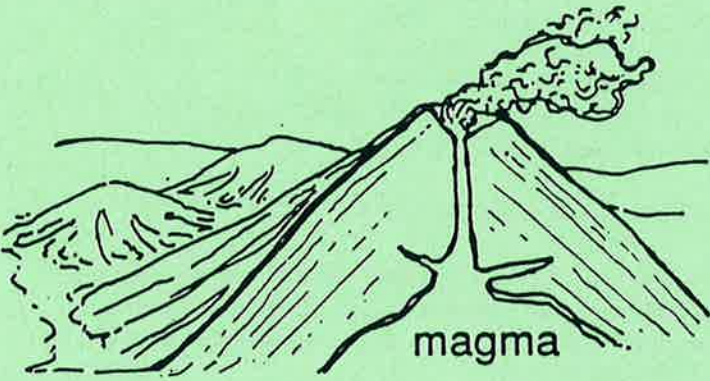


THE ROCKFINDER

Michigan Gem & Mineral Society
Tom Noe, Editor
305 Napoleon Blvd.
South Bend, IN 46617



THE ROCKFINDER

MARCH, 1997

MICHIANA GEM & MINERAL SOCIETY

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THE PURPOSE of the Michiana Gem & Mineral Society is to promote interest in and study of the earth sciences and the lapidary arts, and the sharing of knowledge and techniques.

General meetings are held the fourth Sunday of each month, 2:00 pm EST, at Our Redeemer Lutheran Church, 805 S. 29th St., South Bend, IN. Exceptions include field trip meetings, June (field trip), July (no meeting), August (club picnic) and December (Christmas Party).

Board meetings are held the second Wednesday of each month, 7:00 pm, St. Joseph County Public Library, basement level.

The annual club show is Labor Day Weekend.

cut _____

Yearly Membership Dues (Payable before January 1)

_____ Individual	\$ 6.50 per year
_____ Family	\$10.00 per year
_____ Junior	\$ 2.00 per year

- | | |
|-----------------------|----------------------|
| General Geology _____ | Beads _____ |
| Gems & Minerals _____ | Silversmithing _____ |
| Fossils _____ | Artifacts _____ |
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The Michiana Gem & Mineral Society, a not-for-profit organization, is affiliated with the Midwest Federation of Mineralogical Societies and with the American Federation of Mineralogical Societies.

Rockfinder staff:

Editor, Tom Noe, 305 Napoleon Blvd., South Bend, IN 46617
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Reporters, Bob Heinek, Herb Luckert, club members
 All contributions for publication should be in the hands of the editor by the 10th of each month. Call (219) 289-2028 or (219) 282-1354. Permission is hereby granted to reprint any original *Rockfinder* articles, as long as due recognition is given along with the reprint.

Please send your dues and this form to
 Michiana Gem & Mineral Society
 c/o Margaret Heinek

7091 E. East Park Lane, New Carlisle, IN 46552-9400

Name _____	Birth Mo/Date _____
	will attend meetings, yes ___ no ___
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Address _____	
Phone _____	Anniversary Mo/Date _____

THE ROCKFINDER

Volume 37
Number 3

The Newsletter of the
Michiana Gem & Mineral Society

MARCH, 1997

MEETING: Sunday, March 23, 1997
Doors open at 1:30 pm.
Meeting starts at 2:00 pm.

