FROM THE EDITOR:

A lot has happened since you received the last issue of The Survivor. Every year I try to finish editing and laying out the Spring issue so that it can be printed and mailed to Desert Survivors members in time for our April membership renewal drive. Last March the Covid-19 outbreak turned into a worldwide pandemic just as the edition was going to press. Desert Survivors Board of Directors held a special meeting where trips and other group activities were cancelled and the membership renewal drive was postponed. The organization and our members have retreated to social distancing, sheltering in place and hoping for a way back to normalcy. For a group of people who love to get outdoors and share with others, this has been a particularly difficult time.

One bit of good news: Desert Survivors and other conservation organizations have been able to further their missions with online educational events. In April we sponsored a “Zoom-based slide-show presentation” where six Desert Survivors showed 12 of their best desert images. We have promoted presentations by Friends of Inyo, Joshua Tree National Park Association, National Park Conservation Association on desert topics such as the botany of Conglomerate Mesa, Mojave Jackrabbit Homesteads and the Amargosa River in Death Valley. You can learn much with a computer and internet access. We are planning future online presentations so look for the announcements.

Some bad news: 2020 has been a particularly hot summer in California with record high temperatures in August and September. In the deserts the summer’s monsoon rains have been scant, and much of the state was hit by monumental dry lightning storms in August, igniting scores of wildfires. A particularly heartbreaking conflagration occurred in the Mojave National Preserve where much of the Joshua tree forest at Cima Dome was destroyed. Images from the site show miles and miles of charcoal black tree trunks in a place once called “the world’s largest Joshua tree stand.” In all 1.3 million trees were burned. Although the fire was started by a natural occurrence, the intensity of the blaze and its devastation was most likely a result of human activity. Decades of cattle grazing destroyed many native plants and introduced heavy thatch, highly inflammable non-native grasses (to the land). Scientists worry that the charred terrain will become fertile ground for even greater spread of non-native, highly flammable plants, such as red brome, and even greater fires in the future. Oh no!

Some really good news that could still turn bad: In June 2020, the (U.S.) Senate Armed Services Committee produced its version of the Defense Appropriation budget. To the happy surprise of desert lovers the proposed legislation did not include funding for the 900,000-acre expansions of the Fallon (Nevada) Naval Air Station and the Air Force Nevada Test and Training Range. These military land takeovers were opposed by a broad coalition of Indian tribes, environmentalists, hunters, local residents and businesses. With the Republican controlled (US) Senate not supporting the expansion, things looked good for stopping this land grab.

A couple of weeks later the Democratic controlled (US) House of Representatives presented its version of the bill, and to the consternation of many it included funds for the Air Force expansion into 260,000 acres of the Nevada Desert Wildlife Refuge. What was up with this? As it turned out, arch-conservative Utah Congressman Rob Bishop (R) snuck an amendment for Air Force expansion into the bill without consulting or informing the Nevada congressional delegation. Weeks later the three Nevada Democratic Representatives introduced an amendment that removed the base expansion from the bill. The legislation has passed the House of Representatives and has yet to be reconciled with the Senate version and voted on again.

For the past 80 years the U.S. military has gobbled up vast tracts of desert land, virtually at whim. With few exceptions, when the military takes over desert land it becomes forever out of bounds to the public. If this Navy and Air Force expansion has indeed been stopped, it will be a huge win for conservationists and others who have worked to keep these lands accessible to all. This is not yet a done deal. President Trump has to sign the final Defense Appropriations bill by December. Keep your fingers crossed.

You may be wondering: A key aspect of Desert Survivors’ mission is to sponsor excursions to desert lands. Since it has been considered unsafe for people to gather in groups, we have postponed all of our trips. The big question we are asking ourselves: Is it possible to resume trips safely before there is a Covid-19 vaccine?

We are beginning to look at possibly adopting measures for resuming of our desert trips program. There are many practical problems to be solved and procedures to be determined (Is testing possible? Can people ride in cars together? Can we camp without wearing masks?, etc.), but it may be feasible for our trips to resume. With that, please know that events and the nature of an epidemic could easily change for the worse, and this notion will be for naught. It is all in the thinking about and talking about stage right now, but if there is a way, there is a determination by Desert Survivors to give it a go.

Trips or no trips we thank you for your continued support. Most of you were able to renew your membership and many gave additional donations during our membership drive this past July. Your support keeps us going. Stay safe and we will see you in the wild one of these days.

—Nicholas Blake

Cover: Trip leader Marisa Seaman points out the direction the hikers should go at a crossroads in Death Valley during a 2014 Desert Survivors car camp. Photo: by Alan Stahler
Terrifying Tails: Rattlesnakes of the Mojave

An online lecture by desert wildlife biologist Michael Cardwell.

Mr. Cardwell, an adjunct researcher with San Diego State University, has been using radio-telemetry to study the lives of rattlesnakes for the past 20 years. He will discuss the natural history and behavior of our desert rattlesnakes, including the notorious Mojave, as well as what we know about their venom and the injuries caused by their bites. Along the way, he will describe currently-recommended first aid measures and bust some common myths.

Sunday - October 11, 2020 - 1:00 p.m.
Info to access the event will be coming via email

Following Michael Cardwell’s talk stick around for:

Desert Survivors Annual General Meeting 2:00 p.m.

Because of coronavirus precautions, this year we will be holding a Zoom-based, virtual Annual General Meeting (AGM)

Board of Directors members will report to the members on the activities, achievements, finances and the future plans and goals of our organization.

Issues will be discussed. Your questions will be answered.

We will hold the election of the new board of directors online before the meeting and announce the results of the balloting during the AGM.

Instructions on how to run for office and vote will be forthcoming via email.

All Desert Survivors are encouraged to participate.

The White Heart of Mojave

This winter marks the 100-year anniversary of a trek by two Ohio women, Edna Brush Perkins and Charlotte Hannals Jordan, into Death Valley. The Mojave at the time was considered to be a desolate, inaccessible region—a remnant of the western frontier. With a hired guide, and a wagon pulled by a horse and donkey, they journeyed, mostly on foot, to Furnace Creek, then high into the snow-covered Panamints. Perkins’s account of the trip is told in the 1922 book, The White Heart of the Mojave. Her descriptions of the land and the people are vivid, poetic and personal. It is a story of two women who entered Death Valley on sort of a middle-age lark and emerged from the trip profoundly changed. Highly recommended.
THE FIRST, AND LAST, DESERT SURVIVORS TRIP OF 2020
A Service Project to Prevent Illegal Off-Highway Vehicle Travel in Joshua Tree National Park

by Stacy Goss

We didn't know it at the time, but in late-January 2020 we had what was to be the last Desert Survivor trip for the year. A group of us went to Joshua Tree National Park and worked with park staff and others on a project to close off an area in Berdoo Canyon where off-roaders had illegally been driving.

The project included digging some really deep holes in dry, rocky ground, inserting large wooden bollards (barriers), and then filling up the holes with large rocks and packing in dirt until the bollards became immovable. We installed 20 barriers, with about 10 feet between each one. The bollards are made of a pressure-treated wood so they won't rot away quickly—because no one wants to do these types of projects any sooner than necessary. The bollards were extremely heavy. The eight-foot long posts took two of us to move them to the installation area. In our travels throughout the desert, most of us have seen these bollards used to discourage illegal routes into wilderness and other sensitive areas. However, I didn't realize until this project how deep the bollards needed to be buried to ensure that they can't be easily removed. Half the length of the bollards is actually buried underground. Kind of like most of an iceberg's mass is underwater and out of sight.

