Human History of Snow Canyon and Southwestern Utah

By
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PART 1
INDIGENOUS PEOPLES

Welcome to our Humans of Snow Canyon series! This is a 4-part series focusing on how the human history and the natural history of Snow Canyon intersect, and the vital connections that exist between humans and the land they live on. For part one of this series, we are focusing on prehistoric and indigenous peoples.

People have lived in what is now called Utah for at least 12,000 years. Snow Canyon has been important to many different groups, and over time various groups have moved in and out of the area in accordance with the resources that have been available at different times.

The earliest human artifacts found in Utah date back to the Paleolithic period, about 12,000 BCE. While this is the oldest physical record, indigenous oral histories date back much longer and exist from time immemorial. Based on these histories and discovered artifacts, we have learned that the Paleolithic people in Utah were highly nomadic– meaning they moved around a lot. They were hunter-gatherers who used spears and other projectiles to hunt large game such as woolly mammoths, giant sloths, and giant bison. These people lived during the end of the last ice age, when glaciers were present in Utah (although they were in the process of retreating). One of their common weapons was an atlatl. An atlatl is a two-piece hunting tool– one piece is a wooden stick with a tip at the end similar to an arrow, and the other piece is a flatter piece of wood with a notch where the makeshift arrow sits, allowing the hunter to throw the arrow at a target. It is often considered an early version of the bow and arrow.

As the ice age faded away and temperatures rose, people adapted to the changing climate of the Archaic period. Large animals such as woolly mammoths, giant sloths, and giant bison began to go extinct, and ancient humans adjusted by becoming increasingly nomadic hunter-gatherers, and by hunting smaller animals. During this Archaic period, ancient peoples still used the atlatl often. Sometime around 8,000 BCE, Archaic peoples and groups began spreading out across

the American Southwest. They were nomadic until about 4,000 BCE, when they adopted agriculturewhich is the farming of plants. Growing rather than foraging for and gathering food allowed them to become sedentary. A sedentary lifestyle allowed them to build more permanent structures and engage in art and other crafts in ways that their previously nomadic lifestyle had prevented. As time went on and farming became more established, groups began developing differences in their material culture. Through these differences, cultures of the Southwest indigenous groups became more visibility distinct from one another.

Archaeologists have identified several prehistoric cultures in the Southwest. In the four corners area of Utah, Colorado, New Mexico and Arizona, groups known today as the Ancestral Puebloans began building communities. You may have heard these people referred to as the Anasazi–however, Anasazi is a term given to those people by warring tribes that means “ancient enemy,” and a more respectful term is the Old Ones, the Ancient Ones, or the Ancestral Puebloans.

Snow Canyon is the meeting of the Great Basin desert and the Mojave desert–around the canyon and a little bit to the south is where the Ancestral Puebloans lived (mostly in the Mojave region), and north of the canyon in the Great Basin region is where a tribe called the Fremont lived. Most of the cultural remains near the canyon belong to the Ancestral Puebloans, but since Snow Canyon exists so close to the border of the two tribes, there may have been some overlap.

The Ancestral Puebloans inhabited this region from about 100 CE to 1250 CE. These people eventually abandoned the use of the atlatl in favor of bows and arrows, and practiced much more advanced farming. There isn’t any evidence that the Ancestral Puebloans lived directly in Snow Canyon (we don’t have any cliff houses, granaries or other permanent structures here). It is most likely that their communities were centered around the Virgin River and the Santa Clara River, and they used Snow Canyon as a through point to move between the cooler wintering grounds of the St. George area and the summering grounds of Pine Valley. We have found evidence of their presence in and use of the canyon through arrowheads, pot sherds,

grinding stones, fire pits, and petroglyphs scattered within Snow Canyon itself. While these people didn't disappear, the culture of the Ancestral Puebloans did slowly disappear, and we are not entirely sure why. It could be because this area experiences cyclical droughts and the people moved elsewhere during a mega-drought, it could have been related to war, it could have been a combination of several things. We simply don't know exactly what happened. All we know is that the permanent structures and artifacts of the Ancestral Puebloans were left empty and left behind.

