THE ASSOCIATION

The American Speleology History Association is chartered as a non-profit corporation for the study, dissemination, and interpretation of speleological history. All persons who are interested in those goals are cordially invited to become members. Annual Membership is $8.00. Meetings are held in conjunction with the annual convention of the National Speleological Society and sometimes at West Virginia's Old Timer's Reunion.

* * *

FRONT COVER: An 1899 view of the fruit cannery in the entrance chamber of Grand (Ruskin) Cave, Tennessee

BACK COVER: An 1899 outside view of the entrance of Grand (Ruskin) Cave.

* * *

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THE JOURNAL

The Association publishes the Journal of Speleology History on a quarterly basis. Pertinent articles or reprints are welcomed. Manuscripts should be typed and double-spaced. Submissions of rough drafts for preliminary editing is encouraged. Illustrations require special handling and arrangements should be made with the editor in advance. Photos and illustrations will be returned upon request.

* * *

BACK ISSUES

Most back issues of the Journal are available. Early issues are photocopied. Indexes are also available for volumes 1 - 6 and 13. Send requests to Fred Grady (address given below, with officers). Volumes 1 to 7:2 are available on microfiche from Kraus Reprint Company, Route 100, Millwood, New York 10546.

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OFFICIAL QUARTERLY PUBLICATION OF AMERICAN SPELEOLOGY HISTORY ASSOCIATION

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CAVE SPRING FARM: A KENTUCKY PIONEER SETTLEMENT

Gary A. O'Dell and Samuel M. Cassidy

Cave Spring Farm, in Fayette County, Kentucky, contains the Boggs Cave, a classic example of karst processes in the Bluegrass region, and historically significant for a number of reasons. The cave was explored and surveyed by Gary O'Dell in 1970 and 1978 and consists of a single bedding plane passage nearly 1,000 feet long. Early pioneer Robert Boggs in 1775 chose the cave spring location to claim and settle, of all those Kentucky lands he had helped survey with John Floyd's party. The buildings surrounding the entrance date from before 1800 and are excellently maintained. The Boggs family and descendants have occupied Cave Spring farm for 167 years of the 214 since its settlement. The co-author of this paper, Samuel M. Cassidy, is a descendant of Robert Boggs and repurchased the homeplace from outsiders in 1964. In February of 1970 he gave shelter to two cold and wet cave explorers emerging from his cave and began a lasting friendship. Mr. Cassidy, at age 88, still has an avid interest in caves and his previous description of Boggs Cave was reprinted in the 1970 edition of Speleo Digest. This is perhaps cave owner relations at its finest.

CAVE MAPS AS A SPATIAL HISTORY OF THE NSS

John H. Ganter

Mapping is an essential part of cave exploration. Cave maps have been used since the earliest periods of systemic exploration both as analytical tools and stores of knowledge. As such, they are artifacts which shed light on the genesis (unavoidable change) and evolution (motivated change) of caving techniques, groups, regions and individuals. As caves grow scarce, cavers extend their ranges, abilities, and expectations. Maps are here used to illustrate three major phases in NSS cavers' activities, motivations, and beliefs: The Weekend Reconnaissance (1940s-50s); The Cave System (1960s); The Cave Project (1970s to present). These phases have each imposed needs for spatial information, and have forced cavers to re-evaluate the limits of endurance and work quality which they set for themselves and others. Throughout, the cave map has served both as tool and trophy.

SALTPETER ARTIFACTS FROM THE CAVES AT TROUT ROCK, WEST VIRGINIA

Fred V. Grady

There is now considerable evidence of saltpeter mining in two caves at Trout Rock, Pendleton County, West Virginia. The mining started before 1800 and continued intermittently through the Civil War in the 1860s. Burton Faust and William Davies recorded some artifacts from Trout Cave, most of which seem to have been lost. More recently, many small tools and other artifacts have been found in both Trout and New Trout Caves, especially the latter. While most are wooden, including faggots, paddles, bag spreaders, and keg parts, a hammer made from a file was found outside Trout Cave in the 1960s and likely dates from the mining period.
JOSE STOREK, PIONEER SPELEOLOGIST IN GUATEMALA, CENTRAL AMERICA

Russell Gurnee

Born Josef Storek, he was driven from his native Czechoslovakia by World War II, emigrated to Guatemala and passionately adopted the new country and culture. He learned Spanish, changed his name to Jose Storek Fingerhut, and pursued his profession as a geologist.

He had been an ardent caver in his student days in Prague, and he continued his interest in the limestone regions of Guatemala. To learn about the country, he wrote to all of the mayors of the towns in the limestone mountains and asked about (and visited) their caves. He became the most knowledgeable man regarding the caves and natural features of the back country.

In 1951 he began a correspondence with Burton Faust about the caves he had visited, urging U.S. cavers to visit Guatemala. In 1957 a small group from the NSS accepted his invitation, and this visit began a ten-year study and a friendship with a most remarkable man.

His contributions to the knowledge of caves in Guatemala has been the basis for search, study, and survey by teams from Europe and the United States. Mercurial, energetic, enthusiastic, and sincere, he influenced people he met and left remembrances in anecdotes, stories, and tales that are now part of the legends of the region.

LITTLE-KNOWN TOURIST CAVES OF NORTH CAROLINA

Nancy Holler

Linville Caverns is the Tar Heel State’s best known commercially developed cave. However, there are a number of lesser-known caves on private and state lands which are of interest to the general public as well as the speleologist.

