Caves - An Enduring Resource?

By Karen Underwood

A thousand years ago Native Americans stood in one of the Lava Beds caves and saw the same scene that you see today. A thousand years from now a descendant of yours may stand in one of these caves and see the same scene. Or will they?

The lava tubes of Lava Beds were formed 30-40,000 years ago and have changed little since that time. As your flashlight plays across the surface of the cave it is easy to imagine the cooling process that created the dripstone and pull-offs. These features have not changed with time. When destroyed, they are gone. Other formations have been renewed in a thousand years from now a descendant of yours may stand in one of the Lava Beds caves and see the same scene. Or will they?

More human-caused change has occurred to the caves during the last few decades than in all the previous millennia. An accidental knock of a bump hat destroys lavacicles, while walking off a trail destroys the fine crystalline features covering the floor.

Lava Beds National Monument has begun an effort to work toward better preservation of the caves and your help is needed to accomplish this goal. More damage is done to the caves accidentally than through any acts of vandalism.

The preservation of the caves is a joint effort. Lava tubes are a unique resource. With your help we can minimize destruction and preserve their beauty for centuries.

To help Lava Beds visitors better understand, appreciate and protect the monument, there is an Association sales outlet at the visitor center offering selected publications and maps.

To learn more about the Association or to become a member, write to the Lava Beds Natural History Association, P.O. Box 865, Tulelake, California 96134.

Annual newsletter of the Lava Beds National Monument, Tulelake, California.


WELCOME TO THE WORLD OF LAVA BEDS NATIONAL MONUMENT

It’s a world that is spread out under the bright blue sky of northeastern California, yet one that is largely hidden from immediate view. It’s a world that is enjoyed in the present, but one in which echoes of the past are ever present; one that we hope will find a treasured place in your experience.

The Stronghold, a major feature of the monument, is a powerful place where the natural and cultural history of the area join. Just as it was that the ancient Modoc people valued and defended this land because of its unique natural features, so it is that we must value and conserve it today. We, the National Park Service staff members assigned to Lava Beds, ask you to join us in maintaining a strong hold on both the cultural and natural heritage of this area by developing an awareness of issues affecting it and by wisely using its resources.

We publish this first newsletter in the hope that it will bind us together in this endeavor.

Doris Omundson, Superintendent.
Editors note: In 1987 the National Park Service let a contract to Associated Rock Art Consultants to document the pictographs and petroglyphs of Fern Cave and Petroglyph Point. Although petroglyphs (rock carvings) and pictographs (paintings on rocks) are found throughout the world, they cannot be distinguished from any other. The variations are due to many factors, but they are chiefly the result of differing belief systems.

Rock art (a common term that includes both rock carving and painting) is an ancient form of communication — but it is not "writing" or doodling. Rather, it served to communicate between man and his gods and generally was made by the shaman (medicine man) of the tribe. Rock art may be prayers for health, success or the prevention of catastrophes — as supplications to the great beings in the cosmos that directed the lives of men.

Some rock art is very ancient, stretching back into Paleolithic times, whereas in Australia and parts of Africa, it is still being painted or carved on rocks.

The dates for most rock art in the United States probably range from 4,000 B.C. until after contact with the western world. It is, however, extremely difficult to date; we generally must rely on stylistic elements in the art itself. For example, painting of shaman (medicine man) of the tribe. Rock art may be prayers for health, success or the prevention of catastrophes — as supplications to the great beings in the cosmos that directed the lives of men.

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The rock art at Lava Beds National Monument is a part of the archaeological record of the Modoc Indians and earlier inhabitants of the Tule Lake Basin. It is notable for geometric designs such as sun-wheels, circles and zigzags. Although we today do not understand their meanings, these motifs stood for concepts that were important religious symbols of the ancient Indians who once lived here. However, it is one of the most fragile components of the archaeological record for it is subject to natural erosion that gradually wears the rock away, encroachment of lichens and mosses that obscure and eventually destroy paintings in the lava tubes, and acts of vandalism.