Between 1200 CE and now, this region has been inhabited by the Paiute peoples, specifically the Shivwits, who historically used Snow Canyon as a hunting and gathering ground. These people use many of the natural resources of Snow Canyon–the Utah yucca fruit is used for food, the leaves are used to weave sandals, and the roots to make soap; wild rhubarb is used for food; the crushed leaves of the creosote bush are used to treat skin irritations and wounds. The land of Snow Canyon has been supporting human life and culture for thousands of years.

In the office, we have some artifacts that were brought to us, but because they were turned in they have lost all contextual and historical significance. Indigenous history and peoples are intricately tied with environment and location, and so removing artifacts from their location removes them from all of their historical and cultural context and makes it almost impossible to glean any sort of significance or meaning from them. Without a location to serve as a foundation, we don't know if artifact remnants were part of a sedentary lifestyle, a nomadic lifestyle, a farming culture, and so much more. Human history and culture are inherently tied with the landscape and natural resources that surround them–what type of pottery you can make depends on the type of soil and materials the land has, what type of food you eat depends on the type of plants that grow on the land, etc. Human history and natural history exist side by side and intertwined. So if you happen upon something you think may be an artifact from a historic people, for conservation's sake, please leave it where it is. It's best to leave it alone and tell a ranger about its location.

PART 2
PIONEER HISTORY

Welcome to part 2 of our Humans of Snow Canyon series! This is a 4-part series focusing on how the human history and the natural history of Snow Canyon intersect, and how vital connections exist between humans and the land they live on. For the second part of this series, we are focusing on colonial and pioneer history.

In part one, we learned that Native peoples have been here in southern Utah and using Snow Canyon since ancient times. By the time Europeans arrived here in the 1700s, this land had been known, used, and even managed/sustained by native peoples for thousands of years. The first known Europeans to explore the Greater Zion area were those of the Dominguez-Escalante party in 1776. The Domínguez–Escalante Expedition was a Spanish expedition led by two priests, Atanasio Domínguez and Silvestre Vélez de Escalante. It was an effort to find a route from Santa Fe, New Mexico, to their Roman Catholic mission in the area we now call Monterey, California. Fur trappers, including the famous Jedediah Smith, followed later. In 1826, Jedediah Smith, searching for a route to California, entered what is now Washington County, following the path of the Virgin River. There is a historic marker located in the Crosby Family Confluence Park in St. George, commemorating what we know of the path he took. You may be noticing a pattern–most of the early colonialist exploration of southern Utah was not as a stopping point, but as a way to get to somewhere else. The southern Utah desert can be an inhospitable place, and many settlers who passed through it made sure they did just that–passed through, with no intention of stopping.

In regard to the permanent presence of settlers and pioneers, that “passing through” tendency changed with the arrival of the Mormons, or members of the Church of Jesus Christ of Latter-day Saints. LDS pioneers first settled in northern Utah, then in 1854, the LDS Church President Brigham Young established a mission in the Santa Clara area to teach and improve relations with the native Paiutes, with the goal of eventually building another colony in the area. Shortly

afterwards, Brigham Young asked 38 families who had recently settled in northern Utah to travel to southern Utah to grow cotton. These families were all southerners familiar with growing cotton–they were families from Mississippi, Alabama, Virginia, Texas, Tennessee and the Carolinas. When the families accepted and began the move, it marked the start of the Cotton Mission, or sometimes called the Southern Mission, which directly led to the formation of St. George as we know it today. It's because of its foundation in southern cotton farming that St. George was referred to as Utah's Dixie during pioneer times.

We don't have explicit records stating if any slaves were brought to southern Utah with the cotton farmers, though we do know that a few of the farmers, such as Robert Covington, owned and managed slaves on plantations in the South before coming to southern Utah. Whether slavery was commonplace in southern Utah or not, it was still uncommon during pioneer times to give black folks proper credit or make reliable records of that credit. This resulted in ineffectual and often disrespectful bits of information about a group of people who helped create St. George. The few records that we have of black pioneer history in southern Utah are side notes in historical documents, such as one that simply says "a black man painted this sign." We know that black history intertwines with pioneer history here in St. George, but because of incomplete and sometimes entirely absent records, the specifics of those connections aren't known.

