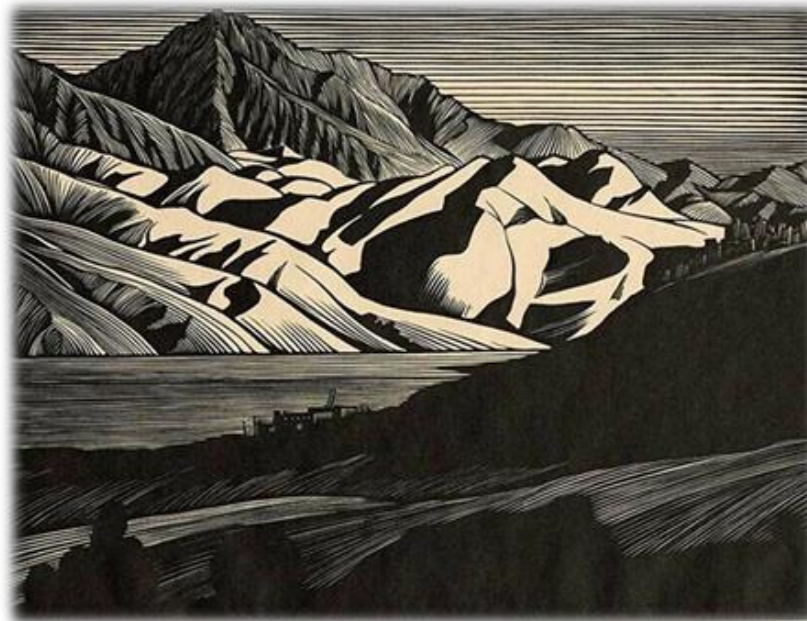

**TEN POINTS OF INSPIRATION
in and around the
NATIONAL PARKS of
CALIFORNIA'S MOJAVE DESERT**



***Places where people have made a difference —
showing us how we can build a more
just and sustainable future***

**NATURAL NEIGHBORS
INTERENVIRONMENT INSTITUTE**

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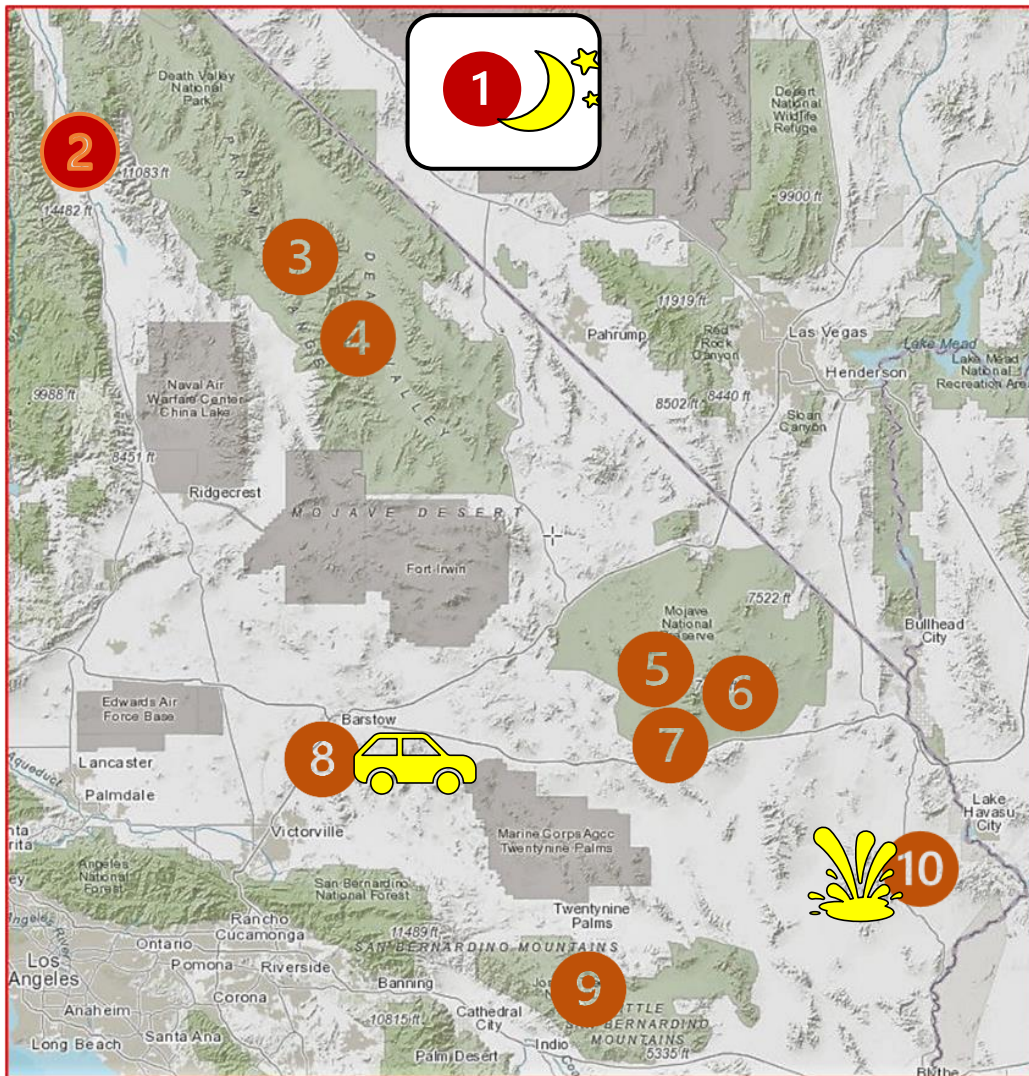
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TEN POINTS OF INSPIRATION in and around the NATIONAL PARKS of CALIFORNIA'S MOJAVE DESERT

DEATH VALLEY NATIONAL PARK • MOJAVE NATIONAL PRESERVE
JOSHUA TREE NATIONAL PARK • NATIONAL MONUMENTS • ENVIRONS



*Places where people have made a difference —
showing us how we can build a more just and
sustainable future*

BY TED TRZYNA

MAP ON TITLE PAGE: Diagonal line is the California-Nevada boundary. At bottom left: Los Angeles and the Pacific Ocean. Distance across the map is about 200 miles.

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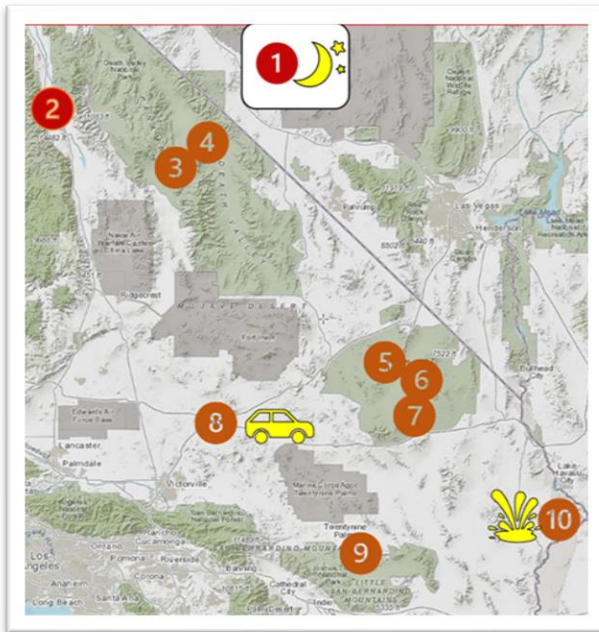
VISITING THE MOJAVE

This is not designed to be a travel guide, although most places described in it are open to visitors. Information about access is included in each essay, usually just below the main heading. The websites listed there provide details and contacts for information about current conditions.

Please note: Although most lands on the Mojave Desert are open to the public, there are general rules to follow and specific regulations for protected areas such as national parks, national monuments, and wilderness areas. Restrictions on entering military lands, which include the large grey areas on the map, are strictly enforced. As indicated in the essays some locations are private homes whose residents must not be disturbed, or research stations where access requires advance permission.

The website of the Mojave Desert Land Trust has guidance for visitors including Desert Safety Tips: <https://www.mdlt.org/discover-learn/you-are-here/desert-safety-tips>.

CONTENTS



Visiting the Mojave 2 How people have made a difference 4
Introduction 5
In the background: A triad of global crises 7
Natural Neighbors and project sponsors 7

THE TEN SITES

1. The desert at night 8
2. Mary Austin's Home 10
3. Where the lost Death Valley '49ers camped and where they found help 12
4. The "Death Valley Suite" 14
5. The Mojave National Preserve 16
6. The Granite Mountains Desert Reserve 18
7. Grinnell's surveys on the desert 20
8. The Mother Road: Route 66 22
9. Joshua Tree National Park and the Oasis of Mara 24
10. The Colorado River 26

OUTLIERS

- A. Arizona-Sonora Desert Museum, Tucson, Arizona 28
- B. California Botanic Garden, Claremont 29
- C. Huntington Botanical Gardens, San Marino 30
- D. The Living Desert Zoo and Gardens, Palm Desert 30

AFTERWORDS

- A personal note 31
Learn more 32 Sources 32

How people have made a difference

In this series we tell stories about places we call Points of Inspiration that can serve as beacons to inspire people to do whatever they can for greater justice and sustainability. The inspiration can take many forms and isn't always obvious. Many examples could be given from the cases we describe; here are just a few:

Persevering

The conservation volunteers who succeeded in creating the 1.6 million acre Mojave National Preserve by going about their task systematically, sticking with it for decades, and refusing to be discouraged by setbacks (page 16).

