LEHMANN CADES

...ITS HUMAN STORY

From the Beginning Through 1965

by

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Updated Through 1975
By NPS Staff

United States
Department of the Interior
National Park Service

LEHMANN CADES NATIONAL MONUMENT
Baker, Nevada  89311
1966
This "history of Lehman Caves" is a copy, rather than an edition, of Keith Trexler's Lehman Caves - Its Human Story; which he completed in 1965 after several years of research. It is copied just as he wrote it with the exception that three of his appendices have been omitted. They include 1) The Proposed Great Basin National Park, an account of proceedings which have developed from efforts to establish a National Park in the Wheeler Peak area; 2) a list of Lehman Caves National Monument Superintendents; 3) a list of Friends of Lehman Caves National Monument.

The first, although of historical interest, is an unfinished story insofar as a National Park has not yet been established. While efforts are still being made in its behalf, it is not yet really a part of what one might consider to be the history of the cave or of its administration. The information in the second appendix, List of Superintendents, is part of the Personnel Roster which has been included in this copy. The third omitted appendix was not considered to be of historical interest.

The purpose in preparing this copy of Trexler's history has been so that seasonal guides may be given copies of it to read and study independently and/or on their own time. Until the present only a few copies of the history have been available for the guides to read.

Guides who are interested in the omitted appendices may find them in the master copy of the history which is in the monument files.

June, 1977
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Index
I think a serious and committed historian cannot write about anything without becoming involved in the issues and personalities. There is no such thing as a definitive history. The history written is always wrapped up in the preoccupations of the writers.*

Yes, this author, although not a professional historian, became wrapped up in the history he was writing. As a result, the work turned out to be much more voluminous than ever intended. In fact, the whole project never was intended or planned. Like Topsy, it just grew.

A medal of some sort probably should be awarded to anyone who will plow through this entire tome and an extra gold star to him who is brave enough to finish the appendices too. Seriously though, this history was written to satisfy the need for a single source of information on the history of the Caves and the Monument. It is aimed at the interpreter and we hope it will help him to answer the questions posed to him by the most interested of visitors.

Much more could have been covered. Many things an administrator might want to know — finances, water rights, local electrical proposals — were left out as much because of lack of time as lack of interest on the part of the author. Some future Monument historian may wish to do these things as well as to refine the subjects covered herein. Suggested sources for further research and many unanswered questions are in the Monument files. May the future chroniclers enjoy their work as much as I have enjoyed mine!

Many thanks for aid in preparing this history are due: To my wife and family who, during this project, seldom had a father at home; to Superintendents Paul M. Steele, for encouraging me to embark upon the project, R. R. Jacobsen, for making the research "official", and Peter L. Parry, who gave me time to finish; and to Administrative Assistant James F. Beck, who gave me sound advice I didn't always take.

Mrs. Irene Lehman Johnson, granddaughter of Absalom Lehman, George Baker, Ralph Kaufman, Daisy Rowley, Leon Rowley and Ray de Saussure; and personnel at the L.D.S. Church Historians Office, Bancroft Library, and Utah State Historical Society also gave me much material and encouragement.

Finally, much credit is due to the Lehman Caves National Monument staff whose restraint in the face of continual harassment is appreciated.

K. A. T.
March, 1966
INTRODUCTION

"It is never really possible for us to determine just what we know and what we wish that we knew." 1

Truer words were never spoken and we have an eerie feeling that the author who wrote those lines had our Lehman Caves story definitely in mind. In the pages that follow we will attempt to present the facts and legends associated with the Caves and draw from these diverse presentations a sensible story of the Caves' when and who.

Briefly, the history of Lehman Caves began more than 500 million years ago in the Cambrian period of geologic time. The story includes at least two discoveries of the Caves' entrance; one by Indians who buried the bones of their dead therein, and one by Absalom Lehman. It tells of the establishment of Lehman Caves National Monument under U.S. Forest Service administration; of the assignment of the Monument to the National Park Service; of extensive developments at the Caves during MISSION 66; and, for our purposes, ends December 31, 1965.

The Geographical Setting

Located in east central Nevada (White Pine County) approximately ten miles from the Utah State line, Lehman Caves National Monument occupies one square mile of typical Great Basin foothill terrain. Elevation at Monument headquarters is 6,825 feet above sea level. Perennial streams pass close to the Monument on the north and south but there is no stream flow through the Monument. The climate is typically montane with cold snowy winters and brief, not extremely warm summers.

A paved highway leads five miles from the Monument to Baker, Nevada, and Nevada Highway 73. The latter joins U.S. Highway 6-50 six miles to the north and Utah 21 about eight miles to the south. Ely, Nevada, sixty-eight miles to the west of the Monument, is the closest large town. 2

Geology

The sedimentary rocks of the Monument, laid down in Cambrian seas about 500 million years ago, include Pole Canyon Limestone
and Prospect Mountain Quartzite. Along the western edge of
the Monument is a small granite mass which was intruded into
the sedimentarys in Tertiary times. Lehman Caves, excavated
in the limestone some one to five million years ago, contains
over 8,000 feet of passageway and is considered to be one of
the finest examples of its kind.\(^3\)

To many the Caves' surroundings seem hostile and useless.
Miners, however, have found precious minerals here and ranchers
have found that the land will yield much. Thus settlers have
been attracted to an area often called desert. Of course, the
Indians were first.

Aboriginal History

The history of the original occupation of the Great Basin by
man has missing chapters. From what little is known it
is evident that settlement occurred at least 10,000 years ago
and perhaps even earlier. The first people hunted big game
for food and may have left the rock carvings, known as petro-
glyphs, found in many of the canyons near the caves. Later a
culture based on the gathering of seeds and the hunting of
small game occupied the area. About 1,000 years ago, contemp-
oraneous with the hunting and gathering people, a Pueblo-like
culture existed briefly, leaving painted pictographs and small
adobe villages. In the 1850's, when the written history of
the area begins, Indians, variously called Snake, Coshute,
Shoshone and Paiute, lived in the valley in front of the cave.\(^4\)

Which of these people placed the bones of their dead in Lehman
Caves is not known with any certainty, but one scientist iden-
tified the bones as belonging to Shoshonean and Puebloid type
individuals. Other scientists would not agree with this con-
clusion.\(^5\)

Whoever they were, it is fairly certain that they did not enter
the portion of the Caves now shown on the visitor tour. Perhaps
it was fear of the unknown that kept them from venturing into
the complete darkness of the rooms beyond the natural entrance.
It is known, however, that Indian miners near Las Vegas, Nevada
worked in areas of Gypsum Cave 300 feet from the sunlight, so
it is possible that local Indians were stopped from further ex-
ploration of Lehman Caves by rock choked passageways. It took
the dynamite and sledge hammers of the white man to open passag-
ways to what is now shown to park visitors.
The Father Escalante Party which journeyed from old Mexico into Utah in hopes of finding an easy route to the Pacific were the first white men to come near Lehman Caves. During the fall of 1776 this small band reached the site of Milford, Utah, about 90 miles south of the caves. In their diaries they described the bearded Indians and the landscape and then returned to Mexico. Although the good friars most certainly did not come to Lehman Caves, their exploration opened the way for Spanish traders who exploited and enslaved local Indians. It is possible that some of these later sons of the Conquistadores were aware of the caves, perhaps told of it by their Indian captives. Unfortunately no records exist to tell us yes or no.

Some 50 years later, in 1826 and 1827, the mountain man Jedediah Smith skirted the region now called Snake Valley, Nevada. Although his exact route is not known it is fairly certain that Smith came no closer to the caves than the Deep Creek Mountains some 50 to 75 miles to the north.

The next possible time for the rediscovery of the caves was in the 1840's when John C. Fremont traveled across Nevada several times. As best we can tell from the available records, "The Pathfinder" passed all around the caves but never came near enough to be credited with their discovery. Confusion has existed in the minds of many local folks as to how Pruess Lake, about 14 miles from the Caves, got its name. Charles Preuss was Fremont's topographer on the 1843-44 expedition. The name, properly spelled, appears on maps dated as early as 1855 but apparently is a renaming by cartographers of a nonexistent body of water called Lake Ashley by Fremont. The latter was moved in location on succeeding maps and by 1870 it is in the right spot to be Pruess and is so named.

Members of the 1855 White Mountain Mission of the Latter Day Saints Church were the first white persons to enter Snake Valley. They camped along Baker or Lehman Creek and several of

White Mountain is presently called Crystal Peak and lies in T. 36 S., R. 16 W., Millard County, Utah.
the party climbed Wheeler Peak, which the Indians called "Peup," meaning "big." Ezra Granger Williams, one of the men who climbed the mountain, named it Williams Peak "as I was the first white man that gained its exalted summit." Although they explored the area quite thoroughly, they did not report finding a cave.

Three years later another White Mountain expedition was organized. Composed of two separate parties, it explored much of what is now eastern Nevada, visited the sites of the present Price and Ely, Nevada, and on April 14, 1858, discovered a cave! George Washington Bean, leader of one of the groups, reported to Brigham Young:

"In the course of our travels we...discovered a large cave having numerous small branches. The main cave is half a mile in length and varying in breadth from five to sixty feet. (Indians reported therein) a large and beautiful valley...and a band of Indians in an advanced state of civilization, being dressed like white men." 10

This was not Lehman Caves; it is presently called Mormon or Cave Valley Cave and is about 40 airline miles southwest of Lehman. An interesting cavern in its own right, Cave Valley Cave often has been confused with Lehman Caves. Several stories of Indians venturing far into the interior and finding another race of beings, a large spring and river inside, and the storage of Mormon treasures therein originated at Cave Valley and have been applied at various times to Lehman.

Before visiting the cave, Bean left 45 men in "Long" (Snake) Valley to "carry on farming, herding, etc." These settlers apparently did not stay long.

During the 1850's several groups of Army explorers entered what is now eastern Nevada. Expeditions under Stansbury, Steptoe, Beckwith, Whipple and Simpson travelled all around the cave area, but none, with the possible exception of Simpson's group, came near enough to discover Lehman Caves.

Simpson's command passed through the Snake Range along about the same route as taken by the present U.S. Highway 6-50. They saw elk near Sacramento Pass and followed fairly fresh wagon tracks when leaving Snake Valley. These tracks, they were told, had been left by warrens belonging to the White Mountain Mission. The "Mormons were said to have returned to Fillmore "because they didn't like the country."

Simpson also named what is now Wheeler Peak "Union Peak, on account of its presenting itself in a doubled and connected form," and recorded:
"It is reported by some of the mail company that there is a cave about three days' travel to the south of Steptoe Valley, into which persons have traveled a mile; some say as many as three miles, when they came to a precipice which prevented their going farther. They rolled rocks down the slope of time before striking the bottom showed the depth to have been very great. There is said to be a number of rooms, in one of which is a beautiful spring. It was found by some persons who came from Fillmore City and traveled west. The location of the cave is not given, however, with any precision, and it is not in my power, for want of time, to certify, myself, to the truth of the report. (I may as well say here, however, that on our return route, which was 25 or 30 miles to the south of this, although we saw some small caves, we saw none of the extent described.) 11

This, too, was not Lehman Caves; it was the earlier discovered Cave Valley Cave.

Also in the 1850's towns had been established in western Utah and prospectors had likely worked their way into eastern Nevada from both the east and west. By 1864, Pioche, Nevada, the first mining camp of the region to rise to fame, was established. Silver strikes were made in 1865 in the soon to become famous White Pine district. Hamilton, the center of the boom, was a flourishing city in 1869. 12

In Snake Valley, however, there was little of the excitement associated with the boom and bust mining era. As best we can tell the first settlers here were not after gold or silver in its pure form, but hoped to make their fortunes by ranching or farming.* After all, the miners had to eat.

Perhaps the first to locate in the region was Absalom S. (Ab) Lehman. He settled on Weaver Creek about ten miles north of the caves, sometime between 1866 and 1869. 13 Soon after arriving there, Lehman sold this property to Dave Weaver and moved to the stream that bears his family name. 14 By 1876, at the time of the first government land survey, Ab was settled about 1½ miles below the caves. 15 During the seventies several other families including Ab's brother Ben had set up housekeeping nearby in what is now Baker, Nevada and at Burbank near the present Garrison, Utah. 16

*A gold mining district was organized in 1869 on Snake Creek, just south of the caves, but little is known of its history. (E.F. Lawrence to Paul H. Steele, Nov. 25, 1958)
One other important expedition to the area should be noted. In 1869 Lt. C.M. Wheeler climbed Wheeler Peak from the west. He was accompanied by Rev. A.P. White, Nevada State Geologist. At that time the peak was named for Lt. Wheeler by Rev. White although settlers who were sympathetic to the southern cause in the Civil War had earlier dubbed the peak "Jeff Davis."
ABSALOM S. LEHMAN

Absalom S. (Shirck?) Lehman, the second child of Abraham and Catherine Lehman of Chambersburg, Pennsylvania, was born January 6, 1827. When Ab was 14 his family moved west to Canal Winchester, Ohio, a few miles south of Columbus. According to the family genealogy from which much of this account was taken, the trip was made in a one-horse covered wagon on which the younger children rode. Ab, his parents and older sister walked the entire route, much of the time through heavy snow.

By 1849 Ab, then aged 22, was headed west again, this time in search of gold. After a seemingly unsuccessful venture in California he boarded ship for Australia hoping to make his poke in mining there. The down-under land proved prosperous; Lehman found a gold mine in his back yard and established a number of wool stores.

At some time during his south seas sojourn he was shipwrecked and had nothing to eat but oranges for two weeks. As his daughter put it: "and he never liked them afterward."

His Australian marriage to Mary Taylor of England produced two daughters, Lucy and Martha, both born in Victoria. After the death of Mary and Martha, Ab, with Lucy, returned to California in 1861. There he mined for a time with his brother Jacob, with whom he left Lucy when he moved on.

Ab's next adventure was to take him to Snake Valley, Nevada, where he turned from mining to ranching. He first settled on Weaver Creek, a few miles north of the caves which now bear his name. There "he lived the first summer under a pine tree with Indians for neighbors."2

Some doubt exists as to the exact date he arrived in Snake Valley. His daughter, who relates that he was the first to settle here, infers this might have been as early as 1866 or 1867.1,2 An 1869 Army map shows the Lehman Ranch on Weaver Creek.3 Some accounts however, tell that Samuel Hockman was the first to settle in Snake Valley and the date most often given is April, 1869.4 The aforementioned map does not show Hockman's ranch.
Little is known of Ab's operations on Weaver Creek nor do we
know exactly when he relocated on the present Lehman Creek.
We do know that he certified in 1887 that he had used Lehman
Creek waters continuously since 1869. In 1869 he returned
to Ohio, married Olive Smith (he was 42, she 21) and was back
in Nevada living on Lehman Creek by the fall of 1870.1

After being in Nevada several months, Olive wrote home and said
she hadn't seen another white woman since arriving in Nevada.
As if in response, Ben, Ab's brother, arrived soon with his wife
Mary and settled at the site of the present Baker.1 Another relative, Sam D. Smith, Olives brother, also moved to the valley
about this time.5

Ab and Olivet's first child, Laura Nevada, was born near the
mining town of Hamilton, Nevada in 1871. Three years later
came Frank, born at Pioche, Nevada, who became a Lutheran min-
ister, but died at age 28 in Baltimore, Maryland. One other
child was born to the Lehmanis; Lawrence arrived "near Osceola" in 1878 and died in 1886.6 Lucy, Ab's daughter by his first
marriage, and Laura were long lived, dying at ages 85 and 78,
respectively.1

Laura and her younger brother Frank often played with Indian
children. One of these, Indian Charley, who was raised by Ben
and Mary Lehman, often rode a dog from his house to Ab's ranch.
Charley must have been proud of his knowledge of English, for
he frequently corrected Laura and young Frank. As Laura wrote
later: "He was very careful to make us speak our English cor-
rectly".

In 1875 several more families were established near Ab's and
the ranch on Lehman Creek was a busy place. That year the Leh-
manis had 25 to 30 cows and on one trip Ab sold 350 pounds of
butter. The butter was churned by a water wheel he himself had
built. His orchard was productive and the fruit was said to be
the best in the region. A large garden was set up and its pro-
duce was supplemented with wild fruits, especially strawberries.7
By 1880 two hired hands were needed to keep the place going.
Ten years later there were 600 acres, spring pasture, orchard,
cultivated fields, stables, blacksmith shop, carpenter shop,
butcher shop, corrals, dairy ranch, rock milk house and churn
run by water power.8 Surely enough to keep Ab and 20 hired
hands busy.

But Ab had other interests too. He kept his hand in mining,
staking a claim in Osceola,9 and his political adroitness netted
him a position on the "Republican County Central Committee."10
He was also a member of the County Grand Jury.\textsuperscript{11}

Those who knew Lehman remember him as a kindly man, of medium height and build, with a quick wit, who never turned a needy person from his door.\textsuperscript{11} The physical description seems accurate from the few photos we have, although one account tells of a "stout and patching" Ab Lehman who couldn't even get into the cave he had discovered,\textsuperscript{12} His generosity and friendliness, though, are remarked upon by so many that this must be the truth. George Robinson, born in the 1880's, remembers people telling of Ab "fondly" pulling the children's teeth with an old pair of pliers. George thought, run away when Ab tried to pull his teeth.\textsuperscript{13}

The rugged frontier existence began to tell on Olive and late in 1881 she and the children returned to Ohio. Ab kept the ranch operating, but left for the east when his wife took a turn for the worse. She died September 19, 1883, aged 35 years.

A saddened Lehman returned to Nevada, leaving the children in Ohio with relatives.

It may have been at about this time that Ab found his cave. There is some indication that he discovered it just after his family went east.\textsuperscript{1} One family recollection states he brought stalactites to his wife and children on his trip to see them in 1883.\textsuperscript{14} In any event, the first extensive tourist visitation to the caves was in 1885, with Ab doing the guiding. There is no doubt that he fell in love with the underground grooves and did much in the way of making them more accessible to visitors.\textsuperscript{15} (For further data on the discovery and opening of the caves see page 11.)

Only recently (December 2, 1964) was Lehman's signature found among the hundreds inscribed on the caves' walls. The date \text{1066} and monogram "A L" beside "Absalom Leb" in an off-trail corner below the caves' natural entrance. Authenticity of the revealed autograph was evident when it was compared with Ab's handwriting on a document in the document's collections. Three other "A L" inscriptions appear in the caves; one in such an inaccessible spot as to leave no doubt that Ab himself had completely explored the then known caves.

A society note in the Christmas Day 1886 edition of the White Pine News tells of another of Ab's loves. "Ab Lehman of the wonderful cave in Snake Valley, is reported to have gone to Fillmore, Utah, for a New Year's present in the shape of a newwife. The News hopes that she may prove a thing of beauty and joy forever." We never learn, however, if the rumors are true, although he "still has the matrimonial bee" in 1886 and is "on the hunt for a wife" in 1890.\textsuperscript{17}
Ab built a ranch house near the caves' entrance, just above the orchard he had planted some years earlier with the idea in mind to live there and develop the caves. He sold the lower ranch September 1, 1891, but his health failed and he passed on October 11, 1891, at the age of 64, in St. Marks Hospital, Salt Lake City.