The families who settled St. George had a very rough start. It took a few tough years known as "the starving years," but eventually the pioneers were able to build a stable community with successful farmland and crops in southern Utah. By 1861, both St. George and Santa Clara had been settled. According to local stories, early pioneers happened upon Snow Canyon while searching for lost cattle in the 1850s. Snow Canyon was named after Lorenzo Snow, fifth president of the LDS Church, and Erastus Snow, one of the leaders of the Southern Utah mission. Evidence of the pioneers' use of Snow Canyon is abundant. Some local pioneers made their own "petroglyphs" by writing their names in wagon axle grease on the sandstone of what is now the Pioneer Names Trail. The names date

back to 1881. If you have seen the names, you know it takes a bit of a scramble up the rock to get to them and you might be wondering, “What were the pioneers even doing up there?” Former Snow Canyon State Park naturalist Jenny Dawn Stucki said that the purpose for their visit is sheer speculation, but that she believes they were there camping for recreation and decided “to ‘mark’ their moment and celebrate being together in such a beautiful area. The other possibility,” she said, “is they were attending to a cattle herd.” The town’s young men would take turns watching the herd graze during the day, and the location of where the names are written in sandstone “would have been a nice shady place to hang out,” Stucki remarked. Once the canyon was known by the pioneers, some of whom were polygamists, legends say that when Utah was fighting the federal government over statehood and the right to practice polygamy, polygamists would often hide from government and law officials inside of Snow Canyon.

Early ranchers used the canyon for cattle grazing, and pioneer newspapers recorded picnicking and recreation in Johnson Canyon as early as 1871. Given that the beginning of southern Utah’s pioneer history begins with the “starving years,” we know that the early settlers did not have a “walk in the park” to tame the area’s harshness, including its extreme temperatures, flood potential, poor soils and relative isolation. Under those conditions, it’s no wonder that these pioneers would seek some type of fun and relaxing recreation, and they found it at the southern end of the park in Johnson’s Canyon. Formerly known as “Volcanic Kanyon,” pioneers used it for picnicking and rock scrambling near Johnson Arch, named for pioneer Joseph Ellis Johnson.

Joseph Ellis Johnson was an LDS pioneer and entrepreneur. He owned his own newspaper and printing press, was president of the local gardeners club, and had a deep interest in botany and horticulture. He came to St. George, with two of his three wives, in the early 1860s and purchased Johnson Canyon in December of 1866. While it was owned by the Johnsons, it was used as a place of recreation, both for the Johnson family and their friends. There were outings to Arch Canyon, as it was sometimes called, where they

would picnic and “frolic about.” One such outing was recorded in an article written by Joseph E. Johnson (a different Joseph Johnson than the canyon owner), in May 1870, and published in his newspaper, “The Polygamist.” Johnson said:

“Recently a large number of our citizens, old and young, great and small, male and female, in wagons, carriages, on horseback and otherwise, under auspices of some of our lady friends, went out to that wild gulch Arch canyon. There, with every available source of amusement, they spent the day in the shadow of walls of rock and shady trees, taking a sumptuous picnic, near a cool, gushing spring.

“The sport and frolic was big with fun, the boys scaling wild precipices and the girls doing bewitchingly. It was a happy outing and we enjoyed it and felt ourselves ‘a boy again.’ We counted 20 vehicles. In the evening Bro Branch gave the company a dance in the hall.”

As a result of the canyon’s great acoustics, the stories say that Maude Johnson, the daughter of Joseph Ellis Johnson, climbed up under the arch in Johnson’s Canyon to sing in the early 1870s. Because of this, the arch earned the name the Maude E. Arch. Maude’s family moved here when she was only two years old. At two and a half, her father boasted of her singing abilities in a letter to one of her half sisters. He said that Maude could sing the best of any of them in her singing class. When she was 19 years old, she was listed on the July 24th Pioneer Day program for St. George. Whether she was a young girl of two or a young woman of 19, it seems that the towering cliff walls of the Maude Arch in Johnson Canyon provided the perfect surround sound acoustics to magnify her vocal abilities and helped to create an outdoor concert hall. Turns out we’ve been putting on shows here at Snow Canyon for some time, way before Tuacahn!

