



# Hands Across History



A joint newsletter for the White Sands Historical Foundation and the White Sands Pioneer Group.

Volume XX, Letter II

May 2024

## A Short Look Back By The WSMR Foundation President

By Frances Williams, President

After the end of World War II, a decision was made that more advanced weapons systems were necessary to better defend our nation in time of war. The location chosen for this project was the Chihuahuan desert in the Tularosa Basin. The rural communities surrounding the site had small populations with many people having lived here for generations. The decision to build this testing range near their homes changed their lives forever. It certainly changed mine.

I arrived in Las Cruces, New Mexico in 1952 as a Navy wife, with two small children and met a big sand pile in front of my new home. There was a sign that said, "Welcome to Las Cruces, New Mexico home of 13,000 friendly people and a few old soreheads." There were some who objected and felt it would be a flash in the pan. It has now been here for 75 years and has made enormous contributions to the surrounding communities economically with jobs, business growth, development and improvement of infrastructure.

Then a decision was made to build a museum and capture WSMR's history. Early rocket and missile testing ushered the United States into the Space Age. Space activities are still an important mission at WSMR. The first atomic bomb was tested at White Sands and started the atomic age.

The museum was renovated and reopened to the public on May 5, 2023. Since its reopening it has been visited by thousands of people, some from foreign countries, all who have made positive comments on the facility and its story line. The museum's website receives thousands of hits each month from all over the world looking for information about WSMR and its museum.

The White Sands Historical Foundation was

established and its primary mission is to provide financial support to the museum. Since we funded the new exhibit hall, we are now funding museum essentials that the Army does not fund.

The board of directors is all volunteers, most of whom were employees at WSMR and several others who have come from the public sector. We work closely with the director Darren Court. A strategic plan is developed with the director and money is raised to meet the requirements stipulated in the plan. To date the foundation has contributed 1.5 million dollars to the museum and will continue to work to meet mission requirements.

The historical foundation needs more members, donations, and volunteers willing to serve on the board of directors to continue our mission.

Our web page can be found under the WSMR museum's website. We also have bricks for sale to commemorate those you want to be remember.

WSMR could not have achieved its many successes without the outstanding employees, soldiers and contractors. They have always made significant contributions to our success and have received recognition in the hall of fame, located in the museum. The historical foundation now hosts the induction ceremonies to honor them.

The historical foundation has had the honor and privilege of meeting and briefing Colonel George Turner, Jr. the new commander of WSMR. The board was present, as well as some of the command staff. Jim Eckles was the briefer. Colonel Turner assured us of his support.

It was the Army - WSMR who made this all happen and we pay tribute to their vision, and continuing support. Please join us as a member, donor, a volunteer, or buy a brick to commemorate a loved one, a hero, or an organization.

# Weigh In Of First Successful WAC Corporal

This photo shows WAC Corporal vehicle #5 being weighed before flight - the first rocket fired at White Sands Proving Ground. From left to right are Jet Propulsion Lab personnel, Paul Meeks, Frank Malina and Bob Terbeck. This was to be the first fully fueled WAC to be fired at White Sands and necessitated a roadblock on U.S Highway 70.

Malina was the lead aeronautical engineer for the WAC Corporal project. Also, during this time, he was acting director of JPL.

The rocket body was only 12 inches in diameter and 16 feet long. It weighed 200 pounds empty and 660 pounds when fueled. It was designed to carry a 25-pound package of weather instruments.

A WAC Corporal is hanging overhead when you go through the new museum exhibit hall at White Sands. It is probably the same rocket fuselage that Jack Benny was photographed riding on Christmas Day in 1951 with actress Ann Blyth standing by.

This rocket was fired on Oct. 11, 1945. The liquid-fueled rocket motor was woefully underpowered so a Tiny Tim booster was used to propel the rocket out of its 100-foot launch tower. The Tiny Tim was basically a gunpowder charge that

only burned for .6 of a second - almost just an explosion. It created 50,000 pounds of thrust and had the rocket traveling close to 200 miles an hour on leaving the tower.