CAVE HISTORY IN NEWSOME SINKS

Charles A. Lundquist

Newsome Sinks in Morgan County, Alabama, is a landlocked valley some four miles long and up to a mile wide. All water runoff is through underground drainage and caves. The traceable history of the caves of the Sinks seems to begin with saltpeter mining in the 1860s. Two caves, Wolf and Hughes, had significant operations, and extensive evidence remains in them. Two others, Newsome Saltpeter and Bullfrog Caves, have lesser evidence.

Up to roughly the middle of the 1900s, the flat land on the floor of Newsome Sinks Valley was cleared and farmed. A few farmsteads existed, and a family cemetery is present. A knowledge of at least the major caves surely existed in this community. By 1955, when the Huntsville Grotto formed, only one uninhabited home remained in the valley, and a barn stood at another place. Most fields were abandoned or soon became so.

Because Wolf Cave and Hughes Cave were well known, and were only a few minutes drive south of Huntsville, they were visited early by the Grotto membership. The members quickly recognized that the Newsome Sinks contained many caves, and they initiated an organized effort to locate and explore them. Progress on this effort was reported by the author at the 1957 NSS Convention at Natural Bridge, Virginia.

Activity in Newsome Sinks waned after 1961 when the Huntsville Grotto attention shifted to Fern Cave and after 1969 to New Fern Cave in Jackson County. In Morgan County, the Decatur Grotto (no longer extant) continued their interest. In 1974
Newsome Sinks was designated a national landmark. This stimulated the Decatur Grotto to produce a special issue of the Decatur Caver devoted to Newsome Sinks. This excellent document contains a section on history, including a land ownership map for 1890. It notes that earlier land records were destroyed.

About 1981, the author and William W. Varnedoe began more scientific investigations in the area, which generated several papers. In 1987, a group of residents of the area near Newsome Sinks formed the Newsome Sinks Grotto. They have renewed intensive exploration, have found additional caves, and have made major extensions in several others. Thus, Newsome Sinks caves have seen human attention for at least 120 years, but much yet remains to be learned.

AN INTRODUCTION TO THE HISTORY OF CAVE EXPLORATION IN TENNESSEE
Larry E. Matthews

Archeological investigations show that Indians used cave entrances and rock shelters in Tennessee as temporary and permanent dwelling sites for thousands of years. Recent studies in Big Bone Cave in Van Buren County and Mud Glyph Cave in East Tennessee prove that some Indians explored deep into caves. The Big Bone Cave artifacts indicate a mining operation for either gypsum and/or salts, similar to those in the nearby Mammoth Cave area of Kentucky. The Mud Glyph Cave site contains numerous drawings which appear to be of religious significance. Clearly, Indians were the first cave explorers in Tennessee.

The first widespread exploration and use of caves by white men in Tennessee occurred during the War of 1812. Big Bone Cave in Van Buren County was the site of large-scale mining and many other smaller operations are believed to have existed. Further exploration and exploitation occurred during the Civil War when saltpeter was again mined on a large scale.

Some caves, such as Higginbotham in Warren County, Big Bone in Van Buren County, and Lookout Mountain in Hamilton County were explored for recreational purposes during the nineteenth century as indicated by names and dates left on the walls and ceilings, and by old newspaper accounts. The first systematic, scientific study of Tennessee caves, however, was not conducted until 1917 when Thomas L. Bailey explored 109 caves and rock shelters for the State Geological Survey. His book, Report on the Caves of the Eastern Highland Rim and Cumberland Mountains (1918), was used as a base to build upon by the early National Speleological Society members in Tennessee.

Organized, modern cave exploration began in Tennessee in 1953 when the Nashville Grotto was chartered. Since that time several other grottos have been established across the state, and the Tennessee Cave Survey was formed in 1971. The TCS annual report for 1988 listed 4,879 recorded caves, and a few months later the 5,000 cave mark was broken. The history of cave exploration in Tennessee is still actively being written.

THE MINING OF LEAD FROM CAVES IN SOUTHWESTERN WISCONSIN:
A HISTORICAL AND GEOLOGICAL PERSPECTIVE
Philip P. Reeder and Michael J. Day

During the Wisconsinan stage of the Pleistocene in North America, the Driftless Area of the Upper Midwest probably was not glaciated, hence preserving pre-existing geology, including the Middle Ordovician Galena Dolomite, which was the host rock for paragenesis of lead deposits. From hydrothermal solutions mixing with groundwater, crevice lead sulfide ores were deposited along lines of weakness resulting
from bedding, collapse of breccias, and preferential dissolution of joints. Or­
ganized mining of these deposits began around 1815, with the greatest mining activity
occurring in the 1840's. The earliest gathering of surface deposits progressed to
shallow diggings and removal of ore from caves that were uncovered during excavation
or had natural entrances. Caves of note that were mined in Southwestern Wisconsin
include Atkinson Mine Cave, from which over 900 metric tonnes of ore was removed
between 1862 and 1877, and Snake Cave (St. John Mine). Remnant evidence of mining
in caves includes drill holes, discarded mining tools, spoil piles and modified
passages. The mining of lead in Southwestern Wisconsin was more than a sequence of
discovery, exploitation and abandonment; it led to the opening of the territory,
settlement of a frontier, and growth of the region.

A HISTORY OF RECORDED ALABAMA CAVES
William W. Varnedoe, Jr.

A chronological list is given of references to Alabama caves, from Indian legend
to the current Alabama Cave Survey. From this list some conclusions are drawn on
how the caves were viewed by the population of a given time.

