

TAR HEEL



ROCKHOUND

NOVEMBER 2025

Catawba Valley Gem & Mineral Club, Inc.

2025 Officers and Committees

President:	Tracie Jeffries 828-430-1341	Education:	George Max 828-328-9107
Vice President:	Joan Glover 828-446-7633	Show Chairman:	Dean Russell 828-303-1448
Treasurer:	Terry Russell 828-303-1563	Scholarship:	George Max 828-328-9107
Secretary:	Dean Russell 828-303-1448	Field Trip:	
Editor:	Tracie Jeffries 828-430-1341		

Club Address: PO Box 2521, Hickory NC 28603-2521
Regular Meetings: Second Tuesday, 7:00 PM
St. Aloysius Catholic Church, 921 2nd St. NE Hickory, NC
Annual Dues: Family, \$25, Individual, \$18

The purpose of the Club is to increase the individual's knowledge of the earth sciences and to aid in the development of lapidary and related arts and skills; to promote fellowship and exchange of ideas; to hold exhibitions, contests, lectures, and demonstrations for educational purposes; to help interest more people in the gem and mineral hobby; and to capture and preserve the beauty of nature, the arts, and the works of man.

CATAWBA VALLEY GEM AND MINERAL CLUB, INC.

Web Master: Mike Streeter

<http://www.cvgmc.com>

Editor: Tracie Jeffries,
3118 Barus Street, Valdese, NC
botanynerd89@gmail.com

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PRESIDENT'S REPORT

Hello Fellow Members,

As many of you know, I recently went to New Mexico to explore the southern part of the state and had a wonderful time. It was fun, interesting, and educational to experience the Chihuahuan Desert and arid southwestern US. But, I missed my green Appalachian mountains, they will always be home! I plan to highlight some of the geological sites I visited in the upcoming months and I hope you enjoy the articles.

CVGMC MINUTES FOR OCTOBER 14th, 2025

The October 14, 2025 meeting of the CVGMC was called to order by President Tracie J. at 7:00 PM.

Visitors: None

Program: Club member Rick G. talked about his visit to Morris Island, SC.

Minutes: A motion was made by Harry P. and seconded Rick G. by to accept the September 9, 2025 minutes. Motion was passed by the Club.

Treasurer Report: Bank balance was reported.

Education Committee: None

Show Committee:

1. The next CVGMC Annual Show will be March 6-8, 2026. We will return to the Hickory Room. (The room where the Oct 2024 show was.)
2. Start thinking about where you will want to volunteer to help at the Show.

Field Trip Report: Check your emails for information on field trips.

Old Business:

1. The Club needs a Field Trip organizer.
2. CVGMC needs volunteers for the Board of Directors, and other positions.
3. The Club needs to do an inventory of the CVGMC stock in the trailer and in members houses. If you have Club items, please e-mail an inventory to Dean Russell at cvgmcsecretary@aol.com.

4. David I. showed t-shirt samples for a CVGMC t-shirt.

New Business:

1. The Board of Directors voted unanimously to recommended a change to the CVGMC Constitution and By-Laws Membership requirements to: Article III, Section 2 – To be eligible for membership, a person must attend one (1) meeting make an application for membership and pay the required annual or pro-rated dues. The attending CVGMC members present voted unanimously to accept the change to the CVGMC Constitution and By-Laws, Article III, Section 2.
2. The Board of Directors voted that the Club will have a quarterly prize for members who participate in Club sponsored events and attend Club meetings. It will be the Club members responsibility to put their name in the appropriate container at the event to qualify. A name will be drawn from the entries at the end of each quarter and the prize will be awarded at the next meeting. The Club will spend up to \$200.00 per year to buy these prizes. This “contest” will start January 1, 2026
3. The Club discussed the possibility of renting a storage unit for the Club inventory and also to look into doing Zoom meetings for the monthly programs.

Announcements:

Closing of Business: The meeting was adjourned at 7:56 PM

Respectfully submitted,

Dean Russell, Secretary

NOVEMBER PROGRAM

TBA

IMPORTANT ANNOUNCEMENTS

Remember applications for the Wildacres scholarship are due by December 8th.

