, as sleep slips into Petrified Forest and steals its living residents one by one, no answers flash upon the eternal scene… only that ages-old catechism expressed in the Book of Job: “Where was thou when I laid the foundations of the Earth? Declare, if thou hast understanding. Who hath laid the measures thereof, if thou knowest? or who hath sketched the line upon it? Whereupon are the foundations thereof fastened? or who laid the cornerstone thereof...”
Pilgrimage to the Petrified Forest

BY JAMES TALLON

Of course we wouldn't be going back 200 million years, and of course we wouldn't be visiting the Holy Land. It would just seem that way. Imagination is a marvelous instrument. But for our forthcoming explorations, not too much imagination would be required.

It all started when my wife, Vicki, and I were watching a television rerun of the motion picture *Jesus Christ, Superstar.*

"I know that place," I blurted out, pointing to a particularly beautiful desert scene on the screen. "I've been there."

"To Israel?" came the reply.

"They filmed it in Israel?" I asked.

"Yes."

Well, I hadn't been there after all, but somewhere remarkably similar.

"How would you like to go?" I asked.

"Fine," she replied patronizingly, thinking I was really talking about going to Israel.

Two weeks later, with our eight year old, Rachel, we were perched on my Holy Land look-alike, actually a high, windswept bluff in the northern reaches of the Petrified Forest National Park. Stretching away from us like a fully-open Japanese fan, to the horizon and beyond, lay a cut and carved, sandpapered and stained, painted and polished spectacle. A prime example of the Chiricahua formation. A product of the late Triassic age. The Mesozoic era.

It was deep afternoon, and the lowering sun added a golden bonus while the lady paid her respects to the land with silent awe. Vicki would later tell me that though the Forest was a "mirror image" of the scenes in the "Superstar" film, the background music was quite different.

In the days ahead, we would make a half-dozen pilgrimages into the Petrified Forest (and expect to do more). We would trek into the Painted Desert and Rainbow wildernesses. And we would gallivant the more public-frequented premises of the Crystal Forest, along the Blue Mesa Trail, among the Long Logs.

No mode of travel is more intimate than your own two feet. Direct contact with the earth completes a certain spiritual circuit. One that we relish. With small day-packs holding a few essentials, we were ready to adventure.

One of our first probes took us into the Rainbow Wilderness, an expanse of 7240 acres. If you wear glasses, as my wife and I do, day-hiking anywhere, and perhaps more so in the Petrified Forest, will be infinitely more revealing if you take along someone with telescopic eyesight, who is attuned to nature, and who stands 25 inches closer to the ground. That aptly describes our eight year old. On an ice cream scoop hilltop, among 10,000 peanut brittle chunks of petrified wood, she pinpointed a one-inch square of worked clay with a primitive black design. A potsherd.

Hands and knees scrutinizing produced dozens more. But even more interesting, possibly, were hundreds of petrified wood fragments with unnaturally keen edges. Even a beginning archeologist would know this had been the site of an "arrowhead factory."

Here, where 300 prehistoric ruins dot the landscape, our imaginations ran rampant on that intoxicatingly warm, cotton-cloud day. Here at our feet was a minor miracle. In this spot, a pre-Columbian man with leather palm pad and a deer-horn tool had flaked a 200-million-year-old piece of wood-turned-to-stone into an implement that, when attached to a feathered shaft, would help provide subsistence. The small heap of flakes he'd left would become a curiosity to three way-farers in a place called Petrified Forest, 800 years in the future.

It's been called a land of quiet grandeur, this back country of the Petrified Forest and Painted Desert, and all of it is waiting for the day-hiker and backpacker to explore. Kathleen Norris Cook
On a day-long outing with photographer/writer James Tallon, wife Vicki, and daughter Rachel experience first-hand some of the mysteries and beauties of the Petrified Forest: ancient petroglyphs, narrow eroded canyons, and "ice-cream-scoop hills." James Tallon photos

We are always troubled by the marks we make on pristine grounds. We resent our own footprints. But we justify them because we know the first rainstorm that follows us—surely the second, will eliminate them. Some fields of petrified wood fragments are unavoidable, usually intermingled with the short grass. In others, foot-size spaces allow passage. Many are scintillating, tightly-woven mosaics on bare ground, and we cannot bring ourselves to trespass. Move one piece and you have scarred the overall work of art; the balance is aggravated. But some fragments are too exquisite not to be handled. Afterwards, though, each piece is returned to its precise niche in the design. Frequently Vicki carries a tiny spray bottle filled with water which we use to bring up hidden colors in the wood.