A rock art study was begun in the Monument which will carefully document all the petroglyphs at Petroglyph Point as well as the paintings in Fern Cave. This recording effort will include mapping, photography and scale drawings of all designs. The goal is to produce full documentation that will provide a record for future generations.

A part of the project will be to make specific recommendations for the security of the rock art sites. Presently Petroglyph Point has a chain-link fence restricting access to part of the west side. The goal is to protect the sites and yet make them an inviting and positive experience for visitors.

In other parts of the United States, as well as in other countries, rock art locations face similar problems and various methods have been implemented to safeguard the sites. We hope to find an acceptable, workable solution to the variety of forces threatening the rock art at Lava Beds National Monument.

Editor's note: HAVE AN OLD PHOTO?

We are looking for old photos of monument rock art to assist Associated Rock Art Consultants in determining their deterioration rates. Please contact a ranger if you would like to share your photo(s).

Modoc War Cont. from page 1.

Only six Indians were killed in the fighting while 53 Federal troops lost their lives, including Gen. E.R.S. Canby. Also killed by the Modocs were 17 civilians, two members of the Oregon militia and two government Indian scouts.

Four Modocs were killed by a lynch mob after they had been taken prisoner, one warrior committed suicide rather than surrender and four Indian leaders — Captain Jack, Schonchin John, Boston Charley and Black Jim— were sent to the gallows four months after the war ended.

As a result of the war, 14 Modocs were exiled to the Quapaw Indian Agency in Oklahoma, "banned from California forever," said Lynn Schonchin, a Chiloquin, Oregon school teacher and great granddaughter of Schonchin John, one of the Modoc leaders who were hanged.

In 1900, the dominant culture succeeded in blowing the modem civilization to the winds," said Cheewa James, former Modoc leader. "I go to the Modoc cemetery at the old Klamath Mountain. As long as the spirits are here our culture will live on.

Mary Hovland, Ad Design
Klamath Falls, Oregon

Stronghold '88 is an annual newsletter published in July by the National Park Service and is available free from the Lava Beds National Monument in Tulelake, California.

The descendants of the Indians, soldiers and settlers walked together for miles exchanging stories as they crossed the desolate battlefield. Don Colwell was among them. The war started at his grandfather's ranch when Indians stole butchered beef hanging out to cure for the soldiers and burned the ranch house.

Margaret Powell was another descendant of a settler's family. Her grandparents' home was converted into a fort during the war.

After the war, 301 members of Captain Jack's small Indian band were exiled by train to the Quapaw Indian Agency in Oklahoma, "banned from California forever." Today there are nearly 1,000 Modoc descendants, most of them in the Klamath Falls, Oregon area and some still in Oklahoma. But there are no full-blood Modocs left. Their bloodlines are mixed with the Klamath, Snake, Sioux and other tribes and with other races and nationalities.

When the Modocs were exiled the government insisted they no longer speak the Modoc language or practice their culture, religion or other Indian ways. "By the time my father was born in Oklahoma in 1900, the dominant culture succeeded in blowing the old Modoc civilization to the winds," said Cheewa James.

"They say the Modoc culture is dead, they took the life and spirit out of the Modocs during the Modoc War," said Tom Halferty, a Modoc from Portland, his voice choking with emotion. "I go to the Modoc cemetery at the old Klamath Indian Agency. I clean off the graves. I can feel their spirits. My people often hear the drums still beating out the old Modoc war songs."
Bighorn Sheep - Hopes & Heartaches
By James A. Blaisdell, Nat'l Park Service Biologist, retired

California bighorn sheep have been native to this area for centuries. Historic evidence of their existence in Lava Beds National Monument comes from accounts of early writers, cowboys and sheepherders. Tangible proof was found in the form of skulls and bones unearthed in nearby rins and cool caves. Twenty-six skulls were found in Ovis Cave. Bighorn Cave was found to contain eighteen ram skulls when it was discovered in 1968. We may never know why such a large number of bighorns would come to be in each cave. They may have been trapped by ice and snow or perhaps they died of some disease or were slaughtered by primitive hunters for their meat.

