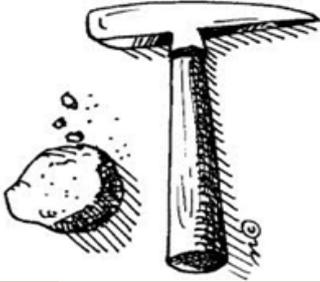


Lysite Agate

Article submitted by: Stan Strike



Today Lysite Agate

is found as part of Lysite Mountain located in Fremont County, Wyoming (43 d 26 m 37 s N - 107d36m32sW). Lysite Agate was formed during the Middle Eocene Epoch of the Tertiary Period (beginning about 50 million years ago). At this time, volcanic activity had already begun to the west in an area that is now Yellowstone National Park and the Absaroka Mountains. Volcanic ash from these Mount St. Helen type volcanoes was carried eastward and deposited. Wyoming's mountains and basins had already formed as part of the Laramie Orogeny.



The formation of Lysite Mountain began as a structural depression located between the Owl Creek Mountains to the west and the southern Big Horn mountains to the east. This basin was filled with eroded sediments from the surrounding mountains interspersed with volcanic ash deposited by the prevailing winds. At the same time that these sediments were transformed into sedimentary rock over geologic time, Lysite Agate began to form within these sediments.

Lysite Agate began its formation as the silica-rich volcanic ash was chemical weathered. The silica was carried by water as ultra-fine particles in colloidal suspension, settled out and was deposited within spaces /voids within the previously existing sediments. This non crystalline silica gel initially contained a great deal of water but as the water dissipated, small crystals formed. As this process repeated itself over a period of geologic time, the chemical conditions also changed. This resulted in changes in the rate of deposition and the size and color of the crystals formed, creating layered Lysite Agate. Today Lysite Agate is found in isolated pockets of the Lysite Member of the White River Formation or as isolated pieces ("float"=separated by gravity) that have been exposed by the continual weathering and erosion of Lysite Mountain.

Lysite Agate collected from the Lysite Mountain area is usually coated with a calcite layer, which requires most finds to undergo some lapidary treatment in order to create a "gemstone specimen". Because the chemical conditions that created this agate changed, Lysite Agate exists in many different forms. Lysite Agate most often appears as a banded silica base agate with fortification lines created by colors ranging from reds to browns and white or clear (rare-blue) interlayered with calcite-based material. Lysite Agate also can occur with larger crystals of quartz and calcite deposited in voids, or with cavities covered with small crystals = Drusy Appearance, or with a surface covered with small rounded/grape-like bumps = Botryoidal Appearance.

Access to Lysite Mountain for collecting by WSMGS affiliated rock clubs requires prior permission from the current landowners and lease/permit holders. Contact the WSMGS Board for the necessary contact information. **A reminder to all rockhounds:** Please adhere to the AFMS Code of Ethics and Lysite Mountain and its Lysite Agate will be enjoyed by the rockhounds of the future.

Wyoming State Mineral & Gem Society (WSMGS) State OFFICERS

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2132 Gail Lane-Cody 82414
Phone: 250-1244

Vice President: Jim McGarvey

P.O. Box 116-Kinnear 82516
Phone: 856-6188

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WSMGS Webmasters

Jim McGarvey Marlene Sibley

WSMGS Website: www.wymineralandgemsociety.org

Wyoming WSMGS Affiliated Rock Clubs

Cheyenne Mineral & Gem Society:

P.O. Box 21412- Cheyenne, WY 82001
President-Bob King-2857 Olive Dr.
Cheyenne, WY 82001 (307-632-2702)

Contacts: Bob King
Carroll Schnell

Cody 59ers Rock Club:

Stan Strike-2132 Gail Lane
Cody, WY 82414 (250-1244)
President-Jim Ulmer-P.O. Box 3003
Cody, WY 82414 (272-5330)

Contacts: Jenny Schneider
Beth Spears

Natrona County Rockhounds:

P.O. Box 123-Mills, WY 82644
President-George Tillman (970-405-5502)

Contacts: Helen Hoff
Jennifer Flowers

Rex Young Rock Club:

Ron Harroun-Box 373-Lingle, WY 82223
President- Kim Nielsen-50434 Leisure Lane
Scottsbluff, NE 69361(308-632-2385)

Contacts: Kim Nielsen
Joyce Trowbridge

Riverton Mineral & Gem Society:

P.O. Box 1904-Riverton, WY 82501
President-Linda Richendifer-10709 Hwy 26
Kinnear, WY 82516 (307-856-1532)

Contacts: Linda Richendifer
Alice Gustin

Shoshone Rock Club:

P.O. Box 256-Powell , WY 82435
President- Mary Ann Northrup-736 Lane 13
Powell, WY 82435 (307-754-4472)

Contacts: Linna Beebe
Jane Neale

WSMGS INFORMATION AND UPDATES

by Stan Strike, President



1. The WSMGS Board met October 13, 2012. Topics discussed were:
 - Clarifying the required dues paid by all WSMGS affiliated clubs to be calculated for “all listed dues paying members who are 12 years or older as of October 31st”.
 - Sponsor of 2014 WSMGS Rock & Gem Show - Cheyenne or ?
 - Concerns of liability coverage for WSMGS Clubs who are not incorporated and members of the Rocky Mountain Federation of Mineralogical Societies (RMFMS).
 - Reminders to affiliated club contacts of upcoming deadlines & requested reports.
 - Location of WSMGS trailer and Jade display case
 - Revision of WSMGS Club State Rock & Gem Show bid forms.
 - Suggestions for November Jade State News.
 - Redesign of the WSMGS website to include additional reference information topics.
 - Obtaining 501©3 status for benefit of WSMGS and affiliated clubs
 - Use of new WSMGS logo
 - Continued WSMGS By-Law Review

2. Club Email Contacts: On October 20 an email was sent out to each club’s email contacts. Attached to that email were 3 WSMGS forms-WSMGS Dues Form, Annual election of Officers Report Form, WSMGS Rockhound of the Year Nomination Form. If your club contact has not publicized these forms or new forms are needed, fill them out online using the WSMGS website-www.wymineralandgemsociety.org.