Zigzagging across the Petrified Forest provides far more fodder for the inquisitive mind than does hiking by the maxim "...the shortest distance between two points." Take the Western cottontail we saw among the long logs. What made this wildlife encounter different was the animal nested in a section of three-foot-thick, four-foot-long petrified tree trunk. Weather, or perhaps rot before petrification, had engineered a two-story agate apartment, and the rabbit sat in the lower one, easily in reach of a human hand and without apparent fear. It studied us as we studied it, and I had the strange feeling that any second it was going to say something curiously eloquent.

Numerous animal forms, some migrants, some residents, inhabit the Petrified Forest. Our tally included more cottontails, a few jackrabbits, dozens of lizards and birds, lots of small rodents, and my favorite mammal. We had climbed a low ridge and rested on a park-bench petrified log. Out in the short grass among the mariposa lilies and the fineleaf yucca, it snipped at browse and with its 360-degree, eight-power vision, we knew it had seen us. A pronghorn antelope. A doe. Spooky by normal behavior and capable of running 60 miles per hour (Harper & Row's Complete Field Guide to North American Wildlife claims one was clocked by an airplane at 84 miles per hour), you feel the warning hairs on the rump patch should be erect and the animal putting greater distance between itself and you, the most deadly of predators. But protection afforded by National Park living—its daily association with unthreatening man—had semi-tamed it and, sadly, taken away some of its nobleness. Still, such park animals perform a service, by providing oh's and ah's for the rush-through visitors who otherwise would never see them.

One of the most luminous hikes in the Petrified Forest is also one of the easiest—the Blue Mesa Trail. Here we found a gravelled path leading three-quarters of a mile into a canyon, among the buffs, blues, and purples of eroded hills and Nature's astutely arranged groupings of agate logs. The Crystal Forest, though of lesser interest on our evaluation scale, was more heavily visited and so was the Crystal Forest, though of lesser interest on our evaluation scale, was more heavily visited and that's because it can be...
driven into. Here, too, we experienced the quiet. It enveloped us only a quarter-mile out in the desert.

The hike we remember most graphically, though, was in the 43,020 acres of the Painted Desert Wilderness, where foot-travel-only rules keep the solitude monastic and the land virginial. Where only the elements have accounted for any changes in tens of thousands of years. Where it looks most like the Holy Land.

Along with two kinds of cheese, cold cuts, assorted fruit, and a canteen of water, we packed a topographical map. Now it showed us that the Kachina Point trailhead, from which we departed, was 5826 feet above sea level, and down on the desert floor, where we would do most of our hiking, an average elevation of 5500 feet. A drop of 326 feet, a piece of cake.

A third of a mile down the trail, agate logs lay askew as if prior to some giant cutting them. Here the child asked, “What causes trees to be petrified?” We had read that the Kachina Point trailhead was in the Petrified Forest, surrounded by miles and miles of unpopulated scenic wilderness.

Few people get off the main road in the Petrified Forest. Two-thousand-foot-long tapestries hung from the sky. The destruction of the trees towered more than 300 feet. They were primarily conifers and particularly Araucarioxylon. (Unlike the giant redwoods of prehistoric times, descendants of Araucarioxylon are alive and comfortable in the southern hemisphere.) As age or weather or whatever felled them, many floated here via the numerous streams of that era. Then, buried in mud, sand, and volcanic ash, decay and not were halted. The job was completed by chemical action interwoven with a geologic fickleness that caused the land to sink beneath the sea and rise again.

For every hike we pick a destination. Often we don’t make it. We meter distance and expended energy and divide it by remaining time. The important factor is the hike itself, the discoveries along the way. On Kachina Point, we chose the Black Forest. Our “topo” map showed it to be about three miles out; or, roughly a six-mile jaunt.

In 1981, only 755 people ventured into the Petrified Forest’s wilderness areas. Considering such light public pressure, you may not see another wanderer. We didn’t. Yet, a distinct trail crosses the desert flats, and, periodically, it is marked with a rock cairn. Park Service personnel suggest leaving this beaten path and doing your own thing. We turned off two miles out, past Lithodendron Wash, angling right to inspect some pink 20-foot-high clay hills.