It's clear that human history and natural history are connected, and that human history and culture are intricately tied with the environment that human beings live within. Part one of this series explained how Snow Canyon supported Native peoples for

thousands of years and continues to do so for the Shivwits tribe, and this second part shows how Snow Canyon allowed for pioneers to not only survive in this land, but to thrive in this land–a place where food, water, shade, recreation, fun, and community all coexisted. As you continue your various walks and hikes throughout the park today, keep in mind that we have this history precisely because of the land you stand on, because it has been taken care of by Native peoples and enjoyed by the pioneers who came before us. Remember to treat it with respect, because to mismanage this land is to mismanage our own heritage.

PART 3
HOLLYWOOD HISTORY

Welcome to part 3 of our Humans of Snow Canyon series! This is a 4-part series focusing on how the human history and the natural history of Snow Canyon intersect, and how vital connections exist between humans and the land they live on. So far we've covered indigenous history and pioneer history, and for this third part, we are focusing on Hollywood history.

Rural southern Utah seems like the opposite of Hollywood, but southern Utah has actually been the filming location of over 200 movies, and Kanab earned the nickname "Little Hollywood" during the early to mid 1900s. Turns out our alfalfa fields, cows, and sandstone deserts have a stronger metropolitan connection than they get credit for. Out of the over 200 movies filmed in southern Utah, at least 27 of them were filmed or partially filmed in Snow Canyon State Park, along with at least 5 TV episodes and a handful of TV documentaries. Even more were filmed in the St. George area.

One of the reasons St. George was such a popular filming location is due to the wide variety of scenery. You can go from the red sandstone of St. George to the greenery and forestry of Pine Valley to

the water of the Virgin River to the historic buildings of Silver Reef, and any of those landscapes will be within a 2 hour drive of each other. In addition to the many different scenic choices available here, St. George is a large enough town to comfortably host an entire film crew for several weeks. Another reason why Hollywood loved it here is because we are only about a 6 hour drive away from Hollywood itself, so producers and directors could reach us fairly easily.

Today, Snow Canyon is a State Park with a campground, paved roads, designated hiking trails, and habitat regulations. In the 1950s, when it was at its height of film location popularity, there were no paved roads or trail systems, and much of the land was private property. Before Snow Canyon became a State Park in 1958, it was a remote location with few visitors other than local landowners and film crews. Of the 27 movies we know for sure used Snow Canyon as a location in some way, 12 were filmed before it became a State Park. The most popular and well known movies that have been filmed here in Snow Canyon include The Conqueror in 1954 starring John Wayne and Susan Hayward; The King and Four Queens in 1956 starring Clark Gable and Eleanor Parker; They Came to Cordura in 1958 starring Gary Cooper and Rita Hayworth; Butch Cassidy and the Sundance Kid in 1968 starring Robert Redford and Paul Newman; Jeremiah Johnson in 1971 starring Robert Redford, Will Geer, and Delle Bolton; The Electric Horseman in 1979 starring Robert Redford and Jane Fonda; The Flintstones in 1994 starring John Goodman, Rick Moranis, and Rosie O'Donnell; and High School Musical 2 starring Zac Efron and Vanessa Hudgens. Some of these movies are well known because they did well and were loved by most who watched them… others are well known for achieving the exact opposite. Perhaps the most expensive blockbuster to be made here was John Wayne's The Conqueror in 1954 with a budget of 6 million dollars (which in today's money is over 65 million dollars), and it did not do well. It received harsh treatment from critics and regular audience members alike, and today it has a dismal 10% rating on Rotten Tomatoes. Regardless of your feelings about musicals and high school, High School Musical 2 is the most recent and probably most popular movie by today's standards and audiences to be filmed here.

One of the first movies to use the scenery of Snow Canyon was a movie called When a Man's a Man , released in 1934. It was a black and white film that used Snow Canyon as a backdrop. The actor Clark Gable, whose nickname was the "King of Hollywood," came to St. George in 1956 to film The King and Four Queens . They built a Western town to use as a set that was constructed here in Snow Canyon and remained here for several years after the filming of the movie finished. It has since been removed, so don't go hunting for an old Western town movie set.