THE PHELPS CAVE OF LEXINGTON, KENTUCKY
Gary A. O'Dell

Phelps Cave, scenically sited in the pastures of a thoroughbred horse farm in
the environs of Lexington, Kentucky, is one of the best-known and most historically
significant caverns of the Bluegrass region. Literary references to this cave
date back nearly two hundred years, and it has been investigated and described by
such researchers as Constantine S. Rafinesque, circa 1820, and Doctor William D.
Funkhouser, a century later. There are a number of legends and traditions concern­
ing the cave. Some seem improbable, but others have been partially vindicated by
current research. The main entrance, prior to the twentieth century, opened in
the rear lawn of the Cave Hill mansion but has long been covered. This house has
been occupied in recent years by former Kentucky governor John Y. Brown and Phyllis
George Brown. The cave was surveyed by the Bluegrass Grotto in the 1960s, but had
been closed from about that time until 1980 when the writer unexpectedly received
permission to make a visit within. Less than a month after this trip, the actions
of a group of unknown trespassers who entered the cave led the owner to permanently
seal the sole remaining entrance.

JOINT CAVES, DENT PITS, CUP HOLES, AND RILL CHANNELS:
SPELEOLOGICAL STUDIES OF GEORGE HENRY HUDSON AT VALCOUR
ISLAND AND LAKE CHAMPLAIN, NEW YORK
Ernst H. Kastning

George Henry Hudson (1855-1934), a teacher of science at the New York State
Normal School at Plattsburgh, was an early, yet largely unknown contributor to
American physical speleology. Although his studies were not as global in scope as
the speleogenetic theories of William Morris Davis, J. Harlen Bretz, A. C. Swinner­
ton, and others of the first half of the twentieth century, Hudson must gain recog­
nition as a pioneer in the understanding of some lesser karstic phenomena such as
littoral caves developed along joints, dissolution scallops, and rillenkarren.
Hudson spent most of his professional life studying the geology of Lake Cham­
plain in northeastern New York and northwestern Vermont. His studies included the
stratigraphy, paleontology, and structural geology of the region, and in particular that of Valcour Island, just southeast of Plattsburgh. He is best recognized for his work on cystid echinoderms of the Chazy limestone formation and for detailed mapping of igneous dikes of the region.

As part of a dedicated and prolific twenty-year study of Valcour Island, Hudson wrote three papers that address karstic phenomena. The earliest (published by the New York State Museum in 1909) concerned the ancient coastline of Lake Champlain. Hudson documented extensive and numerous solutional and erosional pothole-like excavations occurring on beveled bedrock shorelines. He coined the term "cup holes" for these small pits. His second paper, "Joint Caves of Valcour Island" (published by the Museum in 1910), is a speleologic classic, although not well known outside of the northeast. In it Hudson discusses the origin of many littoral caves and associated sinkholes along the southern margin of the island. Moreover, he addresses the origin of cup holes and "dent pits" found in association with the caves. Dent pits (his term) are dissolution scallops. This is the first known scientific study of scallops and is a forerunner of additional work by Bretz in 1942 and quantitative laboratory studies by Rane Curl, Derek Ford, and their graduate students in the 1950's through 1970's. Although some of Hudson's ideas concerning scallops are not viable today, his work is historically significant as a landmark paper on the subject. Hudson's third paper, "Rill Channels and Their Cause" (published in 1912 by the Vermont Geological Survey), is a study of rills and solutional rillenkarren developed on glaciated bedrock surfaces along the Lake Champlain coast. It is one of the earliest American studies of rillenkarren.

THE NAMING OF THE TOWN OF CAVE CREEK, ARIZONA

William R. Halliday

Some delightful tall tales of relatively modern origin enliven the history of Cave Creek, a suburb of Phoenix, Arizona. The sober truth is dull indeed: the creek for which the town is named was because of sizeable shelter caves not far from the present city center.

EARLY PHOTOGRAPHIC IMAGES OF THE "TAG" CAVING REGION

Marion O. Smith

Slides of different aspects of the Tennessee, Alabama, and Georgia cave area, spanning from historical to contemporary, will be shown. Included will be nineteenth and early twentieth century sketches and photographs of various entrances, emphasizing different cave uses, and early NSS explorers. The conclusion will be a personalized view of TAG caving, 1961-1973.

COMMENTS re A RECENT JOURNAL COVER

Wilmer McCavit

The Mammoth Cave entrance picture (Volume 22, Number 4, October-December, 1988 cover) shows women's hats and hemlines to match the 1927 Fall Sears catalog. The bare knees, second from right, indicate last year's skirt. Date: probably late Spring or early Summer, 1928.
AN AMERICAN VISITOR TO THE POSTOJNA CAVES OF SLOVENIA:
GEORGE W. OCHS OF CHATTANOOGA

Stephen A. Craven (of South Africa)

After the International Speleological Congress in Budapest in August, 1989, I made a pilgrimage to Postojna before returning home. There, inter alia, I perused the visitors' books of the Postojnska Jama for interesting names. As is to be expected, most of the visitors came from Trieste and Ljubljana and the intervening part of Slovenia. Few visitors came from the adjacent countries of central and eastern Europe.

It is clear from the books that the American tourist was already a familiar sight in Europe. One such visitor was:

12 Aug. 1891 Geo. W. Ochs Chattanooga, Tenn., U.S.A. Journalist

It seems that the Ochs family was well known in Chattanooga. In the 1930s Adolph S. Ochs was described as "publisher of the Chattanooga Times and the New York Times."