There was plenty of work to go around and a task appropriate for every volunteer. Some of us had the back strength to dig the holes—I lasted about 30 minutes at that job—while others collected large rocks to fill in the holes. Others collected trash from the area; because where vehicles go, trash inevitably follows.

We were able to install all 20 bollards in the two days of work we had planned. Katy Meyer, who worked for Great Basin Institute as their Off-Highway Vehicle (OHV) Restoration Coordinator was our park liaison; she came back the next day to drill the holes in the bollards and install the steel cable, connecting them and, hopefully, creating an impassable vehicle barrier. Additionally, there were a couple of archeologists on the scene who made sure we weren't digging up any artifacts in our excavations (we weren't), a National Park Service (NPS) Outreach Ranger, and an NPS Trail Technician.

Toward the end of the second workday, a slight breeze came up, which was rather pleasant while we were busy with our tasks. By the time we drove the hour back to our camp, it had gotten fairly windy and not so pleasant. And shortly after that it got crazy windy.
The Desert Survivors volunteers retreated to whatevercamp-style abodes they had and we didn’t see one other until the next morning. Thankfully, we had had our potluck dinner (remember those?) the night before. And fortunately, we arose the next morning to a beautiful clear, peaceful day. After retrieving our gear that had been wind-scattered far and wide into the desert during the night, we took a short drive to the Big Foot trail and, by combining it with another path, were able to hike a nice seven-mile loop. The hike started with a gradual walk for several miles down the wash on the Big Foot trail, after which we turned onto the Panorama Trail and hiked up and over the ridge, getting a great view of Smith Water Canyon and the surrounding area (hence the appropriately named Panorama trail). While Joshua Tree National Park has become too well-loved over the past several years, (with 2.98 million visitors in 2019) we saw no one else once we got 100 yards away from our vehicles. A few weeks later the Covid-19 pandemic hit and all group activities were cancelled, and so ended the last Desert Survivors trip of 2020.

This was the third service trip I had organized with Survivors and all of the projects had to do with cleaning up after and attempting to prevent off-roading into public areas closed to such activities. Illegal off-roading is an issue faced by all public land agencies, especially in the desert, and for most of them, it is one of their top three concerns (wild burros would also be included in the top three). National Parks, the Bureau of Land Management, and other agencies do not have the funds to come anywhere close to being able to fully address the off-road issue; they can barely keep their visitor centers staffed and their bathrooms clean.

To help with this problem, many agencies rely on grant funding through the California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division (OHMVR Division). This program provides millions of dollars annually through a competitive grant process that allows public agencies and other organizations to apply for funds to use for a variety of OHV purposes. This is not small-change tossed out to agencies; the next annual funding cycle will provide 36 million dollars to various organizations and agencies to be used only in California.
Where does the OHMVR Division get the money for these grants? Every time you fill up your gas tank you are contributing to this program. Through a complicated formula, the OHMVR Division receives most of the funds for this program (65%) through gas taxes paid on each gallon of gas we buy in California for our regular street-legal vehicles. Additional funds come from OHV license registration (Green Sticker fees 20%), and a couple of other minor sources. This program began in 1971, and is known as the Chappie-Z’berg Off-Highway Motor Vehicle Law. The legislation addressed the growing impact of motorized off-highway vehicles by adopting requirements for the registration and operation of these vehicles – what we now call the green sticker program. It also established a funding source and grant program to address OHV impacts. There is a thick book of regulations to go along with the grants program, outlining exactly what is, and is not, okay to fund.

The exact amount of funding varies each year, so the regulations have broken the funding down into four categories, with each category assigned a percentage of however much the funding is for a particular year.

- Operations and Maintenance: 50%
- Restoration: 25%
- Law Enforcement: 20%
- Education and Safety: 5%

When agencies submit their proposals, the public is given an opportunity to comment on the proposals. This year, Desert Survivors commented in support of restoration proposals submitted by Joshua Tree National Park, Death Valley National Park, and the BLM-Ridgecrest Office. And as of this writing, all three have received preliminary approval for their full requested amount.

With the funding that agencies receive through this program, they are able to take on projects that would otherwise be outside their agencies regular budget, and therefore cost prohibitive. They are able to use the funding to develop an overall plan on how to address OHV issues, hire law enforcement staff to patrol areas that have high OHV use and abuse, put together projects to reduce OHV incursions, and provide education to riders on where they can legally ride and how to ride safely. For the restoration projects, many agencies contract with organizations such as Great Basin Institute, AmeriCorps and the Student Conservation Association (SCA) to do most of the ground work. This is a great opportunity for young people to get out and work in the field, visit places that they have only seen in pictures, and develop relationships and contacts that could be used for future job possibilities. Agencies can also leverage their funding by recruiting volunteers such as Desert Survivors to help with restoration projects. All of the staff that we have worked with in the three projects I have organized have been funded through this grant program.

Service trips like these have been some of the most enjoyable trips I have done with Survivors; there is a tremendous amount of camaraderie among everyone in the group, there is a relaxed atmosphere, we get to work with professionals who have made a career out in the desert and who often show us interesting places that we wouldn’t have otherwise known about. Everyone leaves with the satisfaction of helping to protect the environment.

If you did not know better you might think the purpose of these machines is to launch clouds of dust into the air. These are promo photos by the manufacturers of OHVs. The overt message is that showing off in your machine is a desirable aspect of ownership; without a thought of damage this can cause to the environment. Images of irresponsible behavior may help sell the vehicles, but the activity often leaves indelible scars to the desert land.
Illustration by Heinrich Harder - 1920

I first encountered Craig Childs when I read *The Secret Knowledge of Water* in about 2002. Since then I have read almost everything he has written. I get attached to certain authors, mostly science fiction, but a few nonfiction because I feel they are telling me a good story. John Krakauer, for instance, writes in an immersive narrative style that could work well in crime fiction.

I pretty much had it figured out by the time I was ten years old that Eskimos came over from Siberia on a land bridge across the Bering Sea and settled at the North Pole. (As based on my careful research contained in the movies, *Nanook of the North* and *The Savage Innocents.*) Then I didn't think much about it for a long time. In reality, the water frozen in the continental ice sheets had lowered sea level by 400 ft and the 'land bridge', Beringia, was not a series of stepping stones along the Aleutian Islands but a connective tissue between Asia and North America 600 miles wide. People, according to genetic evidence, lived there for thousands of years, mixed, sometimes went back, and then later went forward. During the warming periods it meant that woolly mammoths could range from Portugal to New York. This migration of woolly mammoths is important to the story because accompanying the mammoths were all the other megafauna like giant bears, sabretooth tigers and giant sloths that populated North America and were established and waiting for humanity when they crossed. Childs says that the first rule in the Paleolithic mind: "Don't get eaten."