Standing up for human rights

Mary Austin never forgetting how people were mistreated in the towns where she lived in the Owens Valley — women, Indians, immigrants, miners — and using the fame she gained as an author to press for human rights in books, articles, and public lectures (10).

John Steinbeck writing a powerful story about the neglect and abuse of dust bowl migrants because he wanted to put a “tag of shame” on those responsible. His bestselling novel and the award-winning film based on it changed attitudes and led to reform (22).

Being kind to strangers

The “kind acts and great good will” shown by the López family to the ‘49ers who stumbled into their rancho after a 250-mile walk from Death Valley (13).

Using personal wealth for public benefit

Annie Alexander supporting Joseph Grinnell’s museum with anonymous gifts of millions of dollars over forty years (21); Minerva Hamilton Hoyt funding the campaign to create what became Joshua Tree National Park (24); and Arthur Pack bankrolling the Desert Museum (28).

Drawing on the power of literature, music, art, drama, and film

Writers John Steinbeck (8 and 22) and Mary Austin (10), composer Ferdi Grofé (14), photographer-painter Stephen Willard (25), actors Jimmy Stewart (14) and Henry Fonda (23), director John Ford (23), screenwriter Nunnally Johnson (23).

Thinking long term

Joseph Grinnell writing in 1910 that the value of his detailed surveys of California’s natural world would not “be realized until the lapse of many years, possibly a century” (20).

INTRODUCTION

We have something to ask of you

We want you to enjoy our stories, but we have something to ask.

Our purpose in writing about Points of Inspiration is to encourage people to do whatever they can to move the world, or at least their part of the world, toward greater justice and sustainability.

So, as you read the stories, think of what you can do in your part of the world: In your town, city, state, or country. In your profession. In your family and group of friends. In associations you belong to or could join.

The stories we tell

In this booklet we tell true stories about ten places and the people, events, and ideas they represent.

The places are within and around national parks and other protected areas. They include the night sky above, an oasis, an isolated mountain range, cabinets full of well-preserved dead animals (or rather the places where the specimens came from), a house, a highway, a river, a campsite, an unlikely concert venue, and massive areas of wild desert land.

The people include writers, a composer of symphonic music, Californio rancheros, gold-seekers, political activists, scientists, and innkeepers.

Among the values they stand for are human rights, fairness and harmony among people, valuing and conserving nature, exploration, understanding that emotion can be just as important as reason in human behavior, and realizing that everyone and everything is interconnected.

Our perspective

Although we look for positive stories, our point of view isn't optimism but hope. What's the difference? Optimism is the belief that the world is changing for the better; hope is the belief that, together, we can make the world better. The opposite of hope is hopelessness.

Here's our reasoning:

- The world is full of people with moral courage, kindness, and generosity, people who act on their convictions.
- Unfortunately, we hear a lot more about cruelty, hate, and injustice, and our memories keep such negatives at least twice as long as positives.
- More than ever the world needs hope. Hope isn't passive; it's a human

survival trait. Hope is thinking about the future, expecting that desired events will happen and acting in ways believed to make them more likely. The action part is essential.

- Although hope is about the future, grounds for hope lie in the record and recollections of the past.

Other points of view

We look at the positive side of things and have a purpose in doing so. We understand there are other points of view.

Places that stand for positive values can have downsides. If you want to know more about the places, people, ideas, and events we describe you can start with the books and websites listed in the project website, <https://NaturalNeighbors.org> and in the brief essays that follow.

Otherwise, we will let these two quotations speak for us:

The political philosopher Hannah Arendt wrote: "We can no longer afford to take that which was good in the past and simply call it our heritage, to discard the bad and simply think of it as a dead load which by itself time will bury in oblivion." (*The Origins of Totalitarianism*, 1951)

On the other hand, this can go too far. Former U.S. President Barack Obama said in a 2019 speech, "I do get a sense sometimes now among certain young people, and this is accelerated by social media, that the way of me making change is to be as judgmental as possible about other people and that's enough. That is not activism, that is not bringing about change," he said. "The world is messy. There are ambiguities. People who do really good stuff have flaws."

In the background: A triad of global crises

As we explain in the introduction the ten essays that follow are meant to encourage people to do whatever they can to promote justice and sustainability. In the background is a triad of unprecedented and interdependent global crises that pose an existential threat to nature, people, prosperity, and security:

- Climate change
- Loss of biological diversity
- Effects on human health due to biodiversity loss, including more risk of pandemics of emerging infectious diseases

The stories we tell aren't necessarily connected directly to dealing with climate change and biodiversity loss; rather they're about the basic human values that motivated those involved, and the "how" of moving thoughts into action rather than the "what."

Visit <https://NaturalNeighbors.org> for links to reliable information about the global crises and what can be done about them.

About the project and its sponsors



Ten Points of Inspiration is part of the Natural Neighbors Project.

What we call Natural Neighbors are national parks, historic sites, museums, zoos, botanic gardens, and similar places. We encourage those responsible for them to cooperate in engaging with the public, including on solutions to climate change and biodiversity loss, and with stories showing how individual people and small groups can make a difference. Go to <https://NaturalNeighbors.org> for details.

Natural Neighbors is a project of InterEnvironment Institute in cooperation with the World Commission on Protected Areas of IUCN, the International Union for Conservation of Nature. Major support has been provided by the Santa Monica Mountains Conservancy of the California Natural Resources Agency and the Mountains Recreation and Conservation Authority.

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1. The desert at night

"The great concepts of oneness and of majestic order seem always to be born in the desert"

John Steinbeck, one of California's Nobel laureates in literature, wrote this about the Mojave Desert: "At night in this waterless air the stars come down just out of reach of your fingers.



In such a place lived the hermits of the early church piercing to infinity with uncluttered minds. The great concepts of oneness and of majestic order seem always to be born in the desert. The quiet counting of the stars, and observation of their movements, came first from desert places."

These words are from his *Travels with Charley: In Search of America* (1962).

Like many thoughtful people who have spent time in the Mojave, Steinbeck was of two minds about it. In this book and in his novel *The Grapes of Wrath* (1939) he calls the Mojave Desert "frightening" and "terrible," a "wasteland." But he has great respect for the organisms that live there. He writes in *Travels* that the desert "is a good school in which to observe the cleverness and the infinite variety of techniques of survival under pitiless

opposition. Life could not change the sun or water the desert, so it changed itself."

Light pollution is a problem in the Mojave Desert. Streetlights, car headlights, brightly lit signs, and other kinds of artificial outdoor light not only interfere with astronomy and enjoyment of the stars, but most desert animals are nocturnal: Light pollution affects their migration patterns, predator-prey relationships, and circadian rhythms.

The United States National Park Service explains: "Light scattered through the atmosphere brightens the night sky, causing stars and faint objects to be rendered invisible due to the reduced contrast. Light pollution also prevents the human eye from fully dark-adapting and reaching its maximum sensitivity. Sometimes, the more light there is at night, the less we can see."

Light pollution takes two forms: Sky glow, also known as fugitive light, is the brightening of the night sky from human-caused light scattered in the

atmosphere. Glare is the direct shining of light into our field of vision that prevents our eyes from adapting to the dark. Light trespass is light shining where it isn't needed.

NPS continues: "Both of these forms can impact human perception of the night sky, natural landscapes, and other faint features of the night. Light pollution tends to be most acute in urban environments, where glare can result in light trespass, have pronounced ecological effects, and potentially influence human circadian rhythms.

"However, in a remote or otherwise dark environment, the eye adapts to the ambient light level and its sensitivity increases. This results in visual impacts from light pollution being perceived at long distances. Even though the aggregate city light seen from a remote park 50 miles away would seem quite dim to a city-based observer, it is enough to cast obvious shadows and impede visibility for a park-based observer."

A growing movement led by astronomers and conservationists is promoting ways of cutting back light pollution. The U.S. National Park Service's Night Skies program has been a leader globally among public agencies. Its website is full of scientific and technical information about light pollution: <https://www.nps.gov/subjects/nightskies/index.htm>. The International Dark-Sky Association has certified Death Valley and Joshua Tree national parks as International Dark-Sky Parks: <https://darksky.org>.



THE MOJAVE DESERT AT NIGHT

ABOVE: The Milky Way seen from the floor of Death Valley. BELOW: In floodlight: Mountain lion (Puma concolor), Townsend's big-eared bat (Crownophanes townsendii). In ultraviolet light: Mojave Desert sidewinder rattlesnake (Crotalus cerastes cerastes).

2. Mary Austin's Home

253 Market Street, Independence, Inyo County. Private residence; do not disturb. Nearby at 155 N. Grant Street, is the Eastern California Museum.

She wrote books and used her fame to champion the rights of women, Indians, and immigrants

A writer best known for *The Land of Little Rain*, about people and nature in the Owens Valley, Mary Hunter Austin (1868-1934) was also an activist who championed women's rights and better treatment of Native Americans, immigrants, and small-scale farmers.

She and her husband Stafford Wallace Austin designed and built the house in Independence (at right) and lived in it from 1892 to 1903. There and in other small towns where they lived in the Owens Valley, Mary was considered eccentric for visiting with Indian women who taught her how to weave baskets and with Mexican women who showed her how to cook with Chile peppers. She would sit and talk with men who suffered from lead poisoning, "miners' rot." Once she was called on by a delegation of local white matrons who asked her why she took part in Indian dances and, worse, why she gave a cake to a Chinese immigrant laundryman for Chinese New Year.