There is therefore a strong possibility that there might be in the pages of the Chattanooga Times and/or the New York Times towards the end of 1891 a description of the Postojna Cave, and perhaps of some other Slovenian show caves.

I do not have access to these newspapers in Cape Town. I am therefore hoping that some reader of this Journal may be prompted to follow this lead for an early English language description of one of the great caves of the world.

NOTE


REPLY TO DR. CRAVEN'S LETTER

Marion O. Smith

George W. Ochs (October 27, 1861-October 26, 1931), a Cincinnati, Ohio, native, grew up in Knoxville, Tennessee, and attended the University of Tennessee. In 1879 he became a reporter for his brother Adolph S. Och's paper, the Chattanooga Times, and throughout his life continued to be associated with it and various other newspapers and periodicals. From 1901 to 1914 he was publisher of the Philadelphia Public Ledger, and from 1915 until his death he was editor of Current History. In addition, he served as Chattanooga's police commissioner (1890) and mayor (1893-97), and was a delegate to the Democratic National Convention of 1892.

During his 1891 European tour Ochs sent a number of lengthy reports of his observations to the Chattanooga Times. His ninth dispatch, dated Naples, Italy, September 10, was published ten days later. In it, before describing several Italian cities, he marveled at the scenery at Semmering Pass and in the Adelsburg Caverns:

The scenery over the Semmering at times grows sublime; mountains rise on each other like Pelion on Ossa, being greatly magnified in the transparent atmosphere. Everything on top is green and far down, thousands of feet below, beautiful towns and villages dot the landscape, while picturesqueness is added by a majestic palace or villa on numerous distant heights. The country is very fertile and yields bountifully all crops, and the mountains for the most part are so thickly wooded and mantled with such turf that they appear like parks, and when a huge, jagged stone promontory projects itself in sullen and frowning front it only enhances the beauty of the picture. The entire route to Adelsburg Caverns is mountainous and the scenery is not unlike East Tennessee except...
that where solid stone does not protrude, no earth or clay is seen to mar the landscape, only nodding fields, whispering trees or a soft mantle of green.

The Adelsburg Grotto.

The Adelsburg Grotto is located about seventy miles from Triest; while not the largest, being smaller than Mammoth Cave, it is regarded as the most beautiful cavern upon the globe. The grotto extends in the earth for 18,000 feet, over three miles. The pathway throughout is broad, firm and dry; bridges have been constructed over dangerous chasms and the sides are protected with iron railings. Eighteen large arc electric lights and 1,000 candles illuminate the caverns, and for two hours, with rapid walking, I saw glorious spectacles, too beautiful to be described and too wonderful to be believed. The fantastic phantoms of nature are there seen under the surface of the earth in a form of dazzling splendor and indescribable magnificence. There is one immense chamber, over an acre in extent, a mile from the mouth, where once each year a grand festival and ball is given by the natives, over 4,000 participating; here stalactites and stalagmites in fantastic shapes, scintillate and sparkle in the light like massed diamonds, while the canopy presents a brilliant diadem of millions of gems and all about are phantom forms of every color and shape, glowing brightly to reflect the wit of village belle and love lorn swain as they glide through the mazy whirls of the waltz. There is another immense chamber which represents a mighty Golgotha, and there one sees thousands of statues, busts, mausoleums, sarcophagi in every conceivable form and shape that nature in her most fanciful mood can devise. There is one chamber called Calvary, and at its summit is a magnificent snow white stalagmite which is a fac simile of the crucifixion. One room is vaulted with red, yellow, pink and white mosaics, dazzling with brilliancy and color in the electric light; there are statues, figures and animals in every niche; here the stalactite hangs like drapery of folded satin, there it glistens like a glacier, now it gleams like a snowdrift, ever changing and unfolding new wonders before which all utterance ceases. Words fail to describe its details and no pen can adequately portray its marvelous beauties.

NOTES

2. Chattanooga Times, September 20, 1891, p. 16.

THE NAMING OF THE TOWN OF CAVE CREEK, ARIZONA

William R. Halliday

The town of Cave Creek today is a relaxed, moderately affluent foothills suburb of Phoenix, Arizona. Curving through its northern and western outskirts is a gully which intermittently carries a torrential stream known as Cave Creek. The creek rises many miles to the north, at an elevation much higher than that of the town which carries its name, in an area where lacustrine limestone is well known.
At its headwaters, Cave Creek is perennial (except occasionally when frozen).

The generally accepted version of the naming of Cave Creek attributes the name of both town and creek to some prominent shelter caves on the west side of the gully, not far from the community center. Arizona Place Names, published by the University of Arizona Press, states that the name was known at least in October, 1870, and "probably derived from the presence of a few rather caves used by Indians." It was on an old military wagon road used by troops at Fort McDowell going to and from Fort Whipple at what is now Prescott.

Being skeptical of nearly everything "accepted" about Arizona caves, in 1988 I finally got around to investigating the possibility that Cave Creek was named for a limestone cave in its headwaters. At the public library and museum I found that others also had been curious. Although it lasted only from 1880 to 1881, the first postoffice at Cave Creek was named Overton.1 An anonymous typewritten manuscript at the library states:

While there seems to be some difference of opinion concerning the origin of the 'place name,' some contending that an old sour-dough by name 'Rackensack' Cave lent his monica (sic) to the location, I for one do not think so. The name Cave Creek Station appears on the old military maps of Arizona Territory where the Dahlstream home is now located. . . . An ancient cave . . . is located on the Cahava Ranch and it is more than likely that this cave was used by the cavalry as a shelter.