By the 19th century, bighorn suffered a rapid decline in numbers and eventually vanished completely from this area. Loss of the bighorn has been blamed on such factors as severe winters, competition with domestic livestock for forage, predators, disease, parasites and poaching. They were not fully protected by California law until 1873. The last native bighorn disappeared from this region in about 1912.

In 1962 the Secretary of the Interior formed a special committee of prominent wildlife scientists to study and formulate suitable management procedures for restoring native wildlife such as the bighorn. Known as the Leopold Committee, they worked for a year on this complex problem before making their recommendations to the National Park Service. One such recommendation was the reestablishment of California bighorn to Lava Beds National Monument. Plans to accomplish this task were begun in 1966. Construction of the fence enclosing 1100 acres of bighorn habitat in the northwest portion of the Monument and Modoc National Forest was completed in 1971. This was intended to restrict the movement of the animals away from the Monument and to prevent the invasion of domestic livestock into the control area. No natural water sources were available within the enclosure so water had to be introduced. Three water collection and storage systems, known as "guzzlers" were built for year round water supply.

In October of 1971 two California bighorn rams and eight ewes were brought to the Monument and released in the enclosure. The herd began to grow in size. In 1973 poachers shot the only two adult males in the enclosure. The poachers were apprehended and brought to trial. One was found guilty and sentenced to eight days in jail and fined $3,000. In addition he was ordered to have no guns in his possession and no hunting licenses for three years. Considerable publicity worked positively and there were no more poaching cases.

In December of 1973 a replacement adult ram was captured at Charles Sheldon National Wildlife Refuge in Nevada and released in the pen at Lava Bend National Monument. 1974 saw the loss of seven bighorn to bluetongue, a disease carried by gnats that was stopped by frost. 1975 was another traumatic year for the herd. Six lambs were born and all but one died of soremouth, a contagious viral disease. From 1976 to 1979, herd increases were excellent and losses at a minimum. The herd built up to near 45 animals and the Interagency Committee decided to move some of the animals to a suitable area in the Warner Mountains in February of 1980. Several factors combined to make the move a disastrous one. Heavy rain made a muddy quagmire of the enclosure, the capture pen allowed escapes and caused injuries. Helicopter attempts were unsuccessful. Sheep were struggling in the mud and were over-stressed by the quarter-mile carry to the capture pen. Capture was finally accomplished by a line of men on foot, driving the sheep into the capture pen. Of the 14 animals captured, four escaped back into the enclosure, four were released in the Warner Mountains and six perished.

Later that year the final tragedy occurred. Between July 1 and 25 all the remaining bighorn in the pen were counted dead or missing and presumed dead. The California Department of Fish and Game diagnosed the cause as bacterial pneumonia, probably passed through the fence by domestic livestock. High hopes for the majestic bighorn sheep had ultimately turned to heartache for their loss.

Editor's note:
All animals in the Warner Mountains bighorn sheep herd died. The last sheep was seen in January, 1988. Autopsies indicated bacterial bronchial pneumonia as the cause of death.

Prescription for Preservation
by Karen Underwood

Lava Beds lies on the flank of the Medicine Lake Highlands. It is a rugged land created through volcanism. The plant communities that dominated its landscape existed here for thousands of years. Bunchgrass, sagebrush, juniper and ponderosa pine were all part of a delicate system. Fire, disease and flows of molten rock took their toll in those communities but there was a balance and life persisted.

The landscape visible one hundred years ago was quite different than what we see today. Suppression of fire, grazing by domestic sheep and introduction of alien species have changed the plant and animal communities. Where once the area was dominated by bunchgrass plant communities, we now see vast areas of sagebrush and juniper or worse yet, many alien species. Carpets of filaree and walls of tumble-mustard and alien plants cover northern areas of the monument.