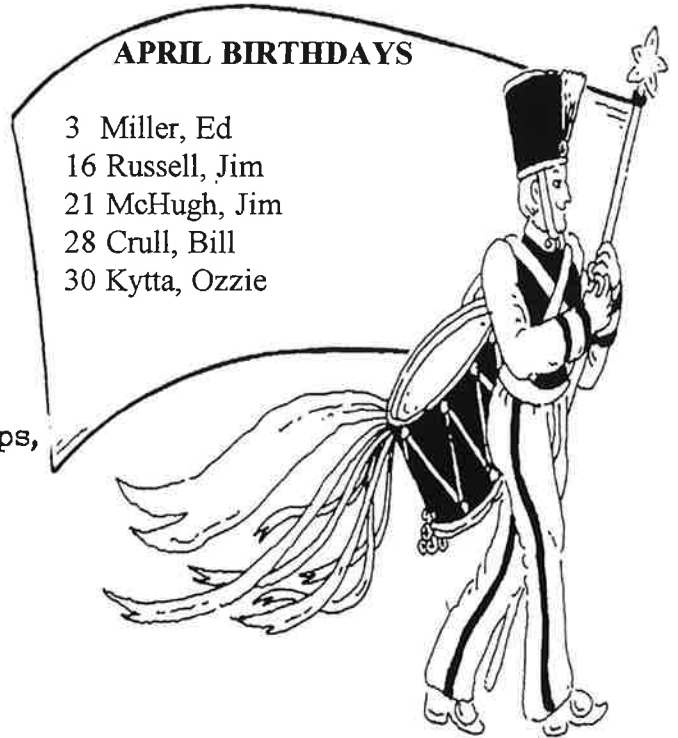
PLACE: Our Redeemer Lutheran Church
805 S. 29th (29th & Wall)
South Bend, IN
Guests are always welcome.

HOSTS: Jessie Zeiger & Gordon Dobecki

PROGRAM: We'll continue making the prizes for the youth activities at the September club show, review our holdings in the club library, discuss field trips, and maybe some surprises....

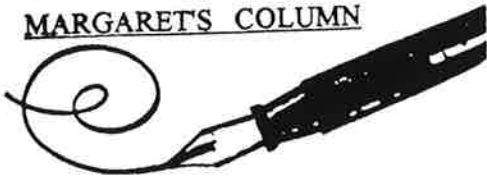
APRIL BIRTHDAYS

3 Miller, Ed
16 Russell, Jim
21 McHugh, Jim
28 Crull, Bill
30 Kytta, Ozzie



UP AND COMING

- April 5-6--"Ohio's Treasures" show, 300 Broad Street, Columbus, OH.
April 5-6--Fulton County Rockhounds Annual Show, 250 South Ave. D, Canton, IL.
April 5-6--West Suburban Lapidary Club Show, 2015 Manchester Rd., Wheaton, IL.
April 5-6--G.O.L.D. 21st Annual Show, 4625 W. 110th, Oak Lawn, IL.
April 5-6--Central Ohio Mineral, Fossil, Gem Show. Columbus Rock & Mineral Society and Licking County Rock & Mineral Society, 300 W Broad St., Columbus, OH.
April 9-12--Indian Mounds Rock & Mineral Club Show, 28th St. & East Beltline, Grand Rapids, MI.
April 11-13--South Bend Gem & Mineral Show, Century Center downtown, South Bend, IN.
April 18-20--M.A.P.S. National Fossil Exposition (buy, sell, swap, etc.) Western Illinois University, Macomb, IL.
April 19--Illinois State Geological Survey field trip to Columbia and Waterloo (caverns, sinkholes, fossil collecting in limestone). Contact IL Geological Survey.
April 26-27--Blackhawk Rock Club Gem & Mineral Show, 7711 N. Main, Rockford, IL.
May 3-4--"Those Super Sulfates" show, 2250 Seymour Ave., Cincinnati, OH.
May 9-11--31st Annual Gem Jewelry & Mineral Show. 3501 Lapeer Rd., Flint, MI.
May 24-26--Chicagoland Gems & Minerals Association, DuPage County Fairgrounds, 2015 Manchester Rd., Wheaton, IL.
June 27-29--32nd Annual Gem, Mineral-Fossil Show & Swap. Monroe County 4-H Fairgrounds, Bloomington, IN.
June 28-29--23rd Annual Rockhound Seminar, Washtenaw Community College, Ann Arbor, MI.

MARGARET'S COLUMN

Bob and I would like to wish you a Happy Easter. We will not be able to attend the March meeting, as we will be in Georgia helping our son pack up to move. See you in April!

There are several mistakes in the Roster, please make corrections:

Sister Georgia and Sister Jeanne's address is Notre Dame, not South Bend (zip-code is correct). Sister Jeanne's last name is spelled FINSKE.

Robin and Bill Schuster's address is: 205 Carol Ave, Niles, MI 49120, phone 616-687-9424.