Another anonymous typewritten manuscript in the same files suggests a slightly different folklore:

The Place-Name book gives an account that it was named after a Jack Cave, who lived in this vicinity in the early days, but it probably was named from the large caves on the Theodore Jones property. Army detachments going from Fort Whipple to Fort McDowell followed a trail that passed near the large cave filled with Indian pictures and symbols. It gave not only shelter from the summer sun, but was a retreat from summer and winter rains and formed an ideal camping spot.

The writer added that General George Stoneman spent four hours there on October 2, 1870, and an army caravan camped there a week later.

But old timers had other versions. In 1974 a member of the museum staff repeated two of the stories:

One version is that the village was named for a miner, Edward Cave, who lived along the creek for many years. Logic would indicate that the name is Cave's Creek, but the 's' was later dropped because it produced a shrill whistle when pronounced through missing teeth.

One account suggests that the name derived from the fact that many large caves follow the course of the creek bed. . . . Finally two miners were sleeping in one of those aforementioned caves, and one of them awoke with a start and shook his buddy . . . 'Did you hear that noise?' It is believed that the buddy shot his pal on the spot.2

Two years later the editor of the local newspaper further enlivened the question:

One night a religious group stopped in town . . . on their way to Fort Whipple and the leader of the sect, a Welshman by the name of Evac Keerc, was so upset with what he saw that he held a prayer meeting right then and there and damned the liquor-stupefied miners.

He ranted and raved throughout the night and managed to con-
vert a few of the sinners in the camp.

One of the scraggly old miners suggested that perhaps the new community should be named after the religious leader because he had left such an impression on the miners.

"He's pretty backward, though," piped up one resident.

"Well, maybe we should name the town after him and spell the name backwards," another suggested.

The crowd agreed.

"That's how the town was named, according to my cowpoke friend.

Evac Keerc, spelled backwards, is Cave Creek."³

Alas! No one has seen fit to do a definite biography of Mr. Cave, variously known as Edward, Jack, and Rackensack, much less of the Reverend Keerc. And I have been unable to find any indication of limestone in the headwaters of the creek. It appears that the traditional version is correct, after all.

What a pity.

NOTES

A RECORD OF A WOMAN ENGAGED IN SPELEOLOGY DURING THE LATE NINETEENTH CENTURY

Fred V. Grady

In 1889 Samuel Garman (1843-1927) published an account entitled "Cave Animals From Southwestern Missouri," Bulletin of the Museum of Comparative Zoology, Vol. XVII, No. 6, for which the specimens were collected by a Miss Ruth Hoppin of Jasper County. Garman noted that "she took up the matter collecting cave animals, engaged help, and at great personal risk and inconvenience herself, made explorations of a number of caves . . . Numerous specimens of batracians, fishes, crustacians, mollusks and insects were collected and forwarded from time to time, among them several new to science." Garman's paper includes parts of a letter from Miss Hoppin showing that she made detailed notes on the caves where the specimens were collected and observations of the living animals.

THE TRAIN TO OLOGUNUK CAVE

Tom Kiekamp

In March of 1890 the Kinnicnnick & Freestone Railroad began operations by hauling freestone from mines at the towns of Tannery and Wolf Creek in Lewis County, Kentucky. The tracks worked their way north, along Trace Creek, to the railhead at Stone City, Kentucky (later renamed Garrison), on the Ohio River.

The railroad was named after Kinnicnnick Creek in Lewis County, and "Freestone," a builders term for the thin, fine-grained sandstone beds found in the eastern part of Lewis County. The "kinney," as the railroad was called by the locals, eventually would carry visitors to the caves at Carter City.
By 1892 the line was pushed further up Trace Creek to a point known as Wright (formerly known as Blue House). Here, freestone quarries were opened and also at Beckett's Spur. Eventually the line was extended up a very steep grade and across five treacherous wooden-timber bridges to Deep Cut, where it literally cut through the hilltop. (This is probably the present day 60-foot highway cut approximately four miles west of Carter City, on Ky 1149 where it intersects Ky 474.) Trains passed through the cut and descended another steep grade the valley of Smith Creek, eventually reaching the sawmills at Poplar, just west of Carter City. Quarries were also opened at Poplar to take advantage of the new railroad. (These are the old Poplar Ballast quarries, 0.6 mi west of Carter City on Ky 474.)

The Kinney reached Carter City by 1893, twenty miles from its origin at Garrison. At Carter the trains reversed direction by backing onto a wye ("Y") shaped track. The Ramey Hotel was nearby, serving noontime lunches to the hungry train crews before the return trip.

1906-07 saw the merger of the K & F Railroad into the Chesapeake and Ohio, the major railroad in that part of Kentucky.

The final leg of the Kinney line was completed in 1926-27 when track was extended another two miles beyond Carter City, to Gesling, in order to reach a deposit of fire clay for brick-making. This brought the total length of the line to almost 22 miles.

The Oligunuk Caves were opened at Carter City in 1896. That summer the C & O Railroad began running tourist excursions to Oligunuk from Cincinnati. The train would depart Cincinnati at 7:00 a.m. and arrive at Garrison at 9:30 a.m. Here the train would be uncoupled into sections of four coaches which was the limit locomotives could haul up the grade to Deep Cut, reaching Carter City in the early afternoon.