3. Club “Health Check”-It is that time of year when club officers are elected and members are asked to pay their dues for another year. The health of your club is not only measured by the # of new members & the # of members who rejoin but if your club addresses these questions:

- Does your club encourage & support new officers?
- Is your club structured to allow your members to participate on committees & in meetings?
- Are your club programs related to your club’s objectives?
- Do your members share/show their “finds “ & their finished lapidary products?
- Does your club continue to educate it’s members?
- Do your members have the opportunity to learn lapidary skills?
- Is your club membership a mixture of retirees, working persons, & school age students?
- Does your club provide field trips to new collecting sites & to those visited in the past?
- Are your members encouraged to adhere to the AFMS “Code of Ethics”?

4. Indoor Field Trips??: When the weather is too cold (or too hot or too wet), keep your club moving with indoor field trips. In this issue of the Jade State News will be found an updated website list of facilities organized by Wyoming counties that contain geological displays and an updated list of Wyoming Rock Shops and Lapidary Supplies. Please help our WSMGS Board to add to and update these lists.

5. Lapidary Time!!! Many Rock Hounds collect rocks, minerals, and fossils when the weather is “nice”. Now is the time

Continued on next page...

WSMGS Information and Updates continued

time to sort / organize and prepare your new finds for display - or else you will end up with boxes of rocks soon forgotten? Lapidary equipment is expensive and many of our members cannot afford to buy their own- but if each club could help pay for the materials necessary, perhaps club members with equipment would be willing to share and teach the necessary lapidary skills that would turn some of our finds into Gems!

6. Club Liability Check-If your club is not incorporated with the state of Wyoming or members of the Rocky Mountain Federation of Mineralogical Societies you might consider this info: Limited Liability = Your club can be named in a lawsuit. If your club is incorporated, under the law-creditors and courts are limited to the assets of the nonprofit organization. The original incorporators/founders, board members, members, & employees are not personally liable for the Club's debts –meaning their own money, houses, cars, or property is not at risk. There are exceptions: A person can not use the corporation to shield illegal or irresponsible acts on their part. Also the Board of Directors have a fiduciary responsibility- if they do not perform their jobs in the nonprofit's best interest, and the nonprofit is harmed, they can be held liable. [**Incorporation Cost = \$25/ year**]

(Contact the WSMGS Board with questions about how to incorporate your club.) RMFMS Liability Coverage = This general liability insurance provides protection for RMFMS affiliated clubs (who purchase this insurance) from third party nonmember individuals who allege to be injured/damaged because of your club's negligence. It does protect the club resulting from its member's participation in club or RMFMS/WSMGS sponsored activities. Club members are defined as all recorded members of the club regardless of their classification (junior, adult, honorary/life), including all new members recorded after the initial yearly liability insurance payment is made to the RMFMS. The RMFMS liability insurance does not cover damage or injury from:

- Your personal negligence in regard to yourself or the alleged negligence of other club members to each other or to club Property.
- Car/airplane/boat accidents while on club/RMFMS/WSMGS sponsored activities.
- Nonmember guests participating in club/RMFMS/WSMGS sponsored activities (coverage may be approved upon legal review (case by case)..
- Sponsored activities in which negligence occurs in conjunction with alcohol consumption.
- Pollutants
- False advertising
- Willful acts except protection of persons or property.

The RMFMS will provide a "Certificate of Insurance" as proof of liability insurance & "Additional Insured" rider that may be required by landowners, hotels, meeting places or other facilities utilized for club/RMFMS/WSMGS sponsored activities. Allow 2 months for this approval from RMFMS insurance carrier. **RMFMS Costs: Membership = \$1.50/member + Insurance = \$0.65/member**].

7. The WSMGS website-www.wymineralandgemsociety.org - has been reformatted to provide for additional reference information that Rock Hounds will find useful. Some of the new "Websites For Rock Hounds" to be added are included within this Jade State News edition. Please contact the WSMGS Board with additional websites.

8. The WSMGS Board will meet on January 19, 2013 to recommend additional changes to the WSMGS by-laws. The WSMGS Board would encourage each club to review the copy of the by-laws received by your delegate that attended the annual WSMGS meeting in Torrington on June 8, 2012. Please send your suggested changes or plan to attend this meeting. Contact Stan Strike: 307-250-1244.



Stratigraphy of Eocene sedimentary rocks in the Lysite Mountain area, Hot Springs, Fremont, and Washakie counties, Wyoming

by Bay, Kirby W., Ph.D., UNIVERSITY OF WYOMING, 1969, 181 pages; DP15159

Abstract:

Middle and upper Eocene continental sedimentary rocks at Lysite Mountain lie in a structural low between the Owl Creek Mountains (west) and southern Bighorn Mountains (east). Volcanic rich strata are divisible qualitatively and quantitatively into two sequences. Lower sequence rocks (middle and upper Eocene) rest with angular unconformity on Paleozoic and Mesozoic strata which dip north into the Bighorn Basin. Upper sequence rocks (upper Eocene) rest on an erosional surface cut in the lower sequence, and may rest directly on pre-Tertiary strata due to erosion.