What Childs brings is the latest thinking in archeology, genetics, paleontology and geology. He interviews scientists like they are all at a Desert Survivors buddy's party at a happy hour and he discusses the competing theories of how we got here. And there are competing theories of virtually everything. Archeology has been stuck for a long time with the theory that the Clovis people were the first ones here and that they crossed Beringia via passage through an ice-free corridor between retreating ice sheets. There is ample evidence that they were not the first people and tempers can get really raw among the archeologists debating it. Childs floats a theory about the Clovis Culture and refers to it as the Clovis Cult whose spiritual apex was to hunt and kill mammoths.

A unique dimension to Childs is that he is an extraordinary modern adventurer in his own right and can talk about his first-person experience in testing some of the theories. He roams over the Yukon, he kayaks down the coast of Alaska, he crossed great desolate ice sheets under extreme conditions just to see what it takes. He supports the idea that the early people traveled down the coast in small boats. He talks to a fellow adventurer who kayaked from Alaska to Tierra Del Fuego. This is not the sort of thinking and experience that the average writer brings to their work. Travel by coastal craft would explain how people managed to get to the tip of South America so fast and why so many of the earliest habitation sites tend to be inland along rivers. There are competing theories, of course.

He briefly discusses the odd bits of evidence that don't fit this theory. How is it that there are multiple sites in North and South America that are dated 20,000 to 30,000 years ago? But this is considered something of a side show. The main discussion is focused on the competing theories of Clovis vs Pre-Clovis; coastal route vs. interior. I find this subject fascinating and I have to tell you that *Atlas of a Lost World* is not the definitive answer but rather an extrapolation of evidence. Nor can it be the last word. It is a snapshot of some fast developing science. In my journey of understanding, *Atlas* is an important guidepost and I recommend it.

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**Atlas of a Lost World: Travels in Ice Age America**

By Craig Childs

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**A Book Report**

by Chuck McGinn

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Left: Ancient Americans stalking a giant armadillo in prehistoricArgentina. Hunting by humans is the most likely cause for the extinction of these massive creatures.
The Sky Went On Forever

Friday morning Judy Kendall and I took off from Berkeley in my car; driving first to the Sacramento Airport where we rented a white Chevrolet for the long road trip to Northern Nevada, and leaving my vehicle in long-term parking.

We got to Burney, California, in Shasta County, in the late afternoon, texted our companions Stan Huncilman and Cathy Luchetti, and to our delight found them passing us on the highway at that very moment. We all met in Alturas for a crappy Mexican dinner, and continued on toward Cedarville, CA, where we found a campground six miles before the town. We just laid down our tarps, pads and sleeping bags and slept under the stars—where we enjoyed a big moon, soft cool breezes, and a comfortable night.

The next morning we drove to Cedarville where the entire Desert Survivors group gathered at 7:30 a.m. with leader David Oline. The town consisted of a general store, a cafe or two, and a tribal-run gas station. We left our rental car under a shady tree on a residential street, transferred our belongings into our companions' high-clearance vehicles, and off we went. After ten minutes of travel we crossed the state border into Nevada, where the pavement immediately and militantly, turned to gravel and rocks for the next 50 miles.

My new travelling companion and driver of the vehicle was 81-year-old Andy Cominos. He drove a 4-wheel-drive Jeep, replete with double Yakima rooftop cases, and had plenty of enthusiasm; having started outdoor recreational hiking in his 70’s.

Upon reaching the Sheldon Refuge, we found a suitable parking spot for our first objective—a hike to the top of Blowout Mountain. The route took us across four miles of sage and rabbit bush terrain; and we spotted a herd of pronghorn antelope within the first 15 minutes of walking. We climbed too, stopping for lunch on a scraggly-tree ridge overlooking a large field with a few wild horses to commune with at a distance.
Hiking through difficult terrain.

We heard the plop of a frog, and dragon flies whizzed by us. No birds, though. There were so many manure hills, made by horses in communal poop activities. Eventually we had to climb above the canyon, a true hell's canyon, in order to circumvent the wet creek bed, obstructed by willows. We finally descended back down and reached a grassy meadow surrounded by outcroppings and mesas of eccentric rocks. After resting, sensing a possible rain on its way, we hurried off on an improvised route back to our cars, that took us through a canyon with crimson rock walls that looked like petrified redwood. At a place atop a rise we beheld a floor of obsidian, red rocks, quartz, flint, and jade. This led us to a road that we followed for a mile and a half back to our cars, with only a few rain droplets blessing us on our way.

We continued to the summit of Blowout Mountain, which treated us to a magnificent desert vista, gigantic sky, and a sunken basalt-filled pit off on one side of the mountain. The ground was festooned with glittering, stones and it was hard to pass one of these gleaming rocks without greedily grasping it and then noticing how much more beautiful it was on the earth than in one's hand. We found scattered bones and a skull, which we put together to make a skeleton of a horse. Two mules stopped to greet us docilely from afar. We were out exploring for seven wonderful hours.

The night came on as we set up tents for our camp, and we had just a short time for dinner in the fading light. Our campsite was bordered by a miniature forest of quaking aspen, and gave us a view of a butte and an open range beyond with a lone horse grazing on it. The night was mild, stars were magnificent—as the moon was late to rise. Night broke at 6:00 am, with a red sun rising. After breakfast I returned to my tent to change clothes and was horribly startled by an ugly, and large, insect in the garment bag that I reached into. My friends assured me that it was a “potato bug,” a Jerusalem cricket, that was far from its native land. Stan picked it up with his bare hands and held it for a while, unfazed by its gruesome form.

Our hike for Sunday was to the Virgin Creek, by way of Hell's Canyon and Hell's Creek. This is not too far from Massacre Lake. The geographical names seemed so daunting, and I now know why. Without a GPS and a map it would be impossible not to get lost out here. We passed through a canyon, which David Oline optimistically dubbed “Lucky Ladybug Canyon,” but soon encountered an impassible dryfall, and we had to find another way through. There was climbing, with rocky “trails”—ankle-challenging walking for most of the distance. Eventually reaching Hell's Creek we were astounded by the cattails and reeds growing along its trickle of water. We all got our feet wet up to the ankles in its marshy bed. Cathy, Judy, and I together marveled at the rich variety of plant life. While examining a stinging nettle—thinking it could be wild marijuana—Cathy's upper lip got the full-on sting as she tried to sniff one of the leaves. I sustained a wicked sting on a finger as I felt a leaf. Judy spotted a poisonous water hemlock.

Evening at camp was windless, cooler than the night before, and as you would expect in such remote place, we didn't see any other people. We were in this desert alone. We did find two deer forelegs in our camp and dismissed them to the aspen grove so no unwelcome coyotes would scavenge for them in our midst. The ground was riddled with holes for kangaroo mice, other rodents, and possibly snakes. The earth was dry. We brought all our water in.

The next morning we broke camp and headed south over the most unbelievably rough roads. At times we had to move rocks either in or out of place to pass. It took three hours to go 20 miles. We arrived at the Ruby Pipeline—a natural gas line that crosses through the southern part of the refuge, starting in Oregon and ending in Utah. The earth now carries a 75-foot-wide scar over hundreds of miles, which one day will return to desert nature. Hopefully, soon. We gathered magnificent stones and rock treasures.