His death was mourned by many. One obituary read: 'It was he who discovered and opened up the wonderful cave which bears his name.' Another opined: 'His liberality knew no bounds; to many a wanderer, he was a benefactor. His life was indeed an eventful one, full of romance and adventure.' And, we might add, he will long be remembered by the grateful thousands who view his "wonderful cave" each year.

*According to Herb Miller, a long time resident of Snake Valley, the Rowlands planted some of the orchard trees, although Ab had planted most of them. (Interview, April 30, 1965.) A tree ring count showed an apple tree (alive in 1965) in the orchard to be more than 75 years old. This is good proof that the tree was planted in Ickman's time. Most of the trees were removed in 1934 by CWA crews. (Kent Faire, Letter to P.F. Patraw, April 14, 1934.)
DISCOVERY

The full story of the discovery of Lehman Caves will never be told. All in all, more than 40 widely differing accounts of this event have been found! Our purpose in this history is to record the documented reports, analyze them and then construct the best discovery account possible from the available data.

The earliest alleged rediscovery date is found in a monument administrative report made in the late 1930's. It states simply: "first discovered in the 1860's by a prospector named Hall." No source is given nor is any comment made upon the validity of the statement.

At age 69, Lucy, Ab Lehman's first daughter, wrote that she had visited her father's cave in 1869. Eleven years earlier, however, she gave 1879 as the date of her trip to Nevada. The latter appears to be the correct date since it jibes with other elements of the Lehman family history.

In 1886 a newspaper reporter describes the caves and gives the discovery date as 1872. He also relates that Ab found the caves while looking for cattle.

One of the first newspaper accounts of the caves appears in the December 26, 1885 White Pine News. "The entrance to the cave," the article says, "was discovered nine years ago." This would put the "discovery" in 1876.

Numerous other reports most of them written since 1920, give 1872 as the rediscovery date. The authors of these articles probably were influenced by the erroneous interpretation of 1878 for an 1898 inscription on the wall of the cave. (See p.15)

Other authors give dates ranging from 1860 to 1885 and credit Ab Lehman, Ben Lehman, Hays Cook, U.S. Government Land Office Surveyors, Ab Lehman's hired hand, Ed Lake, and unknown prospectors with the "discovery" of the caves.

Several records point to 1881 as the first year of underground exploration. Some who knew the caves prior to the early 1950's, when considerable cleanup was done, remember an 1881 date prominently written in charcoal on the cave walls. A letter written
in 1946 tells of a visit to the caves by E.W. Clay, then more than 95 years of age, and recounts that his name and "date mark of 1881 is still visible." The Lehman family's recollections also lent some support to the 1881 date. In 1937, Ab's daughter, Laura, then age 56, told the monument superintendent of hearing about the discovery of the caves just after she and her mother moved east in 1881. In the family genealogy, published in 1943, she reiterates this point, but in 1945 writes that she is not sure of the year my father discovered the cave. Laura's daughter remembers her mother telling that Ab brought specimens of cave decorations to Ohio in 1883, but notes that Laura's "forgetter" was working quite well by the time she told of this.

We might be swayed at this point to accept a pre-1885 discovery date as fact, but before going further let us mention some negative points. John Muir, the indefatigable mountain and conservationist, visited White Pine County in 1878 and wrote of the geology and flora of the Snake Range. He does not mention a cave. Silver State histories written in the eighties mention other famous caverns but do not say one word about Lehman's Cave. Crockett's travel guide, a must for western bound "dudes" from 1870 through the 1890's devotes several columns in each of the many editions to cavern, including Cave Valley Cave, but does not mention the Snake Range underground.

Finally, although much mention of Lehman and the area surrounding his ranch appear in the local newspapers from 1879 through 1884, there is no mention made of finding a cave. Other caves nearby are described and are often compared with caves in the east and in California. But after 1885 Lehman's Cave is reprinted upon time and again in the area's news sheets.

Although it is possible that the discovery of Lehman Caves went unnoted, or that the discoverers wished to keep their find a secret, it seems that some report of the discovery would have been made in a local newspaper. Much less startling items were often printed and real news such as this would surely have been printed. If this reasoning is correct, the cave was not discovered until 1885, for the earliest known written mention of Lehman Caves occurred in 1885.

The White Pine Reflex for April 15 that year notes: "Ab Lehman (sic) of Snake Valley, reports that he and others have struck a cave of wondrous beauty on his ranch near Jeff Davis Peak. Stalactites of extraordinary size hang from its roof and stalagmites equally large rear their heads from the floor. A stalactite
weighing about 500 pounds has been taken from the cave and planted beside the monument erected by Ivers to mark the spot where he observed the last transit of Venus on Lehman's ranch. The cave was explored for about 200 feet when the points of the stalactites and stalagmites came so close together as to offer a bar to further progress. They will again explore the cave armed with sledgehammers and break their way into what appears to be another chamber."

This description suggests that the first room below the natural entrance had been entered, but that none of the present cave tour route was known. Cave measurements by amateurs are notoriously exaggerated. If we halve Lehman's estimate of the size of the discovered area it is just right for this first section of the caves. If, though, we take his figures at face value we find that the caves would have been explored to just beyond the Wedding Chapel (see caves map) where a narrow, then drapery restricted tunnel would have been a logical stopping point. The latter view could be cited as evidence for an earlier discovery date, but we feel our choice of 1885 for Lehman's first entry into the cave is correct, especially in the light of other evidence as presented below. On August 12, 1885, a visitor to the caves reported: "Lehman's (sic) Cave in Snake Valley has been explored 1,500 feet and still there is no end to it." One, not so local account, appeared in the September 4, 1885, Genoa Weekly Courier noting that the caves had been discovered only four weeks ago. Allowing time for the correspondent's travel, and writing and publishing of the article, early spring is a plausible "four weeks ago."

In late September 1885, Lehman offered the "News scribe" a trip to the "recently discovered wonderful cave" but editor Simpson declined and acknowledged "a very kind invitation." The next month notes appeared to the effect that the "recently discovered cave" had been explored to a distance of one mile, and that cave specimens were sent to the state fair in Reno.

In December a correspondent of the San Francisco Chronicle added a new dimension—the cave was discovered considerably before it was entered. "The entrance to the cave was first discovered nine years ago (1876), but little attention was paid to it then as it was thought to be a small cavern. Six months ago, however, A. Lehman...determined to explore it." Although numerous other accounts of the caves and its beauties are found in the next few years, only two contain references to the rediscovery of the caves. One, an 1888 Sacramento item, gives 1872 as the date, and a diary account written in 1893 says 1885.
HANDWRITING ON THE WALL

Inside the cave there is other evidence which supports our
thesis of an 1885 rediscovery. It was common practice in the
early days to write or shave one's name or initials and the
date of the visit on some prominent stalactite or stalagmite
or on a smooth cave wall or ceiling. In the off-trail por-
tions of the cave, walls often are nearly completely covered
with such inscriptions.

We should look, however, at all the several problems that exist
even when dealing with such dates before basing any conclusions on
them. First, one must consider the possibility that the dates
are fraudulent and were put there to hoax those who came later.
Such is certainly the case of the 1885 date placed by a man
still alive in 1963.39

Secondly, we do not have a complete record of the names. Many
of the inscriptions along the present tour route were probab-
ly cleaned off the walls by early cave operators or by the Na-
tional Park Service.40 In addition, many of the marks may
have been covered by dust or flowstone or washed away by cave
waters. In some sections of the caves, however, it is almost
a certainty that all of the names are preserved in their ori-
ignal condition.

Lastly, interpretation of names and dates is often unsure be-
cause of smudging, poor penmanship and bad lighting.

The earliest date now visible in the caves is July 4, 1885.
It is in the area north of the Gothic Palace and is associated
with the names "Dock" Baker and Dan Simonsen and the initials
BH and CD. "Dock" Baker was P.M. Lake's first settlers. Dan Simonsen
also settled in the area before 1885.41 We can only guess that BH and CD might possibly
have been Bill Neecham and George Hickman. With this as a
starting point it is possible to trace (using the wall writings)
the subsequent exploration of the caves.

Only two days after Baker and his friends made their trip,
George Robinson, Birch Hookman, E.W. Neecham and E.H. Lake ex-
plored nearby passages. By July 27 Willard Burbank and E.H.
Lake viewed the caves' midpoint. On August 31 the northernmost
reaches of the caves were "discovered by P.B. McKeon and A.S. Behman."*”

McKeon we know well. He was a prosperous citizen of Frisco and Milford, Utah, and brother-in-law of a Snake Valley settler.42 But who is A.S. Behman? No such name appears in any of the early histories or in census, tax, voter or school records. Can one assume that McKeon, whose handwriting the scuffges seem to be, didn't know Ab well enough to get his name right? If so, and it was truly A.S. Behman who explored the caves with McKeon, why didn’t Ab notice and correct the error? Was it his "good nature" to let the mistake go by? (We like to think that this was the case.) Or was there really an A.S. Behman? An interesting puzzle indeed.

At this point we should deal with a couple of well known (and some not so well known) Iehman Caves inscriptions. One can be found on a wall in the complex north of the natural entrance and appears at first glance to read "O fenrose 1878." And so it was quoted for many years.43 Close examination reveals, however, that the date is really 1898. Fenrose probably did not even arrive in eastern Nevada until 1890.44

The Southern Utah Times' blatant advertisement on a large flat wall in the Talus Room appears to date from 1885. Charles S. King, editor of the Frisco, Utah, tabloid was fond of decorating the surroundings with his paper's name. A contemporary editor notes: "Mr. King spent four days in town during which time he industriously and artistically (?) painted the name of his paper on nearly all the board fences in Beaver." Such proclivities, plus anti-Mormon tendencies and a sharp and sarcastic wit sent Mr. King out of several locales on the proverbial rail with a coat of tar and feathers. He probably visited the caves during his short lived employment in Taylor, Nevada.45

On the same wall with the Times ad are several personal names. One of these, Charles Beers, was at first thought to be that of the Times' editor. Actually, Charles owned a way station at Beers' Spring, some 30 miles south of the caves, and operated a stage line between Osceola and Frisco. His brother, James T., whose initials also appear on the wall, was a Frisco pharmacist and "doctor." "Annie Beers," the remaining name at this spot, was James' wife.46

Other names near 'he Beers' are William R. "Billey" Bassett, the one-time sheriff and prosperous saloon keeper in Ward and Taylor; Georgie Bassett, his wife; Edna Bryant, a dancehall girl; and James H. "Jimmy" Harris, Bassett's barkeep. This group must

*Not all of the cave was entered in 1885. A small crawl off the Lodge Room was probably not entered until 1887 and other passages remained untraveled for 60 years.
have been among the first to enter the back portions of the caves as the date of their earliest inscription is September 12, 1885.

Ab Lehman's name has been found at only one spot in the caves. In a small grotto several levels below the natural entrance "Abelorn Leh A I. 1888" is pencilled on the cave wall. The "A J" monogram, with the "I" looking like a backward "J" is found elsewhere in the caves, however, giving us good reason to believe that Ab Lehman explored all of the caves himself.

And for humor... In a cozy nook just off the Grand Palace we find:

"Can you keep a secret?"
"Yes."
"Well, I am a married man."
"Kiss me, I won't tell your wife."
"All right if you won't tell my husband."

The pencilled script, although not exactly logical in sequence, is old fashioned and alternates from a masculine scrawl to a more petit feminine hand. Farther on in the caves, depending of course on the route one takes, there is a cryptic "Touch me not!" in the same feminine handwriting. We wonder if this refers to the delicate cave decoration nearby or to... May we assume we know the answer when we see: "Oh you darling. I love you. R.D."? Then: "Yes, but don't squeeze me so tight, R.S.!" The finale comes at the far end of the cave: "Isn't this a lovely place to spoon?"

But we distress...
HOW IT WAS FOUND

Little mention was made in the 19th Century accounts of the cave's wonders of how it was discovered. By 1920 a legend was established which relates that Ab's horse was truly the discoverer. Versions vary, but the weight of numbers is in favor of the tale that Ab's horse, while being ridden across the terrain in search of cattle, broke through a crust of rock covering the cave's natural entrance. Ab, being inquisitive, enlarged the hole and "discovered" the caves.48

An equally plausible chronicle tells of a log, pulled by Ab's horse, sticking under and moving slightly a large rock which covered a sizable packrat nest. The nest was set afire and after burning "several weeks," revealed a large cavern.49

Perhaps the best of the "horse stories" was written by Frank Beckwith, a Delta, Utah, newspaperman:

"Well, legend says a mountain rat was gallopin' off with a slab of sowbelly that Lehman was at times nibblin' off of and that Lehman was in hot pursuit on horseback, just a whoopin' it up, when both rat and horse fell down the shaft with Lehman astride (the horse of course, YOU darn fool) and he saved his life only by his quick wit and unerring eye, for as he felt his foot going out beneath him, he uncoiled his lariat, and with that precision that all plainsmen have, deftly lassoed a cedar tree just as he shot through the hole, and there he sat in mid-air clenching the horse for four days until a rescue party gave him a lift, yanking the rider and horse back up out and started the story going.

The clenching made Lehman bow-legged for life. Pretty hard on legs, such a stunt is!!"50

Although the horse discovery story has been told for years and is accepted by some as gospel, there is reason to doubt its truthfulness. Two speleologists, both of whom are quite familiar with Lehman and other local caves, assert the geological structure of the entrance simply isn't the kind that would collapse under the weight of a horse.51 Then, too, there is evidence of Indian use. Granting that the natural opening only had to be large enough for one person at a time to enter, it
was probably much larger or the Indians would not have found it, and would not have gone into the caves. It is also doubtful that the original entrance was completely covered over after the aboriginal use.\textsuperscript{52}

We rest our case against the horse with the following: An old time resident of Baker, and one of the first Forest Service Rangers to work at the caves, states that the horse story was "pure fiction."\textsuperscript{53} Fred Schumacher, probably then the oldest living one-time resident, said in 1963: "No horse fell in."\textsuperscript{54} \textsuperscript{54} Mack Sly, of Delta, Utah, in August of 1939 in a conversation with a monument custodian, said he helped Ab pull a horse out of a cave, but it wasn't the Cave.\textsuperscript{55}

A newspaper writer in 1924 mentioned the horse story but adds that old-timers then alive did not give credit to the horse! He implied, in fact, that Mrs. Beatrice Rhodes (who was then operating the caves) had invented the whole thing to make some poetry rhyme!\textsuperscript{56}

The Lehman family record says nothing about a horse playing a part in the discovery. According to Ab's daughter, Ab had known of the hole in the mountain for several years, but since it went straight down for a considerable distance he had not gone in. One day, date not specified, curiosity got the best of him and he let a rock weighted string down into the orifice to determine the size ladder needed to descend. Later, alone, he ventured underground with a lantern and realized the potential of the wonders he had found.\textsuperscript{12}

Lehman's daughter also writes that possibly Ben, her father's brother, was the real discoverer. "He was passing a clump of brush when he felt a strong current of wind which he found came from a hole in the ground."\textsuperscript{51}\textsuperscript{2} This is the way many caves have been discovered.

One final possibility, and a likely one, is espoused by "Judge" E.W. Clay. Clay, whose name appears in charcoal throughout the caves and who was a good friend of Ab's, tells that Ab's attention was first attracted to the caves in 1878 when he saw a pole protruding from a hole in the ground. "It was about 30 feet long with holes in it into which birch sticks had been driven---an improvised ladder which prospectors had made to get into the cavern." Mr. Clay's first trip into the caves "in 1881" was via this crude ladder.

**Who Was First?**

We will probably never know for certain who was first to view the interior of Lehman's Cave. Several accounts, however, agree that the first party included most of Snake Valley's early citizens. Among those most often mentioned are Ab and Ben Lehman,
Willard Burbank*, Dan Simonsen*, E.W. Clay*, Ed Lake*, William Atkinson, Isaac Gandy, George Robison*, D.A. Gonder, F.M. Baker*, and Nettie Baker. The last mentioned was probably the first white woman to see the underground passages, although many other women were soon to make the trip.

A Theory

What is the real story? We believe it goes something like this:

Indians, perhaps as early as 1,000 A.D., knew of the caves' entrance. Whether or not they entered the caves is difficult to say—the evidence can be interpreted either way. Almost certainly the Indian bones found beneath the natural entrance were deposited there on purpose. It is possible but not probable that local Indians told the white settlers of the caves. More than likely, however, the Indian contemporaries of Ab Lehman knew nothing of the caves, it having been used by their remote ancestors.

If prospectors were the first to find the caves they apparently promptly forgot about it. It apparently contains no mineral wealth.

In 1885, completely unaware of any cave, Ab Lehman and his hired hands, out looking for cattle, find a relatively large crack in the earth. One of them is let down on ropes into a fairly complex cave room beneath the natural entrance. It appears too vast to explore without preparation so the man is hauled up and further exploration planned.

This may have been as early as 1881, but we favor the 1885 date for several reasons. These include the fact that the first known newspaper report (related by Ab himself) is in 1885; the fact that, at present, no dates earlier than 1885 are found in the caves, and the fact that all reports of earlier discovery dates are at best second hand. Most of the latter reports come from the 1920's and after, and even Ab Lehman's daughter admitted she is unsure of the date of discovery.

A bit more difficult to discount are reports of an 1881 date being seen in 1943 beside E.W. Clay's signature on the caves' wall. I can only offer the possibility that this was a mistake or a misreading of a prominent 1891 date that is there. Certainly Clay's name is not associated with 1881 elsewhere in the caves. In several places his signature, along with Ed Lake's, is clearly dated 1885.

* These names are found inscribed on the caves' walls and have 1885 dates associated with them.
If, as we suppose, 185 is correct, Ab Lehman's first act, after discovering the caves was to tell the local newspaperman of his find. (We cannot believe he would wait 5 to 20 years to make the announcement.) Exploration parties were soon organized with persons coming from as far away as Fillford, Utah, nearly 100 miles from the caves. By August 31 all major portions of the caves had been entered and development of the easier routes begun. All of these events are recorded in contemporary newspapers or in charcoal on the caves' walls.

Whatever the truth may be, and we shall probably never know the actual story, Ab Lehman was the first to recognize the caves as something unusual and worth developing. To him, then, should be given the honorary, if not earned, title of discoverer.

Early Development

Even though the "tourists" of the eighties were accustomed to somewhat more rugged facilities than we find today, Ab's job of opening the caves was not an easy one. One narrative has it that he had "rolled away huge stones" before even entering the caves. This is unlikely but it is certain that some contrivance was needed to descend the 30 feet from surface level to the floor of the caves' first chamber. Legends tell that ropes were used for a considerable period, but by September of '85 a ladder was in place.

After entering, the first project was to "explore the cave armed with sledge-hammers and break their way into what appears to be another chamber." After two months, Lehman was looking for an easier access route. Whether this meant an easier access route from the surface or an easier route into the remainder of the caves from its first room, we cannot tell from what is written. The present appearance of the caves suggests it was the latter problem that was solved.

