CENTRAL OKLAHOMA GROTTO
OF THE NATIONAL SPELEOLOGICAL SOCIETY,INC

C.O.G.nizance

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NO TRIP REPORTS THIS MONTH

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Google Meet
Friday, March 8, 2024
At 8:00 central time
Becky will send you an invitation

ANNOUNCEMENTS

*No trips planned at the present time.

*Next meeting may be March 8, 2024 on Google Meet. Becky will send out invitations.

MINUTES

CENTRAL OKLAHOMA GROTTO MEETING
FEBRUARY 9, 2024

In attendance: Dale Amlee, Sue Bozeman, Levi Carter, Duane Del Vecchio, Becky Hunsinger—virtual meeting facilitator, John Talbot, Lil Town, Andrew and John Van Dyke, Jon and Kelley Woltz, Noah Zinn, Steve Beleu.
Presiding: Augustus pari iure Jon Woltz
Start time: 8:07

OLD BUSINESS

1. Correction to my minutes of last month – Pearl Cave is not on Mr. Vogt's land.
2. Addendum to my minutes of last month – Sue wrote and submitted the annual Internal Organizations report to the NSS as required for our grotto to exist.
3. Noah will write one trip report about this year's bat count; the Van Dykes will write another.
4. I gave an update about the April 19-21 fun trip to the Mountain View area caves down in the Arkansas.
5. Andrew gave a report about bat count. John Van Dyke noted that the total count was 11,643 bats (no Big Ear bats). He believes that the count is down from last and previous years. He also told us that Homestead Passage has collapsed.
6. Lil asked about the remounted website. It is still okcavers.com

NEW BUSINESS

1. We discussed converting our 2019 slide show about gypsum caving that Jon revised to mount on our website. We agreed by consensus to so proceed. Jon will accomplish this.
2. Sue asked if we wanted to continue to maintain the emergency beacon that we bought some odd years ago. Jon reminded us what it is, how it works, and what it requires to operate efficiently in sending an emergency "Help!" signal to a national satellite and hence on to a national rescue service. We agreed by consensus that Dale Amlee will keep the beacon and Kelley will be its contact person.

TREASURER'S REPORT

John gave his treasurer's report.
Meeting ended 9:00
Report by S. Beleu, Secretary and Sergeant at Underarms.

TRIP REPORTS

Sorry, no trip reports this month

WHITE-NOSE SYNDROME DECONTAMINATION PROTOCOL, September 2018

This is the latest formal revision of the national decontamination protocol to prevent spread of the fungus that causes white-nose syndrome. This document is the product of a collaborative effort with multiple federal and state agencies and several non-governmental organizations. Go to this website to view the detailed suggestions listed to help stop the spreading of WNS
https://www.whitenosesyndrome.org/static-page/decontamination-information

Wildlife Health Bulletin 2022-01
National Wildlife Health Center
Jonathan Sleeman, Center Director
January 31, 2022

Winter 2021/2022 Bat Submission Guidelines and Highlights of the 202/2021 White-Nose Syndrome Surveillance Season

Summary

The USGS National Wildlife Health Center has released updated guidance for bat diagnostic submissions for the 2021/2022 white-nose syndrome (WNS) surveillance season.

During the 2020/2021 surveillance season, WNS was detected for the first time in Wyoming and Montana, increasing the number of states where WNS has been confirmed to 37.

Field testing of several vaccine candidates to prevent WNS in susceptible bat species is ongoing, and field vaccination has proven to be safe in WNS susceptible animals.

Updated guidance from the USGS National Wildlife Health Center (NWHC) is now available for bat diagnostic submissions for the 2021/2022 white-nose syndrome (WNS) surveillance season. These guidelines are posted on the NWHC WNS web page and replace all previous NWHC bat submission criteria.

TREASURER'S REPORT

February 2024 TREASURERS'S REPORT

INCOME		**EXPENSES**
Dividends	$ 0.01	
TOTAL	**$ 0.01**	
CASH	$ 6.05	
CHECKING	$ 212.42	
SAVINGS	$ 1,434.07	
TOTAL	**$ 1,652.55**	

PREPARED BY TREASURER JOHN TALBOT NSS #30254

3/4/2024

POTPOURI

A basement renovation project led to the archaeological discovery of a lifetime: the Derinkuyu Underground City, which housed 20,000 people.
STRANGE MAPS-December 28, 2023
https://historyfacts.com/releases/2023/11/231121175346.htm

In 1963, a man knocked down a wall in his basement and discovered a mysterious underground city. The subterranean city is up to 18 stories and 280 feet deep in places and probably thousands of years old. The Derinkuyu Underground City is the largest of its kind: It could house 20,000 people.