This 6000’ high desert, made me feel like I was in an old western movie. It had more variety than I imagined, and it delighted me and opened my eyes to a beauty I never knew. The sky went on forever.
Early in 2020 I signed up for a Desert Survivors trip that Barb Bane was going to lead into the great heart of nowhere—to the Mt. Irish and White River Narrows petroglyph sites in Nevada. In February I was on the East Coast when indications that coronavirus was becoming something serious. I traveled by air home to California with the sense of escaping just ahead of the zombie apocalypse. Of course, the pandemic hit the whole world; and like a lot of other things this year, Barb’s trip was postponed to never and I went into quarantine. After months of sheltering at home and going a little stir-crazy I decided to take a solo excursion to see the petroglyphs Barb had planned to show. Back when I was a Desert Survivors trip leader, I took solo trips to scout the areas I intended to take the group, so I had few qualms about being on my own in the backcountry.

This was in May 2020. The coronavirus pandemic was at its peak and it cast my plan in a dim light. Would there be gas? Where was I going to stop for food? I knew that traffic would be light in a place where traffic is already sparse. These details, that I never usually think about, were adding a kind of spooky and uncertain feeling to the trip. After all, my route was going to take me along the Extraterrestrial Highway.

I have a bit of a bone to pick with Google Maps in the way it estimates travel time. Their calculation for the drive was eight hours or so but it took me nearly 12 hours to get there. Hear that Google? Please fix it.

There is virtually no indication of the Mt. Irish Archeological District at the gate where you enter from the highway. Nick Blake had sent very explicit mileage from the highway intersection and I still managed to pass it. Once there, though, I had the place totally to myself. The sun was setting as I arrived and I had just enough time to find a site and set up camp. The weather was clear and calm with temperatures from 50° to 75°F.

I spent the first day at sites that were within walking distance from my camp. One of the repeating motifs of these petroglyphs was an anthropoid figure called Pahranagat Man. I saw this image several times in an interesting technique whereby a figure was pecked into the surface and then sharp grooved lines were added to make appendages. Most times, a stippled image will have a defined edge and the pecking will give it “color.” This image was like a smear with arms and legs. But you don’t often see such a distinctive glyph repeated in several nearby locations, so this must be culturally important. Later I would see this technique applied to magnificent effect.

Some of the images as the designated sites were pretty good. Nothing spectacular. But I’m always thinking, “If this pile of rocks has petroglyphs then what about that pile of rocks?” This sort of thinking is most often wrong, but at Mt. Irish I was rewarded with panel after panel nearly everywhere I turned. I was having a pretty productive day of prospecting. Additional sites were clustered along a road further away than I felt like walking, so I broke my camp. My drive on the lesser road was stopped by a drainage channel that cut across the route. Yes, I could have plowed on ahead and probably would have traversed the ditch but, exercising caution, I decided to camp right there.

The next morning, I hiked up a drainage toward some dramatic-looking cliffs that reminded me of the magnificent Lagomarsino site near Virginia City, NV and hinted at terraced galleries of elaborate rock art. When I reached the cliffs there was nothing. But there was a passage through the rock and on the other side I found drainage parallel to the one I had been following. “Oh, my!” There were illustrated panels everywhere and I spent hours going from site to site. One boulder-sized outcropping was covered with glyphs of many types and styles. From the back side of the cliffs I could see some serious art way at the top. There was a single sheep done in the same style of pecking as the Pahranagat Man.
Late in the day as the sun was getting lower, I came across the most magnificent rock art I think I have ever seen. Again, it was in the stippled style but in the hands of a master. The panel was catching the setting sun behind me making the whole composition seem to glow. These were life-sized big horn sheep layered in the rock surface, two adults and two juveniles. Their motion is palpable. Unlike almost all rock art this felt like an intentional artistic composition with the images layered over one another and the horns, legs and tails distinctly carved. That one glyph really made the whole trip worthwhile.

The next day I headed to White River Narrows where the brochures published by the Nevada Department of Tourism promised more good rock art. I often use a smartphone app called Topo Maps. It allows one to upload USGS maps to an electronic device but it uses older maps because the graphics are cleaner. In this case, the app showed the old gravel highway in a supremely meandering fashion along a stream. However, the app showed me displaced to the west traveling over rough country. Clearly, Nevada had built a new road since the topo map was created but, still, the appearance of traveling along a non-existent route was unsettling. Who you gonna believe: my app or your lyin’ eyes?

I managed to find all the sites at the Narrows. The last petroglyph tableau was arguably the best, showing an exceptionally long panel of sheep and people and other figures. Unfortunately, just as I reached this panel, the wind and dust came up in a big way just spoiling everything. Then and there I decided to head back to California even though it was 3:00 in the afternoon. My wife Linda and I had been caught in an honest-to-god dust storm years before in Stovepipe Wells and I wasn't going to sit through another one. I decided to visit a few familiar places in the Eastern Sierra. Fueled by hamburgers I purchased in Hawthorne, NV I made it to Fish Slough site near midnight. The wind was still howling.

I had forgotten that it was approaching Memorial Day. Being both retired and in the time of coronavirus, I am surprisingly disassociated from the calendar. But I could see that people were gathering together in big camping groups for the holiday. Everyone seems to have a 4x4 ATV at these sites. But to have these cute motor toys, one needs to have a trailer to load it on, and an excessively large truck to pull it, and a second excessively large truck to pull the fifth-wheel, and a half acre of driveway at home to park it all on. The simple country lifestyle has some real costs associated with it. So much, evidently, that people couldn’t afford face masks.

I spent my final night at the Desert Creek campground near Yer- ington, and sat with a few familiar glyphs for a bit before heading back home to Davis, CA. Although the weather in California was surprisingly hot, compared to central Nevada, I was still glad to be back home. And I look forward to a group trip next year… or when it is safe to be in groups again.

Happy Trails Everyone,  

Chuck McGinn

The morning was calmer and the wind continued to drop during the day. I visited an ancient Native American village site that I had not been to in years, always seeing new things. And I went to petroglyph sites of Chalfant and Chidago, and to the Owens River Gorge, because I’d never seen it. Chalfant was a concern because of a notorious theft that had taken place some years before and I could see where the removals had taken place. A side note to report, the prominent cottonwood tree that we had used for shade during past visits had died, apparently during the recent drought.
The next question is, where on Earth is the temperature measured? There is a temperature gradient, hottest at the surface of the ground—where it catches the sun’s heating—to outer space, where the temperature is a few degrees above absolute zero -459.67°F (-273.15°C). The lowest measured temperatures in the Universe are found in the laboratories of humans. You will be familiar with scorching-hot sand. The standard meteorological way of measuring air temperature is to put the thermometer in a white louvered box (to protect it from wind and the sun’s direct radiation) some five feet above the ground (which height is where humans are more likely to be) and have a human check the thermometer. This is how the World Meteorological Association determines records; how the record Death Valley temperature was measured in 1913.

Now, the question arises: How close are the white box and the satellite temperatures? In the meteorological trade, this is known as ground truth. The article referenced at the end by David Mildrexler et al. has a nice discussion of this. However, the satellite temperatures are expected to be reliable. They found the “thermal pole of the earth” is at the Lut Desert, also called Dasht-e Lut, in Iran. The maximum temperature was 159°F (70.7°C.)

