

PICK&PACK

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CSMS is an incorporated non-profit organization with these goals:

- To promote and disseminate knowledge of the earth sciences, especially as they relate to mineralogy, lapidary, and fossils.
- To encourage study, collection, and fashioning of minerals.
- To accomplish the same through social meetings, lectures, programs, displays, shows, and field trips.
- The Pick&Pack is published monthly to assist and promote the above.

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Colorado Springs Mineralogical Society

Founded in 1936

Lazard Cahn

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AGATES: GEMS OF THE STATES

BY MIKE NELSON, CSMS

As an avid fisherman searching for the elusive Northern Pike and Walleye, I spent parts of 27 summers in northern Minnesota casting lures. As a geologist I always had my eyes turned down looking for agates. I was probably better at catching fish than finding Lake Superior Agates! At any rate, after learning that the CSMS Annual Show would feature "agates" (see October Pick&Pack) I decided to check up on the official State Gemstone of Minnesota and found the following proclamation: Be it enacted by the Legislature of the State of Minnesota: *The Lake Superior agate is adopted as the official gemstone of the State of Minnesota.* Approved May 15, 1969.

This action got me to thinking about other state symbols and wondering about official rocks, minerals, etc. Little did I realize that not only did several states have some sort of an official gem, several states adopted a variety of agate as their official rock, stone, gemstone, or mineral. In fact, agates are the most common of the many state symbols. Consider the following:

Arizona Mineral: Fire Agate, that is if you believe the web site State Symbols USA, and or the Wikipedia entry on Arizona. However, the official State of Arizona web site does not list a state mineral, only a State Gemstone (turquoise). This may be a good lesson to learn—double check references on the web, preferably locating a primary reference. Of course Arizona is the state that has given us official State Neckwear (bolo tie) that certainly could contain a fire agate.

Florida Stone: Agatized Coral is so designated (see October Pick&Pack). Of course calling it a "stone" gets out of the "what is it" debate: mineral or fossil. They could have made it the State Gem except that slot is occupied by moonstone. Yes, Florida has also given us a State Beverage (orange juice).



Fig. 1. Kentucky Agate, an agate from a sedimentary rock, limestone. Photo courtesy of Kentucky Geological Survey.

Kentucky Rock: The official State Rock is the Kentucky Agate (Fig. 1), but of course agate is really a mineral. However, the official mineral of Kentucky is occupied by Coal, a sedimentary rock. I think the "symbol namers" were partaking at the official State Bourbon Festival (Kentucky Bourbon Festival, Inc.).

Louisiana Gemstone: Agate, which is interesting in that the specimens are alluvial and found in gravels and are non-native. Are these really Lake Superior Agates transported via the Mississippi River from Minnesota? Maybe Louisianans are tired of drinking their State Drink (milk) and skipped over to Ken-

tucky for some adult refreshments.

Minnesota Gemstone: Lake Superior Agate (see October Pick&Pack). I am particularly partial to the Minnesota State Muffin (blueberry).

Montana Gemstone: Montana is the only state with two official gemstones—sapphire and agate. The agates are multi-source specimens so just about any ole agate from Montana will do. I actually thought their official motto was "Big Sky Country". Nope, The Treasure State.

Nebraska Gemstone: Blue Agate (Fig. 2) formed in fault and joint planes in wind deposited siltstones and claystones of the Tertiary age Chadron Formation (24-37 mya) - the formation common in the badlands of Nebraska and South Dakota (Pabian, 2006).

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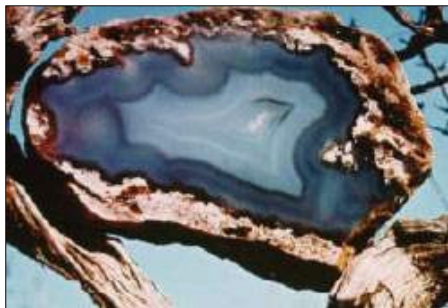


Fig. 2. Nebraska Blue Agate. Photo courtesy of the State of Nebraska.