Officer and board member elections will during the November meeting. Please consider running/volunteering to be an officer or board member. We definitely will need a new President and Field Trip Organizer.

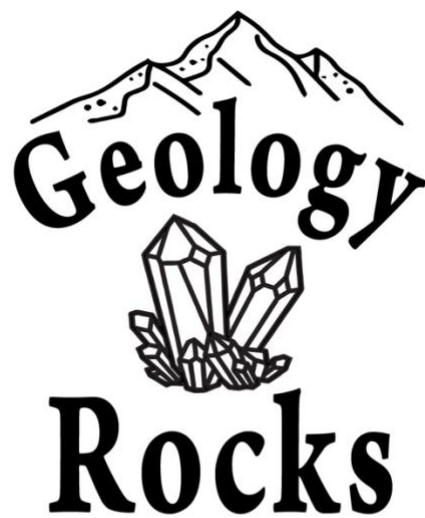
The three final t-shirt patterns are shown below. Please vote on your favorite by sending me an email or text by Dec. 8th. The winning pattern will be announced at the December Christmas Party. Please take time to thank David I. for all his hard work on these wonderful designs. I look forward to seeing what the club t-shirt will be!



DESIGN 1



DESIGN 2



DESIGN 3

**GEOLOGY MADE EASY:
THREE RIVERS PETROGLYPH SITE**

By Tracie J.

The Three Rivers Petroglyph Site is located near Tularosa, New Mexico (See image 1). Tularosa is a small community along Highway 54, north of Alamogordo, and south of Carrizozo, NM. The 50- plus-acre site is protected and maintained by the Bureau of Land Management (BLM). It is called Three Rivers due to three nearby water sources: Indian Creek, Three Rivers, and Golondrina (Swallow) Creek. The site is of great historical and cultural importance, with over 21,000 petroglyphs and remains of a prehistoric village. Petroglyphs are rock carvings usually made by pecking an image onto a rock surface using a stone tools (See image 2). Petroglyphs are different from pictographs. Pictographs are "images and designs made by painting on rocks or in caves" (Resource 1) (See image 3). Three Rivers is considered the most interesting rock art site in the Southwest due to the sheer number and concentration of petroglyphs and extraordinary public access to the images.



IMAGE 1: Entrance sign to Three Rivers Petroglyph Site, New Mexico. Photo by Tracie J.



IMAGE 2: A petroglyph image of a bighorn sheep at Three Rivers Petroglyph Site, New Mexico. Petroglyphs are “carved” into the rock surface. Photo by Tracie J

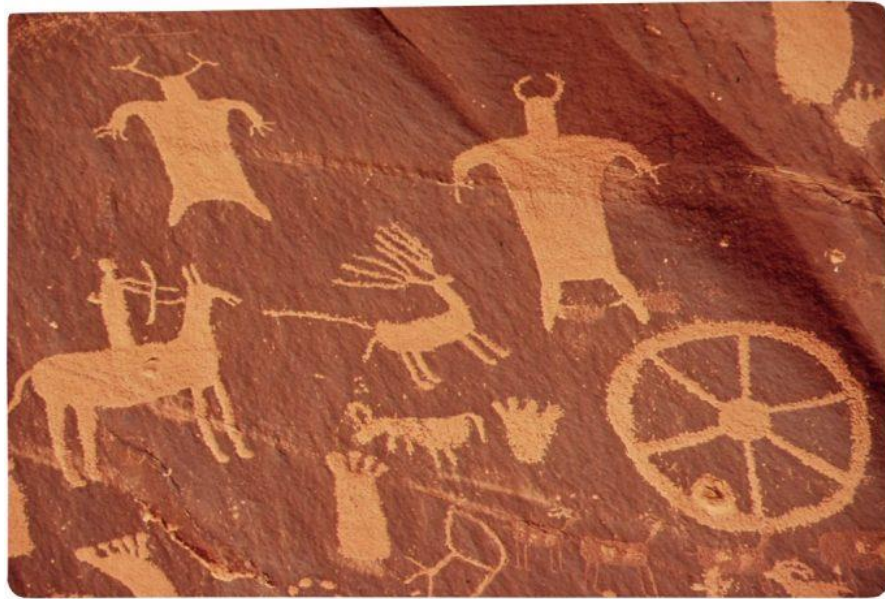


IMAGE 3: Pictographs are images painted onto rocks. Pictographs are more fragile and susceptible to damage compared to petroglyphs. Above is Newspaper Rock at Indian Creek State Park, Utah. <https://prologue.blogs.archives.gov/2019/10/14/pictographs-petroglyphs-rock-art-what-is-the-difference/>