So, the hottest place turns out to be the Lut Desert, not my beloved Death Valley, but the Lut Desert. The latest word in the saga is the work of four scientists, including Amir Azarderakhsh of U.C. Irvine, who performed a more extensive analysis using the satellite-based Moderate Resolution Imaging Spectroradiometer (MODIS.) This device measures many colors with a spatial resolution of less than a mile—much better than that of previous work. The analysis was done over 17 years worth of data. The world’s highest land surface temperature, recorded in 2018, is now 177°F (80.83°C). Just consider how thick your soles of your shoes should be to walk here. Whole eggs cook at 158°F, so you wouldn’t often need camping stoves. Also the Lut has the Earth’s highest temperature daily.

In an article I wrote in 2014, I suggested that Desert Survivors apply for a grant, where we would have expeditions go to the possible hottest places, and there leave automatic temperature recorders (in official white boxes), which would radio the results to satellites. Please send your check …to Desert Survivors…. 

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The spot where a satellite detected the highest surface temperature on Earth, in the Lut Desert of Iran (29°58'51"N, 56.83°C) July 16, 2018

134°F Death Valley July 10, 1913
212°F Water boils
100°C Water boils

1.8 octillion°C The Big Bang
1.42 decillion°C *

Above: The temperature range of the Universe (not to scale, of course.) - BBC FUTURE & other sources.

The “Thermal Pole of the Earth.”

The Survivor    Fall 2020

Real (pukka, kosher) record, many of us believe that it should be ratified by the World Meteorological Organization (WMO) which has ruled that the Libya claim is invalid. There have been many invalid claims over the years, logged by the indefatigable C.C. Burt (referenced below).

Basically, to be accepted, a claim must be a local peak in a series, i.e. not an outlier nor an outlier, and similar high temperatures must have been recorded nearby in space and in time. Naturally, the thermometer must have been happily ensconced in the correct louvered box, and read by competent, trustworthy people. The August temperature looks like fulfilling all these requirements. The thermometer was boxed and automatically recorded just as we planned for the Survivor Lut expedition; moreover, the temperature readings were sent hourly to a satellite (because there was ample radio) and simi-

I am grateful to Amir AghaKouchak for preprints, and to readers Tony Addison and Kamran Habibi.

Further reading:


The Search For The Hottest Place on Earth. Leonard Finegold, The Survivor Fall 2014.

Where are the hottest spots on Earth? David J. Mildrexler, Maosheng Zhao and Steven W. Running, Eos Trans AGU https://doi.org/10.1029/2006EO430002


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William Lewis Manly was born in St. Albans, Vermont in 1820, and spent his early childhood on the hardscrabble family farm. At age ten, he accompanied his uncle in a journey west in search of opportunity. Later the rest of the family joined them and over the course of the next decade they trekked to Ohio, Michigan and Wisconsin, taking any work that was available. Manly noted, “Economy of the very strictest kind had to be used in every direction. Main strength and muscle were the only things dispensed in plenty.” He cut trees, plowed fields and planted crops, dug lead ore as a miner, built cabins and boats, hunted deer with a rifle, and trapped otter and martens in a snowy wilderness otherwise inhabited by Native Americans who were friendly to him.

In 1849 the allure of the California Gold Rush beckoned and at age 29 Manly left home for the goldfields. In Iowa he was hired to drive a team for a California wagon train. The journey across the plains and into the Rockies was slow and by the time the train reached the Green River it was too late in the season to travel any further than Salt Lake before winter, since snows would close the Sierra Nevada Mountains. Manly and a group of companions, hoping to reach the Pacific Ocean by a quick water route, found an abandoned ferry boat and set off down the river. Their watercraft and supplies were repeatedly wrecked while careening through uncharted rapids, but their reckless aquatic misadventure ended without fatal consequences at the confluence with the Colorado River. There, they wisely heeded the urgings of a local Native American chief to head overland rather than proceed further on the raging river.

Manly and his companions learned of the Old Spanish Trail—an ill-defined route that went south of the Sierras and was passible in winter. The men headed west on foot and eventually came upon a large wagon train of gold-seekers led by a local Mormon heading for Los Angeles via this route.

The pace of the 120 wagon train was slow and when a traveler appeared with a map, made by John C. Fremont from an earlier exploration, showing a way that would cut 500 miles off the trip. Most of the gold seekers, including Manly, decided to give it a go.

At first, Manly and company tried to reach California by river.

Attempting to traverse the desert on foot with little water and food and no maps is not recommended by Desert Survivors.

Book Report
by Craig King

This autobiographical story of an overland trek to the California Gold Rush is a tale of youthful ambition, arduous travel, survival and eventual success. Originally published in 1894, printed reproductions of the book as well as a free EBook (digitized by volunteers) are available through Amazon.com. The story presents a quintessentially American pioneer experience.
At first this route was easy traveling, but it soon led to the top of a long cliff that appeared impossible to bring wagons down. At this point most of the pioneers turned back. Manly was in a group of 27 wagons that managed a way down and pushed on into the desert. Soon, these men, women and children struggled with scarcity of potable water, grasses to feed the oxen, and wildlife to shoot for meat.

Along the trek Manly’s party encountered an Indian, who was understandably mystified by their sign language asking where to find a lake with waterfowl. The Indian shared his meager rations of corn, but the Americans also guiltily stole his squashes. Before long, death by thirst and starvation became a very real prospect. Manly wrote, “We had a few small pieces of bread. This was kept for the children giving them a little now and then. Our only food was in the flesh of the oxen, and when they failed to carry themselves along we must begin to starve. It began to look as if the chances of leaving our bones to bleach upon the desert were the most prominent ones.” They began eating harness leather.

The pioneers eventually made their way to Ash Meadows (in Nevada) and following the path of present-day Highway 190 descended into a deep and barren desert valley. Severely weakened and exhausted the group now of about a dozen people agreed to stop at a water source on the west side of the valley and wait, while sending their two strongest men Manly and John Rogers ahead to seek help.

Manly and Rogers hurried south and west on foot—sometimes going days without water and nearly starving but eventually they found their way to the Mission de San Fernando, where they were treated with extreme kindness and generosity by a family of Californios. Fearing any delay might mean the demise of those they left behind, the two men quickly procured provisions, pack saddles, horses and a mule and began the 200 mile return trek to rescue their companions.

The journey was similarly fraught with danger and hardship. Sleeping risked loss of livestock to a raid by Indians. Little water or forage was available and the animals suffered. Manly wrote, “The horses now had to be urged along constantly to keep them moving and they held their heads low down as the crept along seemingly so discouraged that they would much rather lie down and rest forever than take another step.” Eventually, the starving horses could no longer bear a pack load and they had to abandon them. “Just as we were passing out of sight the poor creatures neighed pitifully after us, and one who has never heard the last despairing, pleading neigh of a horse left to die can form no idea of its almost human appeal. We both burst into tears, but it was no use, to try to save them we must run the danger of sacrificing our selves and the little party we were trying so hard to save.”

Without horses to carry them, they were forced to stash some of their provisions. Fortunately, their mule proved hardy and nimble footed, “The little mule went on ahead of both of us, searching all around for little bunches of dry grass, but always came back to the trail again and gave us no trouble.”