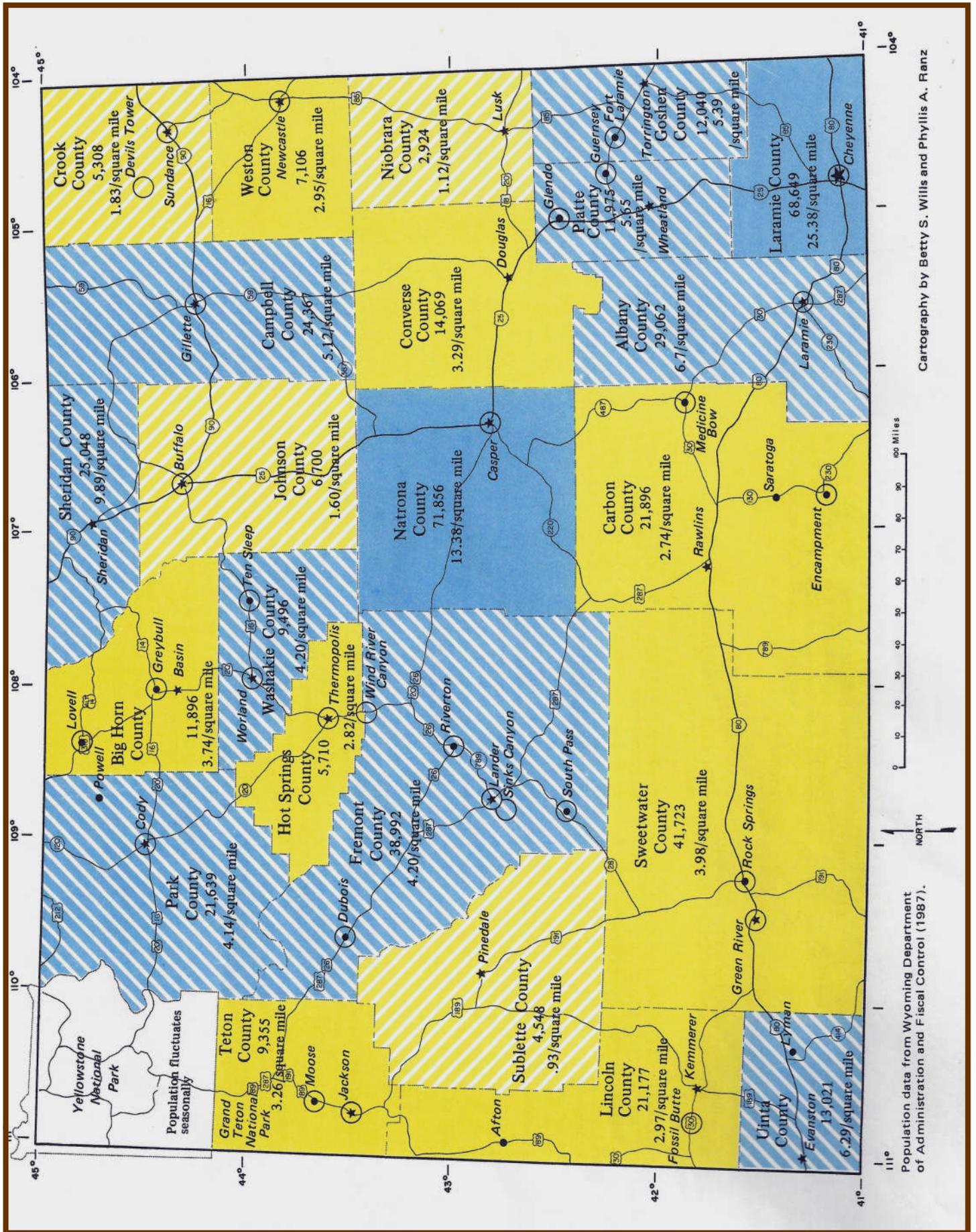
Lower sequence strata are characterized by: (1) a sporadically occurring locally derived basal conglomerate? (2) analcimolite, (3) puffy, "popcorn weathering" tuffaceous claystone, (4) carbonaceous sediments, (5) a minor amount of "red beds", (6) a particular kind of calcite concretion, and (7) local sediment distortion. Upper sequence strata are characterized by: (1) a basal sandstone and conglomerate consisting of volcanic detritus, (2) limestone, dolomite and agate beds, (3) calcareous sandstone and siltstone concretions, (4) tuff, and (5) authigenic potash feldspar. Discriminant analysis of upper and lower sequences shows that a quantitative difference exists between amounts of sandstone, tuff, and limestone at the .01 level of significance.

Upper sequence rocks contain relatively more volcanic and pyroclastic detritus (from Absaroka-Yellowstone province); lower sequence rocks relatively more locally derived detritus (from Owl Creek and southern Bighorn Mountains).

Lysite Mountain Tertiary strata dip gently south probably due to late Tertiary normal faulting along the Cedar Ridge fault. Lower sequence strata are locally folded and the oil shale and coal beds are burned to clinker.

Sediments were deposited in lakes and streams while the climate was warm temperate to sub-tropical. Deposition in saline, alkaline lakes, Green River type lakes, and carbonate-rich lakes formed the majority of sedimentary strata at Lysite Mountain. Deposition in streams which initially flowed north, later south, formed the minority of Lysite Mountain strata.

Formation of authigenic silicate minerals in saline, alkaline lakes and by the action of ground water in relatively coarse-grained stratigraphic intervals, was controlled by salinity, pH, and character of material available for alteration.



Cartography by Betty S. Wills and Phyllis A. Ranz

MAP EXPLANATION

- Teton County = County name
9,355 = Total county population
3.26/square mile = Population density in number of people per square mile
★ County seat
★ State capital
● Other important population center
○ Site of rock, mineral, or fossil display (see list).

Population density distribution (people per square mile)

-  More than 10
 More than 4 and fewer than 10
 More than 2 and fewer than 4
 Fewer than 2

PLACES TO SEE GEOLOGIC DISPLAYS IN WYOMING

(With population data, major towns and roads)

Where can you go in Wyoming to see exhibits of rocks, minerals, fossils, and other geologic material? This list of public museums and other places was compiled from my own travel notes, from responses to a questionnaire I mailed to many museums around the State, and from *Guide to museums in Wyoming* (Wyoming State Archives, Museums and Historical Department, 1982). Some of these exhibits are outstanding resources for the people of Wyoming and travelers to the State; we are indebted to the citizens and organizations or agencies who assembled and maintain them.

The list does not include the many rock, mineral, and fossil shops in the State, but these are highly recommended as sources of information and places to acquire your own samples. There are private collections available for study in some areas, but they are not described here.

The entries are as complete and up-to-date as I could make them, but there are undoubtedly some omissions or errors. The blank page at the end of this section is offered for additional notes and corrections. Admission to most of the exhibits was free at the time of this writing, but that may not always be true; some of the museums charge a small admission fee and many will cheerfully accept donations. Please check hours and admission fees when planning your visit.

ALBANY COUNTY

DINOSAUR BONE CABIN

Cabin built from Jurassic dinosaur bones. The famous dinosaur fossil site, Como Bluff, is nearby and a roadside marker briefly describes the Area. Located southeast of Medicine Bow on U.S. Highway 30/287.