Many of the actors who filmed here formed a special bond with the land and the locals. Snow Canyon was used for scenes in a film called They Came to Cordura in 1958, and one of the starring actors was Gary Cooper, who was very famous at the time. While they were filming, two locals named Jack Holt and Tank Thompson showed up on set to show off the geese they had shot earlier in the day. Upon revealing the trunk-full of supposedly shot and dead geese, they discovered they actually had a trunk-full of shot but stunned and somehow still alive geese that broke loose on set. Nearly the entire crew ended up at the car amidst all the chaos. Among them was Gary Cooper, who asked the two men if they were going goose hunting again anytime soon. Jack Holt said they were going right back out as soon as they left the set, to which Cooper replied, "Not without me." Cooper finished a handful of scenes and then went hunting with Holt and Thompson, and it became a regular hobby. Cooper was on set for two months, and hunted with Holt and Thompson just about every day of those two months. Holt was worried the hunting would distract him from filming, but he said that "one day the director and unit manager came up to me and said they didn't care what it took or how much it cost–I was to take Coop hunting every day. I guess he'd never known his lines better or been so good to work with as when he knew he was going goose hunting after work." A few years later, Cooper called Holt at his house letting him know he was back in St. George and that Holt needed to get over to the motel he was staying at as soon as possible. When Holt arrived, Cooper filled him in on his life–Cooper showed two surgical incisions on his chest and said, "They opened me up. All they saw was cancer and they closed me up

and gave me these pills and ninety days. Let's go hunting." Holt said, "We hunted two solid weeks. I never saw him again after that." Locals and superstars came together here in friendships that lasted lifetimes.

So how did it all happen in the first place? How did movie producers even find out about St. George, Snow Canyon, and Zion? How did anyone in Hollywood figure out we were so great? Most of it is due to a man named Dick Hammer. Dick Hammer arrived in the St. George area in 1933 at 29 years old after working in California. He had gone to Hollywood to try his hand at movies, trained as a stunt man and performed in several movies, but wasn't successful enough to stick with it. When he ended up in St. George, he opened a burger stand downtown that grew in popularity and eventually became Dick's Cafe. After his dabbling in Hollywood, Hammer wasn't content with just running a restaurant and began looking for additional opportunities. This led him to Kanab, aka "Little Hollywood," where the Parry brothers were attracting film crews and producers, and setting up the famous Parry's Lodge. Hammer wanted in. A motel owner in St. George named Brown Hail became Hammer's partner and the two of them asked the Parry brothers for any tips and tricks to getting Hollywood involved in St. George. They told Hammer and Hail that the key was developing personal friendships with Hollywood producers and directors, and the Parry brothers gave them a list of contacts. Hammer used his charms and his restaurant to do just that. The St.-GeorgeHollywood idea turned into a booming business, with Dick's Cafe at the center. Dick's Cafe featured not only memorabilia of several films, but many iconic movie stars themselves as they would regularly eat there during filming. Hammer became close friends with John Wayne, who frequented the cafe. Unfortunately, Dick's Cafe was closed and demolished in 1999.

In the 1950s, one of the mottoes for St. George was "where the summer sun spends the winter." For a camera man dependent on light, the sunshine and clear skies of St. George were invaluable. And because we live in a desert that is often harsh, making drought and hard times common, the economic boom that always followed a film was in turn invaluable to St. George. Locals were eager to promote films and to work on them. Whenever a movie was filming in this area,

