



Nature Notes

Belden Lewis's Zion: A CCC Guy's Diary

Daylight approaching—camp at last! Gee, it's pretty. I wish there were more trees and green things though.
Belden Lewis

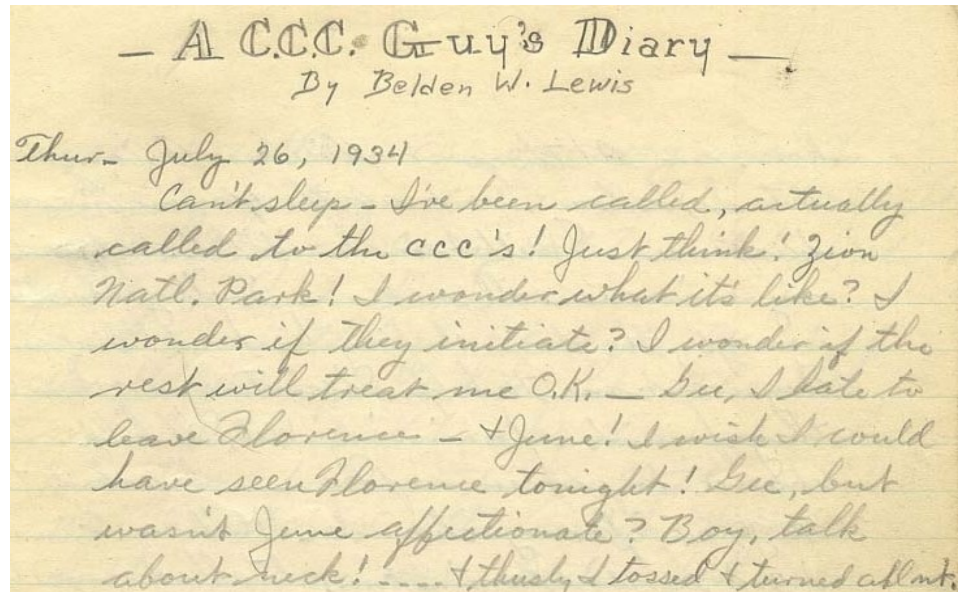
Early in the morning on July 28, 1934, Belden Lewis arrived in Zion National Park. Eleven days after his twentieth birthday, Lewis began a six-month enrollment in the Civilian Conservation Corps (CCC). Six months became more than three years during which Lewis would serve in several leadership positions. Throughout his first year at Zion, he recorded impressions and rich descriptions of his experience in "A CCC Guy's Diary," now held in the park museum collection.

Belden Lewis was one of two million "CCC's" who would work in 198 camps in 94 individual units of the National Park System between 1933 and 1942. The young men who served at Zion explored the park through both work and free-time adventures. Just a few weeks after he arrived, Lewis described one of Zion's breathtaking sunrises.

Beautiful sunrise this morning. The high peaks to the East & South were tipped with a golden glow. "East Temple" was covered with light, while the surrounding mountains & foothills were in shadow.

Lewis went on numerous weekend hikes, either alone or with his fellow workers. His hikes presented him with many opportunities to learn about the park's wildlife and stunning features.

Had a good time today. First, I went swimming in the upper emerald pool. . . then hiked alone up Lady Mt. Trail to the top of Mt. Zion. I never had such a swell hike in my life! Most of the way was rough going up steep cliffs,



An excerpt, from Belden Lewis's "A CCC Guy's Diary," described his fondness for Zion as he explored the park during the Depression. NPS Photo/Brian Forist

through crags, up ladders, and steps cut in the rock. I had to be wary of snakes & every little noise startled me. On top the scenery is great! Immense! Superb! It astounds one. Knocks one off one's feet!

As he was beginning to think about enrolling for his second 6 months with the CCC, Lewis recorded his thoughts about the place in which he lived and worked.

Well, here it is, just three months since I came to this camp! I can hardly conceive of the mysterious flight of time. It doesn't seem that long since I first glimpsed this marvelous natural wonderland of Zion Park. How I love it! I love it more and more the longer I live in it. How differently I look at it all. What a sense of satisfaction I get out of my experience here. Oh boy! I wonder what change of opinion three more

months will have in me? What will I think of it then?

The questions were clearly answered and there was no change of opinion. Belden Lewis's love of Zion continued throughout his life. He settled in Cedar City and

In Zion, CCC enrollees' work projects ranged from building their own camps to spraying for tent caterpillars. Lewis spent much of his term laboring on the Virgin River reventments—stone and wire-cage facings built along the river's edge.

worked as a general contractor, utilizing many of the skills he learned in the CCC.

