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The American Spelean History Association is chartered as a non-profit corporation for the study, dissemination, and interpretation of spelean history and related purposes. 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.

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FRONT COVER

A photograph of Lucy Cox in Great Onyx Cave, Kentucky. Courtesy of Dean Snyder.

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THE JOURNAL

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BACK ISSUES

Most back issues of the Journal are presently available. Early issues are photocopied. Indexes are also available for Volumes 1 - 6 and 13. All issues of Volumes 1-7:2 are available on microfiche from Kraus Reprint Company, Route 100, Millwood, New York 10546.

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When a new water line was put in to the Austin House on Flint Ridge Phil DiBlasi monitored the excavation for cultural artifacts. The following is excerpted from Phil's archaeological and historical report. It came as something of a disillusionment to us to learn that the present "Floyd Collins' Home" wasn't built until the early 1930s (Floyd’s fatal entrapment took place in 1925).

In October 1987 a domestic water line was placed across part of the Floyd Collins Home/Crystal Cave complex. Prior to the excavation, plat maps were examined, and revealed the possibility of disturbing late 19th, early 20th century structures associated with the life of Floyd Collins. The line was placed to minimize the potential impact. The ditch was excavated by the local water company, and monitored by myself and Lee Sneed. Additionally, surface collections were made and analyzed.

An interview with Burwell Ehman, former Director of the CRF, produced a lot of information about the first Collins home. When he first visited Crystal Cave in June 1927, he saw a residential structure "similar to thousands you see across Kentucky." It was a clapboard, one and one half story building, southwest of the present house, set on pier supports (probably sandstone). There appeared to be two rooms. The building measured about 30 by 15 feet. Mr. Ehman said that the structure was torn down sometime after the present Collins home was built in the early 1930s. He recalled that the front portion (east two rooms) of the present house was built first, and the "L" attached to the rear (west) was built later.

The 106m ditch was excavated by machine to a depth of .75 to 1m. The monitors walked alongside. When cultural material was observed, the backdirt was dry screened. Cultural remains were confined to a thin surface veneer, and result from recent activities (e.g. placement of the gravel road and its drainage ditches). The trench profile was simple, with only two horizons, and indicated undisturbed soil formation. There was no evidence for buried features associated with the first Collins home, but every effort was made to place the line so as not to disturb such features.

A detailed surface collection was made from the immediate area. Of 238 items recovered, none date to earlier than the mid 19th century, corresponding to historical accounts of Lee Collins (Floyd's father) moving to the area about 1880. The items were sorted into six functional categories - activities, architecture, clothing, furniture, kitchen and personal. The ratio of items in each category are consistent with a residential pattern (domestic structure and the immediate yard). The artifacts were also assigned beginning and ending dates of manufacture, and a mean date of occupancy calculated. The date, 1898, corresponds well with the approximate mean occupancy date, 1907, derived from the historical record.

The presence of machine-cut nails in the surface assemblage suggests an earlier than 1880 construction date for at least part of the first Collins home - manufacture of such nails ceased about 1870. (A single machine-cut nail was found during recent renovations of the present Collins Home, suggesting that portions of the earlier house were used in its construction).
An unexpected component of the assemblage were fragments of worked and unworked freshwater mussels, and a mussel shell pendant. (During the renovations of the present house, a shell crucifix was recovered). The fragments may represent stages in the manufacture of items for visitors to Crystal Cave. There is no historical documentation of this activity, but it would be a logical one for the Collins family. Freshwater mussels could be easily obtained from the Green River and made into saleable items.

Owing to the thin vertical distribution of the remains, I strongly suggest that no surface-altering activities be carried out near the present Collins house, the site of the first Collins house or the ticket office. More data needs to be recovered, and the eligibility of the site for the National Register of Historic Places should be determined.

The Obliteration of Clifton Cave
Gary A. O'Dell

A few miles west of Versailles, Kentucky, the highway leaves the lush Bluegrass pasturelands and winds its way down a deep gorge to the Kentucky River and the community of Clifton. Nearby is a locale once known as Woodford Landing, where a ferry plied its way monotonously back and forth across a narrow river hemmed by tall hills and limestone cliffs. Clifton is a quiet place today, a sleepy hamlet shrouded by the morning mist that rises from the river. There was a time when Clifton was a busier, livelier town.