The sudden acceleration of the WAC caused valves to open allowing compressed air to push the fuel and oxidizer into the rocket motor. They ignited on contact and the rocket would then burn for

about 50 seconds on its own. At an altitude of 15 miles, this WAC exhausted its fuel, and the ground crew lost sight of the vehicle. Radar tracked the vehicle to an altitude of 43.5 miles.

When the rocket arced over to horizontal at the peak of its flight, a gyroscope was supposed to trigger the recovery system. Pins holding the nose to the missile would be blown, and residual air pressure in the nose section was to push the nose and body apart, releasing a parachute.

On this flight, the nose failed to eject, and the WAC Corporal crashed to the ground 7.5 minutes after launch, less than a mile from the launcher which was located at what is now Launch Complex 33. The WAC Corporal tower is long gone but the concrete pad where it stood is still at the site. You can see where the anchor bolts were cut.

## Statement of Purpose and Membership

The "Hands Across History" newsletter is published by the White Sands Missile Range Historical Foundation and the White Sands Pioneer Group (WSPG). Both nonprofit organizations aim to preserve the accomplishments of White Sands Missile Range.

The newsletter is intended to keep

White Sands Pioneer Group  
P.O. Box 171  
White Sands, N.M. 88002

members of both groups informed about current events and share information of common interest. The editor is Jim Eckles. He can be contacted by email at [nebraska1950@comcast.net](mailto:nebraska1950@comcast.net) or at either address below.

Membership to either organization is open to anyone who shares their goals.

White Sands Historical Foundation  
P.O. Box 171  
White Sands, N.M. 88002

# Were Native Americans Aware Of Teagarden Cave?

By Jim Eckles

*Author/Editor Note: I've been thinking about Teagarden Cave in Bear Peak on the missile range in light of the recent discoveries proving how long human beings have been living in the immediate area. Holloman Air Force Base just uncovered a hearth dating back more than 8,000 years and the footprints at White Sands National Park show humans roaming the area 23,000 years ago. There is lots of evidence of humans living on the drainages of the San Andres and Organ Mountains. In the Hazardous Test Area which sits just to the east of Teagarden, there are bedrock mortar holes at Rattlesnake Ridge and just beside the road to the HTA. When I took tour groups to the HTA site, we also found pottery shards around the rock outcropping. The bottom line is that Native Americans wandered around these foothills for thousands of years. Were they aware of the cave? It seems quite possible they may have stumbled onto it. I've been there a number of times but, as far as I know, no archaeologists have sifted through the gravel and rock just inside the cave to see if there are any artifacts nor have they surveyed the ground right outside the entrance. I never saw anything but I wasn't looking either. My curiosity is piqued. Bear Peak is northwest of the main post, north of Highway 70, back in an area of many peaks and very close to the NASA boundary. This is an article about the cave that I wrote for Pocketful of Rockets back in 2013.*

If you are fit and used to bushwhacking, it only requires a 45-minute hike and steep climb up to the mouth of Teagarden Cave on the east flank of Bear Peak. Also, it helps if you know where you are going because the opening is nothing more than a three-to four-foot diameter hole in a small outcropping of rock. It is very unremarkable and very difficult to find unless you step into it.

The hole drops about five feet before sloping back into the mountain and disappearing into complete darkness. The opening is small enough that crawling is the easiest way in or out.

I first saw the cave on July 20, 1987. It was an exciting trip because the cave has been described by some old-timers as a "mini-Carlsbad Caverns."

Jeff Osborne, formerly with the missile range's Explosive Ordnance Disposal team, had 'rediscovered' the cave earlier in the year and wanted to show it to me.

Before entering, he gave me a set of kneepads, fingerless leather gloves, and a hard-hat equipped with a powerful electric light. The hat was to protect my hard head and provided a perfect



*A fluted wall formation inside Teagarden Cave.*

place to mount the lamp so it would point wherever I looked.