Twenty-six days after their departure, Manly and Rogers returned to the barren desert valley bringing a small amount of flour, beans, jerky, and hope to the desperate pioneers. According to Manly, “The great suspense was over and our hearts were in our mouths…. It was some time before they could speak without weeping.” They learned that other members of their group had departed in separate parties, skeptical that Manly and Rogers would risk their lives in a rescue attempt.
It was decided to abandon the wagons as it was no longer feasible to wheel the vehicles over the rough terrain. The group’s oxen recovered some of their strength during the long rest. Cloth harnesses were ingeniously crafted to carry water, and so that women and children could ride them as pack animals. The party proceeded with great difficulty, as riding an ox is extremely uncomfortable, the oxen became dangerously frisky at times, and the loads were constantly shifting.

After two days of travel they reached a point leaving the valley. From there Manly and two of the men gazed back from where they came. Manly wrote “…we took off our hats, and then overlooking the scene of so much trial, suffering and death spoke the thought uppermost saying: — “Good bye, Death Valley.” This is how Death Valley got its name.

Even though the pioneers were on a known route, the journey to safety was with peril. They arrived ominously at a dry waterfall, which might otherwise have been a dead end. However, the men piled sand at the bottom and then pushed and pulled the oxen to safely jump down. “We had passed without disaster, the obstacle we most feared, and started down the rough canyon, hope revived, and we felt we should get through.” With little forage available, the oxen gradually weakened, and every few days the hungry travelers killed and ate an ox. “The meat was tough and stringy as basswood bark, and tasted strongly of bitter sage brush the cattle had eaten at almost every camp. At a dry camp the oxen would lie down and grate their teeth, but they had no cud to chew. It looked almost merciless to shoot one down for food, but there was no alternative. We killed our poor brute servants to save ourselves.”

Manly’s tracking and hunting skills, honed in the snowy Wisconsin wilderness, were put to good use following elk tracks to an alder grove, where he found and shot two animals. No longer would they need to kill and eat their oxen. After twenty-two days the beleaguered party finally reached food and shelter at the Californio rancho called San Francisquito, 30 miles from Los Angeles—the place that had generously supplied the two rescuers with supplies and pack animals.

The rest of the book describes Manly’s subsequent travel and mining in the gold fields and other adventures. He gathered $2,000 in gold from his claims, then made his way to San Francisco to embark a steamship to Panama. Crossing the isthmus by foot, he caught another ship to New Orleans where he cashed in his gold at a bank, then proceeded by riverboat up the Mississippi to Wisconsin. He wrote a long letter to his parents in Michigan, a diary which became the genesis for his book.

He bought land to farm in Wisconsin, but times there were hard, and it took little inducement to prompt a return by steamship to resume mining in the California gold fields. He soon leased out his claim near Downieville, and again traveled south, this time to raise cattle in Los Angeles, but was pestered by rustlers. He gave up ranching, returned to the Bay Area and purchased a farm near Hillsdale.

Manly sums up his remarkable life this way: “Those who came early to this coast were, mostly, brave, venturesome, enduring fellows, who felt they could outlive any hardship and overcome all difficulties; they were of no ordinary type of character or habits. They thought they saw success before them, and were determined to win it at almost any cost. They had pictured in their minds the size of the ‘pile’ that would satisfy them, and brought their buckskin bags with them, in various sizes, to hold the snug sum they hoped to win in the wonderful gold fields of the then unknown California.”

Especially during this time of sheltering in place, when non-essential travel is discouraged, reading Manly’s story will virtually fulfill your desire for desert adventure and survival. And when normal life resumes, his account will remind you of the need to go prepared—with skills and knowledge you can learn as a member of Desert Survivors.  

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The oxen did not take well to being ridden.
The early twentieth century was a good time in the East Mojave Desert. Higher than average rainfall in the early teens and expanded federal homestead laws granting patents for dry land farming drew adventurous city dwellers into the remote desert in hopes of “proving up” homesteads of 160-320 acres. Many of those homesteaders were African American.

Responding to pressures for available land after wetter climates had been settled, Congress acknowledged the need for larger homestead acreages in dryer lands west of the Mississippi river and doubled the size of homestead claims to 320 acres with the Enlarged Homestead Act of 1909. At the same time, proponents of “scientific” dry land farming pushed the theme of farm profits available in the arid West (1). Thousands of hopeful American settlers—farmers, city dwellers, seekers of wide open spaces—headed to the great American dry lands of New Mexico, Arizona, Nevada, and southern California to seek their future in the desert.

The eastern Mojave Desert opened to homesteading in 1910. Ernest Lanfair, from Searchlight, Nevada, staked a claim at that time and within two years had an up-and-coming prosperous ranch and store in Lanfair Valley. Homesteaders began to move to his “colony” (2). Mining ventures such as the El Dorado Mine also drew workers to the mountains surrounding Lanfair. The California and Eastern Railroad (later Santa Fe) ran tracks through the valley south to Goffs and eastward to Searchlight Nevada. Trains ran six days a week. For settlers, railroads meant access, transportation to markets or schools, and the feeling that the land might be worth something someday (3).

Early twentieth century Western homesteading represented a chance for African Americans to gain land ownership, self-sufficiency, and freedom from racial oppression in segregated cities and the Deep South. The East Mojave drew African Americans from as far away as Arkansas and as close as Los Angeles or Needles, CA. For a small fee, three years of occupancy with planted crops entitled the settlers to eventually gain title and patented ownership from the General Land Office of the United States. Life in the desert was never easy, but hard work and better than average rainfall in the early teens allowed homesteaders to raise feedstock maize, corn, beans, barley, and rye wheat. As rainfall diminished after 1915, some homesteaders spent several months of each year working in cities to earn cash when crop yields shrank (4).
Who were these African American homesteaders? Census records, homestead patent filings, and descendant interviews give us entry to the lives of the individuals below. Most valuable is the extensive research and oral history gathered by avocational historian Dennis Casabier, resident and chronicler of the East Mojave Desert; founder of the Mojave Desert Heritage and Cultural Association in Goffs, California. Today the National Park Service in Mojave National Preserve is continuing Casabier’s work with an extended ethnohistory (in progress) of Lanfair African American homesteaders (5 & 6).

- William H. Carter was born in 1844 in Fairfax Virginia. A Civil War veteran, he served in the United States Army, 23rd Regiment Colored Infantry Volunteers. He filed for a homestead in Lanfair Valley in 1915 after moving from Alhambra CA. A widower with three grown children, he received his patent in 1917. In 1916, he had a two room house, chicken corrals, fencing, and twelve acres under the plow in oats and wheat. Unfortunately, there was no harvest that year as patent records indicate rabbits ate the entire wheat crop. Carter lived in the Sawtelle Soldiers’ Home in Santa Monica prior to his death in 1926.

- Richard W. Hodnett, Sr. was born into slavery in Troup County, Georgia in 1851. He moved his large family from Arkansas to Whittier CA and then to Lanfair Valley in 1910 to work on the El Dorado Mine. Seven children lived on the homestead with him. More Hodnetts—brothers, nephews, and cousins—followed Richard Sr. to Lanfair. Improvements on the land included a four room house, stable, hen house, garden, and fencing around the property. A registered Republican, he voted in Lanfair while homesteading there, a right that would have been unavailable in Arkansas. His patent was granted posthumously in 1942. In a 1999 interview with Casabier, his son, Richard Jr., recalled the family loading barrels for water at Piute Spring (near Ft. Piute on the Mojave Road). His mother also did the washing at the spring. When it rained, they put out every barrel and container they could find to catch rainwater. Richard Hodnett Jr. made one last trip to Lanfair Valley to see the old homestead in 2000. He died in 2003 at the age of 100.