THE GEOLOGICAL MUSEUM

The best collection of dinosaur material in Wyoming; vertebrate and invertebrate fossils; rocks and minerals; related geologic displays. Exhibits and educational interpretive packages; occasional special exhibits. Guided tours available to groups with reservations. Located in the S.H. Knight Geology Build-

ing on the University of Wyoming Campus in Laramie. Open 8:00 a.m.-5:00 p.m., Monday-Friday (except major holidays); 10:00 a.m.-1:00 p.m. occasional weekends.

THE GEOLOGICAL SURVEY OF WYOMING

Rock and mineral displays including uncut Wyoming diamonds and diamond-bearing rocks; maps and books about all phases of Wyoming geology; geologic staff available to identify rock and mineral specimens and answer questions. Located in the Geological Survey Building on the University of Wyoming Campus in Laramie. Open 8:00 a.m.-5:00 p.m., Monday-Friday (except major holidays).

PLACES TO SEE GEOLOGIC DISPLAYS IN WYOMING

Continued from page 5

THE WYOMING CHILDREN'S MUSEUM

A hands-on museum. Exhibits change, some have geological themes (for example, rock and mineral identification and "gold" panning); workshops; guided tours for school groups and others by appointment. Located in rooms 253 and 254 in the Laramie Civic Center, 7th and Garfield, Laramie. Open Saturdays, 10:00 a.m.-4:00 p.m. and other hours by appointment.

BIG HORN COUNTY

BIGHORN CANYON RECREATION

AREA VISITORS CENTER

Large geologic time display with examples of rocks from the local area, related to development of the canyon; books; geologic road guide for the area; guided natural history hikes include local geology. Located ¼ mile south of Lovell at the junction of U.S. Highway 310 and U.S. Alternate 14. Open 7 days/week, 8:00 a.m.-5:00 p.m., winters; 8:00 a.m.-6:00 p.m., summers.

BIGHORN BASIN GEOSCIENCE CENTER

Located at 537 Greybull Avenue, Greybull, 307-765-2286

GREYBULL MUSEUM

Rocks, minerals, more extensive fossil collection; display of local bentonite mining; earthscience slide programs; guided tours. Located at 325 Greybull Ave., Greybull. Open 10:00 a.m.-8:00 p.m., Monday-Saturday, June-August; reduced hours during other months (check with museum).

RED GULCH DINOSAUR TRACK SITE

Located 8 miles east of Greybull on U.S. Highway 14 to Red Gulch/Alkali National Back Country Byway turn off, head south on the Byway approximately 5 miles.

SHELL FALLS INTERPRETIVE SITE

Located 22 miles east of Greybull on U.S. Highway 14 in the Bighorn National Forest.

CAMPBELL COUNTY

CAMPBELL ROCKPILE MUSEUM

Minerals, rocks, and a few fossils. Located at 1000 West 2nd (Highway 14/16 West), Gillette. Open 10:00 a.m.- 8:00 p.m., Tuesday-Sunday, May 15-October 15.

CARBON COUNTY

GRAND ENCAMPMENT MUSEUM

Rocks, minerals, fossils; exhibits of the Grand Encampment copper mining district at the turn of the century; books on local

geology and mining history. Useful explanatory notes, guided tours. Located in Encampment. Open 1:00-5:00 p.m., 7 days/week, Memorial Day-Labor Day; Saturday and Sunday only, September and October.

MEDICINE BOW MUSEUM

Local fossils, petrified wood. The University of Wyoming Geological Museum provides a summer exhibit of Como Bluff fossils and an excursion to the Como Bluff dinosaur sites. Located at 405 Lincoln Highway in Medicine Bow (old railroad depot). Open 10:00 a.m.-6:00 p.m., Wednesday-Monday, Memorial Day to Labor Day.

CROOK COUNTY

CROOK COUNTY MUSEUM

AND ART GALLERY

Rocks, minerals, fossils. Located in Sundance. Open 9:00 a.m.-12:00 p.m. and 1:00-5:00 p.m. Monday-Friday.

DEVILS TOWER NATIONAL

MONUMENT VISITORS CENTER

Geology display and the monument itself, an exhumed volcanic neck; video of Tower formation; books; self-guided trail includes geology of the area. Located west of Wyoming Highway 24 in northeastern Wyoming. Open 8:00 a.m.-7:45 p.m., 7 days/week, summers; reduced hours spring and fall; closed about November 1 to May 1 (plan to be open all year starting 1994).

FREMONT COUNTY

FREMONT COUNTY MUSEUMS.

DUBOIS BRANCH

Minerals, rocks, fossils; Wind River Basin stratigraphic section; geology bookshelf. Guided tours. Located in Dubois. Open 10:00 a.m.-6:00 p.m., June-August.

FREMONT COUNTY PIONEER MUSEUM

Wyoming jade, a few fossils. Located at 630 Lincoln Street, Lander. Open afternoons Monday-Friday in winter; extended hours in summer (check with museum).

RIVERTON MUSEUM

Fossils, rocks, minerals; exhibits on local petroleum geology and uranium deposits. Located at 700 East Park in Riverton. Open 11:00 a.m.-6:00 p.m., June-September; 10:00 a.m.-4:00 p.m. October-May.

SINKS CANYON STATE PARK

AND VISITORS CENTER

PLACES TO SEE GEOLOGIC DISPLAYS IN WYOMING

Continued from page 6

how the Sinks works, types of fossilization; natural history videos; nature walk. Located in Sinks Canyon State Park, 7.5 miles southwest of Lander. Open 7 days/week Memorial Day through Labor Day.

SOUTH PASS CITY STATE HISTORIC SITE

Historic gold mining town. Rock and mineral display, slide show, guided tours. Located in South Pass City on State route 62 south of State Highway 28. Open 9:00 a.m.-6:00 p.m., May 15-October 15.

GOSHEN COUNTY

FORT LARAMIE NATIONAL HISTORIC

SITE VISITORS CENTER

A few rocks and fossils from the local area, raised-relief map, books. Located at the historic site, southeast of Guernsey. Open sunrise to sunset, summers, shorter hours in winter.