We climbed down the little shaft after checking for rattlesnakes and then crawled through a ten-foot tunnel into the darkness. In those ten feet we moved into a completely alien world. The air was suddenly cool and damp.

The walls sparkled under our lights and the formations caused fantastic shadows everywhere we looked. And when we turned off the lights, it was dark - very, very dark. It was the kind of dark where you can't see your hand in front of your face.

On a planet where most of the great geographical discoveries have been made, traveling just a few feet in a new cave offers the same sense of adventure and discovery explorers like Lewis and Clark and others must have felt.

Compared to Carlsbad Caverns everything about Teagarden cave is tiny. But I felt a little bit

*See Names Weve Everywhere, Page 4*

## Names Were Everywhere — CONTINUED FROM PAGE 3

like an explorer as we crawled and squeezed our way through the rooms, all decorated with formations. There were stalactites and stalagmites, columns, popcorn, soda straws, flowstone and draperies.

Most of it was white but some was stained brown and a few formations showed hints of green and orange. One room, which we dubbed the “pond room,” had an eight-foot by three-foot pool of water in it. The water was only inches deep but

its dead calm surface reflected the ceiling making it appear several feet deep.

When you travel through Carlsbad Caverns you are basically going through a museum. The National Park Service provides the light and lots of rules, and you don’t dare stray from the asphalt path. In Teagarden the only light was supplied by our headlamps and there were no rangers saying

*See L.B. Bentley Visited, Page 5*



*Some of the better formations found at the back of the main room. Photo by Jim Eckles*

## L. B. Bentley Visited — CONTINUED FROM PAGE 4

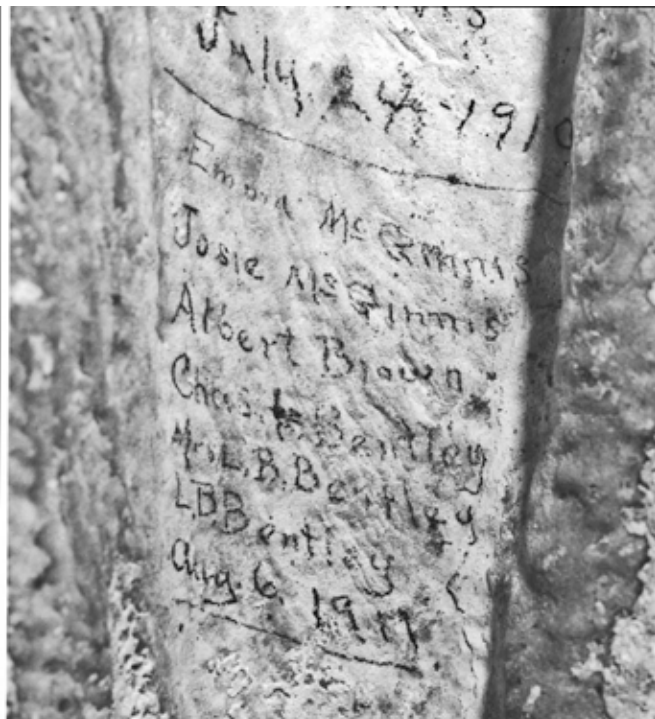
we couldn't explore a side-tunnel if we so desired. It didn't matter that they were dead-ends, our curiosity was satisfied.

On the other hand, Osborne briefed me beforehand about cave etiquette. We had to be very careful not to break any of the formations and not to leave any oily fingerprints on the limestone. Many caves have been damaged by the thoughtlessness of visitors.

Although there was a sense of adventure for a rookie like me, exploring Teagarden certainly was not like going into a newly discovered cave. Everywhere I looked there was evidence of previous visitors. Many of the cave formations had been broken off and many visitors had signed or carved their names on the formations.

Some of the ranchers drew their brands beside their names. It appears a lot of couples and small groups visited the cave after 1900. It may have been the hot spot to take a girl on a picnic. We even found an empty whiskey bottle hidden behind a rock.