By the time we spread lunch, the wide arch of the sky was covered with grey clouds. No matter. It would make for cooler hiking back. Unfolding our map, we saw we had drifted well east of the Black Forest. Judging by dozens of black logs we had come across, though, very likely we had reached the fringes of it.

The sun had lost the battle to break through the overcast, and, with the western horizon hidden from us by a row of hills, I climbed one for a look around. To my chagrin, I saw a charcoal squall-line moving our way. Then I remembered I had not remembered to pack our rain gear. We quickened our pace in retreat, but the storm caught up with us one-half mile from the trailhead. Lightning was limited to one feeble display followed by a single muted roll of thunder. But the rushing screen of water grabbed us like a big silverly thing with claws. Before we could gain the shelter of an overhang, a few yards away, we looked like citizens who had scoffed at Noah.

Fifteen minutes later, no let-up seemed to be in the immediate future, and, since we could not get wetter, we moved on. As we topped out at Kachina Point, the downpour changed to a steady and gentle rainfall. Leg-weary and wonked, we paused before making the final footage to our van camper.

I turned and looked out across the Painted Desert Wilderness. Two-thousand-foot-long tapestries hung from the sky. The patches of earlier had become rich maroons, chocolates, purples. Threads of light reflected from the rivulets that coursed down and among the clay hills. Salvador Dali would have been thoughtful, Pablo Picasso delighted, Joan Miró influenced. Fighting overtones of anthropomorphism and recalling total annual rainfall here averaged just nine inches. I speculated that the wilderness’ animal populations jumped with joy. Reveled in the wetness. And the plants—I knew the reaction of those that bore flowers, too.

“Even though the sun’s light is withheld, lo, a heavenly lamp shines here...”

PILGRIMAGE

James Tallon

(Above) The protected environs of the national park are an unthreatening home for the Western cottontail, the pronghorn antelope, and a variety of other wildlife.

James Tallon photos
FORMS FROM THE LAND—THE ARTISTIC VIEWS OF Allan Houser and Dan Namingha

Two artists, both with feet well planted in today's world. Both well traveled, both hard working, both successful. Both Native Americans, with beginnings that today would be called disadvantaged. One at the end of his middle years, one in his early 30s. One an Apache, one a Hopi-Tewa. They are friends although their ancient tribes are as different as the French and the Germans. One known for his sculpting, one known for his painting. Yet two artists alike in their love of beauty, their respect for their fellow man.

What nurtured them? What feeds their strengths, sparks their inspiration? We visited them and asked our questions.

by Kay Mayer

Allan Houser is a polite host. Contained. He answers my simple questions briefly, to the point. He's shown me the inside of his design studio, his new sculpture studio, his painting studio, inside the downstairs and the upstairs of his country house. But not much inside the man. Not yet.

Allan Houser stands silent now on the roof deck of his new home, 20 miles south of Santa Fe, New Mexico, considering my question: What in influence does the land have on your work?

In watch cap, soft jacket, and blue jeans, he studies the swelling land as it rolls into the huge waves of distant mountains and seems not the Apache of distinguished lineage, not the soft-spoken master of stone and bronze who has become internationally known and admired, but a tough, aging seaman who is at peace with his harbor and his future.

He moves to look west, bends over, rests his arms on the parapet. We hear no lap of water, only the steady sound of the chip, chip, chip of an assistant's chisel against marble. The impression is that Allan Houser comes up here frequently. I wonder what he is seeing.

He's as complex and simple as his work. His credentials include a Guggenheim fellowship, museum and major private collections, yards of awards, exhibitions last year at the Smithsonian, the year before in the Grand Palais in Paris, this year in Germany. His work is public, he is private.

He speaks easily about the public part. Our conversation began in his design studio, an intimate space, removed from house and sculpture studio, "because," he said with a smile, "if ideas don't pan out the way I hope they will, nobody knows it but myself."

He said his process of creation often starts during his daily walks around the huge pieces of stone in his sculpture yard. Most of it is shimmering white marble from Carrara, Italy, from the 2000-year-old quarries made famous by Leonardo da Vinci and Michelangelo. This was the material provided for his first commission, at age 30, by the Haskell Institute in Lawrence, Kansas, for an eight-foot memorial to the Indian casualties of World War II. This is the material he once scrounged for, material he can finally afford in abundance.