A hot air balloon emblazoned with the Turkish flag sailing past some fairy chimneys, a rock formation typical for Cappadocia in central Turkey and one of its main tourist attractions. Another are its ancient underground cities, of which Derinkuyu is the largest.

This article was first published on Big Think in March 2022. It was updated in December 2023.

We live cheek by jowl with undiscovered worlds. Sometimes the barriers that separate us are thick, sometimes they're thin, and sometimes they're breached. That's when a wardrobe turns into a portal to Narnia, a rabbit hole leads to Wonderland, and a Raquel Welch poster is all that separates a prison cell from the tunnel to freedom.

A fateful swing of the hammer

Those are all fictional examples. But in 1963, that barrier was breached for real. Taking a sledgehammer to a wall in his basement, a man in the Turkish town of Derinkuyu got more home improvement than he bargained for. Behind the wall, he found a tunnel. And that led to more tunnels, eventually connecting a multitude of halls and chambers. It was a huge underground complex, abandoned by its inhabitants and undiscovered until that fateful swing of the hammer.

(Continued on page 3)

The anonymous Turk — no report mentions his name — had found a vast subterranean city, up to 18 stories and 280 feet (76 m) deep and large enough to house 20,000 people. Who built it, and why? When was it abandoned, and by whom? History and geology provide some answers.

Geology first. Derinkuyu is located in Cappadocia, a region in the Turkish heartland famed for the fantastic craggyness of its landscape, which is dotted with so-called fairy chimneys. Those tall stone towers are the result of the erosion of a rock type known as tuff. Created out of volcanic ash and covering much of the region, that stone, despite its name, is not so tough.

Taking a cue from the wind and rain, the locals for millennia have dug their own holes in the soft stone for underground dwellings, storage rooms, temples, and refuges. Cappadocia numbers hundreds of subterranean dwellings, with about 40 consisting of at least two levels. None is as large, or by now as famous, as Derinkuyu.

Hittites, Phrygians, or early Christians?

The historical record has little definitive to say about Derinkuyu's origins. Some archaeologists speculate that the oldest part of the complex could have been dug about 2000 BC by the Hittites, the people who dominated the region at that time, or else the Phrygians, around 700 BC. Others claim that local Christians built the city in the first centuries AD.

Whoever they were, they had great skill: the soft rock makes tunneling relatively easy, but cave-ins are a big risk. Hence, there is a need for large support pillars. None of the floors at Derinkuyu have ever collapsed.

Two things about the underground complex are more certain. First, the main purpose of the monumental effort must have been to hide from enemy armies — hence, for example, the rolling stones used to close the city from the inside. Second, the final additions and alterations to the complex, which bear a distinctly Christian imprint, date from the 6th to the 10th century AD.

Hitting bottom in the dungeon

When shut off from the world above, the city was ventilated by a total of more than 15,000 shafts, most about 10 cm wide and reaching down into the first and second levels of the city. This ensured sufficient ventilation down to the eighth level.

The upper levels were used as living and sleeping quarters — which makes sense, as they were the best ventilated ones. The lower levels were mainly used for storage, but they also contained a dungeon.

In between were spaces used for all kinds of purposes: there was room for a wine press, domestic animals, a convent, and small churches. The most famous one is the cruciform church on the seventh level.

If buckets could speak

Some shafts went much deeper and doubled as wells. Even as the underground city lay undiscovered, the local Turkish population of Derinkuyu used these to get their water, not knowing the hidden world their buckets passed through. Incidentally, derin kuyu is Turkish for "deep well.

The subterranean city could house up to 20,000 people, plenty of domestic animals, and enough supplies to wait out an invading army. (Credit: Yasir999, CC BY-SA 4.0)

Another theory says the underground city served as a temperate refuge for the region's extreme seasons. Cappadocian winters can get very cold, the summers extremely hot. Below ground, the ambient temperature is constant and moderate. As a bonus, it is easier to store and keep harvest yields away from moisture and thieves.