it involved almost the entire town, and even the surrounding towns and populations. Successfully running a film crew and set requires hotels and motels, restaurants, groceries, catering, extras during filming, carpenters and construction workers to build a set, seamstresses and tailors for costumes, and more. Since most of the films set here were Westerns, it also involved ranchers who rented out horses, cattle, and land. During the filming of The Conqueror in the 1950s, close to 1,000 men and horses each as well as at least 250 studio craftsmen were employed. For extras in a large battle scene filmed on the sand dunes here in Snow Canyon, nearly the entire Shivwits Paiute tribe was employed. The St. George Boy Scouts were even involved by lending enough tables and chairs to serve 800 lunches at a time, and the local school board allowed 9 buses to be rented so the film crew and extras could be transported to various locations. By the time it was over, The Conqueror had left about ¾ of a million dollars in the Washington County economy–which in today's money is just over 8.5 million dollars. Hollywood ended the isolation of St. George and the surrounding area as people all over the world suddenly saw the beauty of southern Utah on the big screen. If Hollywood could come to St. George, then so could everyone else. The movie industry changed St. George permanently–it provided an economic boom as well as exposing us to the rest of the world, leading directly to the tourism industry that supports our beautiful national and state parks, including this one. However, this attention has been a double edged sword. While it's given us an incentive and the funds to begin protecting and conserving the landscapes that make us so unique, high levels of tourism often leave unintentional damage to the areas frequently visited. It's important to remember the scenery that movie-makers, movie-goers, tourists and locals alike have been marveling at for decades is fragile. If we don't protect it, a day could come where all we have left of the landscapes we love are those movies and photos.

PART 4
MODERN DAY CONSERVATION

Welcome to the last of our Humans of Snow Canyon series! This is a 4-part series focusing on how the human history and the natural history of Snow Canyon intersect, and how several vital connections exist between humans and the land they live on. The last 3 parts have explained how Snow Canyon has been absolutely necessary for the humans that have lived in what we now call southern Utah–from indigenous peoples, to pioneers, to actors and actresses in big Hollywood blockbusters. The life that we have built here, from the very beginning to the present day, has partly depended on Snow Canyon.

With the knowledge of how important this land was in the past, it is easy to see how important its conservation is for the present day and for the future. So what exactly is conservation? What are some words and ideas that come to mind when you think of conservation?

The US Department of Agriculture gives a good definition: conservation is "the protection, preservation, management, or restoration of natural environments and the ecological communities that inhabit them." What does that mean in less scientific terms? It means that conservation is protecting and properly managing an area of land and everything that exists on it–from bigger mammals like coyotes to small insects like sphinx moths, from living plants and animals to non-living rocks and mountains. Make no mistake, humans are included in the list of animals that exist in an area that we account for when we talk about conservation. Sometimes conservation means protecting environments from certain things–when it comes to humans, oftentimes we are protecting the land from damage caused by us. In fact, that is exactly how conservation started.

In the 1950s, an environmentalist named Howard Zahniser realized that increasing populations, land developments, and industrialization were threatening wilderness areas across the US. In 1956, Zahniser drafted a bill to protect those wilderness areas and sent it off to the

White House. After 8 years, President Lyndon B. Johnson signed it into law on September 3, 1964. This law ensures that there are areas in the US that are “untrammeled by man, where man himself is a visitor who does not remain… for the good of the whole people.”

After the 1964 Wilderness Act, another monumental step in conservation was taken when the Endangered Species Act was signed into law in 1973. This law made it so species at risk of extinction could be federally labeled as “threatened” or “endangered,” and would receive federal protection for their habitats. Conservation laws are some of the most effective ways we have to protect natural areas. Today, the National Wilderness Preservation System manages and protects 9.1 million acres all because of the 1964 Wilderness Act, and 99% of the species protected under the Endangered Species Act have avoided extinction.

Let’s talk about conservation in the Southwest and the desert specifically. One of the biggest conservation challenges we face here is that of water. We live in a desert, and that means water is scarce. And yet, many living things are here, and those living things need water. Plants are here, animals are here, people are here–farms are here, we have showers, bathtubs, toilets, irrigation systems, sprinklers, and every year more and more people move here. Utah gets a lot of its water from the Colorado River, which has been in crisis for a long time. We’ve been in a 22-yearlong drought that has greatly affected the Colorado River. Because of manmade climate changes, the annual temperatures in areas around the Colorado River have warmed to more than double the global average. The average flow of the Colorado River has already declined nearly 20% since 2000, and at least half of that decline is directly because of those rising temperatures. Temperatures in the Colorado Basin are predicted to rise another 2–5 degrees Fahrenheit by 2050, which could reduce the flow of the river by anywhere from another 10% to 40%.