Mary Austin (photo is from 1900) wrote more than thirty books. In *California Classics* (1971) the UCLA Librarian and literary critic Lawrence Clark Powell admires Austin's life and work but says her first book, *The Land of Little Rain* (1903) is her best, "a perfect conjunction of life, landscape, and literature." In a 1950 edition illustrated with his photographs Ansel Adams comments: "No writing to my knowledge conveys so much of the spirit of earth and sky, of plants and people, of storm and the desolation of majestic wastes, of tender, intimate beauty, as

does *The Land of Little Rain*." Here is a key passage from the book:

"If one is inclined to wonder at first how so many dwellers came to be in the loneliest land that ever came out of God's hands, what they do there and why stay, one does not wonder so much after having lived there. None



THE GRABEN: The Owens Valley and the eastern escarpment of the Sierra Nevada, looking southwest from the Inyo Mountains. The Owens, 120 miles long, is the deepest valley in the United States. In geological terms it is a graben, a valley with a distinct escarpment on each side caused by the displacement of a block of land downward between two parallel faults. (Death Valley, pages 12-16, is also a graben.) Biologically the Owens Valley south of Tinemaha Reservoir (pictured) can be considered part of the Mojave Desert.



other than this long brown land lays such a hold on the affections. The rainbow hills, the tender bluish mists, the luminous radiance of the spring, have the lotus charm. They trick the sense of time, so that once inhabiting there you always mean to go away without quite realizing that you have not done it."

Austin did go away from that "long brown land," but what she saw, heard, and felt there never left her. In 1905 she parted from her husband and lived in the artists' colony in Carmel, in New York, Paris, London, and elsewhere, finally settling in Santa Fe, New Mexico. She befriended writers like Jack London, Sinclair Lewis, Rebecca West, George Bernard Shaw, and Joseph Conrad. She was close to Lou Hoover and her husband the future President Herbert Hoover.

She became one of the leading public intellectuals of her time. In books, articles, and public lectures she advocated women's suffrage, stood up for the rights of Native Americans and immigrants, and opposed the taking of Owens Valley water by the City of Los Angeles. In *Mary Austin and the American West* (2008) Susan Goodman and Carl Dawson conclude that Mary Hunter Austin really believed all the ills of the world could be cured.

She deserves to be better remembered, for her activism as well as her writing.



MOUNT MARY AUSTIN: One of the few mountains in the Sierra Nevada named for a woman is Mount Mary Austin, a 13,051-foot peak west of Independence. Its neighbors include peaks named after such other important California cultural figures as Cedric Wright, who was Ansel Adam's photography mentor and best friend, and William Keith, landscape painter and friend of fellow Scot John Muir.

3. Where the lost Death Valley '49ers camped and where they found help

“Kind acts and great good will were given freely because we were fellow human beings”

Nothing remains of the Long Camp. The site is marked by a sign along West Side Road (dirt) 16 miles south of Badwater Road in Death Valley National Park. Likewise, the López rancho house is long gone. The site is marked by a monument on the corner of The Old Road and Henry Mayo Drive in an unincorporated part of Valencia in Santa Clarita.

At this spot in late 1849 a group from the Middle West led by Isabel Bennett and J.B. Arcane were stranded for a month and almost died from starvation. They were looking for a shortcut to the Northern California goldfields and lost their way. The place became known as the Bennett-Arcane Long Camp and the desert basin became known as Death Valley.



Aerial view of Death Valley. Distance across area shown in photo is about 15 miles.

Flag indicates location of the Long Camp. Star indicates Badwater, lowest point in North America at 282 feet below sea level. White areas are salt beds. The valley has no outflow.

To get help, William Lewis Manly and John Rogers, young members of the party, walked 250 miles across the desert to Rancho San Francisco in present-day Santa Clarita.

Without question Manly and Rogers were true heroes, and a lot has been written about them and what they faced along the way.

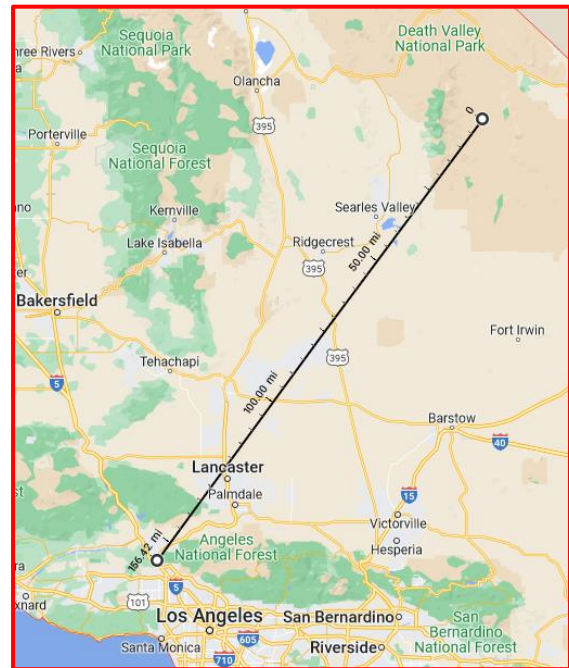
Less attention has been given to how they were received by the Californios (Mexican settlers) they met and stayed with, and what was going on in California at the time.

This was in January 1850. The treaty ending the Mexican-American War had been signed in February 1848 and California was now part of the United States, governed by the U.S. Army; it would not become a state until September 9 of that year. While the Gold Rush was happening in the North, the main concerns of Californio landowners in the South were coping with a drought and Indian raids on their cattle and horses. They faced an uncertain future under their new rulers. They kept their Californio identity, and some of their descendants do so to this day.

Map: Line shows distance between the Long Camp and the rancho (156 miles). The actual route walked was around 250 miles each way.

It was into this situation that Manly and Rogers, exhausted American gold-seeking emigrants not sure of where they were, stumbled into Rancho San Francisco. Its owners, the prominent López family, provided them with supplies, horses, and mules. The two men lost no time in returning to Death Valley to lead the rest of the party back to the safety of the rancho.

Late in life Manly wrote a memoir, *Death Valley in '49* (1894). Here is a little of what he said, unedited, about their hosts. He and Rogers had been given sleeping quarters in a storeroom.



In the morning a woman “came and gave us each a pancake and a piece of meat, also another piece of roasted squash, for our breakfast, and this, we thought, was the best meal we had ever eaten. The lady tried to talk to us, but we could not understand the words, and I could convey ideas to her better by the sign language than any other way.” She asked how many children they had left behind in Death Valley. “I answered by holding up four fingers, and she almost cried, opening her mouth in great surprise, and turned away....

“After a while the woman came again and tried to talk and to teach us some words of her own language. She placed her finger on me and said *ombre* and I took out my little book and wrote down *ombre* as meaning man, and in the same way she taught me that *major* was woman; *trigo*, wheat; *frijoles*, beans ... and several other words in this way. ...

“Such friendly, human acts shown to us strangers, were evidences of the kindest disposition. I shall never forget the kindness of those original Californians. ... We were human beings in distress, and we represented others who were worse even than we, and those kind acts and great good will were given freely because we were fellow human beings.”

As Manly and Rogers were leaving for Death Valley, “the good lady ... came out with four oranges and pointed to her own child and then to the East, put them in the pack meaning we should carry them to the children. With a hearty goodbye from them, and a polite lifting of our hats to them we started on our return, down toward the gentle decline of the creek bottom, and then up the valley, the way we came.”



4. The “Death Valley Suite”

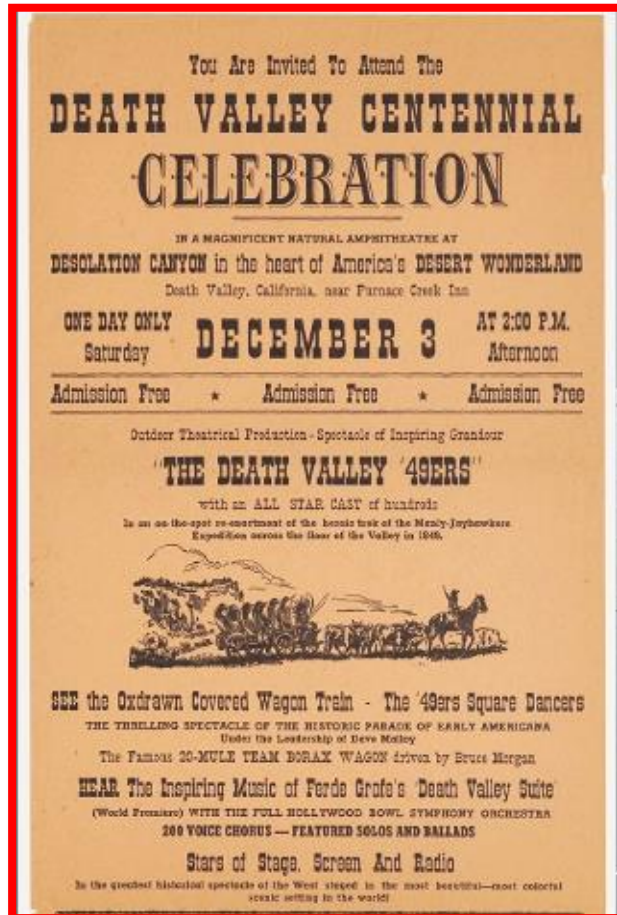
Its composer captured the feeling of a time and place to pass it on to future generations

Desolation Canyon in Death Valley, off Bad water Road, 3.7 miles south of SR 190. Short dirt road ends at the trailhead. There are no remnants.