In 1780, Thomas Railey moved from Chesterfield County, Virginia to Kentucky, and settled in Woodford County on a sinkhole-pitted highland overlooking the Kentucky River. He gave his farm the name "Clifton" and so, too, became known the village that later sprang up in the valley below. The Railey name was to become well-known in the county. Though Thomas died in 1822, his grandson, George Railey Berryman, a Confederate veteran of the Civil War, remained in possession of the property until his death in 1882. 1

Clifton began in 1841 as 14 acres laid off for a town to house the employees of a nearby hemp factory. This factory was replaced by a large stone flouring mill shortly before the Civil War, which by 1869 had become a distillery. The distillery did not stand long, for within a few years it burned completely and left only a tall stone smokestack. There were two other distilleries that operated at Clifton, and by 1880 the town had perhaps 150 inhabitants, two stores, and a sawmill. 2

Woodford Landing predated the founding of Clifton, and was a port of call for the steamboat traffic that began on the Kentucky River in the early nineteenth century. As the Kentucky had shallow waters, light draft steamboats evolved that became the "river packets", constructed to draw only two to two and a half feet of water. These packet boats, side or stern-wheelers, generally were of two decks, with cabins for overnight passengers as well as space for freight, mail, and merchandise. Navigation of the Kentucky River was, in the beginning of the boom, controlled by the state of the river; waters were highest in late fall, winter, and early
spring, and then allowed the farthest reach upriver. Reflecting this, a 17 February, 1836, advertisement placed in the Frankfort Commonwealth read:

THE STEAM BOAT ARGO

Will ascend the Kentucky River, as far as it will be safe for her to go, about the first of March, or as soon after that time as the state of the water will allow. Those who may have freight for any point above (Frankfort), will be afforded a cheap conveyance; and holders of produce on the river desiring to ship, are requested to have it ready at the call of the boat. Swigert, Moffert & Co., Ag'ts

The steamboat era on the Kentucky River coincided with that arising along the Ohio River, and was greatly facilitated by a series of five locks that, when completed in 1842, added 95 miles of slack water to the navigable portion of the Kentucky River. The 1840s were the steamboat heyday, and regular service was established between Frankfort and the Ohio River cities of Louisville and Cincinnati. Shaker Landing, about eight miles from Harrodsburg, was about as far upstream as the river packets could penetrate. Between Shaker Landing and Frankfort were numerous small river ports that handled the trade of the Bluegrass. Woodford Landing, though not large, was one of these ports that handled upriver commerce, along with others in Woodford County such as Oregon and Munday's Landing (site of Munday's Landing Cave, largest in Bluegrass at 14,000+ feet). By this time, the town of Clifton had been established, and thrived with the riparian commerce. A steamboat was named for the community, and the "Clifton" was a hardy boat that, having been sunk once, was raised and continued to ply the river.

New Orleans could be reached by steamboat from Frankfort in ten days or less, with two extra days added for the return trip against the currents of the Mississippi and Ohio Rivers. As the Civil War approached and Kentucky carried on a brisk slave trade, some steamboats calling at the Kentucky River ports hauled, in increasing numbers, coffles of slaves bound for plantations in the Deep South. Conversely, other boats discharged at Kentucky River numbers of wealthy, aristocratic families who had traveled to Kentucky from New Orleans, Natchez and St. Louis. These moneyed Southerners were attracted for the social season to the favored watering places of the Bluegrass, such resorts as Drennon's Springs in Henry County or Graham Springs at Harrodsburg.

During the Civil War the slack-water navigation system on the Kentucky deteriorated, so that by 1870 the locks were virtually abandoned and river commerce nearly halted above Frankfort. The locks had been mostly restored by 1900, and again the river was busy with commercial boats. Captain Billy Bryant's showboat "Princess", one of the last boats to travel the river, gave one-night shows while traveling up and down river. The "Princess", a sternwheeler, was a gambling ship, and to provide this diversion for its patrons among counties with strict anti-gambling laws, steamed up and down river while the play was carried on. Thus, no laws were broken that were written to be enforced "on the soil of Kentucky." Woodford Landing, as the closest approach by water to Lexington, the major city of the Bluegrass, was one of the favored ports of call. By 1930, however, the era of the steamboat on the Kentucky River had ended.

The streams that empty into the Kentucky River in this region are incised in deep gorges and ravines, with fast flowing waters tumbling down from the uplands. The Clifton Road clings
precipitously to the steep valley wall of one such streamcourse, called in an earlier day Rough's Run and simplified over time to Rowe's. During most of the later 19th century, the James W. Brookie Distillery operated at its mouth, and the stream valley was reported to be "the abiding place of the largest and prettiest ferns in the county and was often visited in the spring by parties of ladies, who collect such plants." 7

Half a mile up Rowe's Run from Clifton, just on the inside of the Clifton Road and at the very edge of the roadway, a small shaft dropped ten feet into a cavern. It was a well-known feature of the local landscape, and frequently explored by those with a taste for adventure. Perhaps the ladies, collecting ferns and wildflowers, stopped here at the head of the gorge to cool themselves in the air from the cave mouth. The vertical drop doubtless discouraged many from making a closer inspection, though the passages, once gained, were level and easily explored. As the Clifton Road, bringing travelers from and to Lexington and Versailles, was fairly weltraveled, it is not difficult to picture a group of such travelers, while resting their horses at the top of the grade, being tempted to scramble down the easily-climbed shaft. Viewed with improvised torches, or candles, and in later days with lanterns and flashlights, the Clifton Cave must have witnessed the tramp of countless feet over two centuries. It is highly likely that, during the height of the Kentucky saltpeter trade, roughly 1808-1814, this cave must have been scouted for its production potential. It is not known whether, in fact, actual mining operations were conducted. Any traces had since been long-obiterated by pedestrian traffic through the cave.