Add:

Irene Ungurait, 1267 Kinyon St, Apt 17, South Bend, IN 46616.

Mollie Elwell, 105 N. Ironwood Dr., South Bend, IN 232-6849.

Tom Holcomb, 1518 E. Donald, South Bend, IN 46613, 289-5469.

John S. Moore, 3016 Portage Ave. South Bend, IN 46628-3501, 272-9100.

Nick & Jan Pellus, 26642 Roseland, Elkhart, IN 46514, 219-264-4772

Plans are well on the way for the September show, we have all of our dealers. Emily Johnson has agreed to chair the Kiddies Korner. Tom Noe will chair the Silent Auction.

I would like Tom McLaughlin to chair the Displays again this year. Bob Miller will get the Demonstrators.

Bob Heinek, as Dealer Chairman, will need help the night before the show (Thursday night), to measure for the booth spaces. If you are able to help, let Bob know. Marie Crull will take care of the door, and Pam Rubenstein will be the treasurer. You want to help in any way, please let the chairman know, or let me know.

It seems like a long way off, but in order to avail yourself for the September field trip, you are required to spend at least 4 hours helping at the show. It doesn't have to be in one day, can be spent getting ready for the show, working at the door, cleaning up after the show ends, or even help getting the mailing list out. We have almost

1,000 names on the list, and the postcards have to be stamped, apply return addresses, and mailing labels on them. Let us know where you want to work!!!!

* * * * *

Diamonds in Wyoming

More than twenty companies are exploring portions of Wyoming near the Colorado state line for diamonds. That's right, diamonds in Wyoming. Over 100 kimberlite intrusions have been found in this area, and other anomalies, that may indicate the presence of diamonds, await more detailed study. The senior economic geologist of the Wyoming State Geological Survey, W. Dan House, believes that several diamond mines will be operating in Wyoming within a few years.

From *Geotimes* 2/96

A Paleolithic Rockhound

Rockhounding is nothing new! In a cave in central France, a Neanderthal's collection was found. It consisted of a piece of fool's gold (pyrite), fossil shells and coral. All objects were collected miles from the cave. They showed no signs of being worn; instead they apparently were placed in the corner for the owner to admire 50,000 years ago!

From *The Tumbler*

A smart rockhound named
Steele,
Said he could tell
"coprolite" by feel.
But at our last location,
He lost his reputation,
When what he picked up
was real!

from *Ozark Earth Science News*

MINUTES OF JANUARY MEETING

President Margaret Heinek called the meeting to order at 2:10 PM January 23 , 1997.

Hostess are Tom Noe and Sister Jeanne Finske. The table was decorated with a St. Patrick centerpiece and green table cover.

19 adults, 1 guest and 2 juniors attending.

Sister Jeanne told of sending birthday, anniversary, and get-well cards to members.

Kathy Miller motioned the minutes of the January meeting be approved as printed in the *Rockfinder*, seconded by Mike Slattery.

Pam Rubenstein, treasurer, read her financial report, which will be filed for audit. The membership cards and roster is available to be picked up, those not taken will be sent. A copy of the new revised Lapidary List, from the AFMS, has been purchased, and added to the Michiana Society's Library, cost \$2.00.

Old Business

Discussion was held on our donation to the Church for the use of the meeting room. It was suggested that we donate toward the renovation of the kitchen, which had been suggested by the minister. Gordon Dobecki motioned that we donate \$200.00 for that fund, seconded and approved by members.

Kathy Miller, gave a report on an exhibit that will be at the Cleveland Museum, of Faberge jewelry, March 9 through May 11. She asked for a show of hands of those that would like to go by bus. About 10 indicated that they might be interested. We must have at least 30 to get a bus, but Kathy will check with the museum as to dates we might go for a tour of the exhibit. Her report will be in the March *Rockfinder*. The cost will be \$7.00 to \$10.00 and it will be a one day trip.

Kathy asked if anyone would like to take a field trip to Chaney Quarry at Bellview, Michigan on May 11 or 18th. The Millers brought samples of rock that is available there. This will be by individual cars. Interested? Let Kathy know.

