

Spelean History Session

Session Chair: Dean Snyder

Thursday, June 16, 2022 9:00am-1:00pm

Location: Fine Arts 2

The American Spelean History session presents papers on the study, interpretation, and dissemination of information about spelean history, which includes folklore, legends, and historical facts about commercial and wild caves throughout the world, and the people who are associated with them. The section's annual Business Meeting will follow the session's presentations in the same room.

Section/Session Schedule

Time	Speaker	Topic
9:00-9:20	Adam Weaver	Exploration of Black Hills Caves
9:20-9:40	Gordon L. Smith Jr. and John M. Benton	The National Cave Museum & Library, Park City Kentucky
9:40-10:05	Joseph C. Douglas and Marion O. Smith	Pre-1820 Historic Graffiti in Mammoth Cave, Kentucky
10:05 - 10:15	BREAK	
10:15-10:25	Dr. Cato Holler	Jules Verne and the Ruhmkorff Lamp: a Brief History of Underground Lighting Devices
10:25-10:45	Kailey Alessi	A Cave Through Time: Historic Archaeology at Mammoth Cave, Kentucky
10:45-11:05	Catherine Bishop	How to Grow a Cave History Book
11:05-11:25	Donald G. Davis	Colorado's Cyclopean Cave "Hoax": Where History Went Wrong
11:25-12:05	Bert Ashbrook	The Maps of Mammoth Cave from the 1810s
12:05-12:15	BREAK	
12:15 - 1:00pm	Annual Business Meeting of the American Spelean History Association	Business meeting will extend into lunch

Spelean History Abstracts

(listed in alphabetical order by main presenter)

A Cave Through Time: Historic Archaeology at Mammoth Cave, Kentucky

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Mammoth Cave, located in southern Kentucky, is the longest known cave in the world, with 420 miles of mapped passages. In addition to being a geological wonder, it has been visited by humans for thousands of years. Many projects have focused on the prehistoric archaeology of the Historic Entrance to the cave, but none have focused exclusively on the historic archaeology of this site. This presentation will seek to shed some light on the overlooked history and archaeology of the cave's historic period. The chronology of human modifications at the Historic Entrance, from saltpetre mining in the early 1800s to the development of tourist infrastructure during the twentieth century, will be considered. Particular attention will be given to the records of an ice house located at the Historic Entrance sometime between 1839 and 1847, as well as to the fifty-foot pit referenced in Edmund Lee's 1835 map of the cave. The development of the gate and steps, from

1835 to the present, will also be discussed. Several conclusions can be drawn from this study. Firstly, historical records are often frustratingly vague. Secondly, archaeology can be used to fill in the gaps in the historical record. And finally, the history of the mundane, such as that of the steps and gates, is often lost or ignored. Taken together, these point towards the benefits historical archaeological studies can bring to our understanding of the history of human interactions with, and modifications to, cave environments.

The Maps of Mammoth Cave from the 1810s

Bert Ashbrook

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The first three maps of Mammoth Cave were all made in the 1810s and reflect the evolving uses of the cave during that decade. None of the original maps is extant, but we know what each looked like from two or three contemporaneous copies. The original “eye-draught map” was made to interest investors in the cave as a saltpeter mine. The Ridgely, DuPont, and Jefferson manuscript copies of the eye-draught map were each drafted by future botanist Charles Wilkins Short, namesake and nephew of one of the cave’s co-owners, and sent to interested parties back east. The “saltpeter working map” was used by saltpeter miners to assist the mining effort during the War of 1812. It was initially drafted by Aylette Buckner in 1812 and copied by Thomas Jefferson. As the miners’ exploration progressed, the map was expanded by c. 1814 as shown by the Bogert manuscript copy, from which Samuel Mitchill made a woodcut that he published in spring, 1815. The Egnew manuscript copy in January 1817 added additional information. The original “Ward” map was drafted by Nahum Ward in c. April 1816, about five months after he visited the cave, to create publicity and encourage visitors from back East. Ward’s map or a copy was received by a Worcester Massachusetts newspaper in May 1816, but the map’s first publication was a woodcut print in the Boston Intelligencer newspaper in October, 1816. A manuscript copy of the Ward map at the American Antiquarian Society in Worcester is the most faithful copy of Ward’s original map and may be the one earlier received in Worcester. The content of the copies of the three original maps, comparisons among and between them, and the circumstances of their creation all offer insight into the early historical exploration, mapping, and uses of Mammoth Cave.