About 22 years ago, as a teenager and fairly new member of the Blue Grass Grotto (the Lexington chapter of the NSS), I was taken to the gorge by a few of the older cavers and there shown Clifton Cave. In 1968 the Blue Grass Grotto was engaged in a project well in keeping with its name - the exploration and survey of caves in the Blue Grass region. The potential of Rockcastle and Jackson counties were then virtually unknown, and though the Sloan's Valley project in Pulaski County was beginning to divert BGG cavers to the Mississippian limestones of southern Kentucky, the focus of the grotto since its inception in 1962 had been the Ordovician karst oasis surrounding Lexington.

This particular trip was typical, an excursion to a known cave coupled with rambling by auto through the countryside. There was careful scrutiny of topographic maps, accompanied by much shuffling and folding, hoping to unlock the mysteries of the terrain. The Blue Grass is a mildly karstified uplands, with the major surface stream, the Kentucky River, meandering within its steepwalled gorge three hundred feet below the land surface; the result of an ancient geological uplift. The clues to cave locations were on the map; all we need do was interpret them correctly.

Sinking streams so marked received top priority, followed by sinkholes and interesting jogs of the contour lines that might or might not be something of significance. Bold pencil marks encircled leads that had looked encouraging from the vantage point of the kitchen table or living room floor. Beside some were written the names of caves or comments such as "looks good from road", while beside others were only question marks. Kentucky cavers have been fortunate in reaping the harvest of a farsighted state geological survey that undertook topographic mapping at an early date.

There were thousands of sinkholes and sinking streams and interesting contour jogs on the hundred or so 7 1/2 minute topographic quadrangles of the Blue Grass region of Kentucky.
Nearly every trip yielded new findings. As important as the maps, though, were the contacts with the local inhabitants. A two hour social session by the potbelly stove in the congenial atmosphere of a Kentucky country store usually led to the unfolding of maps and bending of heads in consultation, the farmers delighted by the detail of the maps and orienting quickly. "Now, there's a cave on the bank of the crick I bet you boys don't know 'bout," they would say, and trace the roads and the red dashes of fencelines with gnarled fingers. "An' over here next to the road, behin' the barn they is a hole...."

At the margin of the road that led down the gorge to Clifton, no more than ten feet from the tires that hissed by on the winding descent, a dark hole gaped invitingly. The cave entrance was clearly visible from the roadway. It was about twelve feet long and five wide, and as I stood with three other cavers at the rim, I could see that the fern-shrouded shaft had, by its proximity, amassed a collection of beer and soda cans at the bottom. Above the opening, the valley sloped upward sharply, the top lost in the ranks of trees that marched uphill. Across the asphalt, the hill slanted sharply down a hundred feet to the stream bed of Rowe's Run and then rose again to form the valley wall opposite. It was a wild-looking place, with this narrow, twisty roadbed gouged from the hillside the only sign of civilization. Across the valley of the other side, at about the same elevation, was pointed out to me the location of Little Clifton Cave. It was, they said, very small and short, less than a hundred feet long. I could not see the opening.

We scrambled down into the roadside hole. It was a typical Blue Grass cave, exhaling moist air in our faces, of walking height with floor and walls coated with damp sticky clay. The cave had been located and surveyed a year or so previously, so this was a pleasure trip, simply wandering through the passage forks and turnings to see where it would go next. It was not a long cave, less than a quarter-mile, but it was enjoyable and allowed the group to go caving even should the day's other reconnaissances prove fruitless.

Two years later I drove out the Clifton Road by myself, intending a nostalgic return to the cave before some further surface scouting of my own. My first warning was the sign at the beginning of the descent into the gorge that cautioned "Road Work Ahead." This did not prepare me for what I saw next.

The Clifton Road was being widened, a major engineering project considering the steep nature of the terrain. It was a Sunday and no one was about. The pavement vanished and turned to crushed stone, packed by the wheels of heavy equipment. I reached the place where I thought Clifton Cave should be, and pulled off onto a broad expanse of scarred and muddy limestone bedrock, freshly exposed. I got out of the car and walked around. The hillside had been carved up chunk by chunk with drill and explosive, and the boulders shoved over the hillside as fill. The road shoulder was now composed of hundreds and thousands of tons of broken rock, the older roadway now cut much wider and deeper into the limestone. I looked down to the crushed stone under my feet, bent over and picked up a rock fragment. It was a section of stalactite, eight inches long and a half-inch in diameter. As my eyes wandered the ground I could see dozens more, perhaps hundreds, of such pieces scattered about, mixed in with broken limestone fragments whose internal crystals sparkled in the noonday sun. I put the section in my pocket absently.