In December ladders were in use throughout the caves, replacing the harder to use rope assists. Development went ahead as fast as Ab and "several men (were) at work all winter and have opened up all the narrow passages in that subterranean place. Stairways have been substituted for ladders, and ladies can walk right through without fatigue. Mr. Lehman is also prepared to entertain men and beast." The foregoing comment causes us to ponder another problem. What sort of facilities existed on the surface in the early days? Our evidence is indirect, but it appears that Lehman built some
kind of shelter near the caves' entrance. (That this structure survived until the 1920's, as is claimed by some, is doubtful.)

It is highly probable that Ab planted an orchard in the flats immediately below the caves' entrance. Whether all the trees there today (1965) are "originals" or later additions it is difficult to say. (See footnote p.10 supra.) Lehman did develop an irrigation system using Lehman Creek waters and possibly a reservoir at his "Cave Ranche." Portions of the ditch that carried the water from Lehman Creek still existed in 1965.

What the "many improvements," noted as being available at the caves in the fall of '87 were, we do not know. A remark that the "entrances" had been enlarged leaves us to wonder, "Which entrances?" As an additional improvement, Old Glory "further ornamented" the columns dedicated to Lincoln, Grant, Garfield and Stanton. Charcoal labels were scratched on these and other formations and "appropriate" names given the various domes, nits, crawls and rooms.

Much of the work must have been done by Lehman himself. In January 1889 he advertised his lower ranch for sale and noted that "the proprietor wishes to move to his other ranch, situated at the mouth of Lehman's Cave, . . . which requires his whole and undivided attention." Ab had at least one assistant at the caves; George D. Coburn, who was buried at the Cave Ranche in August, 1891.

"Rustication" at the underground wonder was reported all during the period. Numerous articles in newspapers both far and near, the appearance of a "wagonload" of cave decorations at the State Fair in Reno, and word of mouth recommendations from the early spelunkers kept the public aware of what was to be seen in the eastern Nevada caves. About 800 persons were conducted through the caves before September of 1885 and "hundreds" each year thereafter. Many of the visitors wrote that they were personally guided by a congenial Absalom Lehman who had explored much more of the caves than he showed them.

Did the early visitors follow the same guided tour route taken today? Although contemporary descriptions are difficult to apply to the caves as we see it today, sightseers of the 1880's and 90's probably spent more time in the caves than the 1½ hour norm of 1964. On their trip they crawled and scooted, had to

*See statement by E.B. Robison, Jan. 22, 1952 in Water Rights Docked. Drawing Nn-Lc-6978 shows the pond with a penciled notation; "constructed 1899 or 1900."
squeeze through the Needle's Eye, Fat Man's Misery and Thin Man's Delight and had a rough, knee scarring journey over the Rocky Road to Dunlin. Some viewed the Shoshone and Yosemite Falls, Jacob's Well (there are two areas so marked), the Oven, Cleopatra's Needle and Cyster's Cove. Lake Como, the Big Room, Bridal Chamber and Angel's Wing are shown on today's tours, but locations of many of the other named areas are a mystery now.

On September 1, 1891, in response to the ad mentioned earlier, C.W. Rowland purchased Lehman's lower ranch for $3,000.72 Ab was not to realize his dream of further developing "Tie to Wonderful Cave." He died, of grippe, in Salt Lake City, on October 11, 1891. He was 64 years old.78

1891-1920

In the years immediately after Lehman's death little is report-ed of events at the caves. Occasional visits are recorded but there is no word of further development, above or below ground, until the 1920's.79

Lehman's Cave Ranch, although never filed upon by Ab, was sold in November, 1892 by estate executor W.N. McGill to C.W. Rowland for $700.80 Interestingly enough, this "homestead" of 7 acres did not include the caves. The cavern's entrance has always been in public ownership.

Rowland apparently was apathetic about the caves' property and consequently lost it to the county for taxes in 1895 and 1897, getting it back each time by paying what was due.82 After his death in 1905, Rowland's heirs held the property until 1911 when they sold it to P.M. "Dock" Baker.80

Earlier, on February 10, 1909, a forest reserve embracing much of the Snake Range was created by presidential proclamation. In 1912 the caves and the lands surrounding Lehman's old homestead were added to the reserve which eventually became Humboldt National Forest. Thus, proprietorship of the caves officially passed to the Federal Government represented by the United States Forest Service.83

It is probable that the first Forest Service administrators recognized the recreational potential of Lehman Caves and tried to provide for its protection. A sign was erected at the caves' entrance advising all visitors of federal laws prohibiting the destruction of natural beauties. However, Baker's land below the caves was situated so as to control entrance to the caverns and actual federal supervision of cave use was nil.84

The following years at the caves were uneventful. Ernest C. Adams, who had guided parties through the caves and had acted as custodian for Baker, obtained title to the land in front of
the caves on December 13, 1919. Perhaps it was Adams who first admonished tourists who broke the cave formations. His motto was: "Take all that is loose but break nothing down."

Adams' ownership was shortlived. Nathan Kiger and Clare "Rhodes became owners in 1920. The partnership did not last long and Rhodes became sole proprietor in 1923. But we are ahead of our story.

The Tourist Arrives

Following World War I, automobile travel began to be the way to get from one place to another. There was but one problem in the early days; few roads were fit for horse-drawn conveyances, let alone horseless carriages.

Someone with vision was needed to get the pavement on the ground.

A driving force behind much highway improvement in Nevada was C.C. Boak, a Tonopah mining broker and a national Grand Central Highway (Highway 50) Association director. In July, 1920, at the formal opening of the road, Boak, with a large group of dedicatiors, spent three days at Baker and visited the caves. A press report of the occasion rhapsodically described the caves. It was said to have four miles of passageways and exceeded even the famed Mammoth in its beauty. A "wagon road" costing $150, two thirds of which had been donated by local citizens, had been built that year to connect the caves with the new highway.

In June of 1921, Boak and photographer E.W. Blair returned to the caves to explore it further and to take photos for publicity purposes. According to local papers business was flourishing at the caves, though accommodations, except for water and a place to picnic, were lacking. The Mira Hotel in Baker benefited from the increased tourist travel.

That fall, Boak, in cooperation with Nevada Senator Tasker L. Odie, began corresponding with the Secretaries of Agriculture and Interior to find out what was required to have the caves proclaimed a National Monument. The Director of the National Park Service asked for and got from Boak detailed descriptions of the caves and its surroundings including maps and photos. These were also referred to the U.S. Forest Service for appraisal.

These studies, published in brief in newspapers, reportedly included data on cave temperatures, geology and elevations which only recently have been rediscovered through involved research. The report noted that national circulation motor magazines had given much play to the Nevada grottos and that their existence had been practically unknown until the Grand Central Highway was completed.
A Monument

"Lehman Cave Made National Monument" the Ely Record headlined on February 3, 1922. President Warren G. Harding had proclaimed the caves a National Monument on January 24. Quoting the Record:

"the creation of this national monument is the result of a petition started by C.T. Boak, Tonopah, and backed by local citizens." Those helping Boak included Chris Roan, Andy Barr, George Doyle, Vail Pittman and Charles Russell.

In spite of this official recognition of the caves' values, the Forest Service evinced little interest in supervising operations there. Except for a few inspections in the late 1920's the Federal Government let the private operators do as they pleased.

In the spring of 1932, there were predictions of a great travel (thousands per year) to the caves coupled with optimism for the future development of Snake Valley and Baker. The latter was to be the largest truck garden in Nevada and apples from the old Lehman Creek Ranch were touted as the finest in the state. A "noted" geologist, no name given, was soon to explore the caves, whose theoretical size (greatly exaggerated) had increased to 20 miles.

A grand dedication was planned for July 4. Boak called for an all out "show" and enlisted the aid of the American Legion, community officials, including the Mayor of Baker, and local school children, whom he hoped would provide a fitting banner for the occasion. Graham Quate, Baker forest ranger, was to erect a tall and sturdy flag pole near the caves' entrance.

C.T. Rhodes, one-time restauranteer and Nevada's governor's chauffeur, was made official custodian of the caves earlier in the year and was to keep guide fees as his pay. For the big day, however, no fees were to be collected except a service charge for candles. Later this was amended because of the large numbers of people expected, and only the first party of the day was given free access to the caves.

As plans progressed and the program enlarged, August 6 was finally selected for the formal dedication program. The American Legion in uniform hoisted the colors and provided a "firing squad." Vocal music was furnished by two local songstresses. Addresses on the caves and its history were given by Forest Supervisor Alexander McQueen, Ranger Quate, and Boak. An estimated 500 persons attended the gala event and were well pleased with the program, the caves, and Mrs. Rhodes' food.

Just before the dedication a minor furor arose when someone suggested the caverns be named for Teddy Roosevelt. Local opposition, voicing sentimental ties to pioneer Lehman, squashed the idea quickly and Lehman's Cave it was.
Fix Her Up

Improvements both inside and outside the caves began immediately. Sleeping tents were placed in the orchard near what was said to be Lehman's old home and an "under the arbor" dining room set up. Stairways replaced ladders in many places in the caves and cave floor excavation provided headroom where previously one had to crawl. Tours were made to the farthest reaches of the caves and a 70 year old lady made the tour without trouble. The "Panama Canal" was constructed to bypass the muddy and fearsome "Fat Man's Misery." 102

Publicity continued apace. Eastern newspapers raved and even the conservative Christian Science Monitor carried an article on the caves. Travel maps were amended to include Lehman's Cave among the scenic attractions of the west. Often, exuberance overruled reason and such claims as "larger than Mammoth," "four miles explored," and "columns 100 feet high" had to be taken lightly. 103

The fall of 1922 brought further publicity to the area when the move "Covered Wagon," an early Hollywood super spectacular, was filmed in the open country just south of the caves. 104

After such auspicious beginnings the following year started with a dull thud! An extremely heavy winter blocked the roads and travel between Ely and the caves was impossible for more than three months. Although horses carried the mail much road work had to be done before cars could make the trip. 105

Legislators at Carson City, the State Capitol, had not forgotten the caves and in April, 1923, the caves and its surroundings were designated a state recreation ground and game refuge. 106 White Pine County followed suit and proclaimed the whole Wheeler Peak area a county wildlife preserve. 107

That summer, C.T. Rhodes was again given a permit to occupy the caves area and to charge guide fees in lieu of salary. (The U.S. Forest Service was unable to pay for a caretaker.) Approved tour fees were one person, one dollar; children under 12 free; five dollars for twelve or more persons in one party,— truly bargain rates as tours often lasted three hours or more and carbide lanterns had replaced the uncertain and dim candles of previous years. 108

*There is doubt that Lehman's house actually was there. The only photo taken in 1922 show a board and batten building where the present visitors' center is located. The Ely Record for Aug. 11, 1922, telling of the dedication says that near the caves' entrance is "The Ranch House, formerly the home of Ab-

non (sic) Lehman..."
The roads to the caves were continually being improved with much of the work being done by Baker citizens on a voluntary basis. Rhodes advertised the "Fine Bowery," out of doors, "Lehman Tea Room" of 25-seat capacity and tents for overnight visitors. On the Fourth of July, 41 persons toured the caves. 109

A new service was added in July when pack trips or day rides to Wheeler Peak were offered. A large advertisement in the Ely Record shows Rhodes with a pack string preparing for the ascent. A feature of the trip was a visit to Wheeler's glacier and the devill mountain lakes nearby. 110

Headlines again! "First Wedding Ceremony at Lehman Caves." On Wednesday, October 17, 1923, at 2:30 p.m., Agnes Miller of Baker was married to Robert Wright of Colorado with Judge McDonald of Ely officiating. The "Fairy Bridal Alter" was decorated and the service performed inside the caves in the "Wedding Chapel." 111

Early in 1924 national attention was again focused on Lehman Caves and its surroundings. C.C. Soak proposed that the area of Lehman and Baker Creeks, Wheeler Peak, and the caves be made a national park. Nevada Senator Key Pittman introduced the bill in Congress but there was no action taken because of opposition by grazing interests. 112

As can be imagined, the Rhodes were ever alert to increase business at the caves. One of the unique attractions set upon by the enterprising couple was the development of one of the underground chambers as a meeting place for large groups.** First to take advantage of this rather unusual service were the Knights of Pythias, Cyprus Lodge 33, McGill and Ely. Thirty initiates took the Knights' third degree underground as the various oddities including violin music and a full dress "devil" who appeared in a flash of red fire and sulphurous smoke.

*At least four other weddings have been reported for the Wedding Chapel: In 1925 (Superintendent's Report for April, '37); in 1928 or 29 (according to Tyven Adams, 260 E. State, Lehi, Utah); in 1947 (F.E. Hesselgesser and Nola M. Kelly--see Superintendent's Report, May, 1947 and county marriage records, Book 139, p. 470); and in 1965 (Superintendent's Report, May, 1965).

**This service was continued into the 1930's probably much to the discomfort of the National Park Service. According to George Gibson, 114 Division St., Carson City, Nevada, Boy Scouts held Courts of Honor in the caves in 1934 and 1935.
Outside entertainment for the 300 persons who accompanied the initiates was more mundane. A dance, pageant, picnic and cave tour rounded out the weekend.113

Rhodes, with financial aid from the state, continued diversifying cave tours by adding trails, making more headroom on the old routes, and allowing those who wished to, to crawl through the "Fat Man's Misery." Musical selections, played on stalactites, stalagmites and draperies, reminded guests of an organ, a "Chinese orchestra," Scottish bagpipe and an Indian drum." Such entertainments decreased as formations broke under the constant pounding and only the "organ" survived in "playable" condition to fairly recent times.114

In July 1924, Nevada Governor James G. Scrupham visited the caves to evolve further development plans. Improvement of the area was to be by the state. This seems a bit of a paradox when one considers that the caves were on Federal land and the Rhodes' owned the property which controlled access to the subsurface wonders. Plans outlined included a bath house, a new cave entrance to be blasted through the mountainside and the building of trails to scenic spots in the Wheeler Peak area.115

Later the same month, Governor Scrupham suggested the cave be made a state park and added a concrete swimming tank, restroom, campgrounds, better roads and trails, and trout planting in the mountain streams to the original proposal.116 Swimming tank construction with the state funds began in August,117 and in December, as if to "make it legal" the state obtained the 200 by 150 foot strip of land near the caves entrance on which the tank was built.118

The Garden of Eden?

Meanwhile, an outstanding discovery had been made by "archaeologists." "Garden of Eden may have been located at Ely" were the boldface headlines. A "petrified" skull found here by an oil driller was said to be the true missing link. Somehow, by editorial exuberance we suspect, the "find" was related to Lehman Caves. True, caves near Lehman contained remains of early civilizations, but not the Aztec, Chinese and Egyptian pictographs and artifacts ascribed to them. Eventually, perhaps to increase tourist travel, Lehman Caves was said to contain "hieroglyphics and Egyptian pictographs which archaeologists declare prove conclusively that Nevada was the cradle of civilization." One writer admitted that of course the climate and other things had changed a wee bit since those times. Otherwise, he noted, man never would have made the grade!

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Clarification is found in the fine print. The chief "archaeologist" was a San Francisco Examiner Sunday supplement editor! We had suspected some such all along.129

Early in 1925 another cave was in the headlines. Floyd Collins' suffering and eventual death in Kentucky's Sand Cave caused local editors to comment on the safety of Lehman Caves. They adjudged it "safe" noting that it had been visited for nearly 40 years with no serious accidents to any of the visitors, a record unbroken to the present.128

More plans were being made for diversifying attractions at the caves. Among them, a ballroom (completed by June, 1925), a heater for the main tank outside, and electrical lighting and a larger lodge room for meetings inside.121 Although the lighting scheme was considerably delayed, the Ely Elks and Knights of Pythias took advantage of the "enlarged" Lodge Room that summer.122

Highlight of the year was Flag Day. Announced by a full page ad in the Ely paper,123 the event brought 1,000 people, including the cave ensembed Governor Scruggs, who made the original suggestion of a special program for opening the visitor season at the caves.124 From the descriptions preserved, Flag Day 1925 presaged traffic and tour problems quite familiar today. Radio was used to direct and control auto traffic and a real effort had to be made to keep tours small enough so that all could see and hear.125

Another event was planned for late summer but as best we can tell, nothing came of it. Tobogganing and ski jumping were to be featured! In August126

During the summer of 1926, several large conventions headquartered in Ely and made a trip to the caves as a part of their program.127 One Cliff Palmer was made "manager" at the caves by Rhodes. He reduced entrance fees ("and still the cave is profitable") and planned a new $250,000 hotel and dude ranch at the springs just outside the monument boundary.128 The papers reported that under Palmer the appearance of the caves property had improved markedly and new cabins, tents, a large dining room and kitchen, and dance hall were put in.129

Early in May of 1927 the caves "resort" opened for another season with "ample housing" and new roads under construction. Several "ready cut" two room houses were set for shipment from Los Angeles.130 A New York promoter was hired to advertise the caves and a national publicity campaign was put into gear.131
Forest Service officials took more of an interest in the caves that year. While inspecting, they proposed that an electrical lighting system be installed and that other improvements be made.

The Rhodes' (as locals Beatrice), returned in 1928, constructed 15 new cabins (one remaining near the present visitor center) and a log lodge (which served as monument headquarters until 1961) and provided regular Saturday evening "concerts" for guests and local residents.

By 1929, either Beatrice or dropping off or local newspapers had more important events to report. The only news was made by the state's offer to return the land deeded to it by Rhodes. Later, Nevada gave him a ten-year lease on the small tract. That Fall, "r. and "r. Elroy Oue moved in to manage the area.

A bon-fire and dance were set for the first weekend of May, 1930, but a snowstorm caused cancellation of the season's opening event. High boy scout and girl scout groups visited the caves that summer but little else is recorded.

Although negotiations must have been going on behind the scenes, the first public mention of Rhodes' disaffection with the caves is in January, 1931. "Option on Lehman Caves is Secured" were the headlines. The White Line County Chamber of Mines and Commerce had taken an option to buy the property for $15,000. At the same time a bill was introduced in the state legislature to sell the state lands to Rhodes so that the land could be sold to the Chamber as a package. As noted earlier, the private lands did not include the caves, but were a tract of about 50 acres just east of the caves entrance.

On February 6 the White Line County Commissioners agreed to purchase the land for $15,000. A month later the state assembly approved the price and passed a bill giving the land to the Federal Government. The actual sale and transfer of property, however, was not to happen for two more years because of "present economic conditions."

At the caves, business continued "as usual" with weekend outings featuring wildflower, hiking and fishing. The first of many complaints from tourists who had lost their way because of inadequate highway signage was received that summer.

Visitation at the caves dropped to the lowest figure in a decade during 1932. The largest party of the year was a tri-city Lions Club meeting in August. Largely a highway promotional affair, this meeting heard C. J. Moore, Nevada National Forest Supervisor, report that his superiors in Washington had inspected the caves
and had suggested that the land around them be purchased and
given to the government for development. He emphasized that
such a move would "aid" the highway construction envisioned
by the Lions.144

Negotiations continued for purchase by White Pine County of
the Rhodes property, with the idea implicit that the land and
developments be turned over to the Forest Service "for a Nation­
al Park."145 Considerable time was to elapse, however, before
all questions relating to the transfer of the property to the
government were cleared up.
The first report on the monument by the National Park Service is based on a December 7 to 11, 1933 visit of Junior Landscape Architect Harlan H. Stephenson.