On December 3, 1949, in front of an audience of 65,000, the then well-known composer Ferde Grofé conducted the Hollywood Bowl Orchestra in the première of a piece he created for the occasion.

This wasn't at the Hollywood Bowl or any other urban venue; in any case the Bowl's record attendance was only 26,410. The concert was held in Death Valley as part of a one-time “spectacle of inspiring grandeur,” and the piece was Grofé's *Death Valley Suite*.

How did this happen, and why?



When World War II ended in 1945, the country gladly shifted its attention to domestic matters. In California, a series of hundred-year anniversaries were coming up in 1948, 1949, and 1950: the discovery of gold, the Gold Rush, and statehood. In 1946, the state government set up the California Centennials Commission, gave it some money, and asked for ideas.

Of all the Centennial events held in those three years, the most elaborate was the one in Death Valley. It was sponsored by the Death Valley '49ers, a group still active in celebrating and preserving the region's history. We can imagine its leaders coming together in 1946 and deciding to do something big: a pageant about the '49ers who came through Death Valley with a famous actor as narrator, a famous orchestra, a piece of music created by a famous composer, and so on.



They pulled it off. The Oscar-winning actor James Stewart was recruited as narrator. The full 86-member Hollywood Bowl Symphony Orchestra was retained. Ferde Grofé was commissioned to compose the music. A narrator's stand, structures for the orchestra and a chorus, and bleachers with seating for 6,000 were built in the barren canyon chosen for the venue, quite a logistical challenge.

Everything came together on the afternoon of Saturday December 3 in Desolation Canyon (above left), a few miles south of the park village. The audience of 65,000 far surpassed what was planned for. The few roads leading into Death Valley were jammed with traffic and the parking lot quickly overflowed. People climbed or drove to higher ground to get a view.

The pageant started at around 2 pm. As a procession of covered wagons entered the scene, Ferde Grofé conducted the orchestra in his *Death Valley Suite*. Seventeen minutes long, it has four movements: Funeral Mountains, '49er Emigrant Train, Desert Water Hole, and Sand Storm.

In the world of classical music, this is a "programmatic" composition that tells a story, as opposed to an "abstract" one. Some thought it corny. Using a wind machine in the fourth movement may have gone a little too far, but Grofé has lots of company among composers of programmatic music. Think Bach and Beethoven, as well as Aaron Copeland and his *Lincoln Portrait* and *Appalachian Spring*.

Grofé had become famous for composing the *Grand Canyon Suite*, first performed in 1931 by Paul Whiteman and His Orchestra (in Chicago), and then used in Walt Disney's 1958 film *Fantasia*. Its third movement, On the Trail, imitates the clapping hooves of mules. He was also known for orchestrating George Gershwin's *Rhapsody in Blue*, in 1924.

The only tangible legacy from the Centennial event in Death Valley is a fine piece of music that evokes the spirit of that special place. The *Death Valley Suite* is still performed, and recent recordings are posted on YouTube.

We can imagine an intangible legacy as well. As they joined the long lines of cars and buses leaving the valley into the cold December dusk, thousands of people had time to reflect on what they had just experienced. No doubt many of them went away with admiration for the '49ers' heroism, an appreciation of the desert landscape, and perhaps a closer identification with California's distinctive character and promise. Stories like these are passed on to children and grandchildren. The details may be lost over time, but the emotions remain.

5. Mojave National Preserve

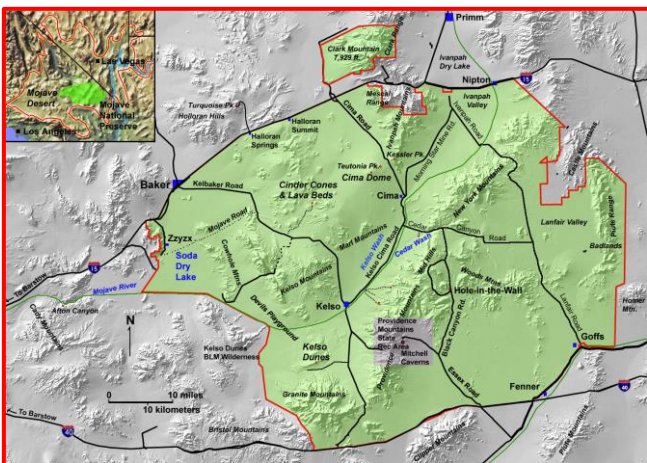
A momentous achievement by a small group of dedicated conservation volunteers

*The preserve itself covers 1.6 million acres of the California Mojave Desert between Interstates 15 and 40 and the Nevada state line. <https://nps.gov/moja>. Adjacent or connected to the preserve are three protected areas created more recently; see *The New National Monuments*, below.*

A lot of people had a hand in protecting the last large area of wild land left in California, but it wouldn't have happened without decades of careful field studies and tenacious lobbying by a small group of volunteer conservation leaders. This is not at all unusual; in fact, so-called "volunteers" are the main reason California's conservation movement has been so successful. In this case, however, the story was told in detail by prominent Los Angeles attorney Frank Wheat in his book *California Desert*

Miracle (1999), based on his own participation and interviews with dozens of others.

The term "conservation volunteer" can be used as a put-down implying lack of professional qualifications but it should never be used that way. Conservation volunteers are simply people who contribute their time to an organization without being paid for it. They may do so as part of their day jobs or have day jobs that allow



them to use their skills and pursue their concerns and ambitions in the conservation arena. In this case they included among others Judy Anderson, a Los Angeles high school teacher; Peter and Joyce Burk, social workers with the county welfare department in Barstow; Bill Holden, an Orange County aerospace engineer; and Lyle Gaston, a UC Riverside entomologist.

Mojave National Preserve was created as part of the National Park System by the California Desert Protection Act of 1994. It was a momentous achievement. In the words of James Andre, Director of the adjacent Granite Mountains Reserve (see page 18): "Unpopulated, and still unfragmented by development, the MNP lies in the heart of the eastern Mojave Desert, an area of global significance, as it represents perhaps the largest intact ecosystem in the United States outside of Alaska."

A few highlights: Rock art at sixty-five sites includes petroglyphs dating from around 5000 BCE created by ancestors of the Mojave and Chemehuevi people who lived in the area in modern times.

The largest and densest forest of Joshua trees (*Yucca brevifolia*) occurs in the preserve. In summer 2020 a lightning-caused wildfire destroyed about a quarter of the forest, an estimated 1.3 million trees. Scientists predict the burned area will eventually become a grassland savanna with widely spaced Joshua trees and junipers.

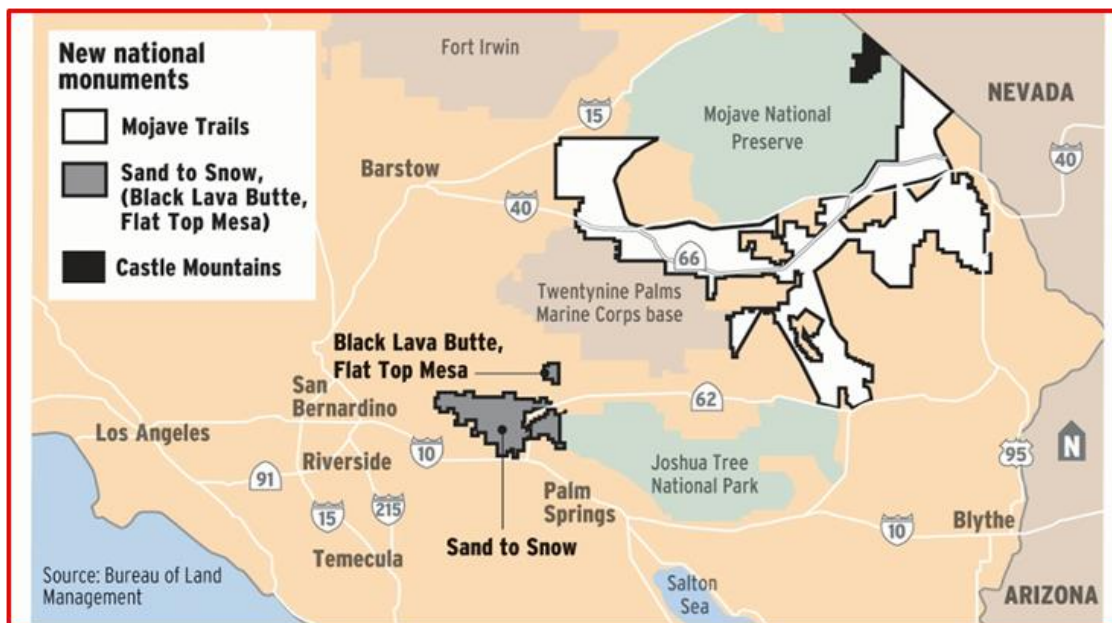


The highest peaks here, in the Clark and New York mountains, are "sky islands" where climate change has led to white fir (*Abies concolor*) and other heat-sensitive plants and animals retreating to cooler and wetter elevations.

Gila monsters, the largest lizard and the only venomous one native to the United States, are thought of as an Arizona species, but one of two subspecies, the foot-long banded Gila monster (*Heloderma suspectum cinctum*), above, is found in the Clark and Providence mountains.

>> The New National Monuments

Mojave National Preserve was extended, in effect, when in 2016 President Barack Obama created three new national monuments using his authority under the Antiquities Act of 1906: Mojave Trails (1.6 million acres), administered by the U.S. Bureau of Land Management; Sand to Snow (154,000 acres), divided between BLM and U.S. Forest Service lands; and Castle Mountains (21,000 acres), part of the National Park System. Beige areas on the map are other BLM lands, most of it designated wilderness.