Clifton Cave was gone. It was not closed by some annoyed landowner, through refusal of permission or by means of concrete or a thin veneer of rock and soil, a closure thus fleeting on a geological time scale. Much of it was gone as completely as if it had never existed. It had been

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dismantled piece by piece, with explosives and great yellow clanking machines, and shoved bodily over the edge to tumble noisily down to the stream. A large part of Clifton Cave had been reduced to boulders and rocks, gravel, dust and calcine mud, spread and compacted with the fragments of speleothems to make the base for a ribbon of asphalt. What had not been carved away had been choked and sealed. I was about six months too late to see Clifton Cave again. It didn't exist anymore.

The hill that had sloped up from the entrance shaft was now a series of limestone terraces that formed a sheer cliff perhaps 50 feet high. Down the roadbed a few hundred feet from the former Clifton Cave entrance, about 20 feet up in the cliffwall, were two small dark openings that had not been evident before the making of the cut. I climbed the rock ledges and crawled inside with my carbide lamp lit. Both caves were less than 100 feet long and never higher than about four feet, but what caught my attention were the hundreds of small stalactites and soda-straws that sprouted from the ceiling. It must have been an impressive sight at one time, but in the scene before me the stalactites littered the floor en masse, sheared off by the blasting outside.

They had both obviously been virgin caves, perhaps passageways in some cavern complex cut off from the Clifton Cave system by earlier fill or collapse. Nothing like the speleothem spectacular of these two remnants had been known from long-striped Clifton Cave. The Clifton Cave may have been decorated once like this, more than a century before. Although these newly-revealed passageways had survived the excavations, their onetime beauty had been shattered.

Two decades passed. I came back to Clifton again, in 1990. The village was unchanged, a sleepy place of summer homes and a handful of permanent residents. The river seemed perpetual as I sat on the bank of the Kentucky to watch the sun rise, burning away the river mist; it took a long time, for the valley is narrow here. On the winding highway up Rowe's Run, a low cave mouth beckoned from the ledges above the asphalt. Only one opening could be seen, for I could no longer locate the other. Inside, the remembered litter of broken soda-straws had vanished, leaving only a muddy crawlway.

The highway looks well-worn now, no longer brand-new. At the site where once the shaft entrance of Clifton opened, there is now a tiny crawlway, too jammed with broken rock to enter more than a body length. Somewhere behind the jam is the remaining passage of Clifton Cave, greatly shortened. Soil washes into it from the hillside above, and is carried through the rubble.

Slowly, Clifton Cave re-creates an entrance.

Appreciation is extended to William Shirley Jacobs and Nelson Hamilton, both of Millville in Woodford County, for their interest and assistance.

NOTES

2. Railey, History of Woodford County, 260; Versailles Woodford Sun, 27 May 1870.
4. Coleman, op cit; Cincinnati Daily Atlas, 1 May 1845; Atlas of Bourbon, Clark, Fayette, Jessamine, and Woodford Counties, Kentucky (1877); Ellwanger, "Famous Steamboats," (May 1920): 41

Destruction of Clifton Cave
Adapted from Microfilm
Kentucky Highway Department 1968

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The Cave Artist's Artist
Russell H. Gurnee

Before the invention of writing, man used pictographs and symbols to convey ideas and transmit information. These marks, made with varying degrees of sophistication, have been found all over the world. Early artists developed cultural styles that ranged from tics and dots in random order to elaborate polychrome paintings of consummate artistic merit. We have no way of knowing how many of these original drawings and paintings were made, but fortunately some of those that were placed in shelters, caves, and buried in tombs have survived. Those placed on rock walls and ceilings retain signs of the original techniques used by the artist; and a careful study of the work gives us a direct link to the creator of the symbol or design.

It is easy to study the technical aspects of Rock Art by analyzing the methods and material used in creating the drawings. It is much more difficult to determine the meaning or interpretation of the work. We can never be sure what the artist had in his mind when he made the drawing, but it is evident that any interpretation requires inspection of the original drawing.

In the 18th and 19th centuries the fruits of the industrial revolution produced a leisure class of artist/travelers who roamed the world recording their view of other cultures in books and drawings. These sometimes produced distorted perceptions of places and things as the artist introduced into his work personal interpretations.

All subjects seen on their travel were fair game for the artist. People, costumes, animals and natural history were popular with readers back home, and this popularity created a group of professional artists who added their own interpretations to the field sketches brought back by traveler/artist/writers. One popular subject was the "curiosities" of each area, usually natural sites, such as waterfalls, canyons, mountains, rivers, and caves. Usually the man-made wonders such as the Pyramids, Taj Mahal, Stonehenge, and the Great Wall of China were carefully depicted in etchings, woodcuts and engravings. Rock sculpture, drawings, and murals were also reproduced, but here the copies drifted away from the original artist's ideas and sometimes distorted the viewer's interpretation of the work.