How to Grow a Cave History Book

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If you have ever been involved in exploring and surveying a significant cave, you have probably heard the comment, “Somebody should write a book about this project!” If you enjoy writing, it might occur to you that the “somebody” should be you. Where do you start, and how do you progress to a favorable outcome? As in planting a garden, you need healthy seeds (the initial idea), rich soil with lots of nutrients (survey notes, trip reports, photographs, and first-person interviews), frequent cultivation and weeding (editors, proofreaders, critics), and plenty of time to wait for the harvest (nothing about writing a book occurs quickly, or on a rigid schedule). Once you decide to begin this venture, you may find it to be both easier and more difficult than you had anticipated, but it will certainly be interesting. Before I wrote *The James Cave Project: Sixty Years Inside Bald Knob*, a 500-page volume published by the NSS in late 2020, I gathered information from many sources, talked to lots of individuals, and spent three weekends poring over the archives of the NSS library. After at least two years, with more data constantly appearing, I put together an outline and began to write. I was fortunate to have a non-caving but tech-savvy sister who volunteered to do the layout, arrange photos, and prepare a file for the printer. It was difficult to find competent proofreaders so I did most of this myself, with the expected result of several errors making their way into print. The NSS did an excellent job of publishing,

and the first 100 copies sold in just a few months. If you decide to preserve your project's history, go for it! You won't get rich, but your harvest will be invaluable.

Colorado's Cyclopean Cave "Hoax": Where History Went Wrong

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At the very inception of organized caving in the state, we were told that Cyclopean Cave was a hoax. In 1952, in the new Colorado Grotto's News & Notes, at the bottom of the state's first cave list, Grotto founder William R. Halliday took pains to state "Cyclopean Cave and Red Cliff Cave do not exist. They were invented by a bored newspaper reporter [Orth Stein] in Leadville in the 1880's." The same judgment was made in Lloyd Parris's Caves of Colorado in 1973 in a chapter titled "Hoax, Humbug, and Orth Stein," by Lake County historians Don and Jean Griswold as late as 1996, and others. Red Cliff Cave, a.k.a Lost Ship Cave, was indeed a self-evident hoax. However, close examination of the series of articles about Cyclopean Cave, following soon after Lost Ship, has shown to the satisfaction of Richard Rhinehart and myself that Cyclopean Cave does exist. Nothing Stein wrote about it was preposterous. We found that personal names in the stories were actual Leadville citizens in credible roles, and references continue for some years afterward. The stories give sufficient location detail that we have been able to find an abandoned vertical mineshaft matching the description of the Cyclopean entrance, though proof will require digging out an air-blowing blockage at the bottom. Stein's prior Lost Ship Cave hoax set the stage for suspicion of Cyclopean, but the final nail in its coffin was a dramatic declaration in a 1910 memoir by Stein's former editor C.C. Davis that Cyclopean was "fiction from headlines to tailpiece." Subsequent historians accepted this claim and dug no deeper. But Davis wrote that 30 years later, when old and ill, without using notes or references. The original sources tell us otherwise.

Pre-1820 Historic Graffiti in Mammoth Cave, Kentucky

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Marion O. Smith (Independent Scholar)

Although Mammoth Cave has many thousands of historic graffiti, the authors have only documented about twenty-five with dates prior to 1820. They are located in the major upper-level passages, including Broadway, Little Bat Avenue, Cyclops Gateway, Gothic Avenue, Indian Avenue, the Cataract, and Ganter Avenue. On both Standing Rock and Looking Glass Rock, pre-1820 graffiti are placed near (or on top of) conspicuous Native American art panels. However, others are in less accessible areas such as the small side passages related to Ganter Avenue. Three of the wall markings, from 1798, 1806, and 1811, may be inauthentic, mismarked, or represent birth dates. Another graffito, from November 13, 1811 by George Brown is probably authentic, as are the dozen or so marks from 1812, the most in the era. We documented single inscriptions from 1814 and 1816. Multiple visitors wrote their names in 1815, 1817, 1818, and 1819. Only a few have been identified, but it appears the post-1815 cave writers were primarily tourists, while some of the earlier visitors were more closely tied to the cave, including Hyman Gratz (the co-owner) and Aylett Buckner (from Hart County), as well as members of the Slaughter, Croghan, and Gatewood families. We know the names of several other visitors on the same trips. Some early graffiti are initials, just years, or illegible. There are also undated names near the

inscriptions which may be contemporaneous. No names of saltpeter miners have yet been identified, nor graffiti from early female visitors. Additional early wall markings are likely present but have been obscured by later overwriting.