6. Granite Mountains Desert Reserve

Ken Norris knew the place, he imagined its potential, and he seized the opportunity

Eighty miles east of Barstow, next to the Mojave National Preserve. Access is by advance permission for research and teaching, but not general recreation. Information: <https://granite.ucnrs.org>. Similar areas in the adjacent preserve are open to the public.

Without Ken Norris taking the initiative at the right time this extraordinary place probably wouldn't have been preserved as a natural laboratory.

The 9,000-acre Granite Mountains Desert Reserve is adjacent to the Mojave National Preserve. Among the mountain ranges of the Mojave Desert the relatively small and compact Granites (photo below) have an unusual diversity of elevation, ranging from extensive dunes at about 2,200 feet to the highest peak at 6,738 feet. They also have exposures in all directions —



North, East, South, West — so there are both elevation-related and exposure-related variations in plants, animals, and geologic processes.

Kenneth S. Norris (1924-1998) was a zoology professor at UCLA and then UC Santa Cruz. He led the effort to create what became the University of California Natural Reserve System, starting with seven reserves in 1965 and growing into what is now the world's largest university-

administered natural reserve system. The system's 41 reserves amount to a "library" of California ecosystems maintained for university-level teaching, research, and public service. The UC reserve system has sister sites in the Atacama Desert of Chile, the Namib Desert in Namibia on Africa's Atlantic coast, and Baja California Sur, Mexico.

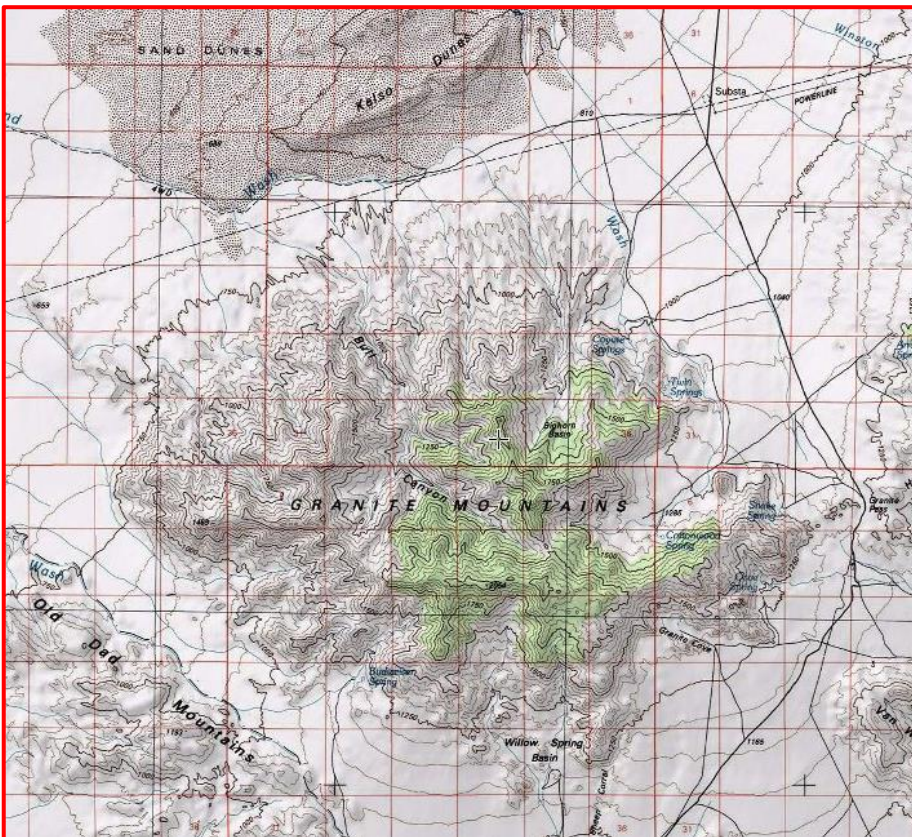
In the Granite Mountains, Ken Norris and his academic colleagues started holding field courses in the 1960s and became convinced it should become a UC reserve. In October 1974, Norris submitted a formal proposal, going into detail about the area's "relatively untouched"

character and “unusual biotic diversity.... All in all, it represents a remarkably fine potential natural laboratory that could sustain research and teaching on Mojave Desert processes into the indefinite future. For these purposes, generations of scientists and students from many other parts of the world will come to work there.”

The University’s Board of Regents approved acquisition of the new reserve in January 1978. It now has resident staff, housing, classrooms, and laboratory space, but its main asset is the quality of a natural area that is “pristine, wild, and expansive ... within a region of unparalleled biological and geological diversity in California.” In 2003 it was named the Sweeney Granite Mountains Desert Reserve in honor of Jack and Marilyn Sweeney, major donors.

The reserve offers guided tours and field trips for public and non-profit groups, cooperates closely with Mojave National Preserve, and offers advice to governmental agencies in the region on land management and conservation.

In memory of Ken Norris a central coast site in the UC Natural Reserve System has been named the Kenneth S. Norris Rancho Marino Reserve.



Topographic map showing the separateness of the Granite Mountains (map is about 14 miles across).

Grinnell's surveys in the desert

A century later his field studies have become a "gold mine" of data for climate change research

Archives and collections: Museum of Vertebrate Zoology, University of California, Berkeley. <https://mvz.berkeley.edu/Grinnell>. Also: <https://bnhm.berkeley.edu/about/origins>.

Joseph Grinnell's Yosemite transect is the best known of the surveys of California wildlife he carried out with his UC Berkeley faculty colleagues and students, but he and his team conducted surveys in other parts of California including in areas now protected in Death Valley and Joshua Tree national parks and Mojave National Preserve.

In 1908 Grinnell, a Stanford-trained field biologist, was chosen to be director of UC Berkeley's Museum of Vertebrate Zoology by its founder and benefactor Annie Montague Alexander. He remained in that post until his passing in 1939. Alexander, an explorer and Hawaiian sugar heiress, saw that California's natural environment was changing rapidly and wanted a research-oriented natural history museum comparable to those on the East Coast.

From its founding until 1945, the Museum of Vertebrate Zoology documented and collected mammals, birds, amphibians, and reptiles from over 700 locations on multiple transects spanning the environmental diversity of California.

Grinnell and his colleagues pioneered with the idea that organisms should be studied in relation to their natural environments, something that seems obvious today. This is carried out by cross-referencing specimens with items in an archive of field notes, journals, maps, photos of habitats, and sound recordings.

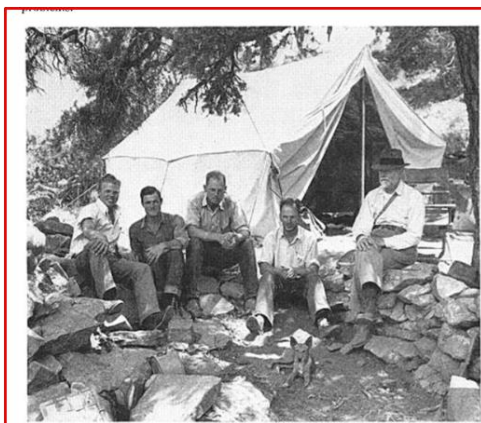


Fig. 11. Camp in the Providence Mountains on June 1, 1938. From left to right, Aldrich, Arvey, Johnson, Rodgers and Grinnell.

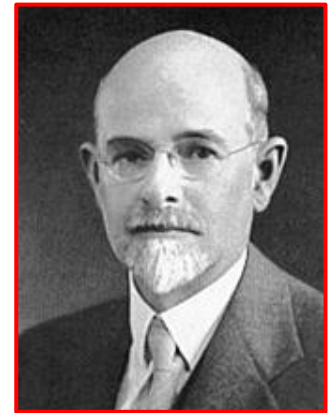
Grinnell (at right with hat) with his team at camp in spring 1938 in the Providence Mountains, now protected in Mojave National Preserve.

The numbers are extraordinary: animal specimens number over 100,000 and there are 74,000 pages of field notes and 10,000 images.

In an article in *Popular Science Monthly* in 1910, Grinnell described the museum and then wrote, "At this point I wish to emphasize what I believe will ultimately prove to be the greatest value of our museum. This value will not, however,

be realized until the lapse of many years, possibly a century, assuming that our material is safely preserved. And this is that the student of the future will have access to the original record of faunal conditions in California . . ."

Grinnell (at right) was prescient. Because the surveys were made before the onset of accelerated human-caused climate change they have been called "a potential gold mine for investigations of species' responses to climate change, changes in human land use, and other stressors."



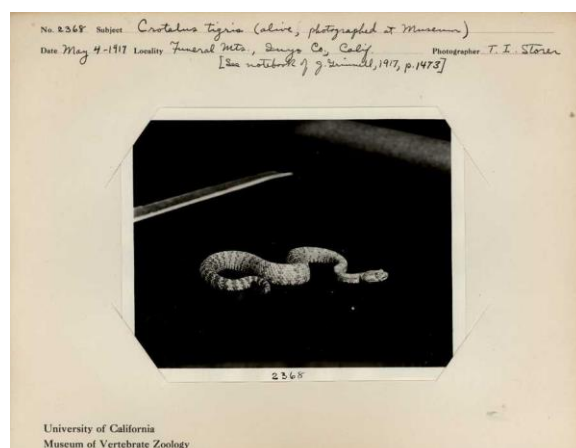
In 2004 as the museum approached its centennial, it launched the Grinnell Resurvey Project, which builds on the ground-breaking work of Grinnell and his colleagues. Museum faculty, students, and collaborators are revisiting his sites to see how animal species have responded to environmental change and establish another thoroughly documented benchmark for future comparison. Priority has been given to the fauna of the California deserts, "where climate change has been intense."