John Lloyd Stephens of New York, in 1837, wrote a travel book called Incidents of Travel in Egypt, Arabia Petreae, and the Holy Land. This first effort of an American travel author was met with great commercial success and in collaboration with Frederick Catherwood, artist, Stephens began a career that was to influence the style of travel writing for the next century.

Frederick Catherwood had spent ten years in the Middle East and Egypt working on archaeological ruins. He was an authority on the style and design of that region, so when Capitan del Rio (discoverer of the ruins of Palenque in Mexico) published reports of stone work resembling Egyption sculptures - Stephens and Catherwood decided to investigate.

In 1839 little archaeological work had been published about this area and all the reports, drawings, and descriptions of these ruins were called "Mexican" and treated with great skepticism by scholars of the world. Stephens Incidents of Travel in Central America, Chianas, and Yucatan written in 1841 with the wonderful drawings of Catherwood set the record straight. This was a new and original culture. The careful draftsmanship of Catherwood, aided by the use
of a camera lucida, recorded the carvings and stone glyphs in such exactness that his sketches compare favorably with photos taken today.

This publication caused a sensation with the public, and a revolution among scholars who realized they had been misled by the drawings accompanying work by del Rio, Guillelmo Dupaix, and Count Jean-Frederic de Waldeck. Waldeck, as a skilled artist, let his imagination produce beautiful art, but terrible archaeological records. Explorers, scientists, travelers, and artists have continued to seek out new finds in the jungles of Central and South America and new material for study and research is still being found today.

In 1870, Peru had a network of railroads, roads and trails that permitted travelers to easily get about the country. Thomas J. Hutchinson a British author/traveler published Two Years in Peru, Explorations of its Antiquities, with many drawings and woodcuts of the curiosities along the way. One print shows a view of the rock Art found at the Yonan Pass on the Jejetepaque River. This famous site was revisited and recorded by Antonio Nunez Jimenez in 1985 in his excellent Petroglifos del Peru where he made tracing of the signs and photographed the individual locations.
Only in the past century has the study of Rock Art been considered a serious science. These symbols were always recognized as art by cultured western intellectuals, but the conflict in determining the time frame as set forth in the Judean/Christian Bible made it unpopular to declare with any certainty the chronology of the events.

In Europe, where many great cave art sites have been found, it was not until the end of the last century that some church opposition gave way and the idea of a "prehistory" culture with early man as the artist became accepted.
The most popular advocate of the artistic merit of the "cave man" was a young curate in Southern France, Abbe Henri Breuil.

In 1901 he took an interest in the caves near his parish in Les Eyzies (Dordogne); and, in company with Dr. Capitan and D. Peyrony, he explored and described the caves of Combarelles and Font-de-Gaume.

The work of these men focused attention of "prehistoric art" and it pointed Abbe Breuil on a path that was to make him famous as the "Father of Prehistory." For the next fifty years the Abbe sketched and copied thousands of cave paintings.

His skill as an artist was in demand for publications; and during the first quarter of this century his work was accepted as the faithful representation of European cave paintings. Most of his art work was made by tracing the original rock art, but in some instances the paint of the original artists' work had never dried; and it was necessary for him to make field drawings by measurement and by eye.

During this time, photography improved, making it possible to record the paintings on film; but Abbe Breuil continued to copy and draw the paintings in pastel, charcoal, and pen and ink.
The discovery of the painted cave of Lascaux in southern France in 1940 was one of the major art finds of the century. This discovery by four schoolboys electrified the scientific community and changed the life of at least one of these men who is presently custodian of the cave. Abbe Breuil was called to look at the discovery and agreed that the cave was a national treasure of world class importance. It was studied, photographed, declared protected, and then opened to the public. This proved to be a mistake for the fragile paintings were not able to withstand the change in temperature, humidity, and presence of light. They began to visibly deteriorate as green algae began to creep up the walls and threaten the seventeen thousand year old drawings.

The cave was closed to visitors, and efforts made to correct the destruction. It soon became apparent that the only solution was to return it to the conditions that permitted it to survive in the first place. Take out the lights, air conditioning, seal the entrance air tight, and limit the attendance to five persons a day.

These drastic measures were not popular with the public, so a suggestion was made to make a copy of the cave, complete with replicas of the paintings. This model took seven years to complete, but today is now open to the public and permits two thousand persons per day to experience the feeling and visual impact of the original artists. This solution has proved to be a boon for students, children, tourists and visitors who want to see the cave as the discoverers saw it without damage to the original.

The artists who duplicated the work used the most sophisticated techniques to copy the drawings. The rock walls were reproduced in exact shape using laser techniques and the rock texture was duplicated using limestone rocks from the same area.