TORRINGTON MUSEUM

A few rock and fossils from the State. Winter: Monday-Friday: 9:30 a.m.-12:00 p.m., 1:00 p.m.-4:00 p.m. Summer: (June 1st- August 28th) Monday-Wednesday: 9.30 a.m.-4.00 p.m., Thursday-Friday 9:30 a.m.-5:00 p.m., Saturday: 12:00 p.m.-4:00 p.m. Located at 495 Main Street, Torrington. 307-532-5612

HOT SPRINGS COUNTY

DINOSAUR MUSEUM

Located 110 Carter Ranch Road, Thermopolis. 307-754-9481 Tours can be scheduled through the Thermopolis Museum (see more info below)

THERMOPOLIS MUSEUM

Located 700 Broadway Street, Thermopolis 307-864-5183

WIND RIVER CANYON

The drive on U.S. Highway 20/Wyoming Highway 789 through the canyon north of Boysen Reservoir, while not exactly a museum, is a wonderful, annotated display of Wyoming geology. As the road cuts through the rocks, more than 2.5 billion years of geologic history is exposed. Road signs placed alongside the rocks record the formation name and age so that travelers can appreciate the tour through geologic time.

JOHNSON COUNTY

JOHNSON COUNTY JIM GATCHELL

MEMORIAL MUSEUM

Rocks, minerals, fossils. Located at 10 Fort Street, Buffalo. Open 9:00 a.m.-8 p.m., Memorial Day to Labor Day (dates may be extended).

LARAMIE COUNTY

WYOMING STATE MUSEUM

Triceratops skull cast; rock and mineral samples and books in the Gift Shop. Located in the Barrett Building, Cheyenne. Open 8:00 a.m.-5:00 p.m., Monday-Friday; 1:00-5:00 p.m. Saturday and Sunday (summers).

WYOMING STATE CAPITAL

Small display of Wyoming rocks and minerals on the second floor of the Capitol Building. Open 8:00 a.m.-5:00 p.m., weekdays except holidays.

LINCOLN COUNTY

FOSSIL BUTTE NATIONAL MONUMENT

Green River Formation fossil fish, plants etc. display; self-guided and naturalist-guided hikes on Fossil Butte; campfire programs. Located 10 miles west of Kemmerer on U.S. Highway 30. Open 8:30 a.m.-5:30 p.m., 7 days/week, summers (about May 20-September 10). (New facility is scheduled to be open all year starting in 1990.)

NATRONA COUNTY

STATE MINERALOGICAL MUSEUM

Features geologic history of the area, local fossils and minerals, extensive jade collection; guided tours for school groups and others by appointment. Located in the Tate Buidon on Casper Mountain Road in Casper Irregular hours, call (307) 268-2514 or Casper College

PARK COUNTY

BELDEN MUSEUM

Located at 1947 State Street, Meeteetse. Call (307) 868-2423 for additional information.

BUFFALO BILL MUSEUM

Located at 702 Sheridan Avenue, Cody. Call (307) 587-4771, Closed New Year's, Thanksgiving, & Christmas days, call for hours.

CODY FIFTY-NINERS ROCK CLUB EXHIBIT

The club maintains a display of local rocks, gems and fossils. Located at the Park County Assessor's Office on the ground level of the Park County Court House, 1002 Sheridan Avenue, Cody. The display is changed annually, about May 1.

HOMESTEADERS' MUSEUM

Nice rock & fossil specimens on display. Located 324 East 1st Street, Powell. (307) 754-9481

PLACES TO SEE GEOLOGIC DISPLAYS IN WYOMING

Continued from page 7

PLATTE COUNTY

FREDERICK MUSEUM

Large unclassified collection of rocks and minerals. Located 2 miles west of Guernsey on U.S. Highway 26. Open 10:00 a.m.-4:00 p.m., weekdays.

GLENDO HISTORICAL MUSEUM

A few rock and mineral specimens; more extensive fossil display correlated with geologic time; guided tours. Some fossil material available for study that is not displayed. Located at the Town Hall, Glendo. Open 8:00 a.m.-12:00 p.m., Monday-Friday and 1:00-4:00 p.m. on request.

GUERNSEY MUSEUM

Some local rocks and minerals. Located at the southwest corner of City Park. Open 8:00 a.m.-8:00 p.m., mid May-end of September.

GUERNSEY STATE PARK MUSEUM

Rocks, minerals; displays of agate, iron, and onyx mined locally, prehistoric rock quarry, creation of Guernsey Canyon; some geology books. Located near Guernsey. Open May 15-September 10.

SWEETWATER COUNTY

GREEN RIVER CHAMBER OF

COMMERCE/U.S. FOREST SERVICE

INFORMATION CENTER

Large raised-relief map of the Flaming George area; trona display (samples, mining, processing, products); geological maps and area information. Located at 1450 Uinta, Green River. Hours 9:00 a.m.-12:00 p.m. and 1:00-4:30 p.m., Monday-Friday.

SWEETWATER COUNTY

HISTORICAL MUSEUM

Fossils, minerals, rocks; mining history (coal, trona and oil shale); guided tours. Located in the courthouse at Green River (80 West Flaming Gorge Way). Open 10:00 a.m.-4:30 p.m., Monday-Friday except holidays.

WESTERN WYOMING COLLEGE MUSEUM

Fossil fish, mammals, growing collection of dinosaurs; tours by arrangement. Located on Western Wyoming College Campus in Rock Springs. Open 7:00 a.m.-10:00 p.m., Monday-Friday.

TETON COUNTY

GRAND TETON NATIONAL PARK

VISITORS CENTER

Interpretive center with information and displays on the geology of the park; maps; books. Guided tours, talks and slide shows during summer months. Located at Moose. Open 8:00 a.m.-4:30 p.m. (reduced winter hours).

JACKSON HOLE MUSEUM

Displays of mining history in Jackson Hole; minerals and rocks used in Indian arrowheads. Located at 105 North Glenwood, Jackson. Open 9:00 a.m.-9:00 p.m.

WASHAKIE COUNTY

TEN SLEEP MUSEUM

A few rock, mineral, and fossil specimens. Located in Ten Sleep. Open 1:00-4:00 p.m., Memorial Day to Labor Day.

WASHAKIE COUNTY MUSEUM

AND CULTURAL CENTER

Rocks, minerals, fossils. Some exhibits change every two months, may include other geology displays. Located at 2200 Big Horn Avenue, Worland. Call (307) 347-4102 for additional information. Open 10:00 a.m.-5:00 p.m., Monday-Friday, all year; 2:00-5:00 p.m., Saturday and Sunday, summers.