There were separate areas at Carter City, the city folk and country folk each having their own "camps." This was done to prevent fights that would inevitably occur when a cave tourist wandered into the wrong camp. A pavilion was built for the cave tourists at the base of the hill below the Oligunuk Caves. Later years it was used as a cattle barn. (The 1978 photorevision of the Tygarts Valley Quadrangle shows the location on the north side of Smith Creek, near the junction of Ky Rte 2 & 474.) The Oligunuk Caves were situated near the top of the hill, two hundred feet above the valley floor. The Oligunuk is actually a "pocket-sized" cave system (now called the Cow-Counterfeiter's Cave System) with several entrances into the limestone bluffs at the top of the hill. These entrances lead to an intricate complex of pas-
sages. Remains of some old wooden stairways can still be seen in what is now called Cow Cave.

How long the Oligunk Cave remained in operation is not known. There is, so far, nothing to suggest side excursions beyond Oligunk to what is now Carter Caves State Park. Nor is there much known about the history and operation of the Oligunk Caves, another interesting subject.

The timber, freestone and fire clay eventually became exhausted or in less demand. (Cave visitors may likewise become exhausted after a hike up the hillside to Oligunk.) Improved roads opened up the region and the demand for rail service began to wane. The C & O Railway finally abandoned the track on April 22, 1941. In the end, the fate of the humble Kinney Railroad was dictated by the laws of economics. Interestingly, there was one other railway hauling cave tourists in Kentucky during this time period. The Mammoth Cave Railroad (1886-1931) operated between Glasgow Junction and Mammoth Cave, a distance of nine miles.

REFERENCES


EARLY MADISON COUNTY, ALABAMA, SALTPETER REFERENCES

Marion O. Smith

Just before the War of 1812, John Brahan (1774-1834), a native Virginian and commissioner of public lands in Mississippi Territory (Alabama), wrote the following letter to Return Jonathan Meigs (1740-1823), the Cherokee Indian agent, soliciting his influence in obtaining permission to work a saltpeter cave near Huntsville:

Huntsville
24th December 1811

Dear Sir

I have had built on Flint River about seven miles East of this place a grist mill and saw mill both now going in Complete repair. I have lately had two powder mills erected at the same place, but for want of salt petre cannot keep the two going, and from the approaching aspect of our affairs it is very probable that powder will be essential with us, and it is my wish to render my pursuits as useful to our country as I can: The object of this communication is to request through you a favor from the Cherokees: there is a saltpeter cave about Eight miles below my mills, & one & a half miles East of Flint River and about one mile within the Indian line, on the South west Spurr of a mountain. It is believed that salt petre may be made from the dirt in this cave, although the cave is small & the dirt in it not very strong of nitre. I wish to get from the Cherokees permission to make salt petre at this cave, and should be glad to have it for five years, and if the dirt proves good would allow a liberal Rent payable in powder or money. I will thank you to communicate my wishes to the Cherokee Chiefs, and if it is possible should be glad to Rent the
On February 18, 1812, Meigs replied that he had taken "friendly steps" for permission from the Cherokees for Brahan "to work the Salt petre Cave near their line." Brahan responded on March 4 that he had "discovered that the Cave is not as valuable" as he expected, but nevertheless "it will be very useful to me if it can only supply the mills with Salt petre, I should therefore be extremely glad for permission to work it." More months passed, and on August 14, 1812, Brahan again inquired about permission: "I find that salt petre is in great demand, if the Indians have consented to my working the little Cave near my mill, should be glad to be informed." Ultimately, the records do not reveal if Brahan ever acquired authorization to work the cave. Brahan later served in the army under Andrew Jackson at New Orleans, 1814-15, and in 1832 he moved to Florence, Alabama.²

What cave did Brahan want to mine? His location description, according to Bill Torode, matches ACS 123, Candlestand Cave, at the tip of a southwestern spur of Keel Mountain on the Moontown Quadrangle. Candlestand Cave is 747 feet long, with enough daylight between entrances one and two that a lamp is not needed. Here "a bit of digging is evident, but most of it appears to have been done by pot hunters," who may have destroyed any saltpeter mining evidence.³

NOTES
1. Records of the Cherokee Indian Agency in Tennessee, 1801-1835, Record Group 75 (Microcopy 208, Roll 5): Correspondence and Miscellaneous Records, 1810-1812.

HISTORICAL RECORD OF SOME FOSSIL BONES FROM AUSTRALIA

Fred V. Grady

In the Australian Zoologist, Volume 22, Number 4, June, 1986, there is an article entitled "The Munich Collection of Wellington Cave Fossils" by Michael Augee, Richard Dehm, and Lyn Dawson. In 1939 two German paleontologists, Joachim Schroder (1891-1950) and Richard Dehm came to Australia to make a collection of fossil bones from the Wellington Caves in New South Wales. The two were quite successful and soon had a nice collection from several sites. Then World War II
In September Schroder and Dehm put most of their collection on the German freighter Chemnitz. Soon however, a French submarine captured the ship and it was taken to Marseille. Dehm and Schroder were briefly interned in Australia and then released. They returned home via the Dutch East Indies, Japan, Korea, and Russia. By then France had surrendered to Germany and they were able to retrieve their specimens and take them to Munich. Unfortunately, Allied bombing destroyed most of the collection and their field notes in 1944. Dehm luckily took part of the collection to Strassburg where it survived the war.