The popularity of Lascaux focused attention on other painted caves of the world. In France and Spain more than two hundred caves were found that had evidence of early man and his art work. Sometimes this search revealed questionable artifacts and often forgeries. During the early 1950s many caves were "rediscovered" to have drawings, paintings and evidences of occupations. This was a time of verifications and often heated discussions of the authenticity of some of the findings.

One such cave, near the town of Rouffignac in France, was locally recorded since the 1500s. This cave had many charcoal drawings deep within it, but had never created much interest with scientists or explorers.

Vandalism of early cave art in the cave of Rouffignac. *The Cave of Rouffignac* by Nougier and Robert (1958)
In 1956, several local speleologists discovered what they thought to be authentic drawings of mammoths and rhinoceros. The announcement of this and the proposal to open it to the public as a show cave created controversy. There had been so much vandalism within the cave over the years that some authorities thought that all of the drawings and paintings were suspect of having been forged and the whole presentation was a hoax for the embellishment of the site as a commercial venture.

This minor dispute caused the owners to call upon Abbe Breuil, the grand old man of prehistory, to come and verify the paintings as being done by Neolithic man. The Abbe, now in his eightieth year donned his beret, boots, and pack of cigarettes, and went into the cave. Four hours later, deep within the cave, Abbe Breuil crouched down to examine and then admire a small drawing of a mammoth.

"That is authentic," he stated, puffing on his cigarette.

"How can you tell?" asked one of his companions.

"I am probably the only person in the world who could make imitations of quaternary art as successful as that - and I didn't do it."

Original art is an individual expression by one person. To understand what that artist was saying it is necessary to see the original work, not a copy prepared by another artist. There is no substitute for the field work and field study.
A Weyer's Cave Tour in 1833
Glenda H. Reid

It has always fascinated me to read the descriptive accounts of some of the nineteenth century cave visitors, whether written in letters or journals. They wrote with such emotion I am not sure photographs could capture the scenes with more clarity than the descriptions shared by the early traveler. One of these visitors, Robert L. Cooke, of the Staunton Seminary, first visited Weyer's Cave in the spring of 1833. His enthusiasm, and a discussion with a friend as to its depth, led him to return and settle the argument by making a detailed survey of the cavern and an accurate map depicting the horizontal plan of the rooms and, by cross section, the height of the rooms along the main path of the cave. He wrote of his surprise at hearing that an accurate map had not been drawn of the cave and of his interest in doing so:

"In the spring of 1833, I first visited the cave in company with Rev. G. H. Apthorp - now a missionary in the Island of Ceylon. Some discussion with him, relative to the depth of the cave induced me to return, provided with suitable instruments, and with the assistance of Mr. Bryan (a guide) and my brother, to make a full and accurate survey of the whole cavern, which I was astonished to find had never been done, with any degree of accuracy. This was done for my own gratification entirely, but the solicitations of the Proprietor, and others, have induced me to construct a sort of map, which is now before the public. The description therefore which is given in the preceeding pages, may be depended upon as being as accurate as possible, for the distances, heights, elevations, etc. are taken from actual measurement.

"The dotted line in the map, represents what I have so often called the Main Path, and if we measure this line, the length of the cave is 1650 feet; - by following the various windings, its length may be more than doubled." ¹

Because his guide knew little of the history of the cave, Cooke made what he thought were original discoveries. The Infernal Regions, an area that had been explored not long after the cave was discovered, was no longer on the tour because it was regarded as having "fixed air" or carbon dioxide. Doubting its presence, Cooke set out to explore the area. ²

"My brother and the guide accompanied me, each carrying two candles," he wrote, "and thus prepared we descended twenty feet before we reached a landing place. Here our candles burned dimly, and great care was necessary to prevent them from going out entirely; yet we experienced no difficulty of breathing, or any other indication of the presence of this much dreaded gas.

"The floor is not horizontal, but inclined to an angle of fifteen or twenty degrees, and when we emerged from the pit into which we first entered, our candles shone brightly, and displayed to our view a room more extensive than any that I have yet described. Its greatest length was from west to east, and it seemed to run nearly parallel to the path over which we have just traveled. From its length we are induced to believe that it approached very near the Ball Room and pursue, as far as possible, a low passage that leads to the right, from the foot of the Frenchman's hill, while I went to the eastern extremity of this immense apartment. At an appointed moment I fired a pistol - but the only answer was the deafening reverberations of the sound rolling like thunder along the lofty arches. I shouted - but no return met my ear save the
hollow echo of my own voice, and I began to think we had been hasty in our opinion. At this moment a beautiful stalactite sparkled in the light of the candle, and I forgot my desire to discover an unknown passage, in my anxiety to secure this prize. Taking the butt of the pistol, I hammered gently upon it to disengage it from the rock where it hung. I was surprised to hear the taps distinctly answered apparently from the center of the solid rock, and a repetition of the answer. After comparing our impressions, we were satisfied there could be but little space between the two rooms."