- Nannie Mary Craig was born in 1870 in Kentucky. She filed for a 320 acre patent in 1915 and was granted her patent in 1921. A single woman, her brother Jessie and his wife lived on the homestead with her for the first few years to help out. By 1922, she was living and working in Pasadena, CA, but still owned the land. Her niece and nephew, Roberta and Robert, kept the homestead in their family up until the present day. In a 1990 interview with Casabier, Roberta called Aunt Nan’s Lanfair home a “house of sharing.”

Casabier’s interviews with both white and black Lanfair homesteaders, children at the time of settlement, documented few instances of remembered racial discrimination. But probing deeper, Casabier found no interviewees who remembered African American families ever attending Lanfair social events: Fourth of July picnics, dances, pioneer celebrations. The valley’s leading social organization, the Yucca Club, did not allow black membership (7). Culturally segregated, the Dunbar post office served the small African American community while the Lanfair post
The Lanfair Valley today.

Historical marker for the California and Eastern Railroad, on Lanfair Road in the Mojave National Preserve.

Above photos: Piute Spring. Richard Hodnett Jr. recalled as a child the family traveling 13 miles on the Mojave Road from Lanfair to Piute Spring to fill barrels of water for use on the homestead. His mother washed the laundry there too.

office, two hundred yards away, served the white community. But compared to many urban American communities of the day, the remote valley seemed a relative oasis of racial harmony, with integrated schools and farmer helping farmer.

After World War I, settlers began leaving the Lanfair Valley, with most homesteads abandoned by the late 1920s. Valley rainfall returned to its sparse average of 8-10 inches a year after 1915. Few homesteaders could afford the deep wells necessary to reach the poor quality water located beneath hundreds of feet of sand, gravel, and volcanic rock (8). The majority of springs around the valley’s periphery were controlled by the large Rock Springs Land and Cattle Company, whose members filed for homesteads on the valley’s margins wherever alluvial fans collected water. The ranchers had no desire to share water or territory with homesteaders. Constant conflict between settlers and ranchers included fence cutting, trampled crops, rustled beef, and mysterious arson. Crop prices fell after World War I. Santa Fe abandoned the railroad line in 1923 (9).

Despite these barriers to long term settlement, at least 24 African American families managed to prove up on their claims and obtain patents for their land, a success rate equal to or better than white Lanfair homesteaders of the era according to Mojave historian Dennis Casabier. A few parcels remained under ownership of their descendants for generations, long after families moved on to more prosperous locales (10). Scant physical evidence of African American homesteading stands today in Lanfair Valley: square open fields devoid of Joshua trees, sagging fence posts, and schoolhouse steps. Mojave National Preserve incorporated the valley in 1994 although some homestead parcels remain as private inholdings within the boundaries (11). Memories of these black pioneers live on within descendant families and oral histories archived at the Mojave Desert Archive in Goffs.

Many thanks to archeologist Dave Nichols, Mojave National Preserve, who allowed me access to National Park Service draft reporting on African American homesteading and historian Dennis Casabier, whose tireless work to document Mojave history preserved the stories that don’t get told.

References Cited:


Stuck In the Mud

The consequences of inattention in the backcounry.

by Nicholas Blake

It all began over drinks one evening after a Sierra Club Desert Committee Meeting. I had never traveled to the desert just north of Barstow, CA but had heard a bit about Rainbow Basin Natural Area. I was considering leading Desert Survivors trip there and asked my Sierra Club pals what else might be worth seeing in the vicinity. Julia Sizek spoke up. She had done quite a bit of exploring in the area and rattled off the names of the sights, “Inscription Canyon, Scouts Cove, Owl Canyon.” She told me of a book titled, Guide to 50 Interesting and Mysterious Sites in the Mojave, by Bill Manns. It had been her guide when she was exploring and she highly recommended it.

In December 2018 with the book in hand I set out into the Mojave in my 1994, 4-wheel drive, Jeep Cherokee to scout the trip. Just days earlier I had finished making a number of repairs to the 25-year-old vehicle including adding heavy-duty shock absorbers, replacing the suspension bushings and installing a limited-slip differential in the rear axle. As far as I was concerned, I had an awesome desert rig and I was set for serious exploring. I topped off my gas tank in Barstow before heading out.

A few days before this journey Barstow had received a “significant” winter rain—about one inch of precipitation, which is a lot of water for this part of the world. While driving on paved roads I noticed water puddles from time to time on low spots on the shoulder. The first dirt roads I drove along were well graded and dry. So far everything was going well.

My journey began to fall apart when I reached the Superior Valley. My route was to take me over a series of “dry lakes,” and yet when a gazed through my windshield I saw shimmering reflections of sunlight. The lakes were not at all dry, but on this day actually held water. Added to this, the ruts in the road were becoming more and more filled with standing water and I found myself having to drive overland on dry ground next to the road. A close look on the U. S. Geological Survey topography map on my iPad showed the word “depression” in parentheses with strange swamp-like symbols indicating the terrain ahead. I took the hint and made an immediately U-turn.

There were roads on higher ground that would take me to my destination of Inscription Canyon, but they required a 12 mile detour around Opal Mountain. As it turned out there was a whole section of the guidebook about Opal Mountain sights and the detour turned out to be a wonderful route. I visited “The Fertility Cave” “The Opal Mountain Circles” and saw the petroglyphs of “Coyote Gulch.” The Mojave has no shortage of interesting sights, if you know where to look.

By mid-afternoon I finally made it to Inscription Canyon. As promised, it was full of ancient rock art. This would be a perfect destination for my trip. Being December I only had a couple of hours more daylight and had a big list of places to see. I hurried on.

I do not know what I was thinking, (or I should say I was not thinking at all) when I came upon a flooded section of the road. My mind was elsewhere and I suppose I thought I could motor ahead with my wheels on the high centers between the flooded ruts; how ever in an instant my car slid sideways and down and came to a sudden sloppy stop. That jolted me out of my daze. I slammed the transmission into 4-wheel-drive and hit the gas. The engine raced, the wheels spun and I did not move an inch.

When I exited the car, I stepped right into a deep puddle. I soon discovered the car resting on the high center of the road with all four wheels in the mud. Damn. I was stuck like you would not believe and in fact I couldn’t believe it. I had just spent all day carefully navigating around mud holes. Why then did I drive into this? What brought me to be so careless? I suppose it did not matter at this point. What did matter was that I had to extract my vehicle from the mire.

I should add here that I traveled with food, water and camping equipment. I was not lost, and if worse came to worse I could walk 12 miles to the town of Hinkley. I was not going to die. If I had gotten stuck in the heat of the summer it might be a much more dire situation, but this was winter and I was not in danger.