"The buildings are of a poor log type construction and consist of a small lodge, 8 cabins, information office and another building about 40 x 56 with flat roof used as a dance hall. There is a small building used as an ice house and two other small buildings used as stables. One section of land owned by the state is a miserably constructed board and butt structure about 40 feet by 60 feet used for recreation and mess hall. In this building are flush toilets... a small, shallow concrete swimming pool is close to this building as is also a poorly enclosed heating plant for hot water."

Stephenson also noted that there was no telephone, no electric system, no campground, but "some 'supposedly' rustic fence" in the developed area.166

A month later another report listed 10 cabins "built of logs and are very poorly constructed. In most cases the cabins have a dirt roof and the roofs constructed have been very poorly done." In addition there was a small frame building over the cave entrance and two "good hit toilets" put up by Forest Service and a wooden water tank erected by Civil Works Administration crews. Water from Lehman Creek was brought to the buildings in an open ditch and distributed from the above mentioned water tank in pipes resting on the surface of the ground. By this time a CWA constructed telephone line had been completed, although it was "in pretty poor shape but was affording fair service to Ely,"167 a condition which was not to be remedied until 1965.

Three other man-made features were mentioned in later reports, an alfalfa field,168 an orchard with 16-24 inch diameter peach trees, and 20 inch diameter apple trees for a total of more than 40 trees,169 and several "correls."170

Since there has been controversy over the origin of some of these structures and features, it might be well at this point to review some of the evidence. The story of the orchard is detailed in the chapter on Ab Lehman. When and by whom the alfalfa field and "correls" were installed we do not know. We are quite certain that the log structures, including the present Rhodes Cabin, were built in the 1920's by C.T. and Beatrice Rhodes. We must, however, prove our contention.

Although Lehman probably built some kind of a structure near the cave entrance prior to 1891,172 no records have been found which describe or locate it. A 1911 map shows a "house" situated about where the present (1965) visitor center now stands.173
In 1921, however, in two very descriptive articles, the Ely Record states that there were no facilities except a campground and drinking water at the caves. No mention is made of any buildings.174

A picture taken a year later at the dedication of the area as a National Monument shows a structure at the approximate location of the 1911 house made of vertically oriented boards. This same building must be the one referred to in a newspaper article describing the event as "the ranch house of Aimer[Lehman] Lehman. . .(which) stands near the entrance to the caves."

Note that this was not a log structure.

In 1924 the Rhodes' were living in a "cabin" and had "shack" for tourists.175 Developments on the state lands were finished in 1925.176 During 1926 the grounds were improved and new cabins and tents, a large dining room and kitchen, and a dance hall were completed.177 Photos taken in the area in 1925, however, show no log structures. In 1926 Charles Davis constructed a "log lodge and several log cabins" for the Rhodes.178 These latter buildings, we believe, were the ones acquired by the Park Service in 1933.

However, in 1965 when the old log lodge was removed from the monument to make way for Mission 66 developments, George Baker (grandson of the Baker for whom the nearby town of Baker was named and a lifetime resident of the area) wrote that the building actually had been built by Ab Lehman. He said, "Ab Lehman, Sam Foreman and Emery Heeche built the log house in 1869"; he described it as being 30 by 40 feet in size (the building actually measured 26 by 41 feet), without a fireplace (which was added later by Ben Lehman), but with a dirt roof. Baker felt that the building was merely remodeled by Charles Davis in 1925 or 1926.179

Mrs. Vel Vanland Carpentier, also a longtime area resident and longtime cave guide, stated that the lodge had been built by Ab Lehman "of unpeeled logs drawn by horse from Lehman Canyon." She also mentions a three room house, "quite a large barn," at the caves.180 Another old timer recalled that Lehman built the structure 181 but others in the know felt it was more recent. For example, Ralph Kaufman of Baker stated that he helped Rhodes finance the construction of the lodge—the date was 1928.182 This agrees with several 1928 newspaper articles telling of the construction of a log lodge at the caves178 and with the recollections of other local residents.

We feel that the latter evidence, plus the photographic record
cited above, are proof that the log lodge was of recent (1928) vintage and was not built by Ab Lehman. Mr. Baker's opinions are based partly on memory, and are not backed by documentary evidence. In any event, the lodge is not lost. It was sold by the Park Service to George Baker's son, Martin, and is now in use as a residence at the "Border Place," a service station and refreshment stop, on U.S. Highway 6-50 where it crosses the Utah-Nevada line.

How were these old buildings used? The controversial log lodge had quite a career. From 1938 until 1939 it was a public contact station, carpenter shop, storage space and residence for the monument custodian. In 1940 it was considered "irreparable and uninhabitable." Less than a year after this apparently void assessment, the building was converted to an office and contact station with exhibits installed in one part of the building. Later it was again remodeled and most of the building set up as a restaurant and gift shop, leaving a small 6 x 6 office for the monument superintendent. This arrangement lasted from 1948 through 1961 when Mission 66 improvements necessitated closing the old building.

Some of the 8 or 10 log cabins acquired were destroyed for firewood. One of them was used as a custodian's residence through 1936, at which time it and four others were "completely renovated" for use as tourist accommodations. Of these only one, the Rhodes cabin, remains. It was designated as an Historic Structure by the Historic American Buildings Survey in 1962. No record of disposal of the other three cabins has been found.

The old dance hall, once said to have the finest and springiest dance floor in the county, was later used as a garage after its flooring had been taken out and put into the old lodge. Still later it was rehabilitated for a dormitory and kitchen for WPA workers, and in 1939 was torn down. Three years earlier the swimming tank had been demolished. The fate of the other structures is unrecorded but photographs show that most were gone from the monument by 1940.

**Eisenhower, CWA, CCC, WPA**

Immediately after administration of the monument was given to the Park Service, the Forest Service announced plans to begin various projects at the caves. A group of CCC boys from Berry Creek, near Ely, were to go to the caves in November 1933.

This came but days after Congressman Scriverham (the ex-governor of Nevada) asked for federal help in developing the monument. Later, a full CCC camp was asked for the caves, but these hopes were dashed when it was found that the Forest Service CCC's could not be moved to the Park Service Caves. These periphrasizations caused the public to be quite concerned over the future of
By early December, 1933, the Park Service had pledged $12,791 to develop the caves and had hired 56 CWA workers to do the job. Although complete records are lacking, this crew did much cleanup, removed or salvaged some of the buildings acquired with the monument, repaired the water line, spent considerable time inside the caves cleaning and repairing stairs and trails, dug up many of the orchard trees and built stone walls in the parking area. The CWA project terminated on March 22, 1934 after completing nearly 3500 man hours of work at a cost of $16,528.

During the summer of 1934 crews from the Transient Relief Camp on Lehman Creek further cleaned the surface area, purchasing from the Park Service some of the equipment left by the private operators of the caves. That fall a CCC stub camp was set up at the monument and work was started on campgrounds and a parking area. The "boys" also constructed a culinary water line, put up some rock walls around the comfort stations and did a little work in the caves. What they did in the caves has been the subject of much conversation. They most often are given credit for the cement-free rock walls presently known as the "Panama Canal," which is said to have been built to bypass the "Fat Man's Misery," a long, low crawlway entering the Inscription Room. Although there is a possibility of transposition of names, the Ely Record for September 15, 1922, tells that the "Panama Canal is in use to bypass the Fat Man's Misery." One evidence of the CCC days, though, the CCC Camp Inscription on the rear wall at Lake Como, is unmistakable.

Another attempt was made to bring a CCC camp to the caves but this failed due to a general curtailment of the program. We can find no record of work being done here by the CCC after April, 1935.

During the next two years correspondence flowed back and forth between the Park Service, relief agencies and local interests concerning work being done at the caves by one of the "alphabet" bureaus. During this period much criticism of the National Park Service appeared in local papers, but the monument's files reveal that the Service tried to improve facilities, but it was
continually thwarted in its attempts by the almost fantastic bureaucratic entanglements of the New Deal. Nearly a ream of carbon copies still exists as mute testimony to the hectic period. Finally in January, 1937, a WPA project was approved for the caves. It included the construction of cabins, one lodge hall, one combination comfort station and shower, and grounds cleanup. This was to be accomplished for $21,000. Appropriations totalling $5000 were received in March and the water line and two of the cabins were deleted from the plans. To get work underway the county pledged $150 for groceries. Actual work began in June but was curtailed by mid July due to lack of specialized manpower. Meanwhile the comfort station had been eliminated from the project. The existing files are somewhat vague as to what the WPA actually did accomplish at the caves. That they were at work for some time is evident. The superintendent's report for January, 1940 reports that the WPA crew is "working satisfactorily." Six months later an NPS carpenter was completing the cabins. That fall the Park Service took over responsibility for completion of the water system and laid plans for putting in sewer and electrical systems. Apparently the NPS completed the "lodge" which was soon turned into the superintendent's residence, the two duplex cabins and a single cabin. In 1941 a contract was let to the Kelly Lumber Company of Ely to build a restroom and it was completed in November of that year. About this time a reservoir had been started about 100 yards southwest of the caves entrance. It was to be blasted out of marble but funds ran out in May of 1941 and the job was never completed.

All during 1940 and 1941 there was correspondence regarding other WPA projects, but efforts failed due to an almost unimaginable tangle of government paperwork. One proposed project was at first rejected, then approved but not enough men could be found to put the job under way. In March, 1942 there were not only no men, there was also no money. It was suggested that the project be reopened after June 30. With World War II in progress the project proposal was never submitted.

With the exception of minor rehabilitation of existing buildings, the erection of steel radio towers, a steel flag pole, and a new generator housing, new construction on the monument was nonexistent until Mission 66.

The "Little" Problems

It is well known that government administrators have problems. Most are normally related to shortages of money and manpower. At Lehman Caves, especially in the early days, other, perhaps more practical, and certainly more chucklesome occurrences were the problems of the day. That these should be immortalized is perhaps dubious, but we (I) include them at this point for our
(my) pleasure if for no one else's.

Should the Superintendent of the Monument perpetuate the fa field acquired with the caves? If so, the grasshoppers must be controlled. "The insecticide I received is very effective. I also catch many flies with the flycatcher I made."225

Of the buildings it was said: "All of the roof's leak", and one ranger watched his living quarters subside into an apparently active fault."226 These same quarters were described as hardly fit for human habitation.

If one liked cows, the living must not have been too bad. "We have been bothered no end for weeks by great herds of cattle roaming all over the place. For some reason, best known to cows, they choose to do their grazing and cacophony right in our front yard in preference to much better pasture just adjoining."

The need for a fence to keep out trespassing cattle and horses had long been expressed by monument rangers229 and irate campers.230 Some relief was given through a cooperative U.S. Forest Service-National Park Service fencing project in 1937,231 but cows still wander into the monument on occasion.

Domestic "pets" were not the only animals to cause concern.

"On the 5th some skunks moved into the bunkhouse occupied by the WTA crew, much to the discomfort of the crew. After a preliminary barrage, the new occupants settled down and behaved themselves so that they are no longer objectionable. They are very inquisitive, and one of the cooks reported that there were one or two constantly watching him at his work. Since the first immigration there seems to have been a steady, for now there seem (sic) to be skunk occupants for every habitable building on the Monument."235

These animals were trapped and one kept as a pet.236

Along with the caves and a few other desireable features, a wealth of junk was inherited by the National Park Service in 1933.

For a sampling we refer to a 1935 inspection trip report:

"We found the grounds well littered with rubbish, cans, etc. Two cougar hunters hunting cougars in the forest were camped with 'Mr. Taylor, caretaker. They had three hounds around the house. A horse had been killed and butchered for the meat. The meat was scattered around the yard a few feet from the caretaker's door. . . .The woodpile was scattered over about half acre of land. Lumber was scattered promiscuously over the ground along the approach road. . . .a lot of iron pipe and pipe fittings. . . .the water line was clogged. . . .few of the carbide lights were working and those that would were not safe as they were hinged and worn so that they might fall apart any time. . . .(No water)."
Perhaps we are fortunate that the report does not elucidate on what else the inspector told Mr. Taylor. The inspector's description must have been better had he been able to find and locate in others nearby. From his report it is evident that accommodations were not easily found.

That the caves required for at least a year is certain. In 1936, "Seven thirty loads of muskrat were hauled away and six loads of trash including one load of horse bones." Also removed was a truckload of debris from each of the old caves. 233 By 1942 the grounds were in "first class condition" and have remained that way. (Cleaning of the caves' interior is treated under the topic of "The Caves" below.)

As is true today, all but a few of the visitors to the caves were well behaved in 1936. "The recent visitors to the caves have shown unusual thoughtfulness and understanding concerning defacing or curling up the interior, and no such offenses have been noted." 237 All good things come to an end, it seems, and two years later five arrests were made for defacing natural features in the caves. 238 The culprits turned out to be CCC boys but we do not learn of their punishment. 239 The next group to damage the caves was apprehended smoking marks on one of the cave formations. "They were called back to clean up the mess and "no charge was made for their visit!" 240

Communications between the monument and the outside world were always difficult. The old farmer-owned telephone line became inoperable during every rain or snow storm, and when it did work every ring brought each of the 30 subscribers to their phones. After one had counted the thirty clicks of lifted receivers there was no power left on the line to get the messages through. Shouting did help, at least on occasion, and the author can remember the obvious problem of getting used to not shouting when the new Bell System phones were installed in 1965.

For a time, radio communications with Park Service Headquarters at Lake Mead were attempted. 241 During most of the period one-way communications via radio were possible, but it was seldom that the "monument's set performed as it should. 242 An example of the confusion caused by poor radio and often by poorer mail
Further reference is made to your memorandum of October 18 and the attached copy of your memorandum of October 9. The original of this copy has not been received here and the long-hand note of the same date does not contain the information requested by our radio message. I believe if you will review your memorandum of October 18, realizing that a memorandum October 9 to which you refer was never received here, you will realize your apparent impatience with this office is without foundation. It is the sincere desire of this office to assist you in every way we can. There is no reason for us to burden you with unnecessary duplications but there is an ever present need for mutual understanding and cooperation.

Other "problems" which should be noted include: Target practice, quite dangerous in campgrounds, was prohibited in 1936. For a time the local people were unhappy that their "drinking resort," as the one time private resort at the caves was known, was no more and rangers spent some time persuading imbibers that such was prohibited on monument lands. The change in administration of the area was unknown to many and hunters, Christmas tree cutters and wood choppers had to be advised to desist inside the boundaries. Another headache for the monument personnel was the "fish pond." Lehman's old irrigation reservoir had been stocked with thousands of fish and yet no fishing was allowed. One can imagine the problems that this created!

Just a few more personal tidbits:
"The fact that I am alone at the Monument makes it utterly impossible for me to be in the office at all times. (Someone had left a note) inquiring as to the whereabouts of EVERYONE?"

"The month of August may go on record as a month of night duty due to the frequent arrival of late visitors, some as late as two or three in the morning. A large stone campground sign was erected to direct campers but most of our campers were from California and were afraid to pitch a tent without first awakening us to find out if it was really alright."

"The acting custodian is now well experienced in the art of snow shoveling, having spent the greater part of the month at that job."

"(From the coordinating superintendent) I understand that one of your temporary employees has an electric refrigerator in use. This is a convenience you cannot afford."

(In October of 1952 gas refrigerators were allowed.) "We are enjoying just looking at them knowing that at last we
are prone to have food refrigeration."253

(And to add injustice to misfortune, the acting custodian, who had been married in November reported the next day that) "The 'dumps' have been unwelcome guests at the monument since December and acting custodian Lair has entertained them until the present."254 (Rainful, too, we'll bet!)

Wards

At Lehman Caves visitation, and therefore the entire operation, is dependent on the condition of the roads leading to the monument. In 1933, when there were no paved roads within 40 miles of the caves, visitation was 612 persons. By 1959, when all approaches to the monument had been paved, visitation was up to 20,651.255 We doubt the increase would have been nearly as great without paved roads.

Originally the monument was connected to state and federal highways by two county-maintained roads. One of these branched off from what is now Nevada 73 just below Baker, forded Lehman Creek about five miles from the caves and led to the caves entrance via the present residence-maintenance area. The other commenced just above Baker, came through the present Home Farm of the School of the Natural Order, paralleled Lehman Creek for a distance and crossed it just west of the northeast corner of the monument. Inside the monument there was about 800 feet of low standard, natural gravel-surfaced road and a small parking area.256

In his first report to the Park Service, the monument custodian noted the need for road signs directing people from the highways to the caves.257 That summer (1934) rains settled the dust on the approach roads, but "the rocks in the road hamper travel considerably" and the tourists were "having difficulty finding the caves due to lack of signs."258 Cloudbursts wiped out sections of the Milford road and "washed gutters across the road and left ridges of gravel" along 20 miles of U.S. 6 between Ely and the caves.259

The next year "considerable attention" was given the approach roads by county and CCC crews. The roads were drayed, several days were spent blasting out large and protruding rocks from the roadway, culverts were installed and a bridge built over Baker Creek.260 In December the coordinating superintendent recognized the dependency of the monument on good roads and urged that a new road be built from Baker to the caves. He predicted increased travel to the monument with the completion of the new state and federal highways.261

For the next twelve years local roads were to remain in horrible condition. A few quotes will suffice:
"(In 1936) the present road is none too inviting to the modern tourist, used to paved roads and wide road beds." Recurrent cloudbursts have necessitated constant repairs on all highways leading to the monument, but they do not actually constitute improvements, as the roads are in worse condition than they have been in years. At the present writing all roads leading to Baker and vicinity are practically impassable...the northeast approach road to the monument is impassable, and the sign directing tourists to that road has been moved. In spite of this precaution, one car from Ely attempted the road and was somewhat damaged when it struck a washout at a good speed. A great many people had turned back at that point (about 30 miles from the caves) after inquiring the condition of the remainder of the road to the caves and finding that it was the same as the 15 miles they had just traversed...and but for this condition I am firmly convinced that travel at the monument would have been very much greater during the year just completed.

Often, too during this period, the roads were closed by snow.

Much of the problem with the approach roads may have been due to an uncertainty as to who was responsible for their upkeep. At first, both roads were maintained by the county, then by the state, and lastly by both county and state, and lastly by the Forest Service. In 1940 a WPA crew was at work on the "state" road.

In September 1945 the monument custodian suggested posting the roads "travel at your own risk." A year later he was able to report the completion of a new paved state highway from Baker to the caves (replacing the original two routes). This road, Nevada 74, has remained open and in good condition since that time. During the construction of Nevada 74 its continuation inside the monument was worked on by the state's contractor. Another of those work-stopping paperwork entanglements occurred and it was not until September, 1948 that the inside-the-monument section was completed. This was to be the last reportable roadwork on the monument until Mission 66 (vide.)