The oldest signature we found was dated 1896. One name that caught my attention was L.B.



*L. B. Bentley and party signed in on August 6, 1911. Photo by Jim Eckles*

Bentley. His printed name appears several times in the cave from different years - mostly between 1903 and 1917.

Bentley used to own the general store in Organ, New Mexico, run ore assays, act as postmaster, and mine the surrounding mountains in the early 20th century. Also, he reportedly refused to give Pat Garrett credit when Garrett was living on a small ranch just north of U.S. Highway 70 and Mineral Hill. The Garrett place is on the missile range in an area called the Hazardous Test Area.

According to Leon Metz, in his biography of Pat Garrett, many authors have written Garrett stopped at the Bentley store on Feb. 29, 1908 and argued with Wayne Brazel. Later in the day, Brazel surrendered to the Las Cruces sheriff saying he had killed Garrett in self-defense. Garrett's body was discovered east of Las Cruces with a bullet hole in the back of the head.

Metz doubts the meeting in Bentley's store ever took place and says the source of the story appears to be old L.B. himself.

But Bentley can be credited with taking many great photographs of the local area and his collection is in the Rio Grande Historical Collections at the New Mexico State University library. Since he visited the cave many times, I called the library and asked them to check if there was a cave photo in the collection. They could only find one dim photo that appears to have been taken in the cave.

How many names are on the cave formations? On Oct. 25, 1997 I escorted a group of cavers from the Mesilla Valley Grotto to Teagarden so they could survey it, photograph it and record any historic information available. Dave Belski was with the group and went around recording all the names he could find on the cave formations. The number was close to 200 names with many undated. The most recent dated one was 1956.

When Osborne first came to me hunting for this cave, he referred to it as "Tiergarten" Cave. At the time, the Mesilla Valley Grotto had it documented under that name instead of "Teagarden."

*See Teagarden's Coach Line, Page 6*

# Teagarden's Coach Line

— CONTINUED FROM PAGE 5

Other sources show it as “Tiergarten” as well.

So, which is correct? The word “tiergarten” means animal garden or zoo in German but doesn't make too much sense for this cave. I suppose you could stretch things a bit and look at the formations as a display or zoo of fantastical shapes.

What about the Teagarden version? One old-timer said he assumed the cave was named after G.H. Teagarden of Las Cruces.

That gave me a clue and off I went looking for a “Teagarden” in the old Rio Grande Republican, a Las Cruces newspaper from the 1880s. I found him. In the paper there were display ads plugging “The Organ Mountain Coach Line, G.H. Teagarden, Proprietor.”

He ran four-horse coaches to “The Organs and San Augustin three times a week on Mondays, Wednesdays and Fridays.” The fare was \$2 one-way and \$3 for a round-trip. Express material could be sent at the rate of one cent per pound.

His name also popped up in lists of businessmen who contributed to one cause or another in Las Cruces.

This doesn't prove the cave should be called “Teagarden,” but in my mind that name has a lot more going for it than “Tiergarten.”