A primary goal of the National Park Service is to maintain ecosystems in as nearly a natural state as possible. The emphasis is on preservation of processes, such as plant succession, rather than preservation of single features or species. One of the more important tools the Monument uses is prescribed fire. Reseeding, replanting and removal of alien species help, but fire is by far the most effective aid to restoring this area to a semblance of its former self.

What is prescribed fire? It is a fire that is ignited by a land managing agency when all prescription elements are met. This prescription is a bit different than the one handled by a druggist but is just as critical. A wide range of elements are included in a prescription including weather, dampness of the material to be burned and smoke. Initially prescribed fire is used to reduce the artificially high fuel loads that have built up over the decades while natural fires were suppressed. It is then used periodically to mimic the effects of natural fire which favors native plants. If the area is large enough, naturally caused fires may be allowed to run their natural course.

The goal at Lava Beds is to restore a major portion of the natural vegetation so that the area will not appear very different from what our ancestors might have viewed.

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ARE YOU INTERESTED in a life of excitement, intrigue, and intellectual stimulation? Do you want to learn new skills, brush up on rusty ones or gain some work experience? Lava Beds Volunteers In the Parks program holds the promise of all these things for you. Opportunities exist to assist the Monument in interpretation, administration, visitor protection and resource management. No matter what your skill Lava Beds can probably use it.

Currently the monument has two vacancies for people willing to help in the cave lantern program. Duties include issuing lanterns, answering questions about caves, and informing the public about how to cave gently. If you are interested talk to one of the rangers at the visitors center.
**Things to See and Do**

*Start at the Visitor Center. During the summer season it's open daily from 9AM to 6PM.*

Exhibits and push-button programs interpret the cultural history of the area while Mushpot Cave, nearby, has lights and exhibits which explain the formation of lava tubes. Rangers are there to help you with area information, maps, lanterns, sales publications, and your special questions.

In winter the Visitor Center is open daily, except Thanksgiving and Christmas Days, from 8AM to 5PM.

Explore a lava tube cave. Lava Beds offers a unique opportunity to explore caves by yourself. Information sheets are available at the Visitor Center and you can check out lights free, but please bring them back by 5:30 (4:30 in winter).

Climb a cinder cone. Frothy lava, cooled in the air, created the large cinder cones throughout the monument. Schonchin Butte's 3/4 mile trail leads you to a panoramic view from the fire lookout. Look for unique plants in the crater and don't forget your camera! Cinder cones are easily eroded so please stay on established trails and do not take shortcuts.

Hide yourself at Hidden Valley and Mammoth Crater. Drive to Mammoth Crater, the source of lava which created many of the caves in the monument. Hidden Valley, across the road, is a large conduit for the lava which flowed from the crater toward Tule Lake. As you walk through the valley, look for plants and birds typical of the ponderosa pine forest environment.

Find a pictograph and a petroglyph. At Symbol Bridge, a 3/4 mile hike from Lyons Road, you can see faded Indian pictographs on the sides of this natural bridge. The petroglyph section near the northeast entrance has symbols etched into a solid rock cliff face of a volcano formed under water. Walk along the fence toward the south to view the best symbols. Also look for the different birds living among the cracks in the cliff.

Explore spatter cones. Fleener Chimneys and Black Crater are castle-like formations created by globs of molten lava which piled up on top of each other. Varying textures and colors will delight photographers.

Visit the Thomas-Wright Battlefield. A 1.2 mile trail from the Black Crater parking lot will lead you to one of the battle sites of the Modoc War. Army troops were completely surprised (and surrounded) by the Modocs and Captain Evan Thomas and Lieutenant Thomas Wright lost half their men in the skirmish.

Examine an aa flow. At the Devils Homestead turnouts you can see aa lava. How is this lava different from what you find in the caves?