"Later it was discovered that the floor of The Infernal Regions consisted of successive layers of brilliant, white crystals to the depth of three feet. These were greatly prized and often brought fantastic prices. A hundred dollars was refused for a good specimen."  

In 1834, Cooke printed the first guidebook to Weyer's Cave. His recorded visit was used numerous times throughout the 1800s in magazines and brochures as advertisement for the famous Weyer's Cave (now known as Grand Caverns):

"At all seasons, the air of the cave is damp, but the dampness of the floor depends much upon the seasons; except a moist place near the fly-trap, there is no standing water throughout all the cavern, so that no difficulty on that account occurs. The temperature remains invariable in all parts, at about 56 degrees of Farenheit, from which it follows, that if the cave is visited in the winter, its air feels quite warm; but if in summer, a proportionable degree of cold is experienced. It is therefore important, that in summer the visitor should become thoroughly cool before he enters, and in winter, before he leaves it. The spring and fall are the best times for visiting, for then the atmosphere without, is nearly of the same temperature with that within the cave, and it is more dry at these times.

"The question is often put - which of the two great curiosities of Virginia, is the greatest, Weyer's Cave, or the Natural Bridge? This is not a fair question; neither can it be easily answered; for they are totally different in themselves, and in their effects upon observers.

"You visit the Natural Bridge, in the full blaze of noonday, and when you reach the object of your curiosity, it bursts at once upon your view, in all its magnificence and grandeur; you comprehend at once, the magnitude of the Wonder, and you turn away, overpowered with a sense of majesty of Him who has spanned that Gulf, and thrown His arch across it. Visit it as often as you please, this feeling will return upon you with unabated force - but no new impressions are made; you have seen the whole.

"You visit the cave by the dim light of a few candles, of course there will be produced at first, no impression, or if any an unfavourable; successive portions of the cavern are presented to view, & produce successive and varied emotions. Now you are filled with delight, at the beauty of the sparkling ceilings; and again, this feeling is mingled with admiration, as some object of more than ordinary beauty, presents itself; and anon you are filled with awe, at the magnitude of the immense chambers; the hollow reverberations of the lofty arches, and the profuse display of the operations of an Omnipotent hand. Indistinctness of vision, gives free scope to the imagination; and I doubt not that an imaginative mind, receives a great increase of pleasure from this source.

"Many persons go away from the cave disappointed; they hear of rooms, and ceilings, and if they do not expect to see them plastered and white-washed, they think at least, that they
will be square, regular in form, & that they will be able to walk in them with as much ease, and see as many wonders, as they would in a visit to Aladin's Palace. A visit to the cave, is not unattended with fatigue, but the pleasure you derive from it, is ample compensation."

NOTE: During my employment at Grand Caverns, a visitor was showing me some photographs he had taken on a previous visit. One of the photos was of a formation which is covered with signatures carved and written by the nineteenth century guests. While looking at the picture I was very surprised and pleased to discover the signatures of Robert L. Cooke and his brother W. A. Cooke, along with the date, 1833, which was most likely signed during the time of their survey.

FOOTNOTES


History Abstracts
1990 NSS Convention

The Cave Artist's Artist
Russell Gurnee
231 Irving Avenue
Closter NJ 07624
Wednesday 2:00

Cave Rock Art paintings, drawn by early unknown artists, were copied in situ by artists before the invention of photography. These drawings were sometimes reproduced by other artists for presentation in books and reports. The final representations of the original work appeared in engravings, woodcuts, and aquatints. Cave scenery was often included in the art work (with artistic license) to show the location of the paintings within the cave.

Each artist modified the original in accordance with his skill and sometimes prejudice. Students and researchers used these representations to make conclusions and opinions regarding the original creators of the work.

This paper will show examples of well known cave illustrations of the last century and some present photographs showing the paintings as they exist today. The importance of field observation of sites and conditions is essential in understanding the work of these early artists.
Hawaii's King Kamehameha I unified the islands, in large part, by bloody warfare. But not all of his bitter enemies died in the warfare or were put to death later. For any Hawaiian to desecrate the bones of an enemy was triumph. In the case of Kamehameha the Great, such desecration would have been the epitome of triumph or despair, depending on one's viewpoint. Thus, Kamehameha's burial rites were conducted with the utmost secrecy, and the site of his burial remains unknown today. Many burial caves are known close to the location of his death, and many have speculated that his bones lie in one of these. Another theory is that his bones were given to the sea. This paper raises the possibility that an underwater lava tube may have been the site of his burial.

The title refers to a California sea cave, a bride, and a book. The book by Rose Hartwick Thorpe was published in 1902. It told the story of honeymooners who were trapped by the tide while exploring sea caves. Supposedly their bodies were never found. Possibly there were no bodies to be found, since the story may have been the creation of Mrs. Thorpe's fantasy.

