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, February 9, 2024
At 8:00 central time
Becky will send you an invitation

ANNOUNCEMENTS

*No trips planned at the present time.

*Next meeting may be February 9, 2024 on Google Meet. Becky will send out invitations.

MINUTES

CENTRAL OKLAHOMA GROTTO MEETING
JANUARY 12, 2024

In attendance: Dale Amlee, Sue Bozeman, Duane Del Vecchio, Becky Hunsinger—virtual meeting facilitator, John Talbot, Lil Town, Andrew and John Van Dyke, Noah Zinn, and Steve Beleu.
Presiding: His Highness Dale Amlee
Start time: 8:10

OLD BUSINESS

1. Dale reported that he had not been in contact with Mr. Vogt concerning our going to Pearl Cave and possibly other caves on his land. But until deer hunting season ends, caving there may not be possible.

2. Bat count is scheduled for Jan. 27. Lead Officer for bat count, John Van Dyke, reported that he had had no one sign up for bat count from the e-mails that he sent us. But during the meeting Dale signed up. John also reported that he heard that there had been a cave-in of an entrance, but the name of the cave wasn't known.

NEW BUSINESS

I discussed an expedition to the Mountain View down in the Arkansas to take the Wild Cave Tour of Blanchard Springs Cavern and also to explore the 7 or 8 caves of Hell Creek Natural Area, a state-owned patch of land where public caving is allowed. We would stay at the campground at Blanchard Springs Recreation Area if camping, or at a fully-furnished motel room at the Ozark Folk Center. These are all in the same area and just north of the Mountain View. We'd make this trip in April.

TREASURER'S REPORT

John Talbot wasn't able to deliver his report unto us. He listened to the meeting on his phone, but apparently wasn't able to unmute his phone.
Meeting ended 8:50

Report by S. Beleu, Secretary and Sergeant at Under-arms

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	$ 0.00	
TOTAL	**$ 0.00**	
CASH	$ 106.05	
CHECKING	$ 112.41	
SAVINGS	$ 1,434.07	**PREPARED BY TREASURER JOHN TALBOT NSS #30254**
TOTAL	**$ 1,652.53**	

2/8/2024

POTPOURI

Archaeologists discover prehistoric 'time capsule' in mystery cave dwelling

Athena Stavrou
6 December 2023

Archaeologists have found a pre-historic cave-dwelling, thought to have been constructed 16,800 years ago.

The discovery was made in the La Garma caves in Cantabria, Spain, which is famed for its artwork previously found on its walls.

The University of Cantabria, whose pre-historic research team led the project, said it was "one of the best preserved Paleolithic dwellings in the world".

The home is described as an oval space of about five square metres with stone blocks and structures of "sticks and skins".

Researchers believe there was a small bonfire in the centre of the space, in which a multitude of daily tasks would have taken place.

They believe a group of Magdalenian hunters and gatherers shared the space and they have documented 6,614 objects from the dwelling including deer, horse and bison bones as well as 600 pieces of flint, needles and shells of marine molluscs.

Among the discoveries was a decorated bone and several pendants that researchers believe dwellers wore as jewellery.

(Continued on page 3)

The research took two years of continuous work by an interdisciplinary team using innovative methodology such as non-invasive techniques such as 3D mapping, soil analysis, and radiocarbon dating.

The documentation of the habitat required two years of continuous work and a reproduction of the structure is soon to be installed as an exhibition in the Rock Art
(Continued on page 3) Centre in nearby Puente Viesgo.

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The UNESCO world heritage site also houses thousands of fossils and a collection of rock art dating as far back as 35,000 years ago.

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Did art exist before modern humans? New discoveries raise big questions.

By Tom Metcalfe

http://www.livescience.com/archaeology/did-art-exist-before-modern-humans-discoveries-raise-big-questions

Scientists are finding ever-earlier examples of artistic expression in the archaeological record that reshape what we know about the cognitive abilities of our archaic human relatives, such as Neanderthals.

New archaeological discoveries suggest our extinct human relatives, like Neanderthals may have made primitive forms of art. What does that say about them?