The petroglyphs were created by the Jornada Mogollon Indians who inhabited the region from approximately 200 to 1450 A.D. (Dates vary depending on source). They were a subdivision of the larger Mogollon culture that occupied much of the southwestern United States during the same period (See image 4). No one really knows where the Mogollon culture originated or what eventually happened to the people. Some believed they are descendants of Central American cultures that migrated northward into what is now Arizona, Texas, and New Mexico, or they may have originated from various Desert Archaic peoples. Archeological evidence shows the culture grew and changed over time, then seemed to disappear around 1450 A.D. Numerous archeologists and historians believe it eventually developed into the current Pueblo people, such as the Hopi and Zuni.



IMAGE 4: An infamous subdivision of the Mogollon where the Mimbres, known for their beautiful and elaborate black-on-white pottery. If you go through Deming, New Mexico take time to visit the Deming Luna Mimbres Museum. The museum offers a huge and unique mix of southwestern historical and cultural artifacts ranging from prehistoric to modern times. It also houses a large and impressive display of Mimbres pottery! The admission is free but, all donations are welcome.

PS: The museum also had the most incredible collection of thundereggs. Hundreds of amazing specimens with several as large as basketballs!

https://commons.wikimedia.org/wiki/File:Bowl,_Scorpions_MET_DP-16341-004.jpg

The geology of the Three Rivers Petroglyph Site is complex. In general, you have an igneous volcanic sill intruding through ancient sedimentary layers and forming the main ridge where the petroglyphs are. According to the New Mexico Bureau of Geology and Mineral Resources, "The main ridge at the petroglyph site is capped by a sill of trachybasalt with hornblende crystals that are as big as two inches across" (Resource 2) (See image 5) The sill is approximately 32 million-years-old (MYO). Trachybasalt is a rock intermediate in composition between trachyte and basalt. Trachyte is an extrusive volcanic rock, low in silica and high in feldspar; it may be felsic or intermediate depending on its exact composition. Basalt is a mafic, extrusive igneous rock, low in silica, and rich in iron, magnesium, and other mafic minerals.



IMAGE 5: A nice example of trachybasalt with hornblende phenocrysts. Note the trachybasalt is lighter color compared to basalt alone. Photo by Tracie J.

When exposed to the elements, the boulders and rocks at the site became coated with 'desert varnish'. Desert varnish is "an orange-yellow to black coating found on exposed rock surfaces in arid environments". (Resource 3) Desert varnish is also called 'patina'. It may take over a 1000 years to form a layer of patina the thickness of a human hair. Therefore, desert varnish forms on hard rocks, usually igneous, under very stable conditions. These conditions include: very little precipitation, little to no wind abrasion, and stable rock surfaces (no fracturing). The varnish itself is not simply the oxidation of elements within the rock. The varnish forms through a complex interaction of water, clay, bacteria, fungi, manganese, and iron. What's more amazing is that all these components are deposited on the surface of the rocks by wind and precipitation. Desert varnish tends to be darker than other types of varnish/patina due to higher levels of manganese.

Some of the images were lightly scratched into the patina, but most were meticulously carved into the rock. The Jornada Mogollon would use stone hammers and chisels to peck off flakes of hard, dark patina, exposing the lighter-colored rock beneath, thus creating the petroglyph images. (See image 6).

Over time, freshly exposed surfaces start to be recoated with desert varnish. The relative 'fading' of the images can give archeologists a comparative timeline of when each petroglyph was created (See image 6).