Chartered in 1985, the Pacific Basin Speleological Survey (PBSS) has embarked upon a project to compile a preliminary listing of the known caves in the island nations of the Pacific Basin. Australian, French, and British work in Melanesia and portions of Polynesia was a matter of record so Micronesia was selected as the focus of the PBSS' working area. Pohn Pei, Kosrae, Truk, and Yap States of the Federated States of Micronesia, Saipan, Tinian, and Rota in the Commonwealth of Mariana Islands, the Territory of Guam, and the Republic of Belau have been visited. Extended expeditions to these areas in 1984, 1986, and 1989 have found a wealth of speleological features to be investigated. Extremely old lava tubes; literally hundreds of limestone solution caves, some horizontal, some vertical, some filled with sea or fresh water, and some with near lethal atmospheres; actively forming reef caves; and volcanic rock shelters are present. The caves harbor a large and varied biota, largely uninvestigated; prehistoric deposits upwards of 3,000 years old; rock art of varying types; and historic deposits from Spanish, German, Japanese, and American periods. Manuscripts for the islands of Pohn Pei, Truk, Yap, and Palau have been completed. Saipan, Rota, and Guam manuscripts are in final compilation.
In addition, the PBSS has taken over the publications in press and preparation of the Golden Gate Grotto, completing a manuscript on sea caves in the San Mateo Coast district in central California. Surveys of sea caves in Golden Gate National Recreation Area and Point Reyes National Seashore, as well as Angel Island State Park, are nearing completion.

Henry C. Mercer's Efforts to Discover Ice Age Man in North American Caves
Fred Grady and Dean H. Snyder

Henry C. Mercer's period of cave study lasted 5 years, 1892-1897. His goal was to discover proof that humans had lived in North America along with now extinct mammals. Mercer was perhaps inspired by discoveries in Europe and in 1892 started a systematic study of caves in the Eastern United States. Some of the caves he visited had been disturbed by previous activities. Others contained bones of extinct animals but no definite association with human remains or artifacts. Mercer published detailed notes on his excavations in caves in Pennsylvania, Virginia, and Tennessee.

Mercer's most ambitious project was an expedition to the Yucatan Peninsula of Mexico in 1895, where in a period of two months, he visited 29 caves and made excavations in 13. He failed, however, to find anything that indicated significant age for the deposits. In 1897, after a dispute with the University of Pennsylvania over the disposition of his collections, Mercer gave up archaeology and caves to concentrate on other interests. In decades that followed other workers found the evidence that Mercer looked for, but mostly in the Western United States.

BOOK REVIEW


This new British book is a monumental achievement of interest to cave photographers and speleology buffs in much of the world. Although there are two chapters on photography in catacombs and sewers (mostly in Paris), and mines, the major part of the book is about caves. Entire chapters are devoted to Mammoth Cave and to Carlsbad Caverns, with mention of early photographers of many other American caves.

While much of the book is about the development of photographic techniques, it also includes significant contributions to speleological history, including some spun off from Howes' 1987 Cave References in Scientific American which is not known to most American cave historians yet. Many of the illustrations themselves are of historic significance, such as the photo of Eldon Hole which shows how many rocks have been thrown down its entrance in this century,
obstructing access to the reported lower chamber. Oddly, however, there is no mention of the numerous views of Fingal's Cave, nor of "flash sheets", the thin wafers of magnesium used admirably by George Adams in Carlsbad Caverns in 1908 or 1909. Nor of Adams himself.

For the American sections, Howes contacted several authorities, including Emily Davis Mobley, Red Watson, Art Palmer, Peggy Palmer, Ron Kerbo and Kevin Downey. He also made good use of the extensive files at Carlsbad Caverns National Park. Nevertheless, his coverage is spotty. The wonderful Caulfield and Shook postcard views of Mammoth Cave are not mentioned, and the extensive still photography of Russell T. Neville ("The Cave Man" of the 1920s and 1930s) receives little mention. But these are faint damns; I praise the book. (Neville and Adams will receive due notice in the forthcoming photographic history of Carlsbad Caverns by this reviewer and the late Bob Nymeyer).

It is hoped that the American edition will include more coverage of western and northwestern pioneer cave photographers such as F. Jay Haynes in Yellowstone's Devil's Kitchen, Hugh Stevens Bell at Carlsbad and points west, the extensive Patterson and Kiser postcard views of Oregon Cave, stereo and other views of the Paradise Ice Caves, the Summit Steam Caves of Mount Rainier by H. L. Toles and others, and the early anonymous "American Series" stereo view of California's Bower Cave. Some little errors might be of significance to American cavers but not to the British, such as the misspelling of Tom Meador's name as Mellor, the wrong year for the end of the Civil War, the consistent misspelling of Richard Burges in the Carlsbad Caverns Story, the confusion of quarried-away Jewell Cave, West Virginia with Jewel Cave, Tennessee and the like. In the preface the author acknowledges that his book is only a beginning, and that he would welcome additional information. All collectors of cave stereo views and postcards should respond - and get this notable book.