In 1908 Annie Alexander had a vision. She had inherited a fortune and wanted to put it to good use. She wanted California to have a natural history museum devoted to understanding its native animals and their habitats, she wanted it based at a major public university, and she knew who she wanted to run it. Joseph Grinnell led UC Berkeley's Museum of Vertebrate Zoology until he passed on 30 years later. Annie Alexander continued to give it major funding (always anonymously) until her passing 40 years later.

EXAMPLES OF DATA CARDS IN ARCHIVES OF THE MUSEUM OF VERTEBRATE ZOOLOGY

Left: "Kit fox (in life), Kelley's Well, Amargosa River, Inyo County, April 2, 1917."

Right: "Crotalus tygris (alive, photographed at Museum), May 4, 1917, Funeral Mountains, Inyo County." [Probably a Panamint rattlesnake, Crotalus stephensi, made a separate species in 2007. Note the venomous snake was taken to the museum in Berkeley.]

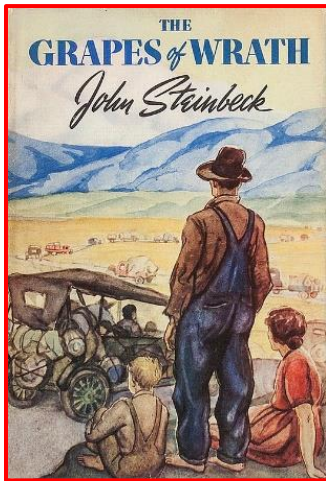


8. The Mother Road: Route 66

Once the “road of flight” from poverty, it became a symbol of optimism and freedom of the open road

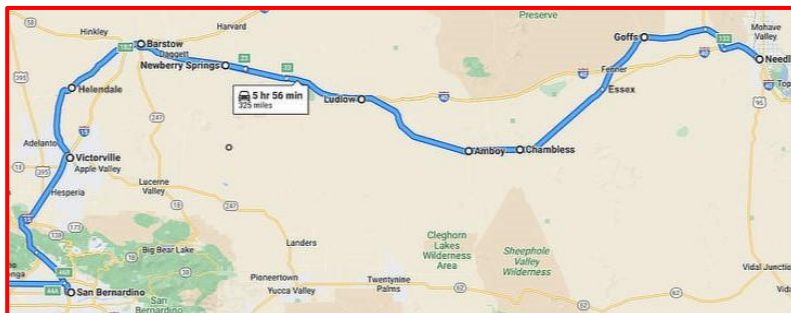
National Park Service Route 66 Corridor Preservation Program:
<https://ncptt.nps.gov/rt66>.

John Steinbeck named it. In *The Grapes of Wrath* (1939), he writes: “66 is the mother road, the road of flight. ... Arkansas ... Texas ... Oklahoma ... New Mexico ... Arizona ... Then out of the broken sun-rotted mountains of Arizona to the Colorado, with green reeds on its banks, and that’s the end of Arizona. There’s California just over the river, and a pretty town to start it. Needles, on the river. But the river is a stranger in this place. Up from Needles and over a burned range, and there’s the desert. And 66 goes on over the terrible desert, where the distance shimmers and the black center mountains hang unbearably in the distance. At last there’s Barstow, and more desert until at last the mountains rise up again, the good mountains, and 66 winds through them. Then suddenly a pass, and below the beautiful valley, below orchards and vineyards and little houses, and in the distance a city. And, oh, my God, it’s over.”



U.S. Highway 66, known as Route 66, was the first all-weather highway linking Chicago and Los Angeles. It was dedicated in 1926 and decommissioned in 1985 when Interstate 40 took its place. Historic Route 66 from Needles to Barstow was designated a National Scenic Byway in 2021. The National Park Service has had a Route 66 Corridor Preservation Program since 1999.

Route 66 was a dustbowl migration route in the 1930s and became a strategic military highway during World War II. The Park Service describes what happened after the war: “Route 66 symbolized the new optimism that pervaded the nation’s postwar economic recovery. For thousands of returning American servicemen and their families, Route 66 represented more than just another highway. ‘It became,’ according to one



Historic Route 66 across California's Mojave Desert.

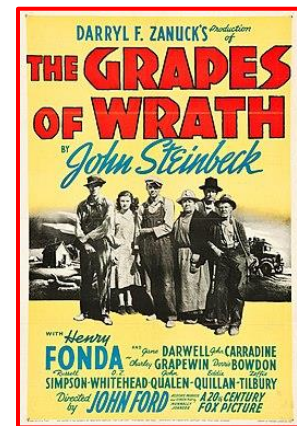
contemporary admirer, 'an icon of free-spirited independence.' In recent years Route 66 — imaginatively documented in prose, song, film, and television — has come to represent the essence of the American highway culture to countless motorists who traversed its course during the more than fifty years of its lifetime."

"I'll be there"

Back to John Steinbeck and *The Grapes of Wrath*: It was the best-selling book of 1939. Steinbeck won a Pulitzer Prize for it and the National Book Award, and it was cited prominently when he was awarded the Nobel Prize for Literature in 1962.

A movie based on the book, directed by John Ford, and starring a young Henry Fonda, came out in 1940 and is included on many lists of the best films ever made.

Steinbeck wrote the novel because, he said, "I want to put a tag of shame on the greedy bastards who are responsible for this [the Great Depression and its effects]." This comes out powerfully at the end of the movie. The dialogue in Nunnally Johnson's screenplay closely follows the novel's. The Joad family has made it in their jalopy from Oklahoma across the Mojave Desert, first to a dangerous shantytown, then to a well-run federal migrant camp near Bakersfield. In a skirmish Tom Joad kills a man in self-defense, the police are looking for him, and he is about to run off. His mother asks him how she would know if the cops killed him.



- Tom Joad: "... A fellow ain't got a soul of his own, just little piece of a big soul, the one big soul that belongs to everybody, then..."
- Ma Joad: "Then what, Tom?"
- Tom Joad: "Then it don't matter. I'll be all around in the dark – I'll be everywhere. Wherever you can look – wherever there's a fight, so hungry people can eat, I'll be there. Wherever there's a cop beatin' up a guy, I'll be there. I'll be in the way guys yell when they're mad. I'll be in the way kids laugh when they're hungry and they know supper's ready, and when the people are eatin' the stuff they raise and livin' in the houses they build – I'll be there, too."

The book and the film raised national awareness about rural poverty and migrant workers and led to action: First Lady Eleanor Roosevelt read the book, went to see for herself the living conditions in labor camps, and publicly defended the accuracy of Steinbeck's depictions. Congress held hearings and enacted reforms in federal labor law. There was much more to be done, but it was a good first step.

9. Joshua Tree National Park and the Oasis of Mara

- **A socialite convinces FDR to create a grand desert park**
- **Indigenous tribes reestablish their ancestral connections to a special place**

Park Headquarters, National Park Drive, Twentynine Palms. <https://www.nps.gov/jotr>. Main visitor centers are in downtown Twentynine Palms and the Village of Joshua Tree.

Minerva Hamilton Hoyt, almost always described as a “socialite from South Pasadena,” convinced President Franklin Delano Roosevelt in 1936 to create a national monument that eventually became Joshua Tree National Park. She is pictured here in a mural at park headquarters.



The 794,000-acre park protects a mountainous transition zone between the Mojave and Sonoran deserts that includes extensive stands of western Joshua trees (*Yucca brevifolia*), oases of native palms (*Washingtonia filifera*), immense boulder formations, and petroglyphs and other evidence of long occupancy by Indigenous people. It has over three million visits a year.

Minerva Hamilton came from an upper-class Mississippi plantation background. She married a wealthy doctor from New York, Sherman Hoyt, and in 1897 they moved to South Pasadena, a separate city which then had fewer than a thousand residents. The 5,000-square-foot house they built in 1901 is still there (below). Minerva immersed herself in Southern California high society and civic causes including the founding of the Los Angeles Philharmonic Orchestra.

She became fascinated with desert plants through gardening and on trips to the California deserts where she saw widespread destruction of Joshua trees and cacti. She organized exhibits of desert plants on the East Coast and in Europe; for a garden show in New York City, she had seven railroad cars of rocks, plants, and sand shipped across the country.





When she decided to focus her energy on creating a large national park in the Little San Bernardino Mountains, she was introduced to President Roosevelt, and FDR's Secretary of the Interior Harold Ickes became an ally. She lobbied them and sent them albums of photos taken by Stephen H. Willard, an accomplished photographer and painter who had a winter studio in Palm Springs and a summer one in Mammoth Lakes (at left is his later work, "Joshua Tree Park," 1944).

Minerva Hamilton Hoyt had social standing, resources, skills, and contacts. She had perseverance, too, and didn't give up until she saw success.

>> Oasis of Mara

Public access via Park Headquarters

A mile-long stand of native palm trees grows here along springs and a pond formed by an earthquake fault. On the west side of the oasis is the 29 Palms Inn, run by the same family since the 1920s; on the east side is the headquarters of Joshua Tree National Park. The oasis (shown in the painting by Chuck Caplinger) was long occupied by Serrano; they were joined by Chemehuevi in 1867. Under pressure from non-Indian settlers, both left by 1913.