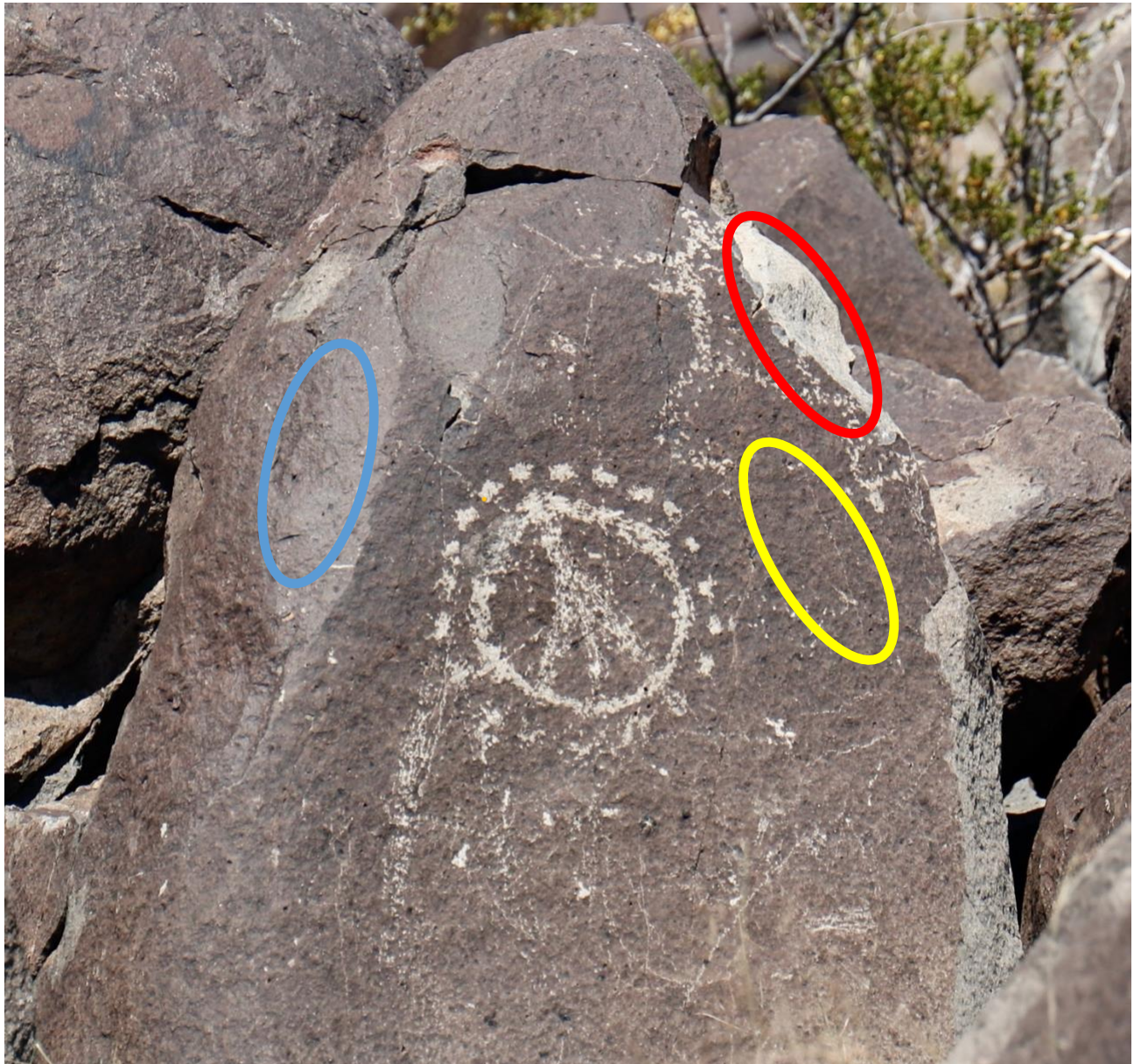


IMAGE 6: The boulder above is "darkened by desert varnish". The yellow circle shows the typical dark desert varnish. The red circle shows light colored rock exposed in a freshly chipped area. The blue circle is intermediate in color, so its surface was exposed after the original patina formed but before the area in the red circle broke off. It is starting to darken as the surface becomes revarnished. Photo by Tracie J.