Meanwhile, national and local highways nearby were being improved. U.S. 6 from Baker to Ely had been paved in 1947. The superintendent's 1952 annual report noted that visitation increased

*Access through the monument to Forest Service campgrounds on Baker and Leham Creeks was discontinued in 1952 and 1959, respectively, according to D.E. Cox, Ely District Ranger, U.S.F.S.
225% for the year, largely because of the completion of the paving of roads nearby. U.S. 6 had been paved that year from Baker to Delta, Utah, connecting the caves with Salt Lake and the east. In 1955 the southern approach to the caves, via North Fork, was paved, thus completing the highway system converting on the comment.255

Concession Operations

Soon after the National Park Service was given charge of the caves the first application for a concession operation in the monument received. On January 15, 1934, Baker resident Ralph B. Struhm asked to be allowed to put in an "auto service" at the caves.275 His request was denied with the explanation that the NPS must first study the visitation pattern to see what conveniences were necessary there.276

Although only the operators of the caves had furnished food and board for visitors, it was determined by the Park Service in 1935 that the demand for lunch services and shelter accommodations is so small that it is not considered essential to establish regular services of this sort. Mrs. Nelson, wife of the former "keeper," is permitted to furnish such services as there is demand for." This quote is from a letter refusing an application for a "tea room and camp ground."277

Soon, however, visitor demand for food and lodging (none was available at this time in Baker)232 coupled with accusations by the local press that the National Park Service was neglecting the Lehman Caves, caused the Service to plan a "lunch room" and overnight cabins.278 The former was to have 24 seats, both and bedroom for the operator and a curio and grocery department.279 Although the building was completed, it was

never used for its intended purpose. Because of the lack of proper housing, it was converted to a staff residence in the fall of 1941.280 Three of the overnight cabins also were constructed but were not used for their intended purpose either. and apparently were left vacant during World War II.

One "concession" did not off the ground in the prewar years. Operating under a special use permit, local residents were allowed to cut ice from the Lehman Pond near headquarters. Twenty-five tons were cut in 1937 and similar amounts in the years through 1940.281

Early in 1947 the monument custodian suggested that a small scale food and lodging concession was needed.282 The coordinating superintendent at Lake Head acknowledged the need, but
felt it might be best met by developments outside the monument. He advised taking this over with local Forest Service officials. At this time there was pressure from civic groups in Ely to have some sort of concession started at the caves. In response to this the custodian made specific recommendations for limited meal service, souvenirs and one overnight cabin. He felt that there was too little business to interest anyone in providing such services outside the monument. Apparently it was quite difficult to find anyone who was willing to set up the concession either outside or inside the monument and in November the custodian suggested that his wife could do the job. This recommendation was made a formal proposal by the coordinating superintendent, rejected by Region III, and approved in December by Washington.

Using a portion of the old log lodge as a restaurant and gift shop, Mrs. Howard Mailwright opened the Wheeler Lodge in May of 1950. Her services included breakfast, sandwich and dessert service, soft drinks, postcards and gifts. In addition she was to provide as many accommodations at $2.50 per couple per night in the previously constructed rustic cabins. (One of these soon was converted to employee housing.) It was not a big operation that first year; the net profit was $227. Mrs. Mailwright continued operations until September 1951 when her husband retired from the National Park Service.

It was not easy to find a new operator and the complaints of visitors who expected meals and lodging began to pile up. Again the superintendent's wife was chosen to operate the concession. Mrs. Oliva Brown was given a two year contract in February 1952. She at first had to prepare the food in her home kitchen since the old lodge could not pass sanitary inspections. To make matters more difficult, there was no refrigerator and all drinking water had to be boiled before use.

Needless to say, Mrs. Brown was unable to meet summer visitor demands for meal service and numerous visitor complaints were lodged. During the following winter she requested improvements be made in the concession's physical plant noting that she operated at a loss of $1,639 for 1952. Reading between the lines of letters that went back and forth between Mrs. Brown and Service officials, it is apparent that the Service did not approve of her operation. There are hints of dishonesty and exaggerations in her reports and requests for improvements. In any event, after recommending again that a concession be set up off-camp, the coordinating superintendent asked that Mrs. Brown's permit be rescinded. This was done as of December 31, 1953, on the basis that the concession facilities were too run down to justify rehabilitation, and in the belief that private enterprise in Ely would provide for most of the needs of
tourists visiting the caves, 300

Lack of concession services in 1953 and in the spring and early summer of 1954 resulted in a barrage of visitor complaints and local newspaper editorials adverse to the National Park Service. "Restaurants" (saloons) in Baker were not willing (or able?) to serve food. Many tourists left the monument without seeing the caves because there was no place nearby to eat or stay. 301 Although concession services were authorized in 1954 (July) 302 it was not until April of 1955 that eating facilities were re-opened. 303 Two months later approval was given to provide overnight accommodations and one cabin was available for rent in another month. 304 The new concessioner, Mrs. Blanche Yersin, gave up her contract at the end of August, 1956. 305

The next, and present, permitting, Mrs. Thelma Gregory (now Bullock), opened the 1957 season in the newly reconditioned log lodge. Three rooms a day were available; also two overnight cabins. 306 This operation was to continue until 1963 when Mission 66 construction replaced the old facilities.

During Mission 66 planning much debate ensued regarding the necessity of a concession at the caves. At first the Director of the National Park Service did not approve any concession facility in the new construction. 307 Later amendments to the plan allowed inclusion of a coffee-gift shop installation and the providing of limited snack service. 308 No overnight facilities were allowed since so few visitors had used the old cabins. 309

The Cave

Upon cession to the Park Service the caves were in need of cleaning to meet the Service's aesthetic and safety standards. The first two inspectors of the monument facilities agreed that 1,500 feet of trail and existing wooden stairways would require considerable work to make them usable. Each recommended that more headroom be provided so visitors could walk upright throughout the tour; the wooden stairways be replaced, or at least, that the treads be made an even distance apart, and that the debris on the floors and the stalagmites on the walls be cleaned up. Surprisingly, both advised against replacing the steep natural entrance stairway with a low level access tunnel as previously recommended by the Forest Service. 166, 167

Architect Harlan Stephanson, the first Park Service official to view the caves' interior, was concerned that the trail did not provide adequate protection to the cave formations. "The original trail was evidently built with too little thought toward protecting or saving the interesting formations. In many places the stalagmites and stalactites were unnecessarily broken away and merely pushed to one side of the trail." He added that "An
indirect and concealed electric lighting system would add materially to the attractiveness of the cave."

Although the need for development underground was great, caution, rather than speed, was emphasized. Stephenson, for example, noted, "Work within the cave would need careful supervision." An accurate survey of the caves, especially those portions called "unexplored", had been called for, even though a "50 scale map of the underground" had been obtained from the Forest Service. Clean-up of the caves, however, could be done without much advance planning, and it was begun immediately. During the spring of 1934, CWA crews spent considerable time inside the caves. They removed "loose stones, dirt, dead lumber and debris from the trails", leveled and widened old trails, built stone walls and replaced st images. In one week in April, for example, they spent "360 hours repairing trails and building walls" inside the caves. The latter problem has caused some concern to cave administrators up to the present. The question was how to clean without disturbing. The first custodian had some success in the dry front portions of the caves but found the flowstone covered marks in the rear of the caves difficult if not impossible to remove without causing damage. It was thought that a "thick paint, resembling the natural formation, could be applied with a gun and cover the works easier than they could be removed otherwise." Renovating on "the ceiling in the room in the cave that is so badly marked" was suggested. Apparently the experiment has never tried since the present "Inscription Room" is so marked "because its ceiling is so badly marked." No good method has yet been found and it has been decided to leave most of the marks on the walls as historic exhibits.

In the fall of 1934 a CCC contingent began four months of work in the caves interior, reconstructing foot trails and doing "stone work." One inspector did not approve of the latter and wrote, "The placing of small stones along the edges of the trail to define it across flat areas was considered to be unnecessary and unsightly, therefore these will all be removed." (It is interesting to note that this practice was revived in 1964.) In April 1935 the monument custodian reported that the CCC "boys did some splendid work here, including...the making of attractive trails and left the caves in good condition." (See "YCN CWA-CCC-WPA" surn for further comments on CCC work at caves.)

We wonder what he meant by "good condition" when we read a report written two months later by an inspecting officer from Zion National Park. "There is a great amount of debris left by CWA workers in the cave which should be gotten out. Every crevasse..."

*Note from early trail surfacing materials has also covered much of the cave."

-17-
is filled with boards, casks, boxes and rocks."\(^{313}\) In December
"A portion of the lumber, belting and boxes left in the cave by
former CCC boys was rocked out, and though only a "skidding" was
made, it has added considerably to the appearance."\(^{314}\) In clean-
ing just the first room "several hundred feet of lumber... and
four minny sacks of darter ore" were removed.\(^{233}\) Unexpected help
was forthcoming to continue the job, as reported by acting cus-
todian Fred Hagerman.

"A desert wood rat is saving us the trouble of cleaning out
what has been known as the Wishing Well in the caves. For
years this little room has been the depository of people
who believed if they left a trinket such as a match, hair-
pin, coin, etc. and made a wish it would come true. Naturally
their room has taken on the appearance of a junk shop
and its natural condition is being brought about by this
rat who is making rapid strides in moving the artifacts
to a hot or location for the both of us."\(^{315}\)

A later report gave more details:

"Thorough as the rat reported last month cleaning out the
Wishing Well had become tired or had secured the objects
he wished, it was necessary to hasten the procedure by
the use of a garbage can."

Hagerman goes on to list in detail the more than 700 objects
taken from the small pool. Included were 231 bobby pins, the
crystal of a match, a piece of a lady's carton, 2 marbles, 10
wads of cotton, 1 shoe horn, 1 can of mentholatum, 5 receipts for
groceries and one small American flag! No wonder the rat gave up!

In May of 1936 a Park Service engineer made a visit to the
caves. . . to inspect an overhanging rock that was considered dan-
gerous."\(^{316}\) He recommended cribbing with steel beams and a work
order for the job was written.\(^{317}\) Another inspection of the ap-
parently unsupported rock was made in July and it was noted that
the custodian had "timber cut and nailed at the cave entrance
which he intends to use for cribbing. The job, however, seems
like an engineering job and will probably require twenty men to
cut the timber and steel down to the place it will be used. I
have some doubt of his getting the steel beams through the cave
at their present length."\(^{318}\) Evidently he did not get the ma-
terial inside, at least at that time, as the monument's present
maintenance foreman recalls shoring up in 1950 what was apparently
the same overhang.

This latter-day project resulted from what, to our minds, was a
cares of violent identity. "Large block limestone fell from
ceiling Takla Caves Sunday night filling passage connecting last
room with unexplored portione-was," read the telegraph. Details in the resulting correspondence lead us to believe this was not the cave rock under consideration in 1935, and a 
clone inspection of the boulder in the location described 
shows that it has been in position a long time. The present 
visitor two rock rooms under this rock, using a tunnel blasted 
there in 1962. Had this route been accessible (i.e. no boulder 
blocking it) prior to 1945, tours and exploraers could easily 
have entered the present "nude room." Thus this area was con-
sidered unexplored as late as the mid-1950's and good evidence 
it was not easily enterable. Naturally an inspection was called 
for. Nevada Deputy State Inspector of Mines A.E. Bernand found 
the caves in general to be "In a very safe condition, but I 
would recommend that two light steel girders be placed to sup-
port the center of the roof in what you called the last room of 
the caves. . . . I would also put a rock crib or wall to support 
the hearth (or roof) in the entrance of the next to the last 
room. The real last safety hazard I found in the caves in my 
opinion are the wooden stairs." In due course the crib 
was constructed (and is still there) but the other supports were 
ever placed.

The Cave Entrance Tunnel

As far back as 1935, Forest Service and Nevada State officials 
had suggested a tunnel be driven into the mountainside to 
emulate the somewhat hazardous natural entrance. Early reports 
indicate the old chimney leading down some 60 feet from the 
ground to the first cave room was a barrier to many who wished 
to see the caves. The uphill route was simply too steep and the 
chimney too richly and precipitous for the faint of heart. 
There was also the physical problem of considerable exertion, 
at nearly 7,000 feet above sea level, to climb out at the end of 
a strenuous tour. Although some objections were voiced by a few Park Service officials who were concerned about less-
ening the visitor's cave experience and about destruction of 
the caves' natural beauty, the tunnel was declared feasible in 1936. Plans were laid in 1937 and surveys accom-
panied by geological drilling and an exploratory shaft were 
buried in August that year.

Obstacles to construction were considerable. There was much 
loose rock and mud below the natural entrance. Another in-
convenience was added when Indian bones were found in the path 
of the tunnel. The care necessary to avoid disturbing the bone 
deposits so their value to science would not be lost slowed con-
struction further.

Tunnel work began in earnest in May 1938 and the first section 
was "shot through" three months later. About 1/3 of this sec-
tion was lined with concrete and drilling commenced on the in-
side tunnel. The latter was completed August 29, 1939 and the 
entire entrance officially opened to the public on October 1, 1939.
$9377.04 of Service roads and trails money. The oft repeated story that CCC or WPA workers built the tunnel is untrue.

Because of the care exercised in drilling and blasting the feared destruction of cave features did not occur, although an increase in water flow in the first room of the caves was noted immediately after blasting was completed. The new route added immeasurably to the comfort of those entering the caves and it has been used without change since 1939. The idea that another tunnel might be soon needed would undoubtedly not have occurred to monument personnel at that time. But in May of 1952 an Ely Chamber of Commerce Committee was to report that their study of development needs at the caves revealed that another exit tunnel was imperative. "With only one entrance to the caves, escorting of visitors through it greatly slowed down, necessitating long waits by visitors. . . who can ill afford to lose (sic) several hours in getting to their way. Moreover this slow process means that the guides must in unusually long hours." 323

In April 1953 an inspection was made to determine the "feasibility of opening up a separate exit, to relieve the problem of protecting parties on the trails on days of heavy visitation." 324 Further endorsement of the proposal was given by the Service's Chief Geologist, the Regional "Naturalist," and the Monument Superintendent. Since there was little knowledge of the extent of the caves, a single exit tunnel at the end of the tour route was suggested. This would have necessitated an outside trail of about 2 1/2 miles to take visitors back to their cars. 325 We are unable to find why this proposal was never acted upon, but feel it a good thing it was not, because since then much better light has been developed which includes parts of the caves previously forgotten in the early 1950's. (see below) Even so, a second access tunnel is needed and plans for its construction were initiated in 1954; the project was included in the approved 1965 Monument Master Plan.

Illuminating the Caves

Perhaps pine pitch torches were the first lights to be used inside Lehman Caves. We do know that many early parties used charcoal to light their lamps upon the cavern walls. Candles, though, were standard lighting for many years. Can you imagine climbing and crawling, as the oldtimers had to, holding a flickering candle in one hand? Add to this the eerie shadows cast by the dancing yellow flame and we must admire the courage (or dumb foolishness) of those who ventured into the stygian realms before electricity was added.

One step beyond the candle was the carbide, or miner's lantern
introduced to Lehman Caves by the Rhodes in the early 1920's. Only electric lights, however, could show the caves' true beauty! Plans for bringing electricity to the caves had been advanced off and on from the 1920's, but it was not until 1939 that Federal funds were made available for the work. Construction of the cave's electrical system began in October 1940 using day labor and Park Service electrical supervisors from Boulder Dam National Recreation area. The first completely electrically lighted cave tours were given in April, 1941.

It was amazing! All who had seen the caves before were honestly surprised at first they had visited by feeble candle light. Some, of course, were disappointed... the cave had shrunk! No longer were there vast areas of darkness suggesting unknown realms beyond.

Perhaps some of the thrill and romance of early days was lost but this loss was far outweighed by the gain in visible beauty. Colors never seen before were revealed in all their infinite muted hues. A true perspective of size and depth was gained and those with old-fashioned eyes could now enjoy the cave's varied and almost unlimited beauty.

All was not rosy and dream though, as the complicated system was difficult to maintain and the early generator engines none too reliable. Undoubtedly, some who read this will recall being plunged into the depths of darkness when plant or system failed.

The antiquated generators were on a stop-start schedule from the very first. Excessive fuel costs shut the plants down in December, 1941, but after that plant breakdowns were the major cause of flashlight illuminated cave tours. New generators installed in 1949 seemed to clear up the problem and cave lights have burned brightly for all tours since that time. During 1962, two new generators were installed, assuring adequate cave lighting for years to come.

The Cave Trail

Some cave trail improvement was accomplished by early relief organizations, but it was not until the late 1940's that a program for underground trail and stairway reconstruction was begun. In his monthly report for June, 1946, the monument custodian states: "Extensive replacement work is indicated on stairs, handrails and platforms in the caves. Efforts are being made to secure funds for this work. For immediate safety we have installed several new handrails and steps." Although the trails were passable they were not safe for the average visitor. This concern with safety led to further pleas for funds for rebuilding trails.
and stairways and after an inspection in November $6950 was allocated in December and work was begun.336 By January 1947 all the stairs had been replaced and much of the trail levelled and sanded.337 Evidently this work was not completed and a new project was initiated in 1950.

At this time the first blacktop paving was applied inside the caves. A strip extending from the tunnel portal into the caves' first room was in place by fall; the remainder of the tour route had been covered with sand and "loose crushed rock."338 Steel and concrete stairways had been recommended but chemically treated timber was finally selected as being safer and easier to install and maintain.339 Other improvements included electric lights, raising the floor level in the Gothic室, providing more electric clearance at spots along the trail, and a diversion ditch around the natural hole on the surface.340

The latter was necessary because of increased rockfall through the hole and onto the trail during rainy periods. At one time an estimated 15 tons of rock and mud from this source covered the entrance trail.341 This project was reported complete in February 1951, but similar work was being done in October that year.342

The next spring was in especially wet one and cave trails needed extensive repair and considerable drainage. A further safety hazard was created when water reached the cave lights and frequently caused them to explode.343 By fall it was decided that the wooden platforms in the Cypress Room had to be replaced and concrete ones were built there that winter.344

Gravel and sand covered out of the trail, however, until 1955 when complete resurfacing of the route with asphalt blacktop began.345 This work, started in January 1955, was not complete until July 1958.346 That may seem a long time to pave less than one half mile of trail, at least until the methodology is revealed. Each pound of the more than 80 tons of blacktop had to be carried into the caves by hand, a bucketful at a time! It is impossible to estimate a thoroughfare beyond the first room of the caves because of the narrow passageways. As the Superintendent put it, "We are extremely proud of the amount of resurfacing of cave trail... and of the quality of the product. Anyone who has not had experience carrying surfacing materials by the bucketful down a 1500 foot of trail, up and down stairways, sidesteps and narrow passageways, cannot realize the extent of the accomplishment... Six trips a day in with materials is a hot day's work but as many as ten trips per man has (sic) been made."347
Pedestal rooms at the rear of the caves (see below) occasioned the planning of an extension of the tour route, but an survey to map showed the relationships of the new rooms to the old trail and needed a layout lighting and trail systems. Volunteers from the Civilian Conservation Corps of the National Speleological Society, headed by O. W. Crow, started surveying the caves in March of 1939. Their work showed that a loop of about 900 feet could easily be added to the tour route and construction on this portion of the trail began in November 1940. The extension was finished in April of the next year. Except for minor cleanup work, the addition of a few lights, and normal maintenance, no repairs have been made to the caves' trail since then.

**Exploration**

Early reports, as we have seen, contended that passageways in Lehman Caves exceed several miles and were perhaps even longer than those in Mammoth Cave, Kentucky. That this was untrue needed to be proved.