Another important water source for the Southwest that is close to us is Lake Powell–in February 2023, Lake Powell hit a record low of only 22% full. Lake Powell and Lake Mead provide water and

hydroelectric power to much of the Southwest, and both rely on the flow of the Colorado River. Hydropower generation from Lake Powell is expected to turn off if the reservoir's water line falls below 3,490 ft–its lowest point on record occurred in February of 2023: about 3519 feet. If you're thinking that being less than 35 feet away from losing hydropower generation for several Southwest cities sounds serious, that's because the water situation in the Southwest is indeed serious.

Later in 2023, shortly after those record lows, the Southwest experienced an unusually large amount of rainfall. This made some people feel more secure as they thought to themselves, "we had a very wet spring and fall this year, I'm sure that helped, we aren't in crisis anymore." While it's true we had a very wet year in 2023 (we received more than double the amount of rain we usually get), and it certainly did help, it is not enough. One good year doesn't overcome 22 years of drought. If you remember, the lowest point that Lake Powell hit in February 2023 was 22% full. Even after months of more than double the amount of rain we normally receive, as of late 2023 Lake Powell was still only about 35% full. Double the amount of rain for nearly an entire year couldn't restore Lake Powell to even half of it's capacity. We shouldn't expect the desert to consistently give us double its average amount of rain–2023 was an exception, not the rule, and we can't rely on rainfall to fix our water shortages. Even if we could, at that rate it would take at least 5 years to fill Lake Powell completely–and that's assuming people suddenly stopped moving here, we stopped needing more water, and we kept our water usage the exact same throughout those years. No, we cannot rely on rain or "wet years" to solve our water crisis. If we cannot make some changes to address water conservation, it's entirely possible that this land will become desolate not only for humans, but for many of the plants and animals that live here as well. Consequently, one of the most important conservation questions becomes how do we conserve water and share it among all the things here that need it?

Another conservation challenge we face is that of endangered species and habitat destruction. One of our beloved reptiles, the Mojave desert tortoise, was listed as a threatened species in 1990–it is threatened because of human activity. Habitat destruction due to

land development, deaths from being hit by cars while crossing roads, and illnesses passed from being touched by humans are just a few of the human-related causes of death for desert tortoises. Another species we have here that has a near threatened status is the gila monster. If we cannot prioritize protecting desert habitats, then this species will find itself on the threatened list right next to the desert tortoise. That's the main reason the wildlife reserve that Snow Canyon shares its land with was formed. The Red Cliffs Desert Reserve and Snow Canyon exist for habitat protection and other conservation purposes.

One thing that often gets overlooked in conservation is the sky. However, as cities that use electricity become bigger, the night sky begins to change and thus becomes included in conservation questions. While the stars we're looking at aren't being threatened themselves, our ability to see them is threatened. About 20 years ago, you could step outside in St. George and see not just the moon and a few bright individual stars, but structures and shapes of the Milky Way Galaxy. But since the city has grown and more more lights have gone up, the light pollution we have here limits the stars you can see. While you can still see stars on a clear night, you can no longer see the Milky Way. In less than one lifetime, children who grew up here seeing the Milky Way can no longer see that same night sky as adults.

This might sound a little dreary as you learn about things that we've lost or could potentially lose, but our capability to make positive changes and to prioritize conservation is significant. We've shown this capability before, and more than once. In 1941, as road construction between the cities of St. George and Enterprise was taking place, the original road plans involved using a fair bit of material from the Snow Canyon cinder cone in order to build the road. A large group of local residents complained to the Utah State Road Commission about this usage, and fought for the cinder cones to remain untouched. The state eventually agreed, and our cinder cone was left alone. Later, locals of St. George decided that Snow Canyon was so beautiful and meaningful to us as a community that we made it a State Park in 1958. That State Park status has done

wonders for its conservation. And even recently, people have fought to protect the Red Cliffs Desert Reserve by blocking the construction of highways that would run right through it.

There are several more individual ways that we can all practice conservation. As a hiker, camper, cyclist, or visitor in Snow Canyon, each of you can become conservationists on your trip here simply by following the Leave No Trace principles. There are 7 Leave No Trace principles:

1. Plan Ahead and Prepare This means knowing the regulations and special concerns for the area you're visiting, knowing hiking routes or having access to a map, preparing for the weather, and scheduling your trip to avoid times of high use.