This process of creating the petroglyphs took great effort and time so it is unlikely they were created for pure artistic/decorative purposes. The petroglyphs range from simple to complex geometric patterns, plants, animals, people, to abstract images. (See images 2, 6, 7 - 13) There are a large number of theories on why the Jornada Mogollon people produced the petroglyphs. The images may:

- be telling stories,
- have spiritual/religious meanings,
- represent tribal history,
- be purely artistic,
- convey important information for gathering food and resources,
- or a combination of the above.

But the simple truth is, there are no Jornada Mogollon alive today so, nobody really knows what the images represent. The petroglyphs can be compared to others found in the southwestern US but, each Native American culture has their own symbolism and interpretation of images (See image 7).



IMAGE 7: I see an owl on this rock. Depending on the tribe, Native American Indians may see an owl as an omen of death, a spirit of the dead or underworld, a messenger, a symbol/source of wisdom, luck, or fertility, and many other interpretations. So what did it mean to the Jornada Mogollon? Photo by Tracie J.



IMAGE 8: An unknown animal? Photo by Tracie J.



IMAGE 9: A crouched figure is hovering over a mask.
The Jornada Mogollon drew people with very rounded faces. Photo by Tracie J.



IMAGE 10: A bighorn sheep shot with three arrows.



IMAGE 11: A nice geometric figure. Circular geometric patterns and handprints are very common images on the boulders.



IMAGE 12: I see a bird. Many of the images depict animals and plants commonly found in the surrounding Chihuahuan Desert.



IMAGE 13: Some boulders are covered in multiple images.
This boulder contains geometric and abstract patterns. Photo by Tracie J.

The park gives the public total access to the petroglyphs. One of two trails starts at the visitor center and takes tourists up a large 'basaltic' ridge. This moderately difficult trail is rocky, and is one mile in length (2-mile round trip). It is the most popular due to the high number of petroglyphs, over 21,000! Most people only go halfway to a shelter on the ridge. The shelter is a nice resting spot and offers amazing views of the valley and distant mountains. Take your time, the more you look, the more you see. The main trail has many side branches that go out to more boulders and petroglyphs. A second trail, .2 miles (.4 round trip) starts at a picnic shelter and goes across the road (See image). This easy trail takes visitors to the remains of a prehistoric village site. The site was occupied on and off by the Jornada Mogollon from 200 to 1450 A.D.

Nothing special is done to preserve the petroglyphs. They are exposed to various physical and biological elements (wind, sun, temperature, precipitation, microbes...) and humans impact. Between 1987 and 1992 several extensive studies were done to catalog and photograph all the petroglyphs. These photos can be used for research and as a baseline to measure any changes to the images. Since this study an estimated 15% of the images have been damaged by vandalism and careless visitors.