When I travel off paved roads, I carry a few tools for contingencies. I had a small shovel, a garden pickaxe and an 8-ton bottle jack. These might be enough to get me free. Then again what I was really hoping for was someone to come along in one of those jacked-up 4X4s with huge tires and a winch to pull me out. Guys who drive such rigs love to use their winches, but there were no such rescue for me that day.
The place where I was trapped was really one big long mud puddle with five or six parallel flooded wheel ruts running through it. One of the ruts I was stuck in was higher than its neighbor and I was able to dig a trench and drain most of its water. I also learned that the ground in the high places only had about a half-inch of slippery mud on its surface and when I dug down the earth was actually pretty firm and dry. In the couple of hours before nightfall I was able to jack my front axle up high enough to clear the ground by a couple of inches. The back axle was another matter. I set up my camp stove on dry ground and fixed dinner, the whole time being both mad at myself and baffled on how I could be so careless. I spent the night inside the Jeep in the huge puddle. The air was cold and damp. I was miserable, but managed to get some sleep.

When I awoke the next morning to truly unusual desert weather—a cold damp fog. Visibility was only 100 feet or so. I also discovered the puddles were covered with a layer of ice. It was below freezing! Soon the sun rose and cleared the fog. I smashed the layer of ice. It was below freezing! Soon the sun rose and cleared the fog. I smashed the ice for fun.

At this point I had two tasks ahead of me: 1. Raise the rear of the car out of the mud and 2. somehow create a dry path to drive away. With the pick and shovel I managed to excavate a pit beneath the back of the vehicle. I gathered nearby sage brush and placed it in the ruts and used the dirt from the pit to make a surprisingly firm bed. Lying on my side on the wet ground and mud as I dug, I was able to reach the rear axle and then dig a hole beneath the differential. I found a flat stone for a base then set my bottle jack to the differential case. The jack was rated for 8 tons and I was pleased when with a bit of the differential case. The jack was rated for stone for a base then set my bottle jack to a hole beneath the differential. I found a flat was able to reach the rear axle and then dug, I make a surprisingly firm bed. Lying on my in the ruts and used the dirt from the pit to gather more sage brush, threw that into the flooded ruts then shoveled dirt from the high crowns into the ruts behind my vehicle. I had not done so much digging since I was a kid making forts. After creating about 25 feet of dry road I thought I had enough to get the car moving. Then I figured, with careful steering, I could drive on the high centers and out of there.

I inspected my intended route over and over again, and then when satisfied I knew it, I fired up the car and hit the gas. The car took off just fine and for 25 feet things were great; then suddenly the back end of the car slid and dropped and it came to a stop. I was stuck again. As had happened the day before, when I tried to drive on the high ground the slippery layer of mud caused the tires skid into the ruts. Unlike the day before I was not mired so deeply and the front wheels were still on the dry.

At this point I had lost my patience for digging and jacking and backing up. I had about 40 feet of dry ground ahead of me and decided get a head of speed on the dry and power my way forward through the muck. At least I could see where I was going in this direction. I punched the accelerator and zoomed off.

I found more rocks and placed them under the tires and soon had my car on an island of dry ground, but still in a very large mud puddle. Behind the car had about 60, feet of mud. The front, 90 feet. I decided to back out.

For the next hour or so I gathered more sage brush, threw that into the flooded ruts then shoveled dirt from the high crowns into the ruts behind my vehicle. I had not done so much digging since I was a kid making forts. After creating about 25 feet of dry road I thought I had enough to get the car moving. Then I figured, with careful steering, I could drive on the high centers and out of there.

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I guess I learned a lesson from this experience: That is, don’t neglect to follow your lessons. I had been so careful to avoid mud all that day, then a there was a momentary lapse in caution that got me in trouble. On the plus side, I was in a vehicle suited for the roads I was traveling and I had recovery tools. The guide book recommends exploring the desert backcountry with other people in two high-clearance, 4-wheel-drive vehicles, so if one car has a mishap the second can provide aid. My strategy of hoping for a motorist in jacked-up rig with a winch to come along is just not a prudent plan.

“Thank god,” I muttered… and I am an atheist!  Soon I was back in route exploring more sites for my Desert Survivors trip. When I reached Barstow I spent over eight dollars at the coin-op car wash, pressure spraying all the mud collected from the bottom of my car. I left pile of muck in the wash bay when I drove away.

It was a wild and crazy ride. When I reached the end of the dry dirt I cranked the steering to the left and started bouncing over the ruts on a diagonal path, mostly moving by momentum. The car would jolt upward when the wheels hit at high crown then would immediately drop when the tires went into a rut, and shooting up splatters of mud. There were moments when the engine was racing and the tires spinning and I was starting to slow down with no traction, but then I reached more solid footing and the car slithered forward and out of the giant puddle.

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Craig King in the Yucca Valley, November 2019.


Michael Goertz in the Atacama Desert, Chile at the Tropic of Capricorn in March 2020.

Robin Rome and Cathy Luchetti keeping warm on an Eldorado National Forest backpack, July 2020.

Below photo: Julia Sizek gives an online presentation about 20th-Century desert botanist Mary Beal, for the Joshua Tree National Park Association, June 2020.

Kim Lockett relaxes in a hot spring along the Owyhee River in Oregon, June 2020, during a car camp with husband David Oline.


Photo: Lynne Buckner
Photo: Courtesy of Michael Goertz
Photo: Facebook
Photo: Facebook

Pov bags Quandry Peak, Colorado, August 2020.

Photo: Courtesy of Craig King
Photo: Facebook
Photo: Facebook
Photos From Your Trips & Events

The pandemic curtailed Desert Survivors activities, but many of us are still getting out.

Desert Survivors Board of Directors virtual meeting in September 2020.

Lexine Alpert and friend at Granite Lake, during a Sierra Nevada backpack, July 2020.

Upper right photo: Elena Gogoleva above Horse Creek Canyon during an August 2020, four-day backpack into the high Sierra.

Right photo: Elaine Gorman carries steel posts to build a barbed wire fence in the Mojave National Preserve, March 2020. This service project by Wilderness Volunteers keeps cattle out of protected lands.

Stacy Goss and Chris Gorzalski backpacking the Toiyabee Crest Trail, Nevada, July 2020.

Lynne Buckner on a rainy day-hike — Panamint Valley, November 2019.

Loretta Bauer maintains social distancing while celebrating her 76th birthday, Vallejo, CA May 2020.
Desert Survivors Membership Form

Membership dues are just $30/year, although additional donations are welcome. You can renew your membership by filling out this form and mailing it in with a check to the address shown below.

Name (req'd) _____________________________________________________________
Street Address (req'd) ______________________________________________________
City, State, Zip Code (req'd)__________________________________________________
Phone number: ___________________________________________________________
E-mail address: ___________________________________________________________

(Desert Survivors strives to prevent unsolicited use of members’ e-mail addresses, and contact details, and will not knowingly allow misuse. Our email-list servers guard email confidentiality.)

I want to renew at the following rate (make check payable to “Desert Survivors”):

____ $30 - Tortoise (basic rate) ____ $50 - Roadrunner ____ $100 - Coyote
____ $500 – Bristlecone ____ $1000 - Bighorn

Desert Survivors • P O Box 20991, Oakland, CA 94620-0991

Marisa Seaman (the woman on the front cover) on a 2020 camping trip.