Visit Gillesms Camp. Visit US Army Headquarters during the Modoc War of 1873. Visualize an active army camp, filled with tents. Old photographs in the wayside exhibits help recreate the scene. A memorial plaque lists those who lost their lives because of this clash of cultures.

Visit Canbys Cross. E.R.S. Canby was the only General Officer killed during the American Indian Wars. The cross marks the site where he was shot during peace negotiations.

Explore Captain Jacks Stronghold. A self-guiding brochure, available at the trailhead, will help you relive the Modoc War. As you travel through this natural lava fortress you will see how the Modocs held off a force 20 times their strength.

**Ranger-guided Tours and Activities**

**June 12 through September 3, 1988**

Each of our activities is offered daily except Wednesdays. Our goal is to offer insights and information which may make your visit here more meaningful. All programs will be held regardless of weather. They may be modified, but they will not be cancelled.

10:30AM and 4:00PM Orientation Program

An excellent film, blending Lava Beds volcanic scenery with Hawaii volcanic activity, makes the formation of lava tubes much easier to understand. The film is followed by a chance to ask your special questions. Meet on the Visitor Center porch. Lasts 1/2 hour.

2:00 PM Cave Trip

Guided cave trips provide an opportunity for you to do something you might otherwise never attempt to do. We'll point out unique formations and talk about how they were made. Meet on the Visitor Center porch and we'll carpool to the cave entrance. Wear strong shoes or boots, as cave temperatures are cool. Sturdy shoes or hiking boots are recommended. Lasts 1 to 1 1/2 hours.

9:00PM Evening Program

Evening campfire programs will cover various aspects of the monument in more detail than is possible at the information desk. Subjects include (but are not limited to) geology, Modoc War, ecology, seasonal variations, caving, history, and management. Most programs will consist of slides and music but may include a marshmallow roast, Indian legends around the fire, a night cave crawl, or a moonlight hike up Schonchin Butte. Frequently we invite guest speakers who are experts in specific fields to discuss current research and new information. In case of rain, we will move the program to the Visitor Center and will post signs at the amphitheatre trails accordingly. Lasts about 1 hour.

Watch also for impromptu demonstrations, talks, or conducted tours at the Visitor Center throughout the day. Activities are announced at the beginning of each program.

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**Special Assistance**

For the hearing impaired we provide exhibit guide books and program scripts.

For the mobility impaired we provide accessible picnic tables, accessible campsites (reserved until 4PM), accessible restrooms at visitor center and campground, trails and caves with different degrees of accessibility, and photo album alternatives.

For the seeing impaired we provide museum tours and cave tours upon request, exhibit guide books for assistants, and tours of historic area by reservation.

If you have questions or comments, ask any Park Ranger. We are here to help you.

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**Need a Light?**

Lava Beds National Monument offers something fairly unique in today's world, something for free. Yes, you can borrow an electric lantern for your trip into the underworld. In return, the National Park Service wants your cooperation in preserving our cave resources, many of which are irreplaceable. So please help us by following these guidelines:

- Stay on the trail if one exists.
- Avoid stepping on or touching lava formations. We want their beauty to last forever.
- Please carry out all trash.
- Always carry extra lights.
- Wear sturdy shoes or boots.
- Dress warmly especially in ice caves; this is as much to protect the ice as you!
- Protect your head. A hard hat is best but any type of cap helps.
- Use only electric lights in ice caves. Coleman lanterns hasten the melting of the ice.
- No smoking
- Please don't eat or drink in caves
- Cave softly.

Never attempt anything beyond the least able member of your party.

Collecting natural objects or artifacts is prohibited. Collecting unnatural objects (litter, beverage cans, etc) for deposit outside is encouraged and appreciated.

Your enjoyment of Lava Beds National Monument is our goal. We hope that in following these simple guidelines your visit to the Monument will be a safe, enjoyable, and unforgettable experience. Thank you for joining us.