WESTON COUNTY

ANNA MILLER MUSEUM

Extensive collection of fossils, rocks, minerals; displays of Black Hills uplift, geologic formations; geology books; guided tours. Will take museum exhibits to schools. Located on Delaware Street, Newcastle. Open 9:00 a.m.-5:00 p.m., Monday-Friday, after hours by appointment.

YELLOWSTONE NATIONAL PARK

Of course, the whole park is a fantastic geological exhibit. Several of the visitor's centers have good displays and other explanatory material (specialties in parentheses): Canyon Visitor Center (geology and other natural history) Fishing Bridge Museum (Yellowstone Lake geology), Old Faithful (geyser activity). Ranger talks, guided tours, and slide shows sometimes feature geological subjects. (Check for hours).

Editor's Note: The forgoing information has been copied from "Wyoming Geomaps" by Sheila Roberts, Educational Series 1, dated 1989. The article "PLACES TO SEE GEOLOGIC DISPLAYS IN WYOMING" which is featured in this publication of the Jade State Newsletter is intended as an informational guide for members, guests and visitors seeking additional resources in the pursuit of their interests, hobby, or

GEOLOGIC DISPLAYS IN WYOMING

Continued from page 8

education.

As you can see by the dated material, there may have been changes in hours of public viewing, business location and/or other circumstances which are unknown at the time of this presentation. The accuracy of the information has not been verified, however, there have been some locations added to the original document based on information from local resources.

Should there be any changes or additional information, please contact the editor so that corrections can be made and the material can continue to be useful to all interested.

POLISHED ROCKS WANTED

For this May's mineral show we would like to put some polished rocks in our grab bags. To do this we need 200 such rocks the size of those shown in this picture. If you are willing to donate some for this project please contact Bob King at (307) 632-2702 or BobHeidi@Bresnan.NET Thank you.



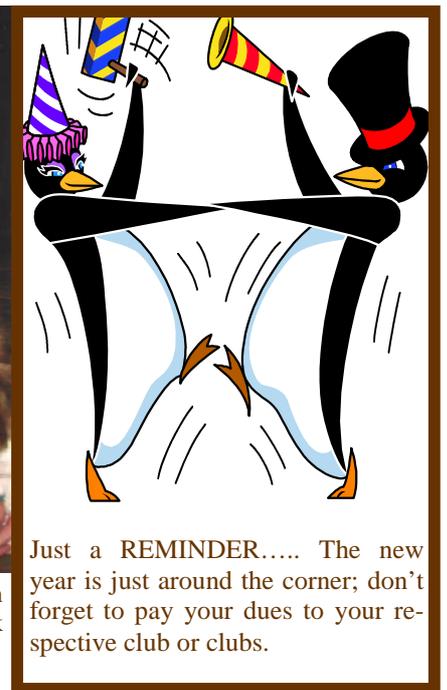
October 2012, Stan Strikes looks on while Lynn Neale cuts 1/4" slabs on trim saw. Working with a small specimen of irregular shape can present a challenge. With Richard Heumier's (Riverton Gem & Mineral Society) help, Richard and Lynn were able to design a wooden guide to cut the small piece without wobble, distortion or injury.

Photo by Jane Neale



February 2012, Children from the Powell Boys and Girls Club are intrigued by the presentation of the fluorescent light program and demonstration by Lynn Neale from the Shoshone Rock Club.

Photo by Jane Neale



Just a REMINDER..... The new year is just around the corner; don't forget to pay your dues to your respective club or clubs.

Rockhound of the Year Nomination Form

WSMGS ROCKHOUND OF THE YEAR NOMINATION FORM

The Wyoming Mineral and Gem Society (WSMGS) Board encourages all of the WSMGS affiliated clubs and their individual members to utilize this Nomination Form to recognize club members who have made outstanding contributions to their local club and/or to the WSMGS. Nominations can be made by individual clubs and by individuals within each club-clubs are not limited to one nomination. All nominations will be judged by a knowledgeable group of 3rd party individuals who are not members of WSMGS. The winner of the WSMGS Rockhound of the Year will be announced at the WSMGS Annual Meeting.

1. Name of Nominated Person: _____

2. Address of Nominated Person: _____

3. Nominated Person's Current WSMGS Club Memberships:

4. Individual's Contributions to WSMGS Affiliated Clubs:

5. Individual's Contributions to WSMGS:

6. State examples that this individual educates others about the Earth Sciences associated with Rockhounding:

7. State examples that individual observes & promotes the American Federation of Mineralogical Societies "Code of Ethics":

8. Summarize why this individual is being nominated as WSMGS Rockhound of the Year:

Club/Person Nominating the above individual:

Name _____ Club _____

Phone _____ E Mail _____

Return this form to the current WSMGS President by March 31st:

Stan Strike-2132 Gail Lane-Cody 82414 (strikes@bresnan.net) (307-250-1244)

Tumbling and Polishing Stones with Rotary or Barrel Tumblers

Thoroughly wash rocks if you are using broken slabs with soap to remove oil. Broken slabs will take longer to polish than just rough stone, but the shapes will be very pleasing when finished. Stones should be of the same hardness, or you may find some of your stones are worn away. At least 20-25% of your barrel load should be filled with small stones in the ¼ - ½ inch size as a separation or filler material. (Another item to use for the small stones is ceramic media). This helps the grit to get into the smaller areas to shape the stones and speeds up the tumbling process. Fill the tumbler only 1/2 to 3/4 full. If the rocks are packed too tightly in the tumbler, this will slow down the vigorous action. On all tumbling stages except the polish stage, use one tablespoon of grit per pound of rock. Add water to approximately 1"-2" below the level of the rocks in the barrel.

The longest procedure is the course grit stage (60-90f or 80grit) for shaping the stone. It is important not to rush getting the stones into the next grit stage of medium or 150-220 grit. Run the tumbler 24 hours a day, for at least a week. Stone can take two weeks to a month or longer to shape in the course stage. Softer stones will take less time to shape. Check the rocks each week adding more grit in the course grit stages only. (Course grit breaks down quickly, and if new grit is not added weekly, the shaping and grinding action will slow down or stop.)