Nebraska Rock: Prairie Agate. Here we go again—calling a mineral a rock. I am really uncertain about this one as the official state website notes: “Agate is variegated quartz noted for its layered varieties. In most specimens, the bands are coarse and differ in color and translucency, as well as in compactness and porosity. The prairie agate, distinguished from most other agates because it seldom has these bands.” If it does not exhibit bands then why call it an agate? Even Pabian (2006) from the University of Nebraska did not mention Prairie Agates. Most likely these unbanded Prairie Agates are specimens of chalcedony.

Oregon Rock: Thunder eggs, known to all collectors far and wide (see October Pick&Pack).

South Dakota Gemstone: The well known Fairburn Agate collected on the plains surrounding the Black Hills. These alluvial agates are the same as Tepee Canyon Agates collected from the Minnelusa Formation *in situ* (see October Pick&Pack). Fairburns are among the more expensive of the agates but are among the more beautiful (Fig. 3).

Tennessee Rock: The state has two official rocks, agate, and limestone. Of course, they need to change agate to the state gem except that slot is occupied by Tennessee River Pearls which may be considered more of an organic substance rather than a non-organic gem.



Fig. 3. Fairburn Agate from South Dakota. Permission and photo courtesy of Rick Jacquot.

So there you have it, agates are the official “something” of 10 states not counting the confusion in Arizona. In my opinion, Rhode Island wins the prize for “Least Unrecognized Official State Mineral” which is Bowenite. Does anyone recognize that

name? However, they make up for it by having a great piece of barbeque meat as their State Bird, the Rhode Island Red! Second place goes to Massachusetts with another familiar mineral, Babingtonite. The award for “Lack of Creativity in Selecting a State, Mineral, Rock or Gemstone” goes to Nevada and its State Rock—Sandstone. Not a specific rock, like Yule Marble or Salem Limestone, but plain old sandstone. I found this out on the website of Nevada’s First Lady where she also has a hot link to: “Nevada’s Early BIGFOOT Sightings.” It is also sad to report that my home state of Kansas evidently does not believe in symbols of a geological nature. I need to get those school kids working!

PRESIDENT’S CORNER

BY RON YAMIOLOSKI, CSMS



Greetings folks!

One of the things that I’ve discovered since becoming President is that you tend to accumulate things. Past officers give you things saying that they have had “it” so they are passing “it” along to the new president. Occasionally, there is a gem in one of the many boxes that you receive. I don’t mean the kind of gem you find when you dig in the earth, but rather something special from the past. Such was the case with a box of stuff that Ray Berry gave to me. Inside the box of “goodies” was a pamphlet entitled “Colorado Springs Geology Auto Tour”. It was created by CSMS as part of Colorado’s Centennial celebration. Besides the fact that it is a wonderfully interesting document, I was struck by the names of the folks who created this document some 33 years ago. The text was produced by Richard M. Pearl, Willard R. Korenke, and our own CSMS Historian Brenda Hawley. Other members of the Committee that created the booklet were Jack Thompson (CSMS President 1974-75) and Ray Berry (CSMS President 1976). It is wonderful to have these folks who have contributed so much in the past still contributing to making our club so great. I will turn this special document over to Frank and Ellie Rosenberg, so that they can put it in the Library and more of you can enjoy it.

The November General Assembly meeting will be a very busy meeting - we will be electing our officers for 2010. The last I knew, there was still a need for candidates to fill some of the positions. We need folks to step up to the plate for the sake of their club. If you are interested in a particular office, contact the current officer and chat with them about the position. Let them or the Nominating Committee know of your interest. Sharon Holte, Lorrie Hutchinson, and Al Zelenak serve as the committee. I know that Al will gladly accept your emails at <azeeman@comcast.com>

If Youu’re not interested in being an officer but would like to help out, all of the officers are carrying a few extra jobs with which they would love to have assistance. It is a great way to get more familiar with the workings of CSMS and to contribute to the success of your club.