After taking his daily walk, he may go to his sketchbook and begin drawing. "But sometimes the subject matter is so obvious that I can almost see the piece in the stone," he said, "and I can start right in cutting."

When things begin to happen in his sketching, he picks up clay. The sketch goes into three dimensions. In this phase he carries his design further and solves most of his problems. But this is not the final form.

"When the piece gets into large scale, it changes again," and continues to change until he finally says, "It's finished." Even then he thinks about it.

"One of the beauties of stone is to have something partially finished emerging from a rough area." He once said he knew a piece was finished when his back began to tingle. All of his finished pieces, stone, bronze, and steel, remain for days in his studio. "I observe them when I come to work each day, looking for little weaknesses in the composition that might later begin to bother." As he talked, he handled each piece in his design studio as tenderly as he would a living being. "When I'm working on these little models," he said, "I'm living the part. I'm trying to get something across..."
in the composition, the feeling I have in here." He tapped his heart. "People don't know it, but they've got a lot of Allan Houser in the piece they choose." This was the closest he came thus far to explaining the touching, touchable humanity of his pieces. Suddenly the soft voice says, "I think one of the very important things that I rely on is going out on the Navajo." That's the western direction he's been looking since my question, toward the Navajo Reservation, which adjoins the Painted Desert in Arizona.

His head doesn't move, but his eyes narrow, and now it's almost as if he is able to see across the state into the Arizona lands of his forefathers. I puzzle over the words, "rely on," then remember the unusual beauty of that landscape.

"I like just to wander around out there and observe. I like to see what the weather has done to those massive formations that nature has made." His westward gaze continues. So do the silent intervals. But I know now something of what he is seeing.

"I like to get back to nature, among the Indians as well as the open country. I like to camp out. When you see things as masses—even trees, the big cottonwoods—the forms are almost like sculpture. Those old cliff dwellings," he hesitates, "I especially like to see what the Indians of years ago did by digging into some of those big formations, and then what the weather has done to the ruins. They're very sculptural."

As if reading my thoughts, Allan shows me a face he is working, not a head, a face, stark and bold. "This is not a portrait," he says, "but in a way it is." The man was a boyhood friend whom Allan hadn't seen in a long time. "I saw him again two years ago, and his face just stuck in my mind. He was from a family I'd always admired. I couldn't forget the structure that I saw in that face. It just came out the other day, and now I'm playing with it. I'm not sure what will happen." He turns the clay masklike form and reveals the curved neck of the stand. "It's very exciting on a difficult piece to see what the outcome will be."

"He says when he was younger, he enjoyed the hard labor with air hammers, drills, and chisels. Now he leaves much of that to his two assistants, preferring instead to take on more and more difficult composition problems "just to see if I can solve them." He built his sculpture studio 20-feet high at one end so he can work with big pieces of steel. "When you're working with steel you have other problems. You're working with flat areas, and you have to gain the structure that I saw in that face. It's very exciting on a difficult piece to see what the outcome will be." He explains—he taught for 25 years—as he might for a young student. "Picture a person standing at night near a fire. Catch only those parts the light is hitting. Grasp those parts and make them work as a composition." His attention returns to the clay models, and he lifts for my inspection an exquisite figure of an Apache Indian girl. He breaks the silence that follows my expression of pleasure. "I try to get something across in the composition about the beauty of the people, the sympathy I have for them. I'm sensitive to who they are, where they come from. You never get them perfect, but you try to get across the feeling that's coming out of you very deep."

As we walk out together, I make a remark about the pleasure his work has given people. He glances at me, looks off again to the west, and says, "You know, you hear these things, put them together, and then, well. I think that really what this whole thing is all about: making yourself happy as well as others."
Follow New Mexico Highway 68 out of Santa Fe toward Taos, and, with a suddenness that is eye-startling, the land drops away and opens to a 30-mile-wide valley of the Rio Grande.

In the San Juan Pueblo, a handsome young Hopi-Tewa of medium height is growing into gianthood by painting his Arizona heritage.

Dan Namingha greets me gently, almost shyly, in English touched by a Tewa accent. Later I can kid him about looking and sounding Italian after just one visit to Italy, then hear him laugh and say, "When I was in Italy, local people came up to me speaking Italian, expecting replies." One of the reasons for his Italian visit was to see an old teacher's—Michelangelo's—Sistine Chapel.