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Spearhead: The Shaping of Ancient Tools

Companion Glossary

Atl-Atl—a tool used to hurl a spear, often made from bone or wood and having two notches for the fore and middle fingers.

Bulge—in flint knapping (chipping), this is a convex surface created by a hard blow.

Uto-Aztec—a term for ancient American southwest and western Mexican native languages.

Ventral—the lower or inner surface of an object, as opposed to the dorsal or outer surface.

Archeology is a chronicle of past cultures through the centuries and millennia. The concept of time varies among world cultures. Westerners think of time in linear terms, extending back over more than 2.5 million years of human existence. In contrast, many Native American groups conceive of time in cyclical terms, as an endlessly repeating passage of seasons, years, and longer periods of time. While some archeologists working with indigenous people incorporate traditional concepts of time into their research, the linear view of time lies behind most archeological research.



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On August 1, 1929, the first issue of *Nature Notes* was published. Written and produced by the Education Departments at Zion and Bryce Canyon, its purpose was to provide information to "those interested in the educational opportunities, the natural history, the scientific features or the scenic beauties of this region." Eighty-two years later, *Nature Notes* continues this tradition by covering subjects pertinent to Zion National Park and its employees.

When the heat of summer dies down, you might find yourself hiking the Chinle Trail, a low desert path in Zion National Park. It's long and flat, with stellar views of the canyon entrance. That's looking up. If you look down, there's something inspiring as well, something beautiful and rare that has drawn people to this piece of present day Zion National Park for thousands of years: petrified wood. The ancestral Puebloan people (formerly known as Anasazi) collected the tree-turned-to-stone and fashioned spearheads, scrapers, and other blades. Along the Chinle Trail, you can hold some of that ancient tool-making material in your hand (please leave it in the national park so all may enjoy.) But be careful. The feel of the smooth stone and soft autumn breeze may carry you back a thousand years or more to the dawn of the primitive wood's final purpose:

I remember the whiz through frost-chilled air, a gut-wrenching pressure, the antagonistic thud, and then darkness and silence. In that moment, I took the life of a bounding, breathing mule deer, just as any spearhead was fashioned to do.

There was something sacred about my birth. The medicine woman had carefully blessed the field where we, full of potential, lay. The men would pick us with care—for strength, size, and ease of working. We had been towering trees in a forest of pre-dinosaur life 220 million years ago. After succumbing to murky, muddy graves, chemicals like iron and calcium dripped through us, dressing us in colors we had not known before: creamy alabaster, putrid yellow, warm purple or ochre red. The men were not concerned with our rainbow chemistry. We were to be shaped for the hunt.

That day, the chill of winter creeping into the air, one man placed a piece of leather in his left hand, thumb through a rough-hewn hole. He put me in this clad palm and muttered Uto-Aztec incantations. Then he hit me with another stone. In a slow, geologic way, I had been part of the revolutions—the eruptions, the shakings, and the seasons. I had watched it all, understood the ultimate pattern of formation, existence, and destruction. This day was my destruction, but also my rebirth.

The shards fell easily to the ground, to be crushed underfoot by yucca sandals, or re-fashioned into scrapers or knives. The man had hit true; there was a bulge on my ventral side and the edge he created was as sharp as the men's jokes. Luckily, it was soon over—the chipping of the sides, the perfecting of the point. I was ready, anticipating a plump mule deer or a lumbering elk.

I barely remember how he affixed me to the end of the spear, my bulges lashed with sinew onto an ash pole, steamed and straightened. Did the wood feel as oddly honored by its new role? Perhaps it had no idea, not yet knowing eons of existence, but only a few years as a sapling.

There was the men's careful journey up canyon in the Virgin River to mask their scent, the sage smoke prayers, and the silent watching with stomachs flat on blood-red sandstone. Then finally, it was the shout, the frenzied hurl of the atl-atl, the men corralling autumn-fat deer into a blind, red-rock canyon.

Miles from the narrow confines of Zion Canyon, the Chinle formation is littered with unformed spearheads. Those stones linger to tell their stories—forests, time, the hunt. Now, no one claims them, works them into tools, or blesses them, except the few solitary hikers that walk quietly along this autumn trail.

-Angela Horvath



An archaic spearhead from a Zion National Park study area. NPS Photo/Michael Oberndorf

Turkey Vultures: Zion's Sanitation Engineers

Above the cliffs of Angels Landing, a dark bird soars. "Is that a condor?" a visitor asks. I notice the bird is wobbling slightly as it rides a thermal, its wings held upward in a characteristic V-shape called a dihedral. "Turkey vulture," I pronounce. "A condor typically soars with wings out flat. Turkey vultures also soar, but with an unsteady, rocking motion."