The September weekend trip will be Sept. 19th, leaving South Bend at 4 PM and returning

on Sunday early evening. Kathy is making plans for the motel, and will let us know the cost and the name of the motel. Plans will be made for a dinner on Saturday night at the restaurant that over looks the river (the same one we went to before).

New Business

Tom Noe and Margaret have nominated Gordon Dobecki for Each Club-Each Year-One Rockhound. Gordon will be moving to Oregon next year, and we feel he is an excellent choice. Our other nominee was Paul Godollei, in 1996.

A "Thank You" was received from the St. Joseph/South Bend Library for the club's participation at the Science Alive Program. There were about 6,500 to 7,000 attendance this year. Gordon Dobecki had 300 Petosky stones, pre-polished, for the youngsters to finish, and he only had about 25 left!

Bill Nelson showed a neat tool for rockhounding that he had purchased at Fat Daddies Outlet on South Michigan across from the Post Office, for about \$8.00.

Bob and Kathy Miller's display included pictures of their trip to Australia and New Zealand, rocks they had picked up, and the rocks they had found (and cleaned) from the Chaney Quarry. Bill Nelson, Jr displayed rocks he had collected on a field trip.

Door prizes were won by Bill Nelson, Jr., Bill Nelson, Alec Rubenstein, Jessie Zieger and Pat McLaughlin.

Meeting adjourned for a workshop with members working on items that will be given to the juniors at the Kiddies Wheel at the September show. Refreshments were served while a video, "Earth's Natural Treasurers", from the Midwest Federation film library, was shown.

Gladys Pacholke, Sec-Pro-Tem

*Yesterday is History,
Tomorrow is a Mystery,
Today is a gift from God,
That is why it is called the Present.*

LET'S SIGN UP FOR FIELD TRIPS!

By Kathy Miller, Field Trip Chairman

Webster's New World Dictionary defines the word hobby as follows: something that one likes to do or study in one's spare time; favorite pastime or avocation. You as members of MGMS all joined the club for this reason.

As Field Trip Chairman, I am always puzzled when the response to take part in a field trip is so negative. Think about it, a field trip is really an important part of being a "rock hound."

At the last meeting (February) a field trip to the Cleveland Museum to see the Faberge Exhibit was discussed and voted on. IF ENOUGH INTERESTED MEMBERS wished to go, a Cardinal bus would be chartered and members would go FREE to see this exquisite exhibit of gems and minerals. Since that meeting Margaret and I have tried to reach the group ticket office at the Cleveland Museum for April tickets. They have not gotten back to either of us after numerous phone calls on our part. Irregardless, only a few interested members indicated they wanted to go. Because of the cost of renting a bus for such a small group of people, it was decided to completely cancel the field trip to Cleveland. If you should decide to drive yourself please share the visit with us.

I also mentioned a one-day car trip to collect at the Cheney Quarry in Michigan was scheduled for May. I am sure many of us have pyrite already, but again isn't it great to be among people who share the same common interest, good fresh air, bring home colored specimens, and just do something different for ourselves. Think about it.

THERE IS A FIELD TRIP to southern Indiana planned for September 19-21. A FREE bus for members. It is to Corydon, IN, and Louisville, KY. I am asking members to really consider the word hobby again. We would leave on Friday late afternoon. Saturday will include a AM historical trip of Corydon, our first State capital, a visit to a glass blowing factory, hours to collect for dolomite crystals and fossils at a working quarry, and ending with dinner on a bluff looking over the Ohio River. Sunday AM, we will go to the Falls of The Ohio River State Park annual Fossil Festival. We will take a tour of the famous fossils found on the Ohio river bed, visit their museum center and swap, purchase or just look at the fossils at the swapping area. If time allows we can collect on the way back home.

Bob and I also belong to a local ski club. We take bus trips to ski areas at least once a year, we have to pay MANY dollars JUST FOR THE PRICE OF THE BUS. Your club is willing to pay for you to enjoy the hobby and asking so little in return, think about it...

At the March meeting I will have a sign-up sheet for those who want to go on the FREE bus trip, and info on the Cheney Quarry. Do you enjoy this hobby? Think about it....