He invites me into his studio. Built by his own hands during summer afternoons several years ago, it is a functional structure, 20 by 30 feet, high ceiling, well-lighted, and able to accommodate drawing tables, chairs, an overstuffed couch, cabinets, boxes of paint tubes, plasticine—he enjoys sculpting, too—and a clutch of cotton canvasses ranging in size from big to biggest.

Fastened to a wall at one end of the studio is a painting in progress, shoulders and head of a Namingha katcina with a butterfly headdress. Who can look at a Namingha painting and not respond to his colors? They are the joyous colors, the colors of sunsets and summer rains, of dances and drums, of youth and rainbows. Colors boldly combined, delicately equipoised.

Dan says simply, "The land is my palette, land and sky together, the area around the Hopi. I played there as a child. I hunted and roamed there, and every day I opened my eyes to all of these things. So it doesn't really matter where I am in the world. I will still see it, and I still paint it because it's part of me."

Like many another artist, Dan had to travel thousands of miles and several years to discover his emotional and spiritual homeland. He grew up during a time of social protest, a time of cultural contrasts. Still, despite what might have seemed limited opportunities on the Hopi Reservation, in northern Arizona, the pattern of Dan's young life could almost be a model for how-to-train-your-child-to-be-an-artist. His mother, Dextra Nampeyo Quotskuyva, is a fourth-generation potter of renown, his uncles are noted for their katcinas, so Dan's efforts received early encouragement both at home on First Mesa and at school in Polacca.

When he was in second grade, a teacher asked him to meet with her and other students for an hour before regular classes. "Mrs. Russell provided all the materials," he says. "We would just paint whatever we felt like painting. That was my introduction to painting with oils and watercolors." Those morning sessions continued until he left for junior high school.

His introduction to Picasso and Van Gogh came when he was nine, and he claimed the "A" book (for Arts) from a set of encyclopedia his mother purchased. His introduction to Michelangelo came when he was 12, and a teacher handed
him a book of classic art reproductions.
He was captivated. "After that I tried to
draw like Michelangelo," he says. "The
way he drew faces and the anatomy I saw
in the sculpture."

When Namingha was 16, he won a
summer art scholarship to study at the
University of Kansas in Lawrence. That
was a major turning point. It was there
he began to get "really serious in terms of
discipline." And it was there that he first
perceived realistic forms as geometric
shapes.

He returned to his home on the mesa
with new awareness for the land and the
ceremonial forms around him. But he was
still not sure where his destiny lay. His
parents were proud of his success in art,
but namingha measured his success in
the traditional way. He joined the Marines.

Upon graduation, Dan traveled to Chi-
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Dear Editor,

I am 85 years old, and after looking at your beautiful pictures and reading the articles in your December magazine I find I have a new outlook on the world around me. I admit I was depressed about a great many things in our society, but this issue has given me back a feeling of hope for our country.

Sincerely,
Doris Reinoehl
Bath, MA

Dear Editor,

It's been eight years since we moved from Wickenburg, Arizona, to a lovely, remote mountain valley in the corner of northeastern Oregon. . . . (But) through the pages of your magazine I have brought part of Arizona with me. I just finished the Christmas issue and there is a blurring of the photographs and words throughout. Don't worry the printer about it through, the blurring is in my eyes. So strong are my feelings for this truly marvelous land called Arizona.

Sincerely,
Carole Jarvis
Joseph, OR

Dear Editor,

A little note to say I am sure, “Flowers are the most beautiful things God forgot to put a soul into.” (AHM December, 1982, p. 34,) is by Henry Ward Beecher. It is certainly appropriate for that issue.

Sincerely,
Mary Osgood
Middleboro, MA

Dear Editor,

Congratulations on another excellent Christmas issue. I am always pleased to receive your informative and colorful magazine. However, being a natural science student at Northern Arizona University, I must point out a slight error in species identification. On page 39 of the December, 1982, magazine the photo by David Muench is not of a hardy fir, but none other than a hardy ponderosa pine. I could tell at just a glance that the needles are too long for a fir.