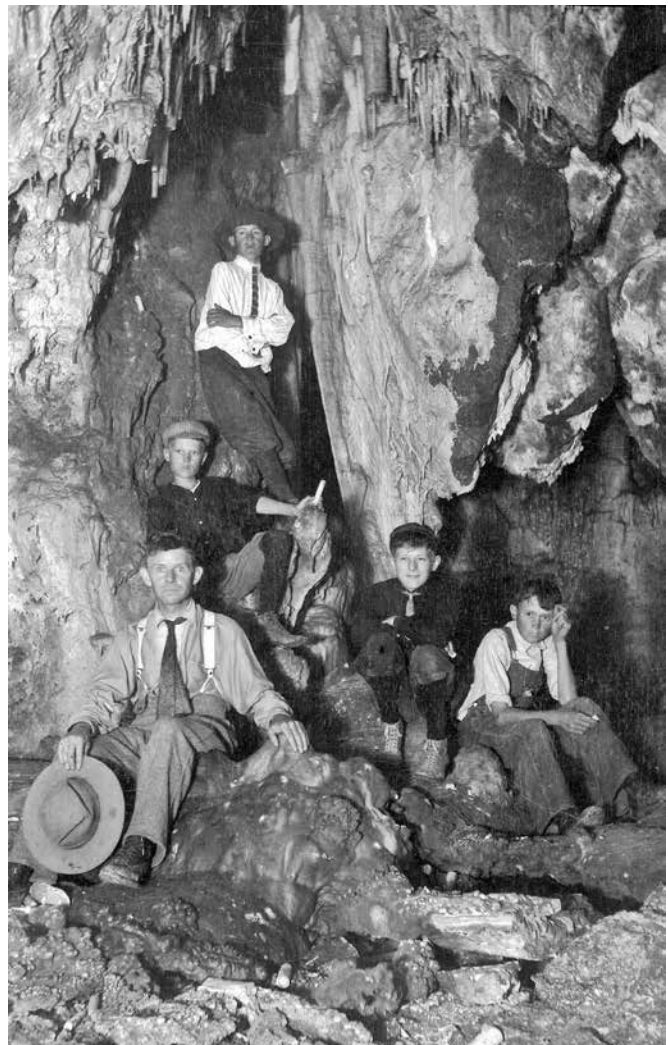
In 1990 I visited the cave with Jim and Andrea Goodbar. Jim was a Lands and Cave Specialist with the Bureau of Land Management out of Carlsbad. At the time he had completed two and a half years of graduate schoolwork in geography and cave/karst studies at Western Kentucky University. The school is only 20 miles from Mammoth Cave which has over 350 miles of cave - the longest in the world.

Goodbar theorized that the void of Teagarden Cave was formed by fracturing as opposed to being hollowed out by the action of water. The passages in the cave are all at right angles which is typical for limestone that has broken under stress. This means the void was made by rock movements (faulting) and the decorative materials were added later.

In fact, the formation building process is still

ongoing in Teagarden. Rainwater and snow melt soak into the ground above the cave. The water becomes laden with carbon dioxide from decaying plant and animal material in the ground's topsoil and forms diluted carbonic acid. As this water seeps through the limestone forming Bear Peak, it dissolves some of limestone's main component, calcium carbonate. This solution drips into Teagarden and carbon dioxide bubbles away. Then the calcium carbonate precipitates and slowly adds calcite to the cave formations - crystal by crystal.

*See Jim Goodbar Visited, Page 7*



*This Bentley photo from the New Mexico State University Library, Archives and Special Collections, is probably from Teagarden Cave but the original is unlabeled.*

## Jim Goodbar Visited — CONTINUED FROM PAGE 6

At one time Teagarden must have been a very wet cave because almost every surface is covered with formations. Goodbar felt many of the formations could have been deposited during glacial periods when this area was much wetter.

Evidence of Goodbar's theory was found during the late 1990s when I visited the cave again. This was in the middle of a run of drought years. The pond was dry and very few formations had water dripping from them. The cave is close to the surface, so water seeping into it may be directly related to seasonal rain and snowfall.

According to Goodbar, this cycle of wet and dry years makes it impossible to tell how old the cave is. When caves are dry they do not produce formations and the rate of formation growth during wet periods depends on a great many variables.

In our tour of the cave, Goodbar pointed out stalactites, stalagmites, columns (the joining of a stalactite and stalagmite), popcorn, coral (a jagged version of popcorn), dams, draperies and helictites. Helictites are small twisted straw-like formations that tend to randomly corkscrew from the wall or ceiling. Goodbar said the Europeans call them "eccentrics" which seems appropriate and is easy to remember.

In one part of the cave is a series of draperies that ring when they are gently tapped. Each sounds a different note because of their differing sizes. One was very impressive because of its deep, dignified ring.

When the Goodbars visited the cave we found evidence of wildlife at the cave entrance and

inside. At the mouth of the cave we found a pile of mountain lion scat that included pieces of bone almost the size of my thumb. Inside we found a couple of bats hanging from low ceilings.