CHILD GEOLOGY

by Frank Mayo

Courtesy of Sam Campbell, KGeMS (Jan,97)



It has been observed that the most interesting information comes from children. When they mix scientific facts with their brand of fancy, their remarks and observations are often hilarious. Here are a few geological and other remarks that I have collected over the years from children.

1. Volcanoes give us hot Java.
2. Limestone is a green tasting rock.
3. Quartz--It takes four quartz to make a gallon.
4. Rocks are gradually softened through aging, the first hundred years of a rock's life are the hardest.
5. Many holes in the Pacific Ocean would be famous as mountains if they were not turned up-side-down.
6. Geologists tell us that Maine is slowly sinking. When we first noticed this we fought Spain, thinking they were causing the sinking of Maine.
7. The axis is only a make-believe line but the earth still manages to turn on it somehow.
8. There is a tremendous weight pressing down on the center of the earth because of so much population stomping around up here.
9. For as long as the moon has been here it makes a trip around the earth once a month, there is not much else to do.
10. The worst thing about longitude and latitude and the Equator is that they are only imaginary places. We should all use our mind space for knowledge about real places.
11. Humidity is the experience of looking for air and finding water.
12. One hundred humidities equal one rain.
13. Water vapor gets together in a cloud, when it gets big enough to be called a drop--it does.
14. Heavy water is with ships in it.
15. Making water takes everything from H to O.
16. The smallest thing water can be divided into is a drop.
17. There is nothing to keep a liquid from changing to another state. The Mississippi River, as we all know, does not have to stay in that state alone.

18. We say the cause of perfume disappearing is evaporation. Evaporation gets blamed for many things, people forget to put the cap on.

19. Night: is when we get on the shady side of the sun.

20. Some people tell what time it is by looking at the sun but I have never been able to make out the numbers.

21. The earth holds onto everything with its grabability.

22. Vacuums are nothing, we only mention them to let them know that we know they are there.

23. A vacuum is an empty place with nothing in it.

24. There is no air in vacuums. That means there is nothing. Try to think of it. It is easier to think of something.

A CRYSTAL--ONE OF THE STRANGEST OBJECTS IN NATURE

It is not alive, yet it grows. A crystal attracts the same kind of materials of which it is composed, arranges them with great accuracy in geometrical forms, cements the parts together and holds them.

Place a crystal in a liquid or vapor composed of the same ingredients as the crystal and the process of accumulation immediately begins. If a crystal is broken into two parts and placed in a bath of the same material, the broken surfaces will be repaired and each part will grow into another crystal, provided that other conditions favorable for crystal growth are present.

Even after a crystal has been worn until it is like a rounded grain of sand, it will speedily become a crystal again if placed in a solution containing the ingredients of which it is composed. There is no known limit to the ability of a crystal thus to repair itself and resume its growth.

Under a microscope a crystalline solution can be seen forming into crystals, and it is a wonderful sight. First, innumerable dark spots form in the fluid. They stand still and then begin to move. It is soon observed that the movement arranges the spots into straight lines, like beads. The beads speedily combine into rods and the rods into layers until a crystal is created. The process proceeds so rapidly that it is almost impossible to follow it closely.

From Nashua Mineral Society Bulletin

THE DIFFERENCE BETWEEN MAMMOTHS AND MASTODONS

1. Mammoths and mastodons represent different lines of development among the proboscideans, or elephant-like mammals. (The origin of mastodons goes back about 25 million years; mammoths are first known from about 7 million years ago.)

2. Of the two, mammoths are closer to the two living species--the African Elephant and the Asian Elephant. Mammoths, together with the living species, are called true elephants.

3. The main difference between the two groups lies in the structure of their molars or cheek teeth.

Both have "outsized molars, but mastodon teeth are low-crowned, whereas mammoth (and living elephant) teeth are high-crowned. (The crown is the part of the tooth that grows out of the gum line.)

Mastodon molars have rounded cusps separated by valleys. Mammoth (and living elephant) molars consist of a series of cement-filled, ridge-like plates.