In the early 2000s, the Inn was owned and managed by Jane Johansing Grunt Smith, a descendant of its founders, and her husband Paul Francis Smith, an attorney. Paul was appointed to represent innkeepers on a federal desert advisory committee and noticed Indigenous people weren't at the table. In 2003 he invited the federal land management agencies to meet with tribal leaders on the grounds of the Inn at the oasis, a sacred site for the tribes. Then in 2016 Paul's sister Pat Flanagan, a biologist and conservationist, facilitated a Gathering of the Tribes at the Inn as part of the Centennial of the National Park Service. The Gatherings have continued including with sponsorship by the Native American Land Conservancy.

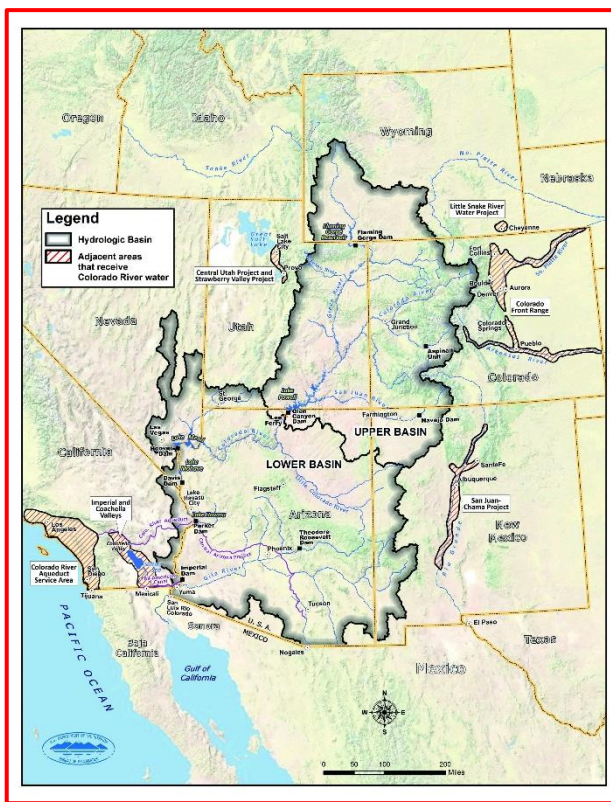
10. The Colorado River

A culture of conflict resolution emerged from a century of disputes

The river forms the boundary between California and Arizona from the southern tip of Nevada to the Mexican border. Along the portion of the river that flows along California's Mojave Desert is Lake Havasu, a large reservoir formed by Parker Dam. Water is drawn from Lake Havasu into the Colorado River Aqueduct, which takes it 250 miles to the edge of metropolitan Los Angeles and an elaborate system for storing water from different sources and delivering it to local areas.

The Colorado River Basin is a prime example of how conflicts over allocation of a scarce natural resource can be resolved through negotiation, diplomacy, and cooperation. However, water is becoming even scarcer in an extended drought made worse by climate change, while population continues to grow in the areas that receive Colorado River water. And in Mexico a natural flow rarely reaches the river's delta.

The Colorado River Basin includes parts of seven states and Mexico, all of which have rights to its water, as do 22 Indian tribes north of the border.



Colorado River Basin (black border). Areas supplied with water from the Basin (red and white hatching). Download map at <https://www.usbr.gov/dcp>.

Distribution of the water is governed by the "Law of the River," an all-encompassing term that describes the interstate compacts, federal laws, court decisions, contracts, regulations, and international agreements that oversee the use and management of the river among the seven basin states and Mexico.

There are two basic documents. The Colorado River Compact is a 1922 agreement among the seven basin states. Arizona withheld its signature and in 1935 after excavation started on the Arizona side for building Parker Dam its

Governor sent state militia to stop it. No shots were fired, but federal officials suspended work on the project for a few months until the issue could be resolved. (Arizona signed the compact in 1944.)

The other basic document is the Mexican Water Treaty of 1944, formally called the treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande. The treaty is overseen by the International Boundary and Water Commission, United States and Mexico (IBWC). Among other things it commits the U.S. to deliver specified amounts of water to Mexico. This is done at Morelos Dam, located a mile downstream from the California-Baja California border.

In a 2011 law review article Robert J. McCarthy, a former senior official of the IBWC, writes that “its friends and critics alike say [the Commission] has become a dangerous anachronism, left behind by twenty-first century social, environmental, and political issues that it is unwilling or unable to address.” But does he propose abolishing it? No, he calls for “radical reform,” including separating diplomatic functions from management of projects on the ground.

These are simplified versions of complex stories. The point is that legal structures and a culture of conflict resolution are in place to help cope with whatever issues arise — and the issues promise to be increasingly difficult.

>> The Colorado River Delta

Conserving the natural ecosystems of the Colorado River delta will be a continuing challenge. The river’s natural terminus is the Gulf of California (Sea of Cortez) in Mexico, but because of the dams and diversions throughout the Colorado River Basin, natural flow rarely reaches the river delta or the Gulf. Water diverted into Mexico at Morelos

Dam is used to irrigate Mexicali Valley farmland and supply the border cities of Mexicali (population 1.2 million), Tecate (109,000), and Tijuana (2.2 million).



The marine part of the Colorado River Delta is included in a World Heritage Site called Islands and Protected Areas of the Gulf of California: <https://whc.unesco.org/en/list/1182>. UNESCO, the United Nations Educational, Scientific, and Cultural Organization, which runs the World Heritage Program, has put it on its List of World Heritage in Danger.

Aerial view of the Delta as it meets the Gulf.

OUTLIERS

Described below are four institutions located outside the Mojave Desert that are pertinent to the challenges faced in the Mojave (grey on the map).

The Arizona-Sonora Desert Museum focuses on the Sonoran Desert (red on the map), but its method of presenting the natural history of a region could be used in the Mojave Desert or in fact anywhere.

The California Botanic Garden, the Huntington Desert Garden, and The Living Desert have important roles in helping their many visitors understand and appreciate deserts and desert life.



1. Arizona-Sonora Desert Museum

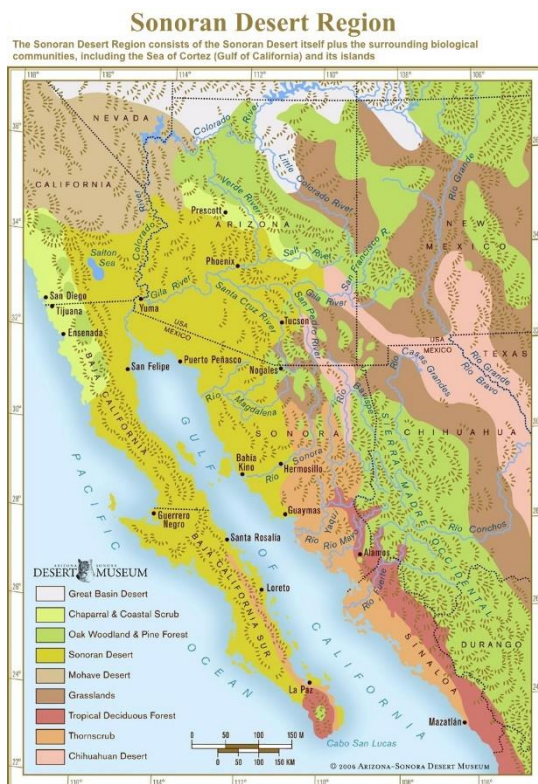
2021 N. Kinney Road, next to Saguaro National Park West, Tucson, Arizona.
<https://www.desertmuseum.org>.

What has become a world-class institution and a model for presenting the complete natural history of a single region showing the interdependence of its plants and animals began with a man who came from elsewhere, saw a need, had an idea, had plenty of relevant experience, built local support, and was able to partner with a wealthy and well-connected friend — a formula that rarely fails.

The man was William H. Carr (1902-1985), who earlier in his life had been assigned by the American Museum of Natural History in New York City to create the Bear Mountain Trailside Museum on the Hudson River, one of several small museums focused on local nature that were built in the 1920s with money from the Rockefeller family (others are in Yosemite, Yellowstone, and Grand Canyon national parks).

His friend was Arthur Newton Pack (1893-1975), editor of *Nature Magazine*, which merged with *Natural History* in 1960. Pack inherited wealth from a family timber business.

Map: Sonoran Desert is olive area. Download map at <https://desertmuseum.orgcenter/map.php>.



Bill Carr moved to Tucson for health reasons in 1944 and found a “gross lack of knowledge” about the desert “among the local populace as well as in the national mind.” He got to know local naturalists and conservation leaders and eventually conceived of and, with Arthur Pack’s help, founded what is now called the Arizona-Sonora Desert Museum.

For its visitors, the 98-acre Desert Museum is a “fusion experience”: zoo, botanical garden, art gallery, museum of natural history and ethnology, and aquarium. Its goal is to make the Sonoran Desert “accessible, understandable, and valued.” It has extensive research and conservation programs including on recovery of Mexican wolf populations, controlling invasive species, and protecting islands in the Gulf of California (see *The Colorado River*, page 26).

A MUSEUM SPEAKS OUT ON CLIMATE CHANGE

On its website, the Arizona-Sonora Desert Museum has posted a strong statement on climate change that could serve as a model for other museums and similar institutions. An excerpt:

“By communicating about the impacts of climate change on plants, animals, habitats, and people, ASDM can play an important role in inspiring people to understand the climate challenges we face and to take action that will help decrease atmospheric CO₂ concentrations to protect humanity and our environmental heritage.”