By the end of 1935, if we are to believe the charcoal writing on the cave walls, all of the easily accessible portions of the caves had been visited. No records have been found that indicate that, if any exploration occurred between then and 1936. We have no idea what amount of cave was shown on the new U.S. Forest Service map acquired by the EPS in 1933, nor do we know where the data for a 1960 map of the underground came from. The latter drawing shows the present tour route in its entirety, including the Venus and West Rooms which had been "lost" during the early 1930s.

The first recorded attempt to explore the caves after its acquisition by the Park Service was by amateur caver H. Donald Curry. He viewed "several small rooms probably never before visited...practically uncharted by man." during 1936. We do not know where these rooms are, as Curry's notes were lost when a pack was stolen from him a few years later.

In June 1937 it was reported that "somewhere between two and three miles of tunnel have been gone through in Lehman Cave and all indications are that there is a great deal more to explore. I have been informed that there are two lakes of fair size in passages leading east out of the entrance room, but that the debris which has fallen in that room has blocked passageways. The caving in around the buildings certainly indicates that...

*2. A steel and concrete slab with a plastic dome was placed over the natural entrance in 1959. 351
there are passages in the area referred to.354 Despite extensive exploration, the "area referred to" with "lakes of fair size" has never been found.

Although magazine and newspaper accounts continued to report exaggerated mileage figures for the total explored cave (also adding of course that there were many more miles of "unexplored" passageways) it was not until 1947 that a significant addition was made to the known cave. Park Service laborers Tom Sims and John Fielding, on October 20, "found and opened" a complex 200 foot area north of the natural entrance. To enter this area, now known as the Lost River section, Sims and Fielding had to break several small stalactites and then squeeze their way in.355

Five years later another section of the cave was discovered. Called the Cyma Annex, this portion of the cave contains large areas of gypsum and several areas of quartz decorations. It was found by Ray deSaussure, October 8, 1952, when he removed a small boulder blocking the entrance.356 His exploration was part of a survey conducted by four members of the Western Speleological Institute who concluded that there was no more cave to be found. Careful exploration and mapping have shown this contention to be true.

Thus the myth of "miles of unexplored passageways" has been discredited. Or has it? Who knows what may lie behind the walls, the flowstone draperies or waterfalls? Perhaps geophysical research will someday reveal new areas that can be easily connected with the present tour route, but until that day comes we must answer "none" to the often asked question: "Ranger, how many miles of unexplored passageway are there in Lehman Caves?"

Research

Although research into Lehman Caves' geology, atmospherics and dimensions was reportedly accomplished by early promoters,93 none of their reports have come down to us. Ironically, the first recorded research at the caves was a bird study made in 1934 by University of California scientists.357

Pompey's Cave Custodian H. Donald Curry was the first to carry out extensive geological studies of the cave and its environs. His paper, "The Geology of Lehman Caves", was completed in 1936, and until 1960 was the only printed source of scientific data on the caves.358 Two other geological surveys of the caves have been made. George W. Moore spent a week studying the caves in 1960 and Kenneth C. Bullock reported on an inspection of the Talus Room in 1961.

Insects inside the cavern early received attention by custodian
A skull uncovered during cleanup operations in 1937 was the first of several hundred Indian bones found buried in the floor of the room directly below the caves' natural entrance. Apparently cleanup work and cave tunnel construction continued without archaeological assistance until July of the following year when a conference was held at the caves to determine further action regarding the bones. Scientific excavation of the remains began in August 1938 but was terminated in less than three months due to lack of funds. The dig was not resumed until September 1963. This latter excavation was under the supervision of the Nevada State Museum. A brief resume of the findings of the two operations is found above under "Prehistory."
ADMINISTRATION

The National Park Service technically assumed administrative control of Lehman Caves National Monument on June 10, 1933, the date of President Roosevelt's Executive Order 6166. However, it took time to make assignments and it was not until December 2, 1933 that the Park Service began active participation in the affairs of the monument. A telegram of that date to F. L. Couch, Superintendent of Zion National Park, advised that the "Director requests report by landscape representative on conditions at Lehman Cave, and work which could be done under Civil Works." Two days later Zion was notified to prepare for handling the administration of Lehman Caves and on the 7th, $1,458 was allocated for "other than labor."369

On April 27, 1934, Otto T.W. Nielson was appointed "Park Ranger in Charge" at the Caves. He was the first of 12 men to be responsible for the monument between 1933 and 1966. (See Appendix III for a complete listing of monument personnel.) Nielson reported to the Superintendent of Zion who was administratively responsible as Coordinating Superintendent for the monument. In mid-1937 it was recommended that administrative responsibility for Lehman Caves be transferred from Zion to Boulder Dam National Recreation Area. A year and a half later the transfer was made and at the same time Regional boundaries were redrawn, removing both areas from Region Four (San Francisco) to Region Three (Santa Fe).370

A coordinating superintendency was maintained with daily radio contact between Lehman Caves and Boulder Dam until May 1953 when Lehman Caves was given full field area status. This designation was brief, being rescinded in November 1954. On January 1, 1958 the field area status was reinstated and has continued to the present with only one change. Effective January 12, 1960, the monument was transferred from Region Three back to Region Four.371

With but a few exceptions we are about to mention, the monument has been open to visitors seven days a week since the National Park Service was appointed its guardian. Full time operations became increasingly difficult in the years immediately after World War II because no additional manpower was available to handle the increasing crowds of tourists. To make things even more difficult, government employees were reduced from a seven day work week to a five day work week in 1945.372 By 1948, rising
costs accompanied by rising appropriations put the monument on a five day week, closed Friday and Saturday.\footnote{373} The monument was completely closed several weeks in 1948, 49, and 50, due partly to heavy snows and partly to lack of funds.\footnote{374} This, as far as we can tell, was the last time the monument was closed to the public for any reason.

A brief furor arose when an apparent misinterpretation of confidential information reached the press. In February 1954, the Monument Superintendent was quite surprised to find in the local newspaper that it had been proposed by the Department of the Interior that the Caves be given to the State of Nevada for administration.\footnote{375} As it turned out, Lehman was but one of several areas suggested for study as to their eventual disposition or development, and on April 12 the Secretary of the Interior assured all concerned that the Caves was not being considered for disposal.\footnote{376}
SPECIAL EVENTS

On September 5, 1948, the Ely Chamber of Commerce and mines sponsored a celebration at the Caves marking the completion of the highway from Ely to the Caves. The event included an open house, free cave tours, a free barbecue, (600 pounds of beef were consumed) music by two orchestras, and remarks by several officials. Estimated attendance varied from "well over 2,000 persons" to somewhat less. Whatever the total, it was not entered into the official travel record. The occasion, however, was "declared by those present to be a very successful event."377

A year later a "Lehman Caves - Beaver County Day" was held on the monument. Co-sponsored by the Elko, Nevada Lions Club and the Ely Chamber of Commerce, it was designed to acquaint the governor of Nevada with the need for construction of Nevada highways to meet the needs of motorists from eastern Nevada. Nevada Governor Paul Laxalt, Nevada Governor Earl Pittman, Union Pacific Railroad officials, travel bureau representatives and two bands participated in the event. As in the previous celebration, there were free cave tours and a total estimated attendance of 1,500. Local police and two marines from Lake Head helped handle the more than 500 cars that brought the participants.378

The next special event at the caves did not draw large crowds but the results were viewed by more persons than either of the other two events mentioned above. MGM studio sent 28 men in a 48-foot van to the caves to film a one minute sequence for background in a Viceroy cigarette television ad. This occurred in June of 1959. A second movie sequence, portions of the "Wizard of Oz", was shot in 1965.379

In July 1960, Conrad L. Wirth became the first Director of the National Park Service to visit Lehman Caves National Monument.380

Sir Edmund Hillary, of Mt. Everest fame, his wife and their children, toured the caves in July 1962. Their stop here was the only visit to a National Park Service area on their Forest Service sponsored tour.381

A description of the Dedication of the Visitor Center will be found in the section dealing with Mission 66.
Interpretation

The entire operation at Lehman Caves evolves around the interpretation of the underground story. Secondary themes include the Great Basin and human history.

If personnel classifications are a reliable guide to Park programs, it appears that interpretation in the early days took a back seat to other duties. A 1935 form shows "60% custodial, 40% guide," for the monument's one permanent uniformed position. This later was changed to just the opposite. After 1937 seasonal guides were hired and the percentage of the "superintendent's" time devoted to interpretation dropped to 10%. In 1960 a full time interpreter was added to the staff and by 1965 there were seven seasonal guides. The latter staffing included having one "seasonal" on each day of the year, with the full staffing from June through Labor Day.

The Caves Tour

Little has come down to us telling how the early tours were conducted. Apparently the first trips included very little true interpretation, being confined mainly to pointing out "curios" such as the "Fish", "Pussycat", "Devil's Bathtub", "Wedding Cake", and so forth, apparently ad nauseam. (There was no lack of material. More than 150 of the fanciful names are on record.)

The earliest surviving instructions to the guides were concerned with the mechanics of guiding, rather than interpretive techniques. For example, in 1934 the coordinating superintendent reported, "The trips through the cave are personally conducted by the ranger. I suggested to him that he conduct parties at any hour during the day that there might be demand for it, except during weekends." A year later it was advised that large groups should be divided into smaller parties "with responsible people with the parties to aid in the trip. . .so arranged that there would not be more than ten people between them." The latter, apparently, was designed more to prevent vandalism than to aid in interpretation. One feature of every cave tour then, as well as now, was a presentation of the "aims, policies and regulations of the National Park Service."

H.D. Curry was the first at the caves to understand the true purpose of the guided tour. He pointed out the "geologic features and the method of formation of the caves" and gave "the more appropriate of the names formerly used to designate individual dristone formations." Curry also made the first effort on record to locate factual history and Indian legends relating to the caves, and to make scientific geological observations in the cave. Unfortunately his notes were lost when he was assigned to Death Valley National Monument.
By 1966 the superintendent was "making every effort to make the best and most interesting presentation possible. . . to get away from any canned or stereotype routine. It seems we are confronted with two distinct requirements, i.e., the informal contact which is indicated with our smaller groups of interested people and the more or less disciplined regimen required with the weekend picnickers (sic) where the guide must remain in control as well as furnish information." His remarks adequately describe the situation in 1965.

The Lake Mendocino Naturalist visited the caves in 1951 and drew up a brief manual for the guides. It gave an outline of the geology and history of the caves and suggested where in the caves these and other stories might be presented. Other "guides' guides" were prepared, but most followed the 1951 example.

Until 1957, tours went into the caves whenever enough (or too many) people were ready to go and at about any time of day or night. In that year tours were scheduled to leave on the hour from 9 a.m. to 4 p.m., at least during summer months. Two years later the summer hours were changed to 8 a.m. to 5 p.m. In 1964 a definite time schedule for winter tours was established. Also in that year the tours scheduled daily during the summer were 12 on weekdays and 18 to 20 on Saturdays and Sundays.

Cave tours normally lasted 1½ hours before 1941. Installation of electric lighting allowed this to be reduced to one hour, which was the time allotted until 1961 when the earlier timing was necessary again because one-third more cave had been opened to the public.

Experimentation with a "Spelunker Tour" was begun early in 1966 and the specialized tour was opened to the public that summer. Spelunkers were given a short lecture on personal safety, caving techniques, and conservation before entering a passageway above the Gothic Palace for three hours of crawling through squeeze-ways, descending pits and answering questions like, "John just fell and broke his leg. What do you do?" At year's end it was decided to continue offering the tour in 1966.

Special visitors are always fun for the guides and a record of a couple of "specials" seems in order. After taking six honeymooners through the caves, one guide remarked, "Here's for more of the same. No visitor is easier to please than a honeymooner." Local Indians, often said to be afraid of the caves did visit on occasion and one of them asked the guide a rather difficult question; "Why white man enjoy it?" Then there was Sir Edmund...
Hillary, climber of the world's highest mountain, who confided that he got acrophobia! 398

No matter how or when the tours were conducted, most people seemed extremely pleased with the caves. In 1934 visitors were "delighted and pleasantly surprised" 399 and in 1941, 85% of the visitors rated Lehman Caves better than Carlsbad Caverns. 400 Ansel Adams, the noted landscape photographer and conservationist, put it this way: "This cave is lovely and I like it because you can see a hold of it." 401 Such comments have continued through the years and the author can remember but one dissatisfied customer in the four years he served at the cave.

Other Interpretation - Publications

Titled simply "Lehman Caves", the first interpretive publication by a Park Service employee appeared in Zion Bryce Nature Notes, July-August, 1934. The author was the monument's Ranger in Charge, Otto T. Nielson. Free copies of this booklet were made available to monument visitors. 402

The next written interpretation was by H.D. Curry in 1936. It was a semitechnical geological treatise combined with a brief, but inaccurate history of the caves. Mimeographed copies were made for public distribution and reprints issued as late as 1957. 403

In 1947 the Superintendent lamented over a lack of an illustrated brochure on the caves. A year later the photos were taken and in 1949 the first informational leaflets were received at the monument. The folder had been but little revised in content since that time, although a sketch map of the caves was added in 1960. 404

Next, Chief Naturalist Alan Kebane produced "Story in Stone" in 1961. This mimeographed paper replaced Curry's earlier effort and stayed in print through 1964, when the stock was depleted and a revision considered necessary. The latter was in progress at the time of this writing. 405

One other publication relating to the monument was produced in March 1954, the Fountain View Nature Trail self-guiding leaflet was issued. Between then and the end of 1961 some 18,494 persons used the trail and the leaflet. Mission 66 construction necessitated closing and rerouting the trail in 1962. A temporary edition of the trail leaflet was produced in 1963, but was out of print by 1965. 406

In 1963 a manuscript was prepared and suggested for publication as a Natural History Handbook for Lehman Caves National Monument. Various complications ensued and the book was not published.

-61-
Other Interpretation - Museum and Exhibits

Within four years after the National Park Service acquired the monument, thought was given to establishing a museum and exhibit series at the caves. Cave specimens, collected by the Forest Service, were on hand and visitors were beginning to request such a service. In 1938 there were "minerals and fossils" on display and in 1941 the old lodge was fitted out as a contact station and wildflowers and cave materials were put on exhibit. The 1948 General Development Plan contained little on exhibits since there was talk of a new building to house them. Several exhibits were prepared and installed in the old building, however, including an NPS orientation map, a layman's hardhat and birdbath, a rock collection, pine nut display, geologic "Kiddie Korner", and the skeletal remains of the Indians and in the 1930 archaeological dig. In 1963 the new building was a reality with complete exhibit and museum facilities. (See section 66 for details.)

Other Interpretation - Miscellaneous Services

Campfire programs have been an on again, off again part of the monument's service. In 1936 the custodian aided the Sierra Club campfire while on a climb up Wheeler Peak. Ranger Claude Velenci offered evening slide talks and movies on the lawn in front of the caves' entrance during the summer of 1941. Twenty years later evening programs were resumed in the same location each Saturday during the summer. The following year, primarily because Mission 66 construction in progress had removed the lawn, the campfires were moved to the Forest Service Fire Circle on Lehman Creek. Forest Service employees joined in and became a permanent part of the program when, in 1963, campfires were again presented on the lawn near the entrance. In 1965 the schedule was extended to include programs on Thursday and Saturday evenings.

Lehman Caves Natural History Association was established and incorporated in early 1963. Total sales for the first year of operation was $275; in 1965 sales totaled $38,113. The association aided in establishing the spelunker tour mentioned above by purchasing hard hat liners for resale to the cave crawlers. The 1966 goal for the association was to produce one interpretive publication for sale to the visiting public.

Off-monument and special group services have never been a major part of the monument program. In the 1930's occasional CCC groups visited the caves, as well as a few school and university classes. In the 1940's movies were shown off the monument and some large groups were taken through the caves.
Hikes, led by monument personnel, were given in the Lehman Creek area in 1949 and 1949. A program of contacting schools in communities around the monument was started in 1965, with all of the grade schools in Ely being visited that year.

Guide Fees

At first the National Park Service made no charge for cave tours, but in 1936 fees were initiated. Adults were charged 50 cents per person, per tour, unless they were members of a group. If the latter condition applied the fee was 25 cents per person. Children were free. In 1940 the tickets were changed to include tax but the total tariff remained the same. Children 12 to 16 years old were charged 8 cents each in 1949, and an unknown period thereafter.

A family fee, $1.50 per family with two or more children aged 12 and over, was inaugurated in December 1963 to be replaced in April 1965 by a 75 cents per person fee for those aged 16 and over. The latter schedule lasted for 15 days when the 50 cent fee for all aged 16 and above with children under 16 free, was instituted. This continued through 1965.
During the 1950 to 1955 period visitation to the caves increased 56%. A similar and in many cases more spectacular rise was occurring throughout the National Park System.

In most parks, as at Lehman Caves, physical facilities, staffing and programming were still geared to pre-WW II levels. In 1955 a long range action program entitled to "assure the American people that their priceless heritage of national parks, monuments, and historic shrines would be developed in a manner in keeping with their size, yet fully protected for the enjoyment and inspiration of future generations" was inaugurated. This program was "Mission 66.

At Lehman Caves the attack on obsolescence was three-pronged. A completely new physical plant was called for, staffing was to be increased, and an expanded interpretive program including the opening of additional sections of the caves, was to be set up. All of these goals were to be realized by 1966, the 50th Anniversary of the National Park Service.

The first need was to construct housing for personnel required to manage and operate the new physical plant and expanded program. Four residences were completed in 1962. The superintendent's old house and two of the small ex-concession cabins were moved to the new residence area. Meanwhile, a visitor center, power plant, and utility building, several thousand feet of new road a 75 unit picnic area, and the utilities systems necessary for the expanded operation were constructed. Appendix V gives a breakdown of construction costs.

Staffing increased during Mission 66 from three permanents and two seasonals, to five permanents and eight seasonals. One third more cave was added to the visitor tour and much of the trail refurbished. Regularly scheduled evening campfire programs were begun and an entirely new kind of tour, the Spelunker Tour, was offered for the first time.

Climax of the Mission 66 program at the caves was the dedication of the new visitor center on June 8, 1963. The Ely Daily Times referred to "Our Lehman Caves affair", and truly it was an all community affair; a community encompassing people within 100
miles of the cave. Civic and industrial leaders from Ely, Caliente, and Pioche, Nevada and from Delta and Milford, Utah, as well as Park Service and Forest Service officials made up the planning committee. School bands from each of the towns provided music. Chairs for the event came from Delta. Service clubs prepared a western style barbecue, and local squaredancers held an evening hoedown for participants from as far away as Idaho and Southern California.

The event went off without a hitch even though there was rain before and after the ceremonies. Park Service Associate Director George B. Harzog, using a caver’s carbide headlight, burned the ribbon at the visitor center door to officially open the new facilities to the public. More than 1500 persons participated in the event and 1,016 toured the cave. The day ended when 200 tired squaredancers left the new visitor center parking lot at 1:30 a.m. on June 9th.