Jules Verne and the Ruhmkorff Lamp: a Brief History of Underground Lighting Devices

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Ever since primitive man first discovered fire and began fashioning torches of various kinds to illuminate his cave, the evolution of underground lighting has taken a long and sometimes convoluted pathway to where we are today. Torches, candles, various oil lamps, kerosene and Coleman lanterns, and carbide of course were all key steps in this early evolution of underground lighting. With the advent of electricity, things became much brighter. One of the more novel devices to come along was the Ruhmkorff lamp. Daniel Ruhmkorff, a German instrument maker, perfected, patented, and popularized the induction coil in 1851. Alphonse Dumas and Camille Benoit later took Ruhmkorff's coil and by combining it with Bunsen cells and a gas filled Geissler tube, invented a portable mining lamp. In 1858 Ruhmkorff was awarded the first Volta Prize from Napoleon III for his contribution toward the application of electricity. In 1864 (the same year in which Jules Verne's *Journey to the Center of the Earth* appeared) Dumas and Benoit received an award from the French Academy of Sciences for their invention, the Ruhmkorff Lamp. Verne always enjoyed incorporating the latest technology in his novels, so was quick to have his characters using the Ruhmkorff lamp in *From the Earth to the Moon*, also by Captain Nemo in *20,000 Leagues Under the Sea*, and of course by the intrepid explorers in *Journey to the Center of the Earth*. In reality however, Ruhmkorff's lamp was rather dim, somewhat fragile, and expensive. The advent of the incandescent lamp paved the way for Edison's mining lamps, and such mining essentials as the Koehler Wheat Lamp Modern LED devices are commonplace now, and I'm sure even Jules Verne would be quite impressed!

The National Cave Museum & Library, Park City Kentucky

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Groundbreaking for the National Cave Museum and Library occurred on October 20, 2015, at Park City Kentucky, on the grounds of privately owned Diamond Caverns, adjacent to Mammoth Cave National Park. Construction started June 2016 and finished in the fall of 2017. The current building has 4,800 square feet of floor space and future expansion is possible. The museum is the culmination of NSS caver Gordon Smith and his spelean collection originally started in 1968. Thousands of cave related items are in the museum. Some examples are the William Halliday and Horace Hovey collections and the original 1812 Mammoth Cave saltpeter vat. Items on display and available for research include books, brochures, postcards, newspapers, stereo views, etc. Over 200 carbide lights are on display. There are large collections of various grotto newsletters from all over the United States. Some items are on loan to the Museum, such as the actual 26 pound rock that pinned Floyd Collins, and the restored Mammoth Cave stagecoach. The National Cave Museum is a 501(c)(3) Private Operating Foundation and it is managed by a Board of 11 Directors. The museum is funded by Diamond Caverns which is 50% owned by the Museum. It is not open to the public on a regular basis, but is available to anyone by prior appointment. The Museum is located at exit 48 on I-65 in Park City, Kentucky, and the website is www.cavemuseum.org.

Exploration of Black Hills Caves

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It is well known that the Black Hills contain two of the world's longest caves, (Wind Cave and Jewel Cave) each more than 160 miles in length. These caves are part of a less publicized karst landscape which encircles the Hills with hundreds of unique cave systems, each holding its own exciting discoveries and stories. This presentation will cover the exploration of caves in the Black Hills, focusing on the history of the explorers past and present. This is a non-comprehensive look at the cavers who led each era of Black Hills caving from Alvin McDonald being the main explorer of the 1890s to today with Austin/Ohms/-Emanuel/Pelczarski/Weaver, all playing different roles in exploration. While this presentation focuses on the explorers, we will also look at the sub-regions of the hills and how each era had a different focus of work, leading to what we know today. This is an effort in chronology and in many ways the personalities that shaped caving in the hills.