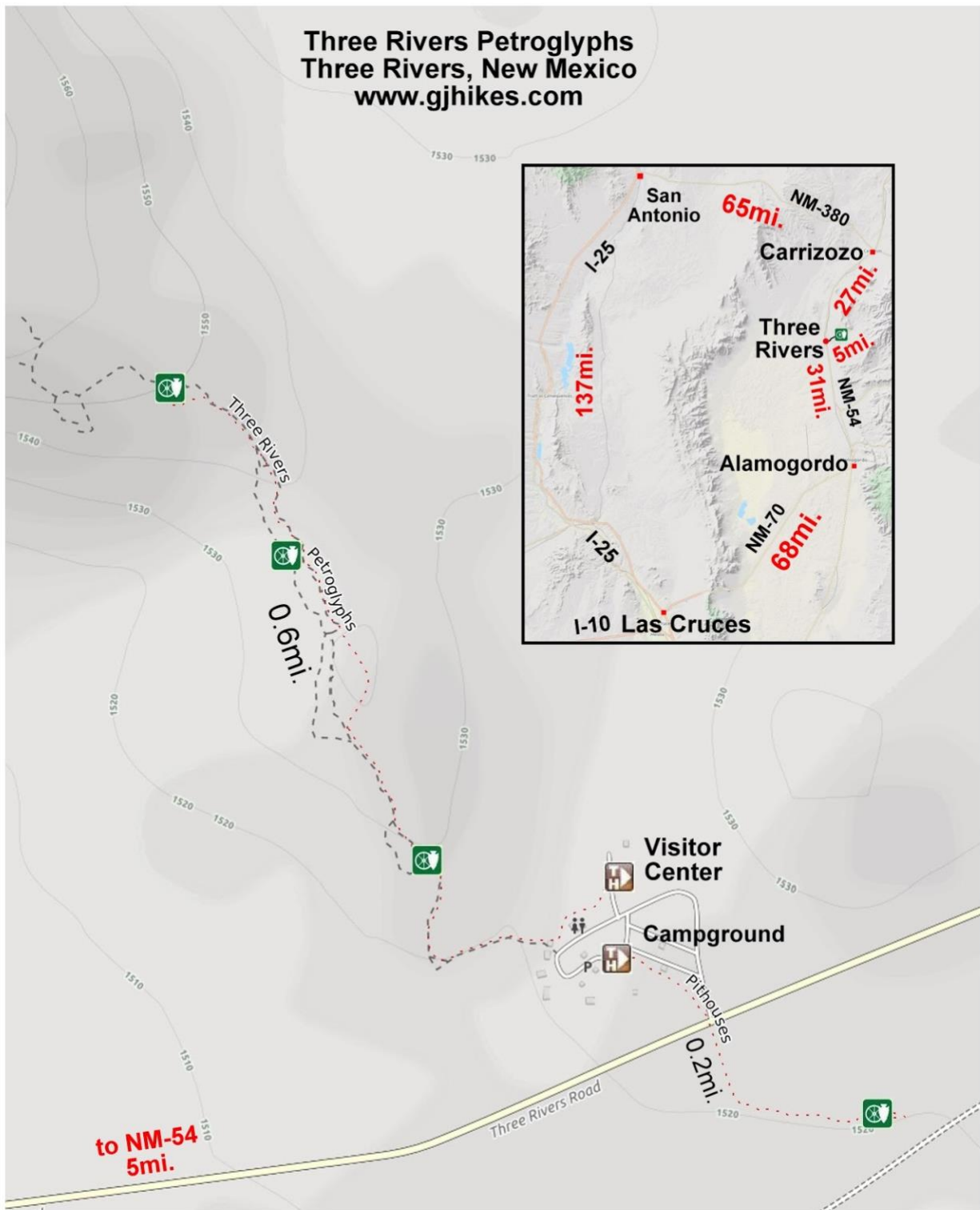


IMAGE 14: A park map of the Three Rivers Petroglyph Site.

I have provided a link to the official BLM brochure for the site. The brochure gives basic information about the site, directions, fees, hours, and activities at the site.

<https://www.blm.gov/sites/default/files/docs/2023-02/brochure-three-rivers-petroglyph-walking-tour-lcdo-508.pdf>

RESOURCES:

1. <https://prologue.blogs.archives.gov/2019/10/14/pictographs-petroglyphs-rock-art-what-is-the-difference/>
2. https://geoinfo.nmt.edu/tour/landmarks/three_rivers/home.html
3. https://en.wikipedia.org/wiki/Desert_varnish#:~:text=Desert%20varnish%20or%20rock%20varnish,the%20condition%2C%20but%20less%20often.
4. <https://archaeologicalsocietynm.org/wp-content/uploads/2022/03/Three-Rivers-Petroglyph-Site.pdf>
5. THREE RIVERS BROCHURE: <https://www.blm.gov/sites/default/files/docs/2023-02/brochure-three-rivers-petroglyph-walking-tour-lcdo-508.pdf>

ANNUAL CLUB CHRISTMAS PARTY AND AUCTION

The Christmas party and Auction will be held on Tuesday, December 9 during the Club's regular meeting. The meeting will start at 6:30pm instead of the regular time of 7:00pm. The meal will be catered by Publix Deli again this year. Chicken tenders and several side dishes will be provided. All who attend are asked to bring a drink or dessert. The Club will provide the plates, cups, napkins, silverware and ice. Come early, if you can, to help set up the room.



