

## Geologist Willis T. Lee's 1925 Visit to the Mammoth Cave Region of Kentucky

By Bob Thompson

Geologist Willis T. Lee's visits to Carlsbad Cavern are well documented. During an expedition in 1923 and again in 1924 for the National Geographic Society, Lee explored the depths of Carlsbad Cavern and other features of the Guadalupe Mountains. His articles in *National Geographic* from 1924 and 1925 brought Carlsbad Cavern to the attention of the world. What has not been well documented was Lee's visit to the Mammoth Cave region shortly thereafter.

Willis Thomas Lee was born in 1864 and grew up on a dairy farm in the small town of Brooklyn, Pennsylvania, where he remained until he was twenty-one. He went to high school at Wyoming Seminary in Pennsylvania and attended Wesleyan University, the University of Chicago, and Johns Hopkins University. Lee was a geology teacher before becoming a geologist for the U. S. Geological Survey. According to a newspaper article dated March 19, 1902, "on March 4, 1902, Willis T. Lee, a son of Mrs. Louesa Lee, of Brooklyn, was appointed a place on the staff of the U. S. Geological Survey, hydrographic department. He thinks his work for the early summer will be in Arizona."

As a geologist, Lee wrote articles and books on some of our earliest national parks. Lee also took photos at many of the national parks as part of his field studies for the U. S. Geological Survey, including Yosemite (1904), the Grand Canyon (1904), Petrified Forest (1904 and 1905), the Rocky Mountains (1916 and 1921), Yellowstone (1921 and 1923), Carlsbad Cavern (1924), and the Mammoth Cave region (1925).

In the spring of 1925, Willis T. Lee visited the Mammoth Cave region for a month at the request of Congressman Maurice H. Thatcher of Kentucky. Lee was part of a commission consisting of six men appointed by Dr. Hubert Work, Secretary of the Interior, to study the caves of the region in an attempt to help establish the area as a national park.

In Willard Rouse Jillson's *The Geology and Mineral Resources of Kentucky*, published in 1928, Willis T. Lee is shown in a May 1925 photo taken by Jillson in front of the Great Onyx Cave with other members of the National Park Commission, which included W. A. Welch, Harlan P. Kelsey, H. W. Temple, Glenn S. Smith, and W. C. Gregg. Jillson accompanied them as the personal representative of the Kentucky Governor during the inspection of the caves.

Lee wrote an interesting report of his findings in the Mammoth Cave region shortly after his month-long visit. The 1925 report, *A Visit to the Mammoth Cave Region of Kentucky*, details all the caves he inspected. He gives descriptions of Mammoth, New Entrance, Colossal, Salt, Great Onyx, Crystal, White, Proctor, Diamond, Hidden River, Mammoth Onyx, as well as a "new-opened" unnamed cave near Glasgow Junction that is owned by "Mr. Higginbottom." Besides cave descriptions, illustrations, and a few maps, Lee's report mentions characteristics of the caverns and how the caverns formed. Parts of his descriptions of Mammoth, New Entrance, and Colossal, were taken from Horace Hovey's 1912 book on Mammoth Cave. Lee also uses Hovey's map of Colossal Cavern.

Lee took over 100 excellent photos of the caves in the region. Some of these photos were published in his Mammoth Cave report with descriptive captions. A number of photos were also published in *The L&N Employees' Railroad Magazine*, September 1926, as well as in Vernon Bailey's *Cave Life of Kentucky*, published in 1933. Lee mentions that photographer Eugene J. Hall took a few of the photos in his report.

The U. S. Geological Survey has 106 photos of the Mammoth Cave region by Willis T. Lee and Eugene J. Hall on their website at <http://libraryphoto.er.usgs.gov/startlib1.htm>. They mistakenly give credit for all the photos to Lee. There are gaps in the numbering of the images and it appears that other photos by Lee may exist. Some of these wonderful photos have never been published. Most were taken shortly after the Floyd Collins tragedy in 1925. The website has other photos by Lee, including Carlsbad Cavern.



Taking advice from the *National Geographic* a few years prior, Lee included people in his photos to show scale and human interest. Many of Lee's photos of the Mammoth Cave region featured his daughter, Elizabeth. A few of the region's cave owners also posed in Lee's photos including George Morrison of New Entrance, L. P. Edwards of Great Onyx Cave, and Lee Collins of Crystal Cave. Lee himself is shown in a few of the photos, including one taken at the New Entrance and one at Mammoth Onyx Cave. Jillson may have taken the photos of Lee.