In 1946 the two Germans were able to retrieve additional specimens that had been left in Australia. Of particular interest were six bags of matrix containing many small bones. Dehm and Schroder had been ahead of their time in their interest in the small as well as the large vertebrates.

A SUBTERRANEAN INDUSTRIAL PLANT

(Scientific American, Aug. 5, 1899, p. 89)

In 1893, believing the time to be ripe for a demonstration of the practical operation of socialism, so far as it can be demonstrated in an isolated community, a paper published at Greensburg, Indiana, agitated the founding of a co-operative village or colony on the "Bellamy" principle, and the following season 1,000 acres of land were selected near Tennessee City, Tenn., as a site for a town. The land was covered with a fair quality of oak timber. The first members of the Ruskin Co-operative Association reached their new home on June 29, 1894, and the first thing which was done was to house their printing presses, which were to help in disseminating information regarding the new community.

As soon as the printing office building was finished and wells were dug, the pioneers commenced operations on their own land and the first houses were begun. By July, 1895, twenty-five or thirty houses were erected and a common dining room was established where all could live much cheaper by eating collectively. A saw-mill was built, wagons, teams, etc., were purchased, a store was built and stocked and affairs went on smoothly until February, 1896, when a more attractive and productive location was secured, four and a half miles north of the old site. In 1897 the association moved to the new location, a building 50 X 100 feet having been erected for a printing establishment and for a common dining room. The results of their labors for the next three years were remarkable. The association built forty dwellings, four large buildings, and began several industries. Excellent schools teaching music, drawing, and painting were established, and a number of industries were carried on, so that on January 1, 1898, the gross assets amounted to over $78,000. The total number of acres the association owns or has the use of is 1,789. Members are received upon the payment of $500 in cash, and they are thereupon furnished with a separate home, but members can take their meals in the dining hall if desired. School privileges, houses, medical attendance, medicine, laundry, and shoe mending are furnished without charge by the association, which does not pay wages, but gives a maintenance fee to all members and members of their families. On taking possession of his home, a member begins to beautify it, knowing there is no danger of the landlord or mortgage holder absorbing the fruits of his labor.

The caves which are used by the colonists for canning and other industries are very interesting and are shown in our engravings. The Grand Cave and the Stalactite Cave are about a quarter of a mile distant. In the rear of the Grand Cave
there is a lake of pure water coming from an unknown source. This abundant supply of water is conducted by a flume to a system of pipes and is forced by water power and steam pumps to a reservoir 183 feet above, where there is a Portland cement cistern holding 1,300 barrels of water. Two hundred yards to the rear of the Grand Cave a low passage leads to another chamber much larger: this forms the beginning of a series of chambers reached through small passages that have been measured by chains for a mile and a quarter back and explored for a much greater distance. The acoustic properties of the Grand Cave are excellent, owing to the fact that the vault is elliptical, and even a single violin will furnish music which can be heard throughout the whole cave; and on the Fourth of July two or three thousand people come from the surrounding towns to picnic in the cave and dance all day long in the cool atmosphere, which never varies from fifty-four degrees. The caves are used by the colonists as a canning and vinegar factory and a storehouse for canned fruits and their large celery crop. The caves seem to be splendidly adapted for storing of celery, and the Ruskinites are able to bring it out in the spring crisp and delicious. During the canning season the cave is the scene of great activity, immense quantities of food being prepared. It is estimated that it would require a building costing a hundred thousand dollars to equal the convenience and utility of the Grand Cave.

The Stalactite Cave . . . consists of several chambers running about 600 feet to a solid wall of stalagmites and stalactites that have united and formed columns and then massed themselves together so as to form a secure barrier to the chambers beyond. The water charged with carbonate of lime acting over a long period of time has deposited minute crystals and has formed . . . splendid examples of stalactites . . . .

### MINNESOTA CAVES HAVING PROBABLE SPELEAN HISTORY PRIOR TO 1955

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<th>COUNTY</th>
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<tr>
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<td>MN19:C02</td>
<td>Lee Mill</td>
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<td>MN23:C01</td>
<td>Mystery Cave System</td>
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<td>Niagara Cave</td>
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<td>Tyson Spring Cave</td>
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<td>F &amp; M Bank Cave</td>
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<td>St. Anthony Tunnels</td>
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<td>MN27:E03</td>
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<td>MN52:E01</td>
<td>Jesse James Caves</td>
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METROPOLITAN SEWER DISTRICT FINDS NEW CAVE IN ST. LOUIS

Earl Hancock

While exploring the stormwater sewers along the river front as a measure of periodic cleaning and maintenance, Metropolitan Sewer District workers found a manhole not recorded on their charts. Descending twenty-six feet to a flowing stream, they crawled about twenty-five feet upstream through a twenty-four inch concrete pipe in five inches of cold water to discover a cave. MSD Watershed Manager Gene Keating then passed this information to Tom Cravens who invited a MAX of five cavers to quantify this find.

About half the Grotto was waiting as the MSD truck rounded the corner and Mike Badgley, the foreman, exclaimed, "Holy Cow! You won't all fit!" I wish someone had photographed the long line of caver's cars and grinning faces. Undaunted we caravanned to the site. . . . Led by "Abdoul" Cravens we were: Earl H., Rich O., Jim S., Brian B., Mitch W., Mike D., and Don R.

Since this manhole lacked a ladder and belled out at the bottom, bossman Mike insisted we all be belayed down in full body harness with three-fourths inch line. . . .