2025 DECEMBER AUCTION INSTRUCTIONS

It's that time of year for our annual auction. Anyone interested in participating in the auction (selling AND/OR buying) needs to have a number assigned to them (1, 2, 3, 4 etc.). Terry will have a list of numbers and stickers at the November meeting so you can sign up for a number and get stickers to label your specimens at that time. If you are not able to attend the November meeting and would like to participate, please call her (828-303-1563) to get a number. If you don't get a number and stickers before the December meeting, they will be available the evening of the auction, however please come early. Terry will be at the church by 5:45pm for anyone who hasn't signed up to participate and needs a number and/or stickers.

All specimens must be clearly identified with a sticker which should be coded with your assigned number because this is what will be used during the auction process. Please label your specimens as follows (using this example): if your assigned number is 2 and you plan to sell 5 items then the stickers should be labeled as 2a, 2b, 2c, 2d and 2e. **It is VERY important to label ALL specimens so the correct information is recorded.** This same number will also be your bidding number. Terry will have bidder cards at the meeting with the numbers on them for people to hold up when they are bidding. This process should keep things moving and will make it easier to record the sellers and buyers. **Please also include a description of the item.**

Items will be auctioned off in order to make it fair for everyone. It will go as follows: 1a, 2a, 3a...etc., then start over at 1b, 2b, 3b...etc. so label your items in the order that you want to sell them, with your best item being the first one. We will sell as many items as possible in the time that we have (ends at 8:45 PM). There is no limit to the number of items a Club Member can bring.

Anything rock related can be auctioned; this includes tools, cut stones, display boxes/cabinets, rough stones, jewelry, etc. Members will retain 100% of the sale price unless the member specifies all proceeds go to the club.

Please come early to preview the items and make notes (including the number on the sticker) of the ones you are interested in bidding on so that you will be ready when the item comes up for bidding. **To keep things moving, the items will not be walked around during the auction.**

Items will go up in price by \$1.00 increments per bid until it reaches \$25.00, then bidding will go up by \$5.00 increments per bid until it reaches \$50.00. Once it reaches \$50.00, bids will go up by \$10.00 increments per bid. Once the bid reaches \$100.00, bids will go up by \$20.00 increments per bid. Bidding increments can change at the discretion of the auctioneer. If you have an item that you want started at a minimum bid, please note it on the label ahead of time.

Remember, guests are welcome, so feel free to bring a friend. **They can bid on items, BUT cannot sell items.**

Payment method: Only cash or checks accepted, no plastic (credit cards).

WHAT'S HAPPENING IN OUR AREA

WHAT	WHEN	WHERE
Kingsport Gems and Minerals Society Show	NOV 7 – 9 Fri/Sat 10:00-6:00 Sun 12:00-5:00	Appalachian Fairgrounds 100 Lakeview St Building #1 Gray, TN
Treasures of the Earth	NOV 14 – 16 Friday 12 – 6 PM Sat/Sun 10 - 5	North Carolina State Fairgrounds 4285 Trinity Rd Raleigh, NC 27607
GEOLOGY DAY	NOV. 15 TH 10 AM – 2 PM	The Schiele Museum of Natural History 1500 E Garrison Blvd Gastonia, NC 28054
Annual Gem, Mineral, and Jewelry Show	NOV 21 – 23 Fri/Sat 10:00-6:00 Sun 12:00-5:00	Jamil Shrine Temple Address: 206 Jamil Rd Jamil Shrine Temple Columbia, SC 29210
Roanoke Valley Mineral and Gem Society Show	NOV 28 -30 Fri. 2:00-6:00 Sat. 10:00-6:00 Sun. 11:00-4:00	Salem Civic Center 1001 Roanoke Boulevard Salem Civic Center Salem, VA 24153

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Club Meetings
2nd Tuesday of Month, 7:00PM
St Aloysius Catholic Church
921 2nd Street NE Hickory, NC

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Organized 1969