For centuries, the "Unicorn Cave," or "Einhornhöhle," in central Germany has been famous for its many thousands of bones. In medieval times, people thought the bones came from unicorns.

But a few years ago, archaeologists excavating the cave unearthed an unusual object: a toe bone from a giant deer. The material itself was noteworthy: Although giant deer were once prey for Europe's prehistoric hunters, the animals usually roamed much farther north, indicating this bone had been brought from afar.

And it was clearly different from others in the cave: Several large grooves had been carved at angles into the bone's upper surface, creating a prominent chevron-like pattern.

Even more extraordinary was its age: Radiocarbon dating of the bone showed that the deer lived around 51,000 years ago, when the Unicorn Cave was occupied by Neanderthals, our extinct human relatives.

"The engraved bone from Einhornhöhle is at least 50,000 years old and thus ranges among the oldest known symbolic objects," said Dirk Leder, an archaeologist with the Lower Saxony state government who has published research on the object. The meaning of the symbolism is lost to time, but it may have been "a device intended to communicate with other group members, outsiders, spirits or the like — we simply don't know," he said.

The bone is one of several contenders for the much-disputed title of the "world's oldest art." This is a broad and crowded field — encompassing what look like accidental chicken scratches and representational imagery that is breathtakingly realistic.

(Continued on page 4)

Over the past decade, increasing evidence suggests artistic expression emerged much earlier in human evolution than scientists once thought, and it's reshaping our understanding of the cognitive abilities of archaic humans, such as Neanderthals and earlier hominins. For instance, there's archaeological evidence that Neanderthals made abstract designs on cave walls long before Homo sapiens arrived in Europe and may have made pendants from eagle talons up to 130,000 years ago.

"Cognitively, Neanderthals seem to have been just as capable at becoming artists as our own species, Homo sapiens," Leder said.

Ancient artistic expression

About 51,000 years ago, Neanderthals carved chevrons into this giant deer toe.

Because most archaeologists are not art theorists, their debates have avoided defining the term "art." Instead, many have focused on early forms of symbolism — objects clearly intended to depict something, like a bear drawn on a wall, as well as objects in which the symbolism is unclear, like the carved bone from the Unicorn Cave.

Leder, for his part, avoids calling the carved bone from the Unicorn Cave "art."

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Instead, he prefers the term "pre-art," which researchers use to describe very early forms of artistic expression.

The Unicorn Cave artifact is far from the oldest possible example of such pre-art. Many of these early examples of artistic expression were made by Neanderthals. They include roughly 75,000-year-old cave drawings in France that look like indistinct scratches, ancient cave paintings in Spain that are about 64,000 years old, and 57,000-year-old engravings on a cave wall in France that are the earliest "unambiguous" evidence of abstract designs by Neanderthals, although archaeologists don't know what the designs meant.

Other archaic humans may have used symbolism even before Neanderthals emerged, said Thomas Terberger, a professor of prehistoric archaeology at the University of Göttingen in Germany who has also studied the carved bone from the Unicorn Cave.

"There is increasing evidence for ornaments and various expressions of symbolic behavior since about 120,000 years ago in Africa and Europe," Terberger told Live Science.

Going back further, archaeologists have found hundreds of stone spheres, a few inches across, at several ancient human sites where stone tools were made. The earliest date from around 2 million years ago — which predates the emergence of Neanderthals and H. sapiens by more than a million years. While some have suggested the spheres were "hammerstones" or the stone "cores" that remained from flaking stone tools, it is not clear what the spheres' function was, or even if they had one.

Experts don't call the spheres "art," but analysis suggests they were deliberately shaped to be increasingly spherical, perhaps in the pursuit of "symmetry" — something also seen in some paleolithic hand axes.

There are also prehistoric indentations or cup-shaped marks called cupules, found throughout Africa, Europe, Asia and the Americas, with the earliest known dating to 1.7 million years ago. It's been proposed that the cupules may have been used to grind seeds. But many archaeologists now think the cupules had no function other than to decorate the rock surface.