Dragging a tap through now seven and a half inches of water, we enter a real CAVE! It begins at a masonry wall which years ago sealed its natural opening. A low stream passage about fifteen feet wide with typically dark walls of most St. Louis caves and looking like large trunk, the floor filled with silt and stream gravel. Small meanders enter on the left and right with their floors soon rising to the ceiling and pinching out. About twenty-five feet into the cave the ceiling raises to walking height and gravel banks rise out of the wall to wall water. Here two more passages enter from both sides and we poke them to their ends. A dome here contains several very dark speleothems, one coated with a bright orange substance. At the end of this seventy-five foot cave the ceiling is now ten-five feet high in twenty foot wide passage. The stream (never over a foot deep) issues from beneath a limestone wall. Backing down into this resurgence I feel with my feet for evidence of air space or passage beyond. Although of enterable size SCUBA would be required for further exploration.

There was no biological life observed although recent rains had swollen and clouded the stream and could have obscured life such as amphipods, etc., which are fairly common to St. Louis caves. There was a strong solvent odor noted by the MSD workers and the water felt oily. This might preclude any stream life. There are several nearby tank farms which immediately drew suspicion, but the closest contains only molasses.

There was some evidence of human activity. What at first seemed to be stream borne and man made, may be leavings from the days when this cave was a riverbank spring. Several pieces of wood on the stream bottom could not be encouraged to
I have been pursuing the earlier days of this cave in the archives of this city. Historically, the cave was surely a one-time riverbank spring cave, but so far the earliest view (1875) shows that already railroad tracks covered the entrance and the water was diverted through a culvert. Now the cave lies twenty-six feet beneath a railroad yard and the water's edge is 615 feet away! I continue to search the deed files to discover the owners . . . when this cave saw daylight and perhaps restore its proper name.

Although this cave is not very long it is in an area of well-known caves. Looking at a map of surrounding caves one could speculate that it could perhaps connect hydraulically with Cherokee, Lyon Park, Anheuser-Busch or even English Cave. This is an exciting discovery. Stay tuned for further developments.

(From the Meramec Caver, Volume 20, Number 7 (July, 1989).)
REAL POLAR BEAR BONES AND SPURIOUS MAMMOTH
TEETH FROM AN ALASKAN LAVA TUBE

Fred V. Grady

In an article entitled "Smithsonian Exploration in Alaska, in Search of Mam­moth and other Fossils," by A. G. Madren, Smithsonian Miscellaneous Collections No. 1584 (published in 1905), there is an interesting note on a cave on St. Paul Island. The cave in lava was reportedly discovered by Bristow Adams, an artist for the Fur Seal Commission, and was said to be a cavity forty feet long and eight or nine feet high. There were two entrances, on a twelve foot shear drop. The floor was composed of organic humus in which two mammoth teeth were found along with some bear bones said to be distinct from the polar bear. The speci­mens were collected by a Mr. Snodgrass and a party from Stanford University, California (F. Lucas, Science, November 18, 1898, p. 718).

The story does not end here. Many years later Dr. Clayton Ray found the bear bones in the collections of the National Museum of Natural History (Ray, Arctic 24 #1, 1971). Ray's article, "Polar Bear and Mammoth on the Pribilof Islands," gives a detailed description of the bear bones and shows that they are indeed from polar bears. The mammoth teeth, however, were apparently planted in the cave as a hoax by a Mr. Redpath who obtained them from the mainland where they were quite common. Redpath encouraged the explorers to check out the cave.

* * * * *

FLOYD COLLINS REBURIED

From the CRF Newsletter

Sixty-four years after his untimely death in Sand Cave, William Floyde Collins has been buried in what will surely be his final resting place. On Friday, March 24, Collins' remains were removed from the bottom of the Grand Canyon in Crystal Cave, where his casket has lain since 1927, and buried in the Mammoth Cave Baptist Church cemetery, where his mother and several siblings are also buried. A private graveside ceremony was conducted by the Reverend Gary Talley. The burial took place at the request of some of Collins' descendents. According to Park Superintendent Dave Mihalic, it has been a long held family concern that Collins' remains be relocated and properly cared for in a maintained cemetery. CRF representatives attending the burial included Roger McClure and Kevin Downs.

Collins' postmortem travels are legendary. When he died in February, 1925, after a long entrapment in Sand Cave, his father wanted the cave to be his tomb. His brother Homer, however, raised enough money to remove the body for proper burial. Two months after his death, his body was brought to the surface and reburied in the Collins' homestead cemetery, close to Crystal Cave on Flint Ridge. In 1927, Dr. Harry Thomas bought the Crystal Cave property, and with it the rights to Collins' remains. Thomas had the body disinterred, and after necessary remedial work, placed it in a glass-topped casket in Crystal Cave's Grand Canyon, where it was a highlight of the commercial tour. In March, 1929, the corpse was stolen. The following day, the body was found nearby and replaced in the cave, where it remained until this past March. On Thomas' death in 1948, the glass top was covered, but the casket remained a tourist attraction until the National Park Service bought Crystal Cave in 1961, and closed it to the public.

Floyd Collins has a special place in the affection of the Cave Research Foundation. It was Collins' discovery and early exploration of Crystal Cave that led the way for the later connection, by CRF cavers, of the major caves of Flint Ridge, and ultimately to the connection with Mammoth Cave in 1972. The present-day exploration and mapping program had its beginnings in Crystal Cave in the late 1950s. Floyd had always seemed to be a permanent fixture of the Flint Ridge scene. . . .