It is possible that Lee took photos at Mammoth Cave with the same camera he used at Carlsbad, a common plate camera. Even though he took a photo inside the famous Mammoth Dome, he did not capture the full magnitude of it. According to Lee, "Mammoth Dome is too large and complicated to be photographed successfully but does not differ essentially, except in size, from the smaller pits, such as Side Saddle Pit, Vaughan's Dome in Colossal Cavern, and Hovey's Cathedral Dome in the New Entrance to Mammoth Cave."

Willis T. Lee mentions in his 1925 Mammoth Cave report a number of his personal observations of the caves he visited. He made the following comments:

“Mammoth Cave is only one of many caverns in this region. Some of these are large, others small as compared with Mammoth. Some of them are well cared for, others are neglected. Some, once open to visitors, have been abandoned.”

“Mammoth Cave is truly mammoth in its cavernous spaces. According to George D. Morrison, manager of the New Entrance to Mammoth Cave, this cavern and the land about it was once traded for an old flintlock and later was exchanged for a mule. On entering this region there is commonly little thought of other caverns, and unless the stranger is forewarned he is likely to be bewildered by the number of caverns offered for exhibit and by conflicting claims of superiority. It may be found in the just complaint that many a stranger desiring to see Mammoth Cave finds his way unwittingly into one of the neighboring caverns, and may depart without having seen Mammoth Cave at all.”

“As Mammoth Cave is almost wanting in material for specimens that may be carried away as souvenirs, the vendors are said to visit the smaller caverns regularly, and to carry the specimens obtained from them into Mammoth Cave and out again, in order that they may be able assure the purchases that the specimens came out of Mammoth Cave. Tens of thousands of names and dates decorate the cavern walls; there is scarcely a smooth face of rock within the cavern that is not marred by names scratched upon it. To many people the interest in Mammoth Cave has been materially lessened by this practice. The scenes in New Entrance are carefully guarded, and name scratching has thus been prevented.”

“The so-called rivers in Mammoth Cave seem to have a special fascination for some people. But strangely fascinating as they may be they are not beautiful. When Green River, into which they [Echo and Styx] flow, is in flood, the muddy backwater fills this part of the cavern and deposits silt, which remains gooey for a long time. Some of the avenues extend underground far beyond the limits of the property. But even this extent into neighboring property can not add greatly to the length of the avenues, for the valleys which were formed by the collapse of caverns surround the highland in which Mammoth Cave is situated.”

Colossal Cavern “is open to visitors and has been so extensively improved that a visit to it is easily made, but it has not been extensively advertised and exploited, and consequently has been seen by only a few who have visited this region. An evidence of few visitors to Colossal Cavern is found in the presence of great numbers of bats.” Hovey “notes finding cave pearls in Pearly Pool [Colossal Cave]. I found none. Possibly these delicate and somewhat rare cave jewels have all been appropriated by the vandals since Hovey’s time.”

“The main avenue in Salt Cave impressed me as unusually spacious, even for the Mammoth Cave region, and as indicating an unusually old cavern. The cavern opens on the property of the Blue Grass County Club, about two miles northeast of Mammoth Cave, and underlies the golf links of this club.”

Crystal Cave “is relatively small cavern and has only recently been opened to visitors. It received much publicity in 1925 when its owner, Floyd Collins, lost his life in an attempt to explore a neighboring cavern. Crystal Cave is used, as are many of the others of the Mammoth Cave region, for cold storage. Supplies of canned fruit and vegetables were observed near the opening in several of the caverns.”

Willis T. Lee died on June 16, 1926, at the age of 61. An article, “Memorial of Willis Thomas Lee,” published in the *Bulletin of the Geological Society of America*, March 30, 1927, mentions Lee’s many accomplishments and contributions as a geologist of the U. S. Geological Survey. As a result of Lee’s hard work, and that of others, Mammoth Cave became a National Park in 1941.

### **ACKNOWLEDGMENTS**

Many thanks to Bill Napper for tracking down Willis T. Lee’s report of the Mammoth Cave Region.

Photo of Willis T. Lee and his daughter, Elizabeth, at the New Entrance to Mammoth Cave 1925, courtesy of the U. S. Geological Survey, Denver, CO

### **REFERENCES**

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