2. California Botanic Garden

1500 N. College Avenue, Claremont, 35 miles east of downtown Los Angeles. <https://calbg.org>.

The 86-acre California Botanic Garden is the largest garden dedicated exclusively to the state’s native plants.



Its mission is “to promote botany, conservation, and horticulture to inspire, inform, and educate the public and the scientific community about California’s native flora.”

The grounds are open to visitors (see website) and include several sections devoted to desert plants. Much of the Garden’s work goes on behind the scenes and in the field. Conservation of rare and

endangered plant species is a priority. The Garden collects seeds in the field (as in the photo above) and maintains an extensive seed bank with long-term storage and facilities for research. Garden staff advises public agencies on strategies for protecting plant species. Much of this relates to

plants of the California deserts. CalBG is affiliated with Claremont Graduate University, a member of The Claremont Colleges consortium, and is responsible for CGU's Botany Department.

3. Huntington Desert Garden

Huntington Library, Art Museum, and Botanical Gardens, 1151 Oxford Road, San Marino, 12 miles northeast of downtown Los Angeles. <https://huntington.org>.

The Huntington is a major cultural institution that receives more than 800,000 visitors a year, many of them from other countries. In 1904 its founder, rail magnate Henry E. Huntington, brought in William Hertrich as superintendent of grounds. Like many of those who helped to shape California culture in the 19th and early 20th centuries, Hertrich (1878-1966) was a European immigrant, born in Germany and trained in horticulture in Austria. He created the Huntington Botanical Gardens and lived in a house on the grounds until his passing.



The Gardens cover 130 acres, divided into 16 themed gardens. The ten-acre Desert Garden, started by Hertrich, is one of the largest and oldest assemblages of cacti and other succulents in the world. Today it has more than 2,000 species of succulents and other arid-adapted plants from many world regions. These include numerous threatened species and represent the Huntington's most important conservation effort. A greenhouse (above) protects plants vulnerable to frost or overwatering.

4. The Living Desert Zoo and Gardens

47900 Portola Avenue, Palm Desert. <https://www.livingdesert.org>.

The Living Desert is a zoo, botanic garden, and nature preserve located in the Coachella Valley at the base of the Santa Rosa Mountains. Its goal is "Desert conservation through preservation, education, and appreciation." It is a top attraction in the Palm Springs area with over 600,000 visits a year.



The zoo has some 150 species of animals from the deserts of the world. Desert plant communities in the gardens have more than 1,400 species. Focused plantings include food plants of desert bighorn sheep. The Living Desert is active in conservation research, habitat protection, and education initiatives around the world, as well as in its own region. An example in California is a project to protect the Mojave Desert Tortoise, *Gopherus agassizii* (at left), categorized as Critically Endangered in the IUCN Red List of Threatened Species (<https://iucnredlist.org>).

A personal note

I could have written these essays in first person but decided not to because this is the beginning of a series and I wanted to set an impersonal tone. But it made sense to start with a piece of geography I knew, the Mojave Desert, and now I want to add this personal note because my desert experiences helped point me toward a commitment to nature conservation and perhaps others can learn from how that happened.



Those first desert experiences weren't in the Mojave but further south. My parents had me join a Boy Scout troop because they thought I was becoming too bookish. My first weekend camping trip with Troop 342 was to Thousand Palms Oasis in the Indio Hills. My parents said I didn't need a sleeping bag; a blanket would do since the desert was hot. Well, we slept in pup tents and the nights were cold. Luckily, the dads leading the trip had brought along extra sleeping bags. Two of those dads knew a lot about California natural history and became my mentors. The many trips I took with them sparked my interest in the natural world and in nature conservation.

There were family trips to Death Valley, but the main thing my younger brother Tom and I still talk about was the time our father drove us up Hanapaugh Canyon. It's a rough jeep road and Dad had a new 1958 Chevy Bel-Air sedan, but no matter. The road starts on the valley floor below sea level not far from the site of the '49ers' Long Camp (page 12). At about the 2000 foot level the car got stuck in rocks. It took hours and ruining a tire to get it unstuck. Lessons were learned that day, mainly from our mother as dad drove silently back to the valley floor in near darkness.

I studied international relations in college and went off to Washington, D.C., and Africa for a few years. When I returned, I became immersed in California environmental issues. I got to know the leaders I mention in the essay (page 16) on the Mojave National Preserve — Judy, Peter, Joyce, Bill, and Lyle — and have great respect for them. Eventually I combined my interests and have worked in the global conservation movement.

In writing about Joshua Tree National Park (page 24), I mention the photographer and painter Steven Willard. In the 1930s my father stopped at Willard's gallery in Palm Springs and bought one of his paintings. It has a place of honor on my living room wall in Claremont.

The owners of the 29 Palms Inn (page 25) and their families have been good friends for decades. I've learned a lot from their storytelling, not just about the Mojave Desert but about the power of telling stories.

— Ted Trzyna

Learn more

The Natural Neighbors Project website has more information about the project as well as annotated lists of publications and websites related to the places and regions chosen for the Ten Points of Inspiration Series.

Among other things we define sustainability and explain why we use the term “justice and sustainability.” Go to <https://NaturalNeighbors.org>.

Sources

Numbers refer to numbered essays.

Cover: Paul Landacre. “Edge of the Desert.” From *California Hills and other wood engravings by Paul Landacre from the original wood blocks*. Los Angeles: Bruce McCallister, 1931. Blocks held by the Clark Library, UCLA.

1. Stamp, 1979. Copyright United States Postal Service. All rights reserved. Photos: Milky Way, mountain lion, bat: U.S. National Park Service (NPS). Scorpion: StreetMorrisArt, CC BY-NC-ND 4.0. Snake: Greg Watson, copyright © 2018-present, Don & Linda Gilmore.

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3. Satellite view of Death Valley: ACME.* Map: Based on Google Maps.

4. Poster: Calisphere, CC0. Canyon photo: NPS.

5. Map of MNP: U.S. Geological Survey. Photo of Banded Gila monster in California: © Gary Nafis. Map of national monuments: U.S. Bureau of Land Management (BLM). An important source: Eric Charles Nystrom. *From Neglected Space to Protected Place: An Administrative History of Mojave National Preserve*. National Park Service, 2003.

6. Photo of Granite Mountains Dave Napox, Wikimedia Commons. Map: USGS.

7. Photos: UC MVZ. Joseph Grinnell. “The uses and methods of a research museum.” *Popular Science Monthly*, 1910. “Prescient”: Eric Post. *Ecology of Climate Change: The Importance of Biotic Interactions*. Princeton University Press, 2013.

8. *The Grapes of Wrath*, Dust jacket of first edition, 1939, design by Elmer Hader, CC0. Map: © 2022 RoadTravelAmerica.com. Download: <https://www.route66roadtrip.com/route-66-california-road-trip.htm>. Movie poster, 1940, CC0.

9. Mural: NPS. House: 917 Buena Vista St., © 2006-2022 Zillow. Joshua tree photo: Stephen H. Willard. “Joshua Tree Park,” 1944. © Palm Springs Art Museum. Oasis painting: Chuck Caplinger, Desert Art Studio, <https://desertartstudio.com>. Aerial map: ACME.

10. Basin map: U.S. Bureau of Reclamation. Robert J. McCarthy. “Executive Authority, Adaptive Treaty Interpretation, and the International Boundary and Water Commission, U.S.–Mexico.” *Water Law Review* 14:2 (2011), 199. Delta aerial photo: ACME.

Outliers: Map of Deserts: ASDM. 1. Map of Sonoran Desert: ASDM. 2: Photo: CalBG. 3. Photo: Huntington. 4. Photo: U.S. Fish and Wildlife Service.

A personal note: Photo of Ted Trzyna: Reine Bouret.

Back cover: Paul Landacre. “Desert palm, *Washingtonia filifera*.” Etching for Donald Culross Peattie. *A Natural History of Western Trees*. Boston: Houghton Mifflin, 1953. Etching held by the Clark Library, UCLA.

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Back cover: Paul Landacre. “Desert palm, *Washingtonia*

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TEN POINTS OF INSPIRATION in and around the NATIONAL PARKS of CALIFORNIA'S MOJAVE DESERT

1 THE DESERT AT NIGHT

The dark-skies movement makes progress on the Mojave

2 MARY AUSTIN'S HOME

She uses her fame as an author to champion the rights of women, Native Americans, and immigrants

3 THE LOST DEATH VALLEY '49ERS AND WHERE THEY FOUND HELP

"Kind acts and great good will were given freely" — '49er William Manly on how the Lopez family made possible the rescue of the rest of the lost party

4 THE "DEATH VALLEY SUITE"

Sixty-five thousand people converge on Death Valley for a one-time '49ers centennial event featuring the full Hollywood Bowl Orchestra

5 THE MOJAVE NATIONAL PRESERVE

A momentous achievement by a small group of conservation volunteers

6 THE GRANITE MOUNTAINS DESERT RESERVE

Ken Norris seizes an opportunity to create a "natural laboratory"

7 GRINNELL'S SURVEYS ON THE DESERT

Starting in 1908 Joseph Grinnell leads wildlife surveys that are now a "gold mine" for understanding climate change. Resurveys begin a century later

8 THE MOTHER ROAD: ROUTE 66

Once the "road of flight" from poverty it becomes a symbol of optimism and freedom

9 JOSHUA TREE NATIONAL PARK AND THE OASIS OF MARA

Socialite Minerva Hoyt convinces President Franklin D. Roosevelt to create a grand desert park. Tribes reconnect with a special place

10 THE COLORADO RIVER

A culture of conflict resolution emerges from a century of disputes