4. Mastodons and mammoths differed in diet and habitat. The low-crowned mastodon teeth were an adaptation to browsing on the relatively soft twigs and leaves of open woodland. The cement-hardened high-crowned mammoth molars are efficient mills for grinding up tough prairie grasses. Of the two, the mammoth could exploit a wider range of habitat.

from Texas Memorial Museum, Austin, TX

MASTODON TRACKS

Near the edge of a small pond in Michigan, about 11,000 years ago, a male mastodon wandered. Although there are no fossil remains of this mastodon, the footprints were filled with pond sediment and were preserved.

Daniel Fisher, paleontologist and mastodon maven at the University of Michigan, uncovered them. These are probably the only prints of the mastodon that are known today. The prints (about 30) are nearly 20 inches across and a bit less than a foot deep.

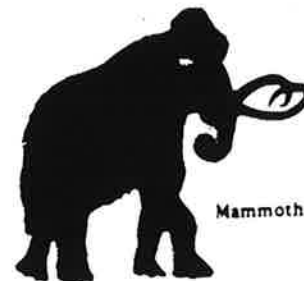
The trail reveals that the adult male mastodon stumbles and regained his balance and continued on his way.

from CHIP AND LICK

MASTODON FOSSIL MAY BE WEST COAST'S LARGEST

Mastodon fossils found in the Domenigioni Valley south of Hemet, California, could be the largest discovered on the west coast. A find on October 16, 1995, was "the most complete individual of any animal found out there." Most mastodon finds measure 6 to 7 feet at the shoulder, but this one is about 10 feet tall, making it significant. "The find is larger than anything known at La-Brea (Tar Pits)."

from THE MONTEREY COUNTY HERALD, a PALEODISCOVERY



Mammoth molar



Top view



Side view

Mastodon



Mastodon molar



Top view



Side view

6,000 B C Mining in the Rockies

U S Forest Service workers stumbled on an ancient Indian site at a place called Windy Ridge while surveying/mapping roads in Colorado's Routt National Forest. Last year archeologists finally began excavating. At an elevation of 9,300 feet, archeologist Douglas Bamforth of the University of Colorado and Sue Struthers of the U S Forest Service, and their team of students, uncovered the remains of a quartzite mine that, remarkably, was worked for 8,000 years. Over the millennia, many tons of quartzite were removed from the area (about 600 by 200 feet wide), though it's impossible to know exactly how much.

The quartzite, which was fashioned into projectiles, knives, and tools such as scrapers and awls, lies under a layer of sandstone. Miners broke through with stone hammers and wedges to reach the quartzite beds and in the process created a series of semicircular pits. Bamforth and his team have identified 182 pits, many of which are interconnected.

The oldest artifacts found at Windy Ridge are more than 8,000 years old and some, made from the quartzite, have been identified in museums and private collections. However, some are less than 500 years old, indicating that the site was mined until metal tools came into use which would be at the time that Indians acquired them from the European explorers.

Why was Windy Ridge so popular? Eight millennia is a long record for any human site, especially one that lies more than 9,000 feet up in the Colorado Rockies. Perhaps, says Bamforth, its attraction was its combination of high-quality quartzite and abundant wildlife. Windy Ridge sits near a large lake and looks out over a grassland that would have supported herds of bison. It was, and still is, a good hunting ground so that the Indian could come just for the summer months. While there, enough quartzite could be mined for that season's tools before leaving, as did the animals, for lower elevations when the heavy snows began to fall.

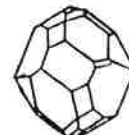
Discover Magazine via GEM-N-I

A number of very interesting mineral related newsletters have popped up over the last few years. The following have proved interesting.

PSEUDO NEWS: "An informal quarterly with short notes about pseudomorphs old and new." This newsletter focuses on pseudomorphs of all types and localities. Articles are short, fun, and well referenced. Xeroxed photos are worthwhile. Subscriptions are \$12/year in the U.S. Contact Philip Betancourt, 410 Chester Ave., Mooretown, New Jersey, 08057.

MICRO PROBE: Semi-annual newsletter of the Northwest Micromineral Study Group. Excellent detailed articles on micros, typically, but not exclusively, from the Pacific Northwest. Bob and Russ Boggs, Rudy Tschernich, and Don Howard are regular contributors. The newsletter is heavy on zeolites and crystallography. Each issue includes a packet of 10-15 excellent B & W SEM photographs of microminerals. Subscriptions are \$12/year. Editor: Don Howard, 356 S E 44th Ave., Portland, Oregon, 972115.