The Future

Even during the final stages of Mission 66 new plans were in the making. The future, hopefully, will see the construction of a new entrance-exit tunnel into the caves, advanced research into how the caves formed and developed and research into details of the living plants and animals in the caves. New programs and exhibits designed to tell the history and natural history of the Great Basin are being planned with increased staffing to handle the predicted increased visitation of years to come.
# APPENDIX A

## MISSION 66 CONSTRUCTION COSTS

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<thead>
<tr>
<th>Facility</th>
<th>Cost</th>
<th>Contractor</th>
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<td>Visitor Center</td>
<td>$120,625</td>
<td>Hogan &amp; Tingey, Centerville, Utah</td>
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<td>Exhibits</td>
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<td>Western Museum Lab, NPS</td>
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<tr>
<td>Cave Lighting</td>
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<tr>
<td>Cave Trails</td>
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<td>Utility System</td>
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<td>General Contracting. Lake Hogan &amp; Tingey</td>
</tr>
<tr>
<td>Roads &amp; Parking Areas</td>
<td>67,145</td>
<td>General Contracting</td>
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<td>Picnic Area</td>
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<td>Beaver Const. Co., Beaver, Utah</td>
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<td>Employee Housing</td>
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<td>Utility Building and Power Plant</td>
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<td>Miscellaneous</td>
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<tr>
<td>Total Mission 66</td>
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### APPENDIX B

#### ANNUAL VISITATION TO LEHMAN CAVES

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<th>Date</th>
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<th>Date</th>
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<td>1950</td>
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<td>250 (2)</td>
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<td>1955</td>
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<td>1,552</td>
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<td>1961</td>
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<td>612</td>
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<td>1949</td>
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Grand Total: 843,908

(1) Estimated. Based on newspaper stories, names and dates on cave walls.
(2) Ely Record, 25 July, 1924
(3) " " 13 March, 1925
(4) " " 12 August, 1927
(5) 1928-33 based on notes in official files
(6) 1934-76 based on official travel figures
APPENDIX C

PERSONNEL ROSTER

This list is as complete as monument records allow it to be. In many cases it is known by the author that persons listed worked at other times and in other positions. However, no attempt was made to add unofficial data.

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<td>1935</td>
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<tr>
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<tr>
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<td>Clifford Pellander</td>
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<td>Wesley Jordan</td>
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## APPENDIX D

### BRIEF CHRONOLOGY - I

- **500 million B.C.**: Rocks in which cave is formed begin to be deposited.
- **1 - 5**: Cave passageways start to develop.
- **1 - 2**: Cave decorations begin to grow.
- **1,300 A.D.?:** Indians bury bones of their dead in cave recesses.
- **1909**: Ab Lehman enters cave area.
- **1935**: Cave rediscovered by Ab Lehman and first tourists see the cave.
- **1931**: Ab Lehman dies.
- **1932**: Cave made a National Monument under the U.S. Forest Service.
- **1920's**: Much development inside and outside the cave.
- **1933**: The National Park Service is given charge of Monument.
- **1939**: A new cave entrance is completed.
- **1941**: The cave is electrically lighted.
- **1949**: A cafe and gift shop is opened.
- **1956**: Mission 66 developments begin. Cave trails paved.
- **1961**: Cave tour is increased by one-third.
- **1963**: Lehman Caves Natural History Association. Mission 66 improvements completed and Visitor Center is dedicated.
Appendix E

Brief Chronology - II

Geology of the Lehman Caves Area

1. 500 to 150 million years ago -
   Almost uninterrupted sequence of sedimentation.
   Polo Canyon Limestone formed at bottom of large inland
   sea during first part of this period.

2. 150 to 75 million years ago -
   Area above water. Rather inactive period except for some
   deep faulting and minor folding.
   Some metamorphism of lower sediments (including Polo Can-
   yon Limestone).

3. 75 million years ago -
   Devonian intrusion. Contact and regional metamorphism.

4. 50 million years ago -
   High angle faults and lateral pressures begin tilting
   and raising range.

5. 1 to 5 million years ago -
   Climate such wetter. Cave formed under water table in
   Polo Canyon Limestone, locally metamorphosed into marble.
   Main passages formed along north-south bedding planes.

6. Last 1 million years - Ice Ages -
   5 periods of glaciation, the most recent about 10,000
   years ago.
   Cave decorated during this period.
REFERENCES CITED

Unless otherwise noted all manuscripts, letters, transcripts of interviews and reports cited are in the files at Lehman Caves National Monument.

Charles Lehman Caves


2. Mrs. Lucy Trotz, Lehman Green, manuscript, 1915.


4a. A.S. Lehman, Note of Location of Water Rights, 7 May 1887.

5. Hoche Record, 17 September, 1875.

6. Lawrence is listed on the 1880 Census as Age 6. The Genealogy appears to be correct.

7. Mrs. Olive Lehman, letter to her sister, 16 May, 1875.


10. Ward Reflex, 24 April, 1880.


15. Various accounts including White Pine News, 17 April, 1886 and 26 January, 1889.


17. " " " , 9 August, 1890.


20. " " " , 24 October, 1891.

"Introduction" Through "The Future"


5. George A. Horton, Jr., An Early History of Milford Up To Its Incorporation As A Town, 1957, MS Thesis, Brigham Young University, Provo, Utah.


7. I consulted all of the published Fremont material and wrote to historians now concerned with Fremont's movements. My notes are in the Lehman Caves history files. See also Carl J. Meant, Farand the Transmississipli West, Institute of Historical Cartography, San Francisco, 1958-1962.
9. Wheat, op cit, and Ezra Granger Williams, letter to H.C. Kimball, 11 June, 1855, the original of which is located in the LDS Church Historian's Office, Salt Lake City, Utah.


16. Undated ms by some of the early settlers of Snake Valley. No author, but agrees with other unwritten accounts.


19. Ms probably written by the Boulder Dam (now Lake Mead) National Recreation Area Naturalist.


25a. Laura Lehman Wollenbruch, letter to Max Wainwright, 8 Jul., 1945


27. H.H. Bancroft, History of Nevada, the History Co., San Francisco 1890; Byron Angel, ed., History of Nevada, etc., Thompson and West, Oakland, 1881; et al.

28. George A. Crockett, Crockett's Guide, etc., Overland, Chicago, 1871, 1876, 1873, 1890.

29. Ward Reflex, 20 Jan., 1880, 24 Apr., 1880, for example.


33. Apparently a reprint of an earlier White Pine News article now missing.

34. White Pine News, 26 Sept., 1885.

35. " " , 3 Oct., 1885.


37. " " , 26 Dec., 1885.

38. Ms portion of diary of Abigail Incinda Squire, 24 Aug., 1893.


41. Several histories in the official files confirm this.

42. Woman to Courage, Daughters of Utah Pioneers, 1948-- a history of Beaver County, Milford, Utah.

43. See cave brochure published by NPS in early 50's for example. It is obvious that most publicity in this period cont-ained this leaflet. For an example of quotes see Las Vegas Review Journal, 30 August, 1953.

44. His name does not appear on census records, voter registration or tax rolls for the period. He is remembered by some of the old timers as having been an Ely's resident.

45. J. Cecil Utter, Early Utah Journalism, Utah State Historical Society, Salt Lake City, 1938; White Pine News, 13 May, 1885. Another pioneer journalist to visit the caves was Josiah F. Gibbs, whose news and "Hillard County Mode" adorn several cave walls. He too was "courageous" and often in trouble for his editorial policy. Unfortunately, neither Gibbs' nor Kin's descriptions of the cave have survived.

46. Mr. and Mrs. Alvin Heers, interview with Keith A. Trelxler, June, 1963.


48. More than 20 sources in Lehman Caves files give this story. It is possible that the White Pine News of 28 Jan., 1888 is the original for all of these accounts. "The entrance was discovered...by Mr. A. Lehman while hunting for cattle, and for the timely notice of his horse both rider and steed might have been buried alive."


53. Charles Locarte, op cit; Dr. E.C.D. Partridge, State Librarian, interview with J.B. Vetter, 15 Sep., 1939: "In 1906 or 07 the entrance was very small, just large enough to admit a candle with some difficulty."


56. Ely Record, 28 August, 1924.


59. Rezaire, op cit.

60. White Pine Leader, 12 April, 1885.

61. Laura Lehman Yellenbruch, letter to Sax Thalmann, 8 Jul 1945.


64. White Pine Leader, 20 Jan., 1888.

65. Genoa Weekly Courier, 4 Sept., 1885.


67. " " " , 26 Dec., 1885.

68. " " " , 17 Apr., 1886.

69. George Baker, ms, "A Record of the Log House, etc."

70. T.O. Thatcher, Custodian's Monthly Report for June, 1937; the orchard at the caves was "robbed" according to White Pine Leader, 4 Sept., 1897.

71. A core from one of the trees and a stump of another were sent to the U of Arizona Tree Ring Research Lab on 8 Feb 1965. The stump was more than 75 years old; the core, incomplete.

-85-

73. " " " , 28 Jan., 1888.

74. " " " , 26 Jan., 1889.

75. " " " , 29 Aug., 1891.

76. " " " , 1885 - 1891.

77. White Pine County Recorder, Book 29, p. 113.


80. The authorized sale date was 15 Nov., 1892, but the sale was not made until 20 Nov., 1895. Abstract papers owned by Len Bearden, Garrison, Utah, give this date.


82. White Pine County tax sales 1895, #1283, and 1897 #1268, and 80 supra.

83. George C. Larson, ms, History of Nevada National Forest, Ely District Ranger Station, Humboldt National Forest, (1917.)


85. Ely Record, 5 Sept., 1919.

86. Ely Record, 5 Jul., 1918; also water rights file, Lehman Caves National Monument.


89. " " , 21 Nov., 1921.


92. Ely Record, 11 Nov., 1921.

93. " " , 30 Dec., 1921; 22 Jul., 1921.


95. Ely Record, 22 Apr., 1922; 15 July, 1921.

96. " " , 9 June, 1922; 28 July, 1922.

97. " " , 29 Aug., 1924.

98. " " , 23 June, 1922.


102. Ely Record, 15 Sept., 1922, 20 June, 1924. There is doubt that Lehman's house actually was there. The only photos taken in 1922 show a board and bat building where the present Visitor Center is located. The Ely Record for 11 Aug., 1922, telling of the dedication, says that near the cave entrance is "the ranch house, formerly the home of Abner (sic) Lehman..."


106. " " , 13 Apr., 1923.


111. Ely Record, 21 Sept., 1923; H.A. Miller, letter to Keith A. Trexler, 22 June, 1964 recalls that they were married by Judge George Smith.

112. Ely Record, 2 May, 1924; 13 June, 1924.
113. " " , 13 June, 1924; 20 June, 1924.
114. " " , 20 June, 1924; et al.
115. " " , 4 July, 1924.
117. " " , 29 Aug., 1924.
118. " " , 5 Dec., 1924; 5 Sept., 1924.
120. " " , 6 Mar., 1925; Safety File, Lehman Caves Nat'l Mon.
121. " " , 13 Mar., 1925.
122. " " , 15 June, 1925; 3 July, 1925.
123. " " , 5 June, 1925.
124. " " , 15 May, 1925.
125. " " , 19 June, 1925.
127. " " , Summer, 1926.
129. " " , 21 May, 1926.
130. " " , 22 Apr., 1927.
131. " " , 22 Apr., 1927; 13 May, 1927.
132. " " , 8 July, 1927.
133. " " , 26 Aug., 2 Mar., 25 May, 27 July, 1928; Ralph Kaufman, interview by Keith A. Trexler, undated. There was some furor in 1962 when the building was moved. George Baker
believed it had been constructed by Ab. Lehman. Graham Quate, letter to George Baker 16 June, 1962, agreed with Kaufman and the newspapers that it was built in the 20's by Rhodes, Davis and Winn.

135. " " 27 Sep., 1929.
136. " " 2 May, 1930; 9 May, 1930.
139. " " 6 Feb., 1931.
140. " " 6 Mar., 1931.
141. " " 2 Sep., 1932.
142. " " 22 May, 1931.
143. " " 26 June, 1931.
144. " " 2 Sep., 1932.
145. " " 30 June, 1933.
146. Presidential Proclamation #1618, 24 Jan., 1922.
149. Ibid., Book 94, p. 57.
152. " 100, pp. 188-189.
155. Minutes of a regular meeting of the Board of County Commissioners of White Pine County, 5 Sept., 1933.

156. C.J. Olson, letter to Files regarding acquisition of land by donation, 28 Sept., 1933.


158. Record of the proceedings of the Board of County Commissioners of White Pine County, 5 Sept., 1934.

159. Acting Regional Forester, Ogden, Utah, letter to Regional Forester, 10 Oct., 1933.

160. U.S. Forest Service Correspondence File, Monument Historical Collection. First such letter is dated 21 Mar., 1935 and the last is cited below.


165. H.K. Saunders, letter to Regional Director, Western Region, 22 Apr., 1964.


169. Topographic map, Lehman Caves, 1938.

170. Homestead entry survey no. 149, Government Land Office.

171. There is no reference for this number.

172. See "Early Development" Section, above.


175. " " , 11 Aug., 1922.

176. " " , 29 Aug., 1924.

177. " " , 21 May, 1926.


179. George Baker, ms, "A record of the Log House which was moved from the Caves in the Spring of 1962."


183. Graham Cuato, U.S. Forest Service Ranger at the caves during the 1920's gave 1925 to 1928 as the dates of Lodge construction. Built by Rhodes and Davis according to Mr. and Mrs. George Robison, Jr., interview with Keith A. Trexler, 20 Feb., 1965.


186. " " " , May, 1943.


188. " " " , Nov., 1936.

189. P.M. Miller, letter to Regional Director, Western Region, 20 November, 1962.


191. " " " , June, 1936.


196. " " , 4 Aug., 1933.
197. " " , 15 Sep., 1933.
201. CWA, Statistical Summary for Lehman Caves, undated.
203. " " , April, 1935; Ely Record, 23 Oct., 1931; These boys were from Panaca, Nevada. (P.P. Patraw, letter to Director, 11 Sept., 1936.)
205. P.P. Patraw, letter to Director 11 Sept., 1036.

214. Supervisor, Boulder Dam National Recreation Area, letter to Regional Director, Region III, 13 Sept., 1940.

215. Photographs taken in 1941 show only these developments.


217. " " " , Apr., 1941; May, 1941.


220. G.D. Edwards, letter to Director, 8 Nov., 1941.


223. " " " , Feb., 1946.


225. " " " , June, July, 1934.


227. G.D. Edwards, letter to Director, 1 May, 1939.


231. " " " , June, 1957.


236. " " " " , Jan., 1938.
237. " " " " , Sep., 1938.
238. " " " " , Aug., 1938.
239. " " " " , Sep., 1938.
240. " " " " , Jan., Feb., 1939.
241. R.H. Rose, letter to Regional Director, Region III, Sept., 1941. (September 25.)
246. " " " " , June, 1936.
250. " " " " , Aug., 1941.
254. " " " " , Nov., 1942.
255. Paul M. Steel, letter to Regional Director, Region III, 14 July, 1937.

256. 1934 Development Outline.


258. " " " , Aug., 1934.


261. P.P. Patraw, letter to Director, 2 Dec., 1935.


263. " " " , July, 1936.


265. " " " , Jan., Feb., 1936; Feb., 1939; Mar., 1945; Nov., 1946.


267. " " " , Jan., Mar., 1940.

268. " " " , July, 1941.

269. " " " , Feb., 1940.


279. P.P. Patraw, letter to Director, 2 Mar., 1938.


281. " " " " , Jan., 1937, Feb., 1940.


285. Ibid.


288. " " " " , Apr., 1948.


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298. See correspondence in historical files at Lehman Caves from Jan., 1952 through April, 1953.
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313. B.J. Jolley, memorandum of Inspection Trip, 17 July, 1936.
315. " " " Nov., 1936.
316. " " " May, 1936.
317. G.H. Gordon, letter to H.D. Curry, 27 May, 1936; Work orders for Project # 14, 13 May, 1936.
321. S.B. Hendricks, Assistant Engineer, NPS, "Final Construction of Cave Entrance and Tunnel", 16 Dec., 1940.


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327. Ely Record, 22 May, 1975; 8 July, 1927.


329. " " " " , Oct., 1940.

330. " " " " , Apr., 1941.

331. " " " " , Sept., 1941.

332. " " " " , June, Aug., 1942; Apr., May, 1941; Oct., Dec., 1946; Apr., 1950; Apr., 1952.


342. " " " " , Oct., 1951.
347. " " " " , Jan., 1956.
352. Pap NM-LC-8001, 22 July, 1940.
354. " " " " , June, 1937.
355. The date of discovery is found on a cave wall just below the entrance to the area. The author has talked with Sims about the section many times.
356. According to Ray deSaussure.
358. " " " " , Aug., 1936.
359. " " " " , Apr., 1937.
362. " " " " , July, 1938.
364. Ibid., 7 Nov., 1938.
366. " " " , Sept., 1937.
368. Telegram, Carnes to P.P. Patraw, 2 Dec., 1933.
369. The 4 Dec. telegram is missing from the files but is referred to in undated and unsigned notes. Telegram, Kittridge to E.C. Parker, 7 Dec., 1933.
381a. Personnel Classification Board Form No. 4, 20 Aug., 1935.
382. Classification Sheet, Form 1-356, 22 Apr., 1937.

383. " " " " , 29 Apr., 1944.


387. " " " " , July, 1935.

388. " " " " , May, 1935.

389. " " " " , Apr., 1936; personal communication.

390. " " " " , June, 1946.


394. " " " " , June, 1959.


397. " " " " , May, 1941; personal knowledge.

398. Personal communication to author.


400. " " " " , June, 1941.


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408. " " " , Sept., 1938; Oct., 1941.


411. " " " , May, 1941, et seq.


414. Ibid., 1965.


416. " " " , May, 1941; May, 1943.


419. " " " , Aug., 1936.

420. G.D. Edwards, letter to Director, 3 Jan., 1940.


This section of the History of Lehman Caves has been added to update the text. This is the summary report of the Desert Research Institute's study of the cave. The study was conducted from June 1967 to December 1968. There are seven sections to the report studying the cave's ecology and aerology. It is recommended that you read the full report in order to better interpret the cave. Where there are brackets, ( ), it indicates that the enclosed material was added from observations of the cave during the summer of 1975.

**FINAL REPORT ON THE AEROLOGY AND ECOLOGY OF LEHMAN CAVES**

**DECEMBER 1968**

The National Park Service provided the Laboratory of Desert Biology of the Desert Research Institute, University of Nevada system, with funds to take a study of Lehman Caves. It was to assess possible changes in airflow and ecology which might be expected when a new entrance is made into the cave, and to investigate means to counteract such possible changes.

Many visits were made to Lehman Caves by members of the staff of the Laboratory of Desert Biology on the following dates:

Period 1. June 29-30, 1967
Period 2. June 27- July 4, 1968
Period 4. October 3-6, 1968.
Period 5. October 22-27, 1968

In addition to Drs. Bamberger, Sheas, Stark, Went, J. Wheeler and G. Wessell, and G. Balston, the group was occasionally joined by Dr. J. Nallert and by A. McIner. In addition, Dr. Donald Trusso and Dr. Ray Evans of the Biology Department of the University of Nevada have made cultures of microorganisms from material collected in the cave.

The following is a set of reports, part of which they hoped to publish in Scientific Journals, which were presented as a joint recommendation based on their findings to date.