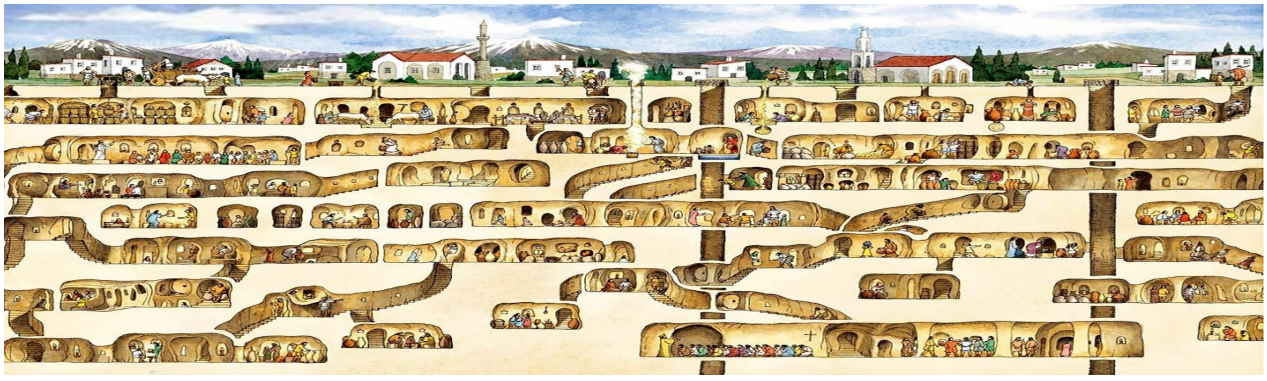
Whatever the relevance of its other functions, the underground city was much in use as a refuge for the local population during the wars between the Byzantines and the Arabs, which lasted from the late 8th to the late 12th centuries; during the Mongol raids in the 14th century; and after the region was conquered by the Ottoman Turks.

Leaving the "soft" place

A visiting Cambridge linguist visiting the area in the early 20th century attests that the local Greek population still reflexively sought shelter in the underground city when news of massacres elsewhere reached them.

Following the Greco-Turkish War (1919-22), the two countries agreed to exchange minorities in 1923, in order to ethnically homogenize their populations. The Cappadocian Greeks of Derinkuyu left too, and took with them both the knowledge of the underground city and the Greek name of the place: Μαλακοπια (Malakopia), which means "soft" — possibly a reference to the pliancy of the local stone.

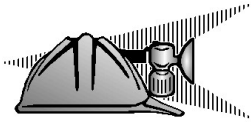
Derinkuyu is now one of Cappadocia's biggest tourist attractions, so it no longer counts as an undiscovered world. But perhaps there's one on the other side of your basement wall. Now, where did you put that sledgehammer?



The subterranean city could house up to 20,000 people, plenty of domestic animals, and enough supplies to wait out an invading army. (Credit: Yasir999, CC BY-SA 4.0)

Central Oklahoma Grotto is a non-profit organization and a chapter of the NSS (National Speleological Society), 6001 Pulaski Pike, Huntsville, AL, 35810-1122 USA. Phone (256)852-1300. Dedicated to cave conservation and safety, C.O.G. publishes general information in a monthly newsletter ($6.00/year) and detailed cave surveys and related Speleological items in a yearly publication, *The Oklahoma Underground* ($3-$8/issue) Membership is by sponsor and is $12 per year for adults, $6 for spouses and students, and $3 if under 18. Central Oklahoma Grotto meets once a month on the second Friday of each month. For information, write Lil Town, 25692 Mosier Circle, Conifer, CO 80433: All submissions to the newsletter should be sent to the editor: Lil Town, 25692 Mosier Circle, Conifer, CO 80433: Telephone: (580)471-1238: E-mail: cavemoose@gmail.com. The deadline for submissions for any particular month's issue is the 20th day of the previous month. If you wish material returned, please include an SASE with submission. All materials in this newsletter are available for reproduction, provided proper credit is given with the article when you print it. Trade publications are welcomed. *Cave softly and safely!*

Friday
March 8, 2024
There will be a virtual meeting.
See you online!



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