As the vulture glides above us, I see a two-toned pattern on the underside of the wings—black along the front edge, grey along the bottom and out across the tips. I explain to the visitor that the condor, in comparison, has brilliant white triangular patches at the front edges of its wings.

The visitor thanks me but is obviously disappointed. She was hoping to glimpse the endangered species whose numbers dropped to just 22 in the wild before it was rescued by a captive breeding program and then reintroduced. Today, there are 399 condors in the world, 198 of which are living in the wild.



Turkey vultures soar above Zion's cliffs using their keen sight to locate potential food. NPS Photo

Turkey vultures, on the other hand, number an estimated 4.5 million in the wild and are continuing to expand in numbers and range. Given those statistics, Zion's visitors are much more likely to see a turkey vulture than a condor. Should this be cause for disappointment? Although not as charismatic as its more massive relative, the turkey vulture plays a critical role in ecosystems and has some remarkable capabilities.

Often referred to as "Nature's Garbage Disposal," turkey vultures, like condors, feed on

dead and decaying animals, or carrion. They rely on their keen sense of sight and smell (condors have no sense of smell) to find food. Once this bird has spotted a potential meal, it will fly low to detect gaseous odors associated with the beginning of decay and will actually pass up badly decomposed carcasses, preferring fresh carrion. Their bald heads (a trait they share with condors) allow them to remain relatively clean while eating inside a dead animal's carcass.

Turkey vultures also possess strong stomach acids which kill bacteria and disease. For this reason, they are credited with eliminating the spread of infection and disease from the carrion they eat. These same stomach acids help the vulture stay disease-free in another way. Turkey vultures (and condors, too) frequently urinate and defecate on their legs. Although this is seen primarily as a method of cooling, the acids contained in the wastes are thought to kill bacteria that may have collected on the vulture's legs as it pinned down carrion.

Turkey vultures are remarkable creatures that clean the environment, ride the thermals, and appeal to our sense of freedom. They continue to succeed without much help from humans. We can feel excited to see them—a vibrant part of Zion's ecosystem as they dance the wind with effortless grace.

-Amy Gaiennie and Gary Washburn

What's Blooming in Zion?

Rio Grande Seepwillow (*Baccharis salicina*-Sunflower Family) blooms in the spring, summer, and fall. They can be found growing near Fremont cottonwood, boxelder, and velvet ash trees in Zion's riparian areas.

Berry Prickly Pear (*Opuntia phaeacantha*-Cactus Family) has purple-colored fruits, common during the fall months throughout Zion Canyon. They are eaten by a variety of animals and were a seasonal staple in the diets of Native Americans who lived here.

Blueleaf Aster (*Aster glaucodes*-Sunflower Family) flowers make their appearance in late summer through early fall. The blue-green color of the stems and leaves is coated with wax which prevents water loss. This hardy plant can be found along Zion's streams and roadways.

Remember, it is against park policy to pick flowers. Please heed signs that say, "Stick to the Trail," and give plants a chance.

Two birds fly past.
They are needed somewhere.

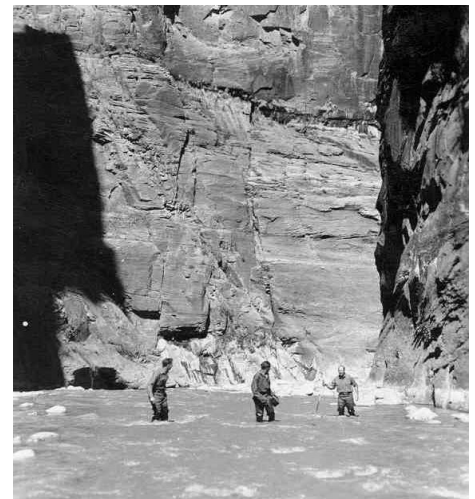
-Robert Bly

A CCC Guy's Diary continued

He took his family on numerous trips in the park, sharing his CCC stories as well as the special place he had quickly grown to love. His son, Dr. Roger Lewis, a retired family physician, carried on his father's legacy of love for Zion, sharing this great, immense, superb, and astounding place with his own family and as a scout leader.

It is possible for each of us to experience the legacy of Belden Lewis and the other "CCC Guys" as we walk in their footsteps along the Watchman or Canyon Overlook trails that they built. When we enjoy a program in the South Campground Amphitheater, we can celebrate the fine craftsmanship of the CCCs. These are just a few of the many places at Zion that were touched forever by the CCC. Like Belden Lewis did, we can find our own love for the marvelous natural wonderland of Zion National Park.

-Brian Forist



CCC workers exploring the Virgin River Narrows. NPS Photo