When the majority of the stones are ready for the next grit stage, remove any that need more time tumbling and save them for the next course grit batch. Pour the stones from the tumbler onto an elevated window screen and use water from the garden hose to remove the grit. (Another suggestion is to make a wash bag to speed up the cleaning step. Use a piece of fiberglass screening, as used for replacing window screens, size 48" X 24", fold and cut to have 2 strips 48" X 12". Fold these and sew up the sides with wide tape (such as quilting bias tape) to make a sack that is 12" X 24".

When washing out, fill a five gallon bucket half full or so with water, put the bag partially in the bucket and put stones to be washed in the bag where you can seesaw them both up and down and from top to bottom of the bag. Doing this in a maximum of three buckets of water will give you a super clean stone that is ready to proceed to the next stage with absolute minimum of contamination. (Compliments: Bill Myers, Texas, of Myers Rapid Polish).

After cleaning the stones, barrel, gasket, and lid, thoroughly, (left over grit can scratch the stones in the next step), proceed to the next stage of 150-220 grit (medium grit). Use one tablespoon of grit per pound of rock as before. Check your stones each week for one or two weeks. (No additional grit is necessary since the finer grits do not break down as much. Repeat the process of cleaning and tumbling. Some like to use 400 grit next, others jump to 500 fine grit. For a notable polish improvement, an additional step after 500-grit, is aluminum oxide, pre-polish, 800 grit. Repeat as before.

For the polish stage, use a tumbler polish such as TXP, Myers Rapid Polish #61, or tin oxide tumbler polish. The amount of polish to use varies. Try one tablespoon per ten (10) pounds of rock. if using TXP tumbler polish.

For other polishes, try one tablespoon per pound of rock. When a filler is needed to keep the rocks from spalling, (breaking a small piece off and chipping the stones,) use wood chips, plastic pellets, walnut hulls, hardwood dowel sticks, ceramic media, or strips of leather, felt or rubber. Plastic pellets can be easily scooped off the top of the water using a strainer and washed and reused another time. Other fillers may be reused also such as ceramic media by washing.

OBSIDIAN OR APACHE TEARS is extremely brittle and needs filler for cushioning to keep the stones from spalling in ALL GRIT STAGES. Use anywhere from 50% to 75% filler to stones. Shaped cabochons can be added to the tumblers when completed through the 220-grit finish. Very little stone is removed from 400-grit stage on while tumbling. If you do not want the back of the cab polished, apply masking tape, which will protect the back fairly well. Stones from sawing that are free of saw marks can be omitted from the course grit stage. Preforms, (shaped slabs or stones) do require a buffer/filler material or sharp edges will be chipped.

HAPPY TUMBLING!

Courtesy of Stone Age Industries, Powell, Wyoming

PROCEDURE TO vibratory tumbler POLISH ROCKS IN A U-V 10 TUMBLER USING SILICON CARBIDE ABRASIVES AND TXP or #61 RAPID POLISH

1. Clean/rinse rocks and dump them wet into the tumbler bowl. Add 220 Mesh Silicon Carbide at the rate of 5 level tablespoons for each 10 pounds of tumbler charge. Vibrate for 24 to 48 Hours. Clean/rinse the rocks and tumbler bowl after the first cycle. Repeat this step as many times as necessary to obtain desired shape of the rocks
2. Clean/rinse rocks and dump them wet into the tumbler bowl. Add 500F Silicon Carbide Abrasive at the rate of one heaping tablespoons for each 10 pounds of tumbler charge. Vibrate for 24 Hours. Clean/rinse the rocks and tumbler bowl when cycle is complete.
3. Clean/rinse rocks and dump them into the tumbler bowl. Add TXP or #61 Rapid Polish at the rate of 1/2 tablespoon for each 10 pounds of tumbler charge. Vibrate for 24 to 48 hours. Clean/rinse the rocks and tumbler bowl when cycle is complete. If the shine on the rocks is not sufficient, repeat this step.

SOME HELPFUL HINTS:

- Make sure that the "slurry" on the rocks never gets thicker than a thin milk shake, To thin slurry a pump or two out of a spray bottle is adequate.
- Each time you start a step, after adding the rocks to the vibratory tumbler bowl add 6 pumps of liquid "SOFT SOAP" to a 10 pound charge!!! This makes the rocks sticky to hold on to the abrasives, also helps in clean-up.
- Do not over due the amount of water in a vibratory tumbler. There should be almost NO free liquid in the bottom of the tumbler bowl.
- Make sure you have the correct size distribution of rocks in the charge. You need LOTS and LOTS of small pea size rocks in the charge. 1/3 of the charge should be pea size or smaller, 1/3 of the charge should be thumb size and the balance larger rocks!!!! We sell non-abrasive ceramic pellets of several different sizes for this purpose.
- If your vibratory tumbler is a different size compared to the one indicated above, use a direct ratio of the amount of abrasives/polishes and SOFT SOAP.
- Between steps 2 and 3, the rocks must be scrupulously cleaned. Every crack, nook and hole must be brushed and washed.

Courtesy of Eloxite Corporation, Wheatland, WY

Revised August 05, 2009

Websites for Rockhounds

1. Subject-Wyoming/Montana Agates with Photos (=Volume 2)
The American Agate-Jasper Index-A Quartz Gem Materials Guide
(register on website & select “Vol.2 then” “free download”
<http://www.vgms.org/bt/agate-links.htm>
2. Subject-Wyoming Mine Locations by County
<http://www.trainweb.org/wyomingrails/wymining/wymines.html>
3. Subject-Wyoming Rockhounding Site Guide
from The Great Wyoming Rockhounding Page
<https://sites.google.com/site/wyomingrockhound/wyoming-rockhounding-site-guide>
4. Subject-Mining & Rock Locations –WY Eden Valley/Blue Forest Petrified Wood +others
http://thegemshop.com/osc/mining_main.php
5. Subject-WY Fossil Sites by County
<http://www.fossilsites.com/STATES/WY.HTM>
6. Subject-List of WY Mountains by Nearest Towns
<http://expertgps.com/data/wy/mountains.asp>
7. Subject-Wyoming Gems, Rocks, & Minerals (by W. Dan Hausel)
<http://wygemstones.blogspot.com/2009/01/wyoming-gems-rocks-minerals.html>
8. Subject- Rockhound Information, References, & Forum
<http://rockhounds.com> (Bob’s Rock Shop)

CLUB NEWS AND ANNOUNCEMENTS

CODY 59ERS CLUB NEWS

The Cody 59ers Rock Club summer field trips took them to the plant fossil beds near Tensleep, a new dinosaur track site near Shell, and collecting rocks near Cody. After the WSMGS State Show, we transferred our State Showcase display to our Park County Library for public display. Our display case near the Assessor's Office in the Park County Courthouse was also updated.