Sincerely,
J. Rohan
Flagstaff, AZ

Dear Editor,

I thank you! My “Cowboy’s Christmas Prayer” poem was first published in Ranch Romances Magazine in 1952, but its beautiful presentation in Arizona Highways, December, 1946, with a mounted cowboy and a red sunset, was what gave the poem broad circulation and gained it widespread approval. Through the years the poem has been reprinted well over a hundred times in a variety of publications, broadcast several times over national TV, put on tape and braille by the Marian Society for the Blind, quoted in a Lions Club bulletin in Rhodesia, and used by The Leanin’ Tree Greeting Card Company for 18 years with changes of pictures. And now Arizona Highways shows it again with a beautiful, realistic ranch country winter scene. I find this especially gratifying now that I am over 88 years old and in uncertain health. So again, I thank you!

Sincerely,
S. Omar Barker
Las Vegas, NM

Dear Editor,

This is to thank AHM and Mr. Joseph Stocker for the fine article on the Arizona Rangers in the August, 1982, issue. It was of particular interest to me, as my father, Lt. John Foster, was second in command of the Rangers (see picture on pages 34-35 of that issue). He was the short man next to Capt. Tom Rynning on the left of the photo.

Yours truly,
Ray R. Foster
Morro Bay, CA

Dear Editor,

For years now I have had the big fortune to be gifted with a subscription of your magazine by a good Swiss friend who has since adopted the United States as his homeland. I have so much enjoyment with this magazine when I go through it. It marvels at all the beautiful illustrations, the variety of colors is exceptional, so are the reports and explanations. If one has not visited the States, you can not realize the variety of beauty one can find in this vast land.

Sincerely,
Gerry Gohl
Clarens, Switzerland

Dear Editor,

Arizona Highways may be marketed as a travel magazine, but your publication transcends the scope of most travel magazines. More than a guide to encourage tourism, it is a valuable source of information on the American Southwest. The November, 1982, issue is a typical example. Focusing on southeastern Arizona, the reader is exposed to significant events in the human history of the region, as well as the flora, fauna, and natural history of the area. An obvious result is increased tourist travel... However, my greatest appreciation is that you provide a fine learning resource.

Sincerely,
Earl Bereld
San Antonio, TX

Dear Editor,

I just wanted to tell you that this new 1983 Arizona Highways Calendar is by far the most spectacular of all the many I’ve purchased from you over the years. I do miss my lovely West, and the calendar and subscription to the magazine give me much pleasure and happiness.

Sincerely,
Mona Ray
Winston-Salem, NC

Dear Editor,

We have had a love affair with Arizona Highways for several years. Besides the excellent photography, your writers capture beauty with words. Taken together, pictures and text, they make for an hour or two with the gods every month.

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Comments and questions from around the state, the nation, and the world.

Dear Editor,

I am 85 years old, and after looking at your beautiful pictures and reading the articles in your December magazine I find I have a new outlook on the world around me. I admit I was depressed about a great many things in our society, but this issue has given me back a feeling of hope for our country.

Sincerely,
Doris Reinoehl
Bath, MA

Dear Editor,

It’s been eight years since we moved from Wickenburg, Arizona, to a lovely, remote mountain valley in the corner of northeastern Oregon... (But) through the pages of your magazine I have brought part of Arizona with me. I just finished the Christmas issue and there is a blurring of the photographs and words throughout. Don’t worry the printer about it through, the blurring is in my eyes. So strong are my feelings for this truly marvelous land called Arizona.

Sincerely,
Carole Jarvis
Joseph, OR

Dear Editor,

A little note to say I am sure, “Flowers are the most beautiful things God forgot to put a soul into.” (AHM December, 1982, p. 34,) is by Henry Ward Beecher. It is certainly appropriate for that issue.

Sincerely,
Mary Osgood
Middleboro, MA

Dear Editor,

Congratulations on another excellent Christmas issue. I am always pleased to receive your informative and colorful magazine. However, being a natural science student at Northern Arizona University, I must point out a slight error in species identification. On page 39 of the December, 1982, magazine the photo by David Muench is not of a hardy fir, but none other than a hardy ponderosa pine. I could tell at just a glance that the needles are too long for a fir.

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Inside back cover) Fritha Dell, 1982, by Dan Namingha. Acrylic on canvas, 60 by 48 inches. Judy Collins collection. (Back cover) Fragments of 200-million-year-old trees of the Triassic period from a suiteable fossil deposit in parts of Petrified Forest National Park. Theodore Roosevelt first established the 93,493-acre area as a national monument in 1906; “...for the wonder and enjoyment of all the people.” Josef Muench