Rethinking our extinct relatives

These findings are forcing archaeologists to rethink their understanding of our ancient human relatives' cognition. For a long time, archaeologists thought only H. sapiens were intellectually developed enough to make, use and appreciate art, which they tended to equate with symbolism. This ability was epitomized by hundreds of stunning animals emblazoned on the walls of France's Chauvet Cave. Often likened to a prehistoric Sistine Chapel, these drawings of woolly rhinoceroses, mammoths, bison and cave bears were sketched by people of astonishing artistic ability as far back as 35,000 years ago.

Rhino drawings from the Chauvet Cave

But for Leder and others, artifacts at multiple archaeological sites are evidence that hominins such as Neanderthals had a rudimentary artistic sense. And while only a few of these artifacts remain, it's possible there were somewhat

(Continued on page 4)

more impressive works, made by Neanderthal Michelangelos, which have since been lost.

That's because many Neanderthal art objects would have been made out of perishable materials such as wood or animal skin, Bruce Hardy, a paleoanthropologist at Kenyon College in Ohio, wrote for the website Sapiens.

"Absence of evidence is not evidence of absence," Hardy wrote. So what's left in the archaeological record might only be what has survived, rather than an accurate representation of the range of Neanderthals' artistic ability.

What art says about us

At its heart, any debate over the world's oldest art is informed by theories about the purpose of art and what it says about human cognition.

Archaeologist and psychologist Derek Hodgson, an expert in prehistoric cave art formerly at the University of York in the U.K., thinks the evolution of an artistic sense among hominins — of whatever species — developed alongside their abilities to make stone tools and use other objects to modify their habitats.

"That sensitivity seems to have reached a stage whereby, instead of just being applied to making tools, it gradually became detached from those tools," Hodgson told Live Science in an email. He suggested that accidental marks made during the making of stone tools would have been noticed as "something significant in themselves, which were either added to or copied."

In turn, such marks may have resonated within the neural networks of the human brain, which may have triggered a feeling of gratification when such repetitive patterns were perceived, Hodgson said — an idea he developed in a 2019 paper in the Journal of Archaeological Science: Reports and others. (Scans show that a number of brain regions respond when modern people appreciate or create visual art, though whether and to what extent similar processes occurred in our extinct human relatives and ancestors is impossible to say.)

Such repetitive patterns are found in multiple places, including a hashtag-like design that H. sapiens drew with ochre in Blombos Cave in South Africa and a zigzag pattern that H. erectus engraved on a shell around 540,000 years ago in Indonesia, Hodgson said.

The ancient stone spheres, too, may be a sign that an interest in geometry was developing at that time, when early hominins experimented with symmetry to assess its merits, he said. But although this sense of symmetry is seen in early humans, it seems to be absent in some of our closest living relatives, Hodgson said. "Recent

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research on nonhuman primates, such as baboons, found that they were unable to identify symmetrical patterns… in contrast to modern humans, who found this task to be easy," he said.

Terberger, for his part, thinks symbolism, rather than being tied to a single species, seems to have emerged when the conditions for producing it became suitable. Those conditions may have included developments in the organization of prehistoric societies that led to larger groups of individuals and communication among different groups.

"You do not only need a person to make it but a group of people to share it and to communicate with via these decorations," Terberger said.

Some experts, however, don't place much importance on the cognitive implications of some of these very early artifacts.

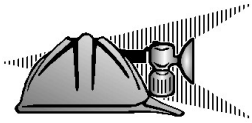
One of those skeptics is Adam Brumm, a professor of archaeology at Griffith University in Australia who led a team of researchers that discovered a warty pig painted in a cave on the Indonesian island of Sulawesi that dating with uranium and thorium isotopes suggests is around 45,500 years old. The painting, likely made by anatomically modern humans, is the oldest known representational work of art in the archaeological record.

To Brumm, the Sulawesi pig requires a different suite of cognitive processes than the ambiguous designs and scratch marks attributed to our extinct human relatives.

"There may be indications that some Neanderthals were producing markings of various kinds that would fall within the rubric of 'art,'" Brumm told Live Science in an email. But "so far the evidence suggests only our species is capable of producing representational art."

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
February 9, 2024
There will be a virtual meeting.
See you online!



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