2. Travel and Camp on Durable Surfaces Durable surfaces include maintained trails and designated campsites, rock, gravel, sand, dry grasses or snow. This is a VERY important principle here. We are on-trail hiking only at Snow Canyon because we are so concerned with preserving habitat for the threatened species here. It may not matter when one person steps off the trail, but when one person steps off trail, they leave behind footprints. And then someone else sees those footprints and thinks that maybe the trail goes that way, and they follow those footprints. In a park where we receive about 800,000 visitors annually, it doesn't take long before that one set of footprints becomes an illegal trail where fragile plants and burrows get stepped on by thousands of people. We also have a very fragile surface called cryptobiotic soil—cryptobiotic soil is a thin layer of organisms that live on top of the soil to create a thin crust. This crust keeps sand and other loose dirt in place and prevents erosion, and makes it so plants are able to grow here. But this crust is completely destroyed when stepped on. It's so important to stay on-trail when visiting Snow Canyon.

3. Dispose of Waste Properly Pack it in, pack it out. Don't ever leave trash on the trail. That's especially harmful to our desert tortoise population. Oftentimes, wrappers and other trash particles are

colorful. Another colorful thing in the desert is the flower blossoms in the spring–which desert tortoises eat. As far as a desert tortoise is concerned, a yellow piece of plastic could be another type of yellow flower. Please don’t feed our desert tortoises plastic and other litter. Don’t put toxic chemicals from glow sticks on the walls of the lava tubes for lizards and bats to interact with. If someone came into your house, dumped the contents of a trash can in your living room and then left glow stick liquid in your carpet, you’d be very upset! Don’t do it to the animals that call Snow Canyon home.

4. Leave What You Find Leave rocks, plants and other natural objects as you find them. Snow Canyon has some very cool rocks, and if everyone who ever visited here took a rock, we would have zero cool rocks left to see. Additionally, various birds, lizards, and insects need those rocks to build their homes.

5. Minimize Campfire Impacts In the desert, this means knowing the fire restrictions of the area you’re in. Every desert area should be treated like a can of gasoline–be very careful with an open flame. Use established fire pits only while in Snow Canyon, and always follow the fire restrictions of the area you're in.

6. Respect Wildlife Observe wildlife from a distance. Do not follow or approach them. Never feed animals. Feeding wildlife damages their health, habituates them to humans, and exposes them to predators and other dangers. Respecting wildlife includes managing your own pets properly. When it comes to pets, we are an on-leash State Park at all times and in all areas. Even if you think your dog is the most well-behaved, sweetest dog on the entire planet, it’s very important that your dog always remain on a leash while in the park.

7. Be Considerate of Other Visitors Respect other visitors. They’re here to appreciate nature just the same as you, so allow them to have the same experience you want. Be courteous. Let nature's sounds prevail. Avoid loud voices and noises.

These are all things you can do to practice conservation while you're here in Snow Canyon.

Looking around at the towering sandstone walls and the plants that withstand the sweltering heat for years on end, it's easy to feel like the desert is indestructible. Hard dirt, rocky ground, and never ending, shifting sand as far as the eye can see–the desert can also feel eternal. It's been here for thousands of years–it feels almost impossible that it could ever be different. Of course it will be here for thousands of years more! But now we know that's not necessarily true. As humans, we've both seen and caused negative changes to this area's water and habitats, some of those changes occurring within just half of a lifetime. Our actions matter, and can have extreme consequences. But we've also made changes for the better–we've created a wildlife sanctuary and a State Park, continued to protect those things, and are actively working to prevent the extinction of threatened species here.

Through this series, we've shown that humans are not separate from the natural world. Nature isn't something we visit on the weekends, it's something we've lived in for thousands of years and continue to live in. This little corner of nature that we call Snow Canyon is still here because we've been loving it and respecting it for thousands of years, and we are still protecting it now. As more and more people decide that conserving wilderness is a priority, we can continue to protect it in the future.

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