**GENERAL RECOMMENDATIONS BY ALL INVESTIGATORS**

"The various studies discussed in the individual sections of this report lead to a few general conclusions and recommendations."
1) The studies on animals, plants, and microorganisms of Lehman Caves have confirmed the general impression that especially animal life is very limited and does not show many of the curious cave dwellers found in other caves. This is largely due to the fact that nothing is left of the stream which originally must have started the cave, and also that there are so few bats in it. With the restricted rodent population at present limited exclusively to the immediate surroundings of the present entrance, little organic matter is produced in the cave, restricting the population of coprophiles and saproxyphes; the decomposers. (You may see an occasional chipmunk or deer mouse throughout most of the cave, usually around the lights.)

We recommend that for the sake of increasing to former levels the animal population of the cave, the original cave entrance be opened again, providing an entrance for rodents, bats, and insects. (You may see evidence that packrats had used the cave before men arrived. Their droppings and a former nest are near the Wedding Cake, located between the Gothic Palace and the Music Room. In the Civil Defense area there are also signs of packrats. This area is not seen by visitors. By the natural entrance there are signs of bats; you may see their droppings and an occasional bat in either entrance or exit tunnel. Insects found in the cave are flies, fleas, mites, cave crickets, spiders—you may see spider webs inside the cave and in either tunnel—and you may find pseudoscorpions. In the summer of 1975 a pseudoscorpion was seen on a stalagmite on the sandstone stairway.) It should be possible to devise some protective structure at the natural entrance to prevent vandalism, but not freedom of entry to natural cave inhabitants.

2) "The lights in the cave have created a new environment, explored and described by Drs. Stark and Shears. (Their report appears in section B of the Desert Research Institute's final report.) Although this is not natural, very interesting new habitats have been created, and a continued study of the artificial light environment should be quite rewarding, discovering the succession in which new algae, mosses, liverworts, and ferns become established. (The algae and mosses are currently under study by Dr. Raymond E. Lynn, from Utah State University at Logan, Utah.) (From observations, the algae and moss grow at a rapid rate from spring to the middle of summer. This may be due to the water dripping off of the stalactites. But after mid-summer there is less water and the algae and mosses start to dry up. The lights, which with the water aid growth of the plants, also dry them up when the water becomes scarce.) In this connec-
tion it might be suggested that a number of incandescent lamps be replaced by fluorescent lamps if, at least, they operate satisfactorily in the cave. This would have several advantages:

a) for the same amount of light produced they use much less power;

b) They can be selected to produce a better wavelength balance;

c) they have much longer life and need to be replaced less frequently."

3) "Part of the microorganisms will have to get their food from drainage of the cave inhabiting animals. With enabling rodents and insects to enter the cave more readily other life in the cave (except algae and sessile around lights) will tend to disappear. For this reason alone we would recommend re-opening the natural entrance."

4) "Since at least the rodents which live in the cave have to forage outside, the vegetation in the immediate vicinity of the natural entrance should be disturbed as little as possible or improved (not natural) to the extent that more chirrums and insects could live off of it. As it is, the cave seems to have very few entrances suitable for rodent entry."

5) "In connection with the construction of a new cave entrance, (which was opened in 1970), we do not believe that this needs to influence the ecology of the cave provided a) both entry and exit have double doors, closing reasonably tight, with a vestibule between each pair so that it will be unnecessary to have both doors open at the same time while admitting or discharging visitors. (Both entrance and exit tunnels have double doors, are they close tight. The exit tunnel feels cooler than the entrance tunnel.) This measure may be necessary too at the present entrance, if at least the natural entrance is re-opened, for with both natural and visitor's entrances open at the same time, an excessive air circulation would occur between them, causing excessive drying near the entrance itself, especially near the Gothic Palace. b) Our studies make it likely that there is a relatively small opening toward the outside near the Lodge Room. This should not be closed when the new entrance is constructed. On the contrary, if this were to be disturbed by construction of the new entrance, another opening of similar dimensions should be provided. For the life of the cave, the functioning of the stalactites and other cave formations depends equally on restriction of excessive air circulation as on a constant inward circulation. If there is no air circulation at all, the CO₂ concentration would become so high
that no calcite could develop any more by removal of CO₂ from the calcite bicarbonate. Also the humidity would remain at the 100% level, making evaporation and further deposit of minerals such as gypsum impossible. Also without sufficient natural breathing of the cave, the air inside would tend to become "stale," its CO₂ concentration would tend to be raised still further by breathing of the visitors (as shown by the CO₂ records of September), and perfume and other smells of visitors would persist. c) The opening of the natural entrance will probably have no influence on the total amount of air circulation inside the cave, except near the Gothic Palace. We recommend that in that area the pools be kept filled artificially with water to increase the humidity between the Gothic Palace and the Pedra Room. This is the only area where there is indication of excessive drying with the low dewpoint of the new air entering during cold weather. (At the time of this study the natural entrance had a plastic dome over it. Today the natural entrance has a concrete dome over it, which allows air and bats and other wildlife to circulate freely through the entrance.)

FURTHER RECOMMENDATIONS BASED ON OUR STUDIES

d) "With the considerable natural air circulation in the cave, its use as a Fall-out shelter by the Office of Civil Defense should be reconsidered. (The Fall-out shelter is located behind the Ivory Towers.) Only the N part of the cave, especially the Talus Room, is suitable for such purpose, and it would seem reasonably safe during summer, but during cold weather the use of an air filtering system should be considered somewhere near the Inscription Room. But of this point there is too much natural circulation in the cave to make it effective as a Fall-out shelter."

e) "An aspect of the cave, never considered before, is its freedom from natural condensation nuclei. This means that air supersaturated with water vapor will not condense as a mist or steam cloud. It also means that even in the very cool cave atmosphere, (50° F) human breath is invisible. (Not true.) However, the moment a match has been struck, or a cigarette is lighted, there is an abundance of condensation nuclei and breath becomes visible even in the cave (True.). This would provide another spectacular demonstration for visitors of the cave, provided the nuclei produced for demonstration for one group can be removed before the arrival of the next group. (Another demonstration is the above..."
of the beam from a flashlight. There is so little dust in
the cave that no beam can be seen; also the air is supersat­
urated with water vapor. You may see lint from your uniform
or from visitors' clothes, but you will see no dust.)

There are two alternatives for this:
1) installation of a hood which is vented toward the outside
of the cave with forced circulation through a fan. The
match would have to be struck inside or under the hood;
2) installation of a set of absolute filters in the exhaust
of the hood, which would remove the condensation nuclei
from the air by filtration. Such a hood would provide
also an excellent place for carrying out further experi­
ments on natural and artificial nucleation, using different
light sources, catalysts, and vapors. For we do not
know any other place in the world with such low concen­
trations of condensation nuclei.

f) From our studies it appears that much more work should be
carried out on stalactites, stalagmites, soda straws, pop­
corn, shields, and other cave structures, both in Lehman
Caves and elsewhere. It would be valuable to start right
away with accurate recording and measuring of such structures,
and obtaining long-time movies of their growth. A number
of very instructive photomicrographs could be prepared for
public instruction, and probably some exhibits with micro­
scopes should be set up.

g) The inventory of life in the cave should be followed up to
get a complete survey, and to follow changes which may ap­
ppear in years to come.
THE EXIT TUNNEL

The exit tunnel was built to make it easier for the visitor to leave the cave. The old method of leaving was to retrace the route from the Lodg Room to the entrance.

A contract was awarded to the Centennial Development Company of Eureka, Utah, for facility improvements beginning in the summer of 1969. Stone masonry walls were built at the exit of the new tunnel, terracing and landscaping performed around the portal, and approximately 150 feet of 5' wide asphalt trail was constructed between the new portal and the existing Visitor Center patio. The stone masonry was built in November and December of 1969 under a canopy heated to approximately 70°F. The rock, quarried from the nearby Hatch Quarries, was mixed with stone dust over frames, construction to roughly match existing masonry in the Monument.

A lighting system was installed in the caves between the Lodg Room and the new tunnel, and along the access trail down to the Visitor Center. The new dry transformer and a dry switch were placed in the "Giant's Ear" and connections were made between the old and new electrical circuitry. A telephone cable (3 pair) was also installed between the Visitor Center and the "Giant's Ear." Work around the tunnel portal and along the asphalt trail was accomplished late in the contract period.

Topsoiling around the portal was done in late February and early March of 1970. The asphalt trail was built and landscaped in June of 1970. Most of the cave and tunnel lighting was installed in December and January. Inaccessible wiring was put into hidden conduit. Much experimenting was required in the placement of the lights to obtain the best effect. Advice on light placement was provided by the Monument staff.

The contract for completion of the construction was changed from March 27 to July 2, 1970 because a second door had to be constructed inside the entrance tunnel. This door provides an air-lock arrangement to prevent drafts through the cave.

The tunnel was inspected and accepted on March 13, 1970. One telephone was installed in the cave near the Inscription Room, and other telephones can be added as needed.

The length of the exit tunnel is 350 feet; the unlined portion from the Lodg Room to the first door is 150 feet, and the lined portion between the doors is 200 feet.

Cost of the Project:  
1) Tunnel portal area $6,425.00  
2) Cave walk lighting  7,310.69  
3) Telephone wiring  200.00  
4) Access tunnel trail  97,470.18
TRAIL RESURFACING

The trails were resurfaced to give the visitor a safer path to walk on. The old surface, asphalt, became slippery when wet. It was replaced with concrete. A total of 1,255 90-pound bags of concrete were brought into the cave by the maintenance staff. An electric concrete mixer was disassembled and taken into the cave, then reassembled. It was necessary to do this each time it was moved. Dry concrete mix was added to the concrete before being poured over the asphalt. The bags were stored in the exit tunnel.

This work was done in two parts. The first part began March 11, and ended on May 14, 1976, for a total of 42 work days or 136 man days. The second part started on November 26 and ended on December 20, 1976, for a total of 15 work days or 60 man days. Tours were conducted during the construction period.

Resurfacing figures:

<table>
<thead>
<tr>
<th>Number of bags</th>
<th>1,255</th>
<th>Cost per bag</th>
<th>$2.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight per bag</td>
<td>90 lbs.</td>
<td>Total weight</td>
<td>112,950 lbs.</td>
</tr>
</tbody>
</table>

Labor cost included only the salary of the maintenance staff.

THE PARKING AREA

The General Contract Corporation of Salt Lake City, Utah was awarded a subcontract to work on construction of a parking area, walk, drainage structures, curb, gutter, and stairways. Work included cleaning, grading, removal of a portion of existing curb and pavement, base course, prime coat, bituminous plant mix paving, soil cost out chips, concrete walk and curb and gutter construction, and drainage pipe and structures of the pavement.

Work was started in June and was inspected and accepted in September of 1969. The total cost for the work was $28,947.70.

WATER LINES & CHLORINATOR SYSTEM

The water-works improvements were begun in mid-August and finished in late October of 1969. The water lines were placed at the Springs area as designed. Approximately 95% of the backfill around the pipe (Johns-Manville PVC V.1120 PST, 160 PST rating 4" diameter) had to be transported to the site adjacent to the existing above-ground reservoir.
Next in the building is by I.F. gas from a nearby underground 500-
million tank. (The contractor decided to put it underground in
line of an above ground cylinder with forced-in yard. This pro-
vides an unobtrusive facility.) The water was chlorinated in
the water tank, assuring adequate contact time before use.

The old vefrifiex clay collection system was replaced in the
Serious area with a new 4" PVC pipe. All piping between the vari-
ous tank areas is and the common settling basin is now plas-
tic pipe, which should be more efficient than the VCP collector
system. A building with chlorminator, heater, water, and necessary
piping and pumps was constructed upstream of the existing above-
ground steel reservoir. A new 60 G. 500 gallon I.F. gas tank pro-
vides fuel to the heater.

This work was done by the Centennial Development Company of Bure-
ko, Utah. The total cost for the system was $10,042.60.

Because of a co-op with the new system, the water is now chlor-
inated below the water tank.

THE SEWAGE LAGOON

A joint effort between the U.S. Forest Service and the National
Park service extended the former sewer lines. By-passing two
septic tanks and one leach field to a lagoon (1,000 feet below
the septic tank) and essentially on the same gradient, it re-
quires no pumps or lift station. In addition, a dump station
to access the sewage from Forest Service campgrounds and a
trailer dump station are built on a spur off of the main road
leading to the Visitor Center.

The station is well apart from the main traffic flow in a pull-
out. The trailer dump station required a small pump, electrical
power, and a two-inch water line for cleaning and pumping
purposes.

The sewage lagoon is located in an old borrow pit where material
was obtained during construction of the road in to the monument.
The two-compartment lagoon covers about 1.5 acres; the first is
.65 acres with a floating aerator and controls, the second is .85
acres. The lagoon is lined with coated clay covered with bu-
tyl rubber to prevent water percolation into the soil. (The rub-
er lining is 37,500 square feet.) The entire lagoon area is
enclosed in a chain link fence to keep unauthorized personnel
and wildlife out.

The dump station recirculating sewage from Forest Service camp-
grounds (Lemon, Palmar, Snake, and Strawberry Creeeks) was con-
constructed above the sewer line leading from the Visitor Center
line, the Forest Service proceeds construction of mini-flush
toilets at the facilities where water systems are available, and
regular vault toilets at scattered sites without water.

It is also hoped to install a small grinder unit and pump in
the trailer dump station to boost sewage from the station over
a 25 foot elevation and then gravity flow into the lagoon. The
station is now not in landscaping.

Work was begun on the sewage system in the summer of '73 by the
R.J. Connor Company of Indiana. The total cost for the system
was $101,792.00, paid for jointly by the Forest Service and Park
Service.

MORE FRUIT TREES

On Friday, May 21, 1976, the Baker Grade School students
gathered at the Visitor Center parking lot to plant 20 fruit
trees commemorating the country's bicentennial. Apricot, apple
and pear trees were planted in the island's defining the parking
areas. They should bear bearing fruit within the next 3 or 4
years.

The event was funded by the Lehman Caves Natural History
Foundation, and the trees were obtained at Christiansen's Farm
of East Hwy. level. Approximately 40 children participated in
the event with the help of Mr. Clyde and Mrs. Bertha Heath, teac-
tchers at the school, Mr. Jack Schippleck of the National Park
Service, and several volunteer parents including Mrs. Virginia
Baker, Mrs. Janet Nore, and Mrs. Lori Schippleck.

A picnic lunch consisting of roast-your-own hot dogs and marsh-
mallow, baked beans, salad, chocolate cake, apples and milk was
co-ordinated by Mrs. Margaret Rafter, lunch room manager of the
newly re-established Baker Grade School. The students and staff
worked with great enthusiasm and are to be commended for providing
this memorable community service.

The trees planted will augment the existing orchard believed to
have been established by Absalom S. Lehman during the 1870's.

ON THE AIR

In the summer of 1976, radio station 1606 went on the air. It
was felt that this system, which was started in 1974, would solve
the eight-mile locked road gate turn-around problem for campers
arriving after the gate is locked in the evening.
The system is a 'transitional AM radio transmitter using 100 milliwatts. It operates under FCC R & R part 15 subpart E section 15.209, and does not require an FCC license. The system is an encore recorder/producer 678-0007-000 purchased from Technical Systems, Inc., 1820 South 7th Ave., Bozeman, Montana; 59715.

The system was purchased jointly by the U.S. Forest Service and the National Park Service for $1,300. Due to many technical difficulties the system was not installed until the summer of 1976. It is located on top of the Visitor Center.

A NEW COAT OF PAINT

During 1975 and 1976 the buildings on Lehman Caves National Monument received a new coat of paint.

Starting in May and going through June of 1975, the outside and inside of the Visitor Center were painted. In January of 1976 the inside of the caves was painted. The cost of the painting was $379.

In April of 1976 the Warehouse, located in the maintenance area, received new siding and a roof to bring it up to par with the rest of the monument buildings, and was painted in July. The cost for building and painting was $500.

In June of 1976, on the back side of the Visitor Center, an extra building was added called the 'doghouse'. This was built to store extra janitor and garden supplies. The doghouse was painted in July, costing a total of $250.

The utility building, located in the maintenance area, was painted in July and August of 1976 at a cost of $100.

Finally, the residential housing was painted in July of 1976 and cost $800. The labor cost for the painting was the salary of the maintenance crew.

A NEW A-V ROOM

Starting around April 5th, 1976, work was started on the construction of a new A-V room. The exhibits in between the Forest Park Service Information desks had to be removed, and the A-V room was enclosed.

Before the new facility was built, the entire exhibit area had to be darkened to slow the films, and the desk Vernon had to leave.
the information desk toHow it on.

The new A-Y room is totally enclosed. It is located at the Forestry Service (north) end of the building and is divided into two sections. The first is the viewing and exhibit area, containing 30 interlocking chairs, and totally carpeted. No one is allowed to smoke in this area, as they were in the old one. The book section contains the projection equipment and slide projectors. The room may also be used for giving evening slide talks. The film is turned on off of a stock project system and is run through a film tree. When it reaches the end it shuts off automatically, and does not have to be resound. The system can be operated either manually or automatically from a switch at the front desk.

The film operates as a rear screen projection system: It is projected onto a screen at a 40 degree angle to the projector which projects the picture onto a glass screen.

There are cabinets ran added underneath the exhibits inside the room and in the divider between the two information desks.

Work on this room finished about July 26, 1976, at a cost of $16,176.95.
REFERENCES CITED

1. Desert Research Institute, Laboratory of Desert Biology, University of Nevada; Final Reports: Lehman Caves Studies to the United States Located in the Chief of TR2M Research Files.


3. Information supplied by Dr. J.W. "Bill" Gentless, Maintenance Foreman, on Re-surfacing the Lehman Caves Trail.


5. File No. 5039 Water and Sewer (Larson). Located in the Administrative Officer's Files.


SECONDARY ELECTRICAL REWIRING PROJECT

Work on the Secondary Electrical Rewiring project at Lehman Caves National Monument was begun on May 12, 1977. Phase I of the project was completed on July 21, 1977. The contract for rewiring was awarded to Webor Electric, Inc., of Federal Way, Washington. The principal features of the project included the following:

All existing cave lighting fixtures, except fixtures in the exit tunnel (section 6A) were rewired and all lighting fixture outlet boxes were replaced with non-metallic boxes. A solid-state modular dimming system was installed at transformer location No. 1 to control the three lighting circuits in section 16, Gothic Palace. A total of 13,250 feet of new UF brand circuit cable was installed throughout the cave.

As a means of inhibiting the growth of algae by reducing the time that a lighting section was energized, a new low-voltage remote switching system was installed. The number of lighting sections in the cave was doubled. Twenty-five new switches were installed and the total amount of UF switching cable installed was 6,250 feet.

New power panels and relay panels were installed at all six transformer locations. A new grounding system was installed throughout the cave and terminated at a new ground rod installed at the existing transformer site near the Visitor Center.

Phase II of the project, consisting of installing six new transformers, was to be completed in October of 1977.

The total cost of the Rewiring project amounted to $45,695.70.
LENMAN CAVERNS, NEVADA

Map by D. J. Green
Profile by G. W. Moore

1960

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