Although the cave has a lot of damage, Goodbar said it wasn't so bad. He said he is used to seeing caves on BLM land that are unprotected from the public and are spray painted, sledge hammered and completely trashed. He also pointed out that many of the signatures, because of their dates, now have historic significance.

Teagarden is the best of the known caves on White Sands Missile Range. There are some gypsum caves such as Craven Cave and Craven Pit in the northeast portion

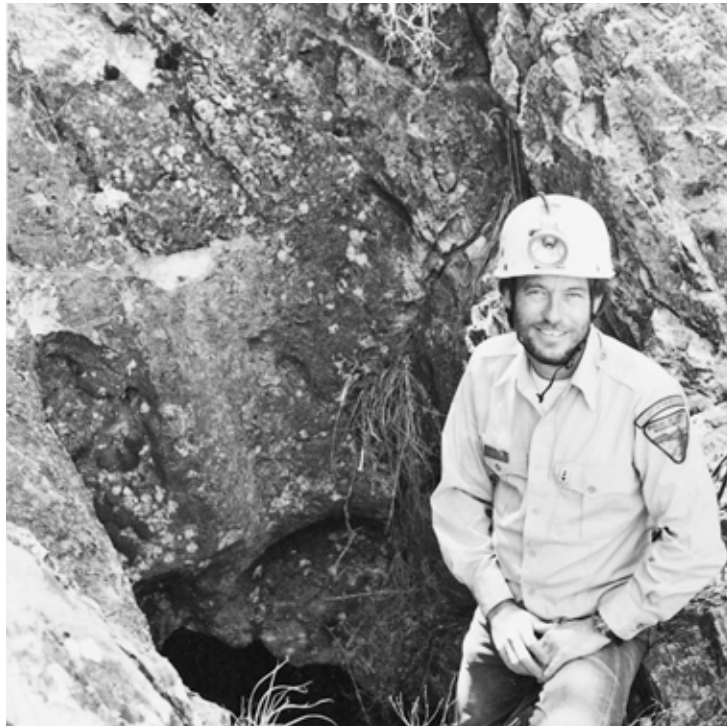
of the range but they do not have the formations found in Teagarden.

There probably are other caves in the San Andres and Oscura Mountains. The limestone is there, the area has been very wet at times in the past and Teagarden proves it is possible. If these other caves exist, more than likely their entrances are buried and may never be found.

But who knows, someday a young soldier on a missile recovery team may wander into some bushes and discover the opening to a new Carlsbad Caverns - a new world to explore.

## Correction For Feb. Issue

In the Feb. 2024 issue, in the article about donations being made to honor individuals, Gerry Veara was inadvertently listed as the foundation's treasurer. During Gerry's time with us, Jon Gibson was still treasurer.



*Jim Goodbar stands in the entrance to Teagarden Cave. Photo by Jim Eckles*

**White Sands Missile Range Historial Foundation**  
**Hands Across History**  
**P.O. Box 171**  
**White Sands, NM 88002**

NONPROFIT ORG.  
U.S. POSTAGE PAID  
EL PASO TX  
PERMIT NO. 429



## **The Back Page**

*You may have seen on the news lately that the United States is giving Ukraine the longer-range version of the Army Tactical Missile System (Army TACMS). This photo is an old TACMS test at White Sands Missile Range. During one test, a TACMS missile was fired from Fort Wingate down to WSMR on Oct. 17, 1996 - a 180 mile flight that took about six minutes. So it has been around a long time and comes with various capabilities. According to an Army factsheet, the surface-to-surface guided missile is equipped with an Anti-Personnel/Anti-Materiel (APAM) warhead. Fired from the MLRS modified M270 launcher, Army TACMS is designed for deep attack of enemy second-echelon forces at ranges beyond that of current cannons and rockets. When over the target area, submunitions, consisting of dual purpose M74 bomblets, are dispensed from the warhead section.*