MINERAL NEWS: "The Mineral Collector's Newsletter." Depends on collectors and mineral scientists to provide short notes on what's going on in minerals. It has a very short lead time, so this is often a good way to find out what's coming out more or less as it happens. It also usually lets you know who has the material so you can get a good specimen without waiting to see a dealer/collector at a major show. It occasionally includes maps to collecting sites and has semi-detailed show reviews revealing what each dealer has and who exhibited what. Monthly. Subscriptions are \$17/year. Contact: Mineral News, P O Box 2043, Coeur d'Alene, Idaho 83816-2043.



PETRIFYING WOOD

Bill Cordua, University of Wisconsin - River Falls

I had the pleasure last spring of visiting Arizona's Petrified Forest National Park. What an amazing site! Acres of huge logs, now made of quartz, weathering out of the hillsides, piling up in washes, and paving the ground with bits of agate. Such details of preservation! The wood grains, rings, knots and cell structures are all still visible. One wonders about the geologic conditions that could form such a deposit.

The geological setting is fortunately well explained to the general public in the park's literature. During the Triassic Period, about 200 million years ago, the area was a complex of swamps, lakes and rivers. An active volcano belt to the south regularly showered the area with ash. The mud, sand and ash covered ancient log jams of conifers and cycads as well as other plants and animals that lived there.

But how did the logs get converted to agate? Where did the silica come from? Why was it deposited? How did it so delicately preserve the wood's structure? Why is it so colorful? Answers to these questions can be drawn from the work of Anne Sigleo, who studied the geochemistry of the petrified wood while she was at the University of Arizona in Tucson.

Where did the silica come from? It came out of the volcanic ash. The ash, originally a glass, weathered easily to clays such as montmorillonite. The weathering released silica in a form which is soluble in ground water. The ground water percolating through the sediment brought the silica to the logs.

Why was the silica deposited? Decaying logs form a local area relatively low in oxygen. Ordinarily, ground water is at least slightly oxygenated. When it reaches an area of low oxygen content, it changes chemically and deposits silica.

How did the silica so delicately preserve the wood's structure? There are two possibilities. Either the silica replaced the wood chemically, atom by atom, or else it filled in the pores between the wood particles, a process called permineralization.

Sigleo's work supports permineralization as the dominant process at work on the Petrified Forest. Her evidence was the details of texture seen under the scanning electron microscope and the discovery that original woody material (now degraded to lignin compounds) is still in the logs. The fact that wood is full of open pores is known to anyone who slaps paint on a fresh piece of wood. The woody porous structure thus served as template guiding the details of silica precipitation.

What gives the petrified wood such an array of color, with regions of pink, tan, purple, yellow, brown and black? The same processes that freed, transported and deposited the silica also applied to chemicals such as iron, manganese, uranium and antimony. The varying concentrations of these trace elements from place to place colors the wood.

Thus, Arizona's Petrified Forest resulted from a happy combination of circumstances, beginning with the deposition and preservation of log jams in stagnant lakes and swamps later covered by volcanic ash. Normal chemical breakdown of the ash and movement of the chemicals by ground water into the wood's pores did the rest. Knowing this does not dim the appreciation of the startling vistas of agate-rich logs resting on Arizona badlands.

We can all be grateful for the foresight of people like John Muir and Theodore Roosevelt, that allowed these features to be protected so that all may enjoy them.

REFERENCES:

- R. A. Long and Rose Houk, 1988, *Dawn of the Dinosaurs: The Triassic in Petrified Forest*, Petrified Forest Museum Association, 92 p.
- Anne Sigleo, 1978, "Degraded Lignin Compounds in Silicified Wood 200 Million Years Old," *Science*, vol. 220, p. 1054-1056.
- Anne Sigleo, 1979, "Geochemistry of Silicified Wood and Associated Sediments, Petrified Forest National Park, Arizona," *Chemical Geology*, vol. 26, p. 151-163.

From *The Rockpile* (March, 1994)