The Club purchased several pieces of used lapidary equipment which has been reconditioned and can be checked out for individual club members use. Our equipment includes 6" and 10" trim saws, double arbor 8" diamond grinding wheels, double arbor 8" expanding rubber polishing wheels. Expendable materials, such as new grinding & polishing belts and tumbling grits, can be purchased from the club in small quantities by individual members. We are also encouraging members who have lapidary experience to teach other members how to use the equipment to create lapidary products that become "Rock Art".

Our Fall meetings have been well attended with programs ranging from "Beginning Cabochon Cutting" to "The Wild Horses of the McColloch Peaks/and their Fossil Ancestors". Our monthly meetings conclude with a door-prize, refreshments, and a silent auction of rocks that the club has purchased.

Shoshone Rock Club News Letter

Dear rock club members, guests and friends,

Please join us on Tuesday, December 4th, 6:00 PM, Garland Community Church, 900 Sheridan Ave. off Hwy 114. Please bring a potluck dish of your choosing. Table service will be provided.

Mary Ann Northrup is bringing punch, coffee will be provided, Mary Vogel is bringing rolls, butter and jelly. Not sure of any others plans, but main course, salads, and or desserts are needed. Please also bring an unwrapped rock, fossil or other to swap. Curt Talbot, Worland, will give a 1/2 hour program on WY minerals, weather permitting.

If you missed this months meeting, new officers and board were approved as follows:

Pres.: Mary Ann Northrup

Vice Pres.: Lynn Neale

Treasurer: Art Schatz *(Continued next column)*

Sec. Linna Beebe

Board: Ned Kelley, Romain Vogel, Mary Vogel, Carl Brown, & Jane Neale

New Field Trip Chairmen: Ned Kelley

A big thank you for all those serving as officers and board this year and 2013.

Reminder: Nov. 27th, program by "Doc" Ellis on Rock hunting, Northwest College, Room 70, Fagerberg Building, 7-9 PM. He will discuss a dozen places to rock hunt. Jade State News Editor, Verne Orcutt, stated he hoped to be able to pass out a new JSN issue at this program.

Linna, Sec.

Rex Young Rock Club

Our club has had a busy year with all the planning and getting ready for our state show. Back in May we met at the Western History Center and talked about the details and final plans for the show. Everyone helped fill rock bags.

Then in June there was no regular meeting due to the State Rock Show that was June 9th and 10th at the Rendezvous Center in Torrington. We had a good crowd for both days. It turned out to be a nice show. Thanks to everyone for their hard work in putting this together!

In July, ten members met at the home of Roy and Joyce Trowbridge for a barbeque. The lightning and rain came right after we ate so we ended up going inside to visit.

In August, we talked about the show and also discussed how many door prizes to pick up at the Denver show for the upcoming year.

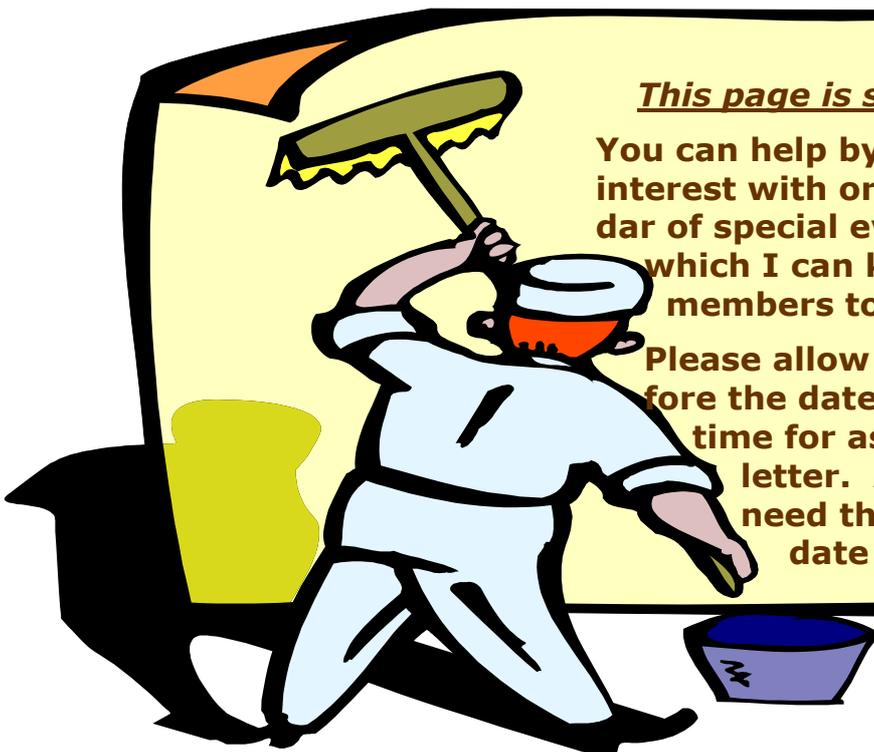
At our September meeting, we made plans for a couple of Glendo field trips at the end of the month. Everyone interested was to meet at Ron Harroun's house at 8:00 a.m. on the 25th and 27th.

In October, we had nine members present for our carry-in meal. We enjoyed a wonderful meal including pizza that the club provided! After we ate, the meeting got started and we heard a report about the Glendo field trips. The club looked at the door prizes that were purchased for next year. Joyce Trowbridge and John Benesch won the door prizes. Sherman Lenhart gave the program. He showed us lots of pretty, dry head agates that he has collected over the years.4

Joyce Trowbridge, Reporter

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This page is still under construction!

You can help by sending your articles of interest with or without photos, calendar of special events and field trips which I can keep up dated for all members to view and/or attend.

Please allow sufficient lead time before the date of the event to provide time for assembly of the Newsletter. As a rule of thumb, I need three weeks from the due date for submissions.