As of this writing, I think we may be done with formal field trips for the year. The Holcim Cement Quarry trip will not happen because of some reorganizations going on at Holcim; we’ll try again next spring. Sharon Holte’s trip to the Peridot Claim got snowed out and then “flued” out. I think we may need to try next year. Those of you who want to lead a field trip can let me know, and we

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can start working on the list for next year.

The first weekend in December is rapidly approaching and with it the **46th Annual Pikes Peak Gem & Mineral Show**. Our next show meeting will be at 6:30 PM on November 19th at the Senior Center. Please join us to see how you can help. If you can't make the meeting but want to help, we will be doing signups at the General Assembly meeting; or you can contact me directly to discuss how you can make our show great. **Also, we will be needing donations for the Silent Auction at the Show.** This Silent Auction provides much needed funds for our Scholarship Program, the Florissant Fossil Bed Monument Interns, and the Science Fair Prizes. We will need some materials for the Kid's Area. Please look around your garage and basement to see if you have some items that you can donate. If you have anything, you can bring them to the November meeting or the Show.

Regards,
Yam

AFMS News . . .

The President Says... - New President Emerson Tucker thanks the 35 committee chairs for volunteering to support AFMS in these vital positions.



All-American Club Yearbook—John Washburn has written several articles in the AFMS Newsletter in which he provides helpful hints and suggestions on how to put a yearbook together. The application was included in this edition of the newsletter and should be available on-line at <www.amfed.org>.

Program Competition—Marge Collins asked for volunteers to read scripts for recording audio for some older program winners for our regional program libraries. Do you have a distinctive reading voice—you could be the volunteer for CSMS/RMFMS. Contact Marge at (269) 695-4313 or <Margaret@qtm.net>.

Endowment Fund News—Bill Pattillo, Chair, is asking for prize donations valued at \$100 or more for the 2010 AFMS Endowment Fund drawing during the June 2010 LaHabra, CA show. If you have an item to donate or wish to purchase drawing tickets (\$5/ea or 5 for \$20), contact RMFMS Chair Richard Jaeger, 3515 E. 88th St, Tulsa 74137.

ALAA - Dick Pankey thanked VP Shirley Leeson for running the meeting at Billings; he was not able to attend due to an accident on the way to the show (no injuries). New officers and directors were elected; Jim Hurlbut of Denver is the director for Colorado <jfhu@earthlink.net>.

RMFMS News . . .

Newsletter was not available at press time.



NOVEMBER PROGRAM

The November 19th General Assembly program will follow a short discussion on the 2009 Show. It will be presented by Ray Berry & Jack Thompson and is titled "Pseudomorphs—They Aren't What They Used To Be." This is a presentation they will make at the 30th Annual New Mexico Mineral Symposium, Nov. 14th & 15th.

WMMI HAPPENINGS

William Henry Jackson Photo Exhibit:

Please join the museum for an exhibit of William Henry Jackson's images as reproduced in "Steam and Steel across the Great Divide." These magnificent prints are from the original old glass plates kept by the Western History Section of the Denver Public Library. Each will explore photography's multiple roles as art; promotion; and documentation of the Denver and Rio Grande Railroad. The exhibit will run until December 31, 2009.



November 5, Heritage Lecture - The Colorado Midland: A Train Ride

The museum welcomes Mr. Mel McFarland. A Colorado Springs native, Author, Artist and retired Middle School Teacher. Has written several books about the railroads of the Pikes Peak Region including the Colorado Midland, the Midland Terminal and the Rock Island. He is currently Chief Conductor at the Manitou and Pike's Peak Railway. He writes informal history columns in three local weekly newspapers, as well as a program on TellerCast.net, an on line radio station. Lecture begins 7:00 p.m. Reservations Requested - <RSVP@wmmi.org> or call 719-488-0880.

November 11, Veterans Day Remembrance

The Western Museum of Mining & Industry wants to thank all veterans and active duty for their service to our country. All veterans and active duty military with ID will be given free entrance to the Museum. Regular admission applies to family members. Tours at 10 a.m. and 1 p.m.

November 28, Gold Assay Class Classes at 11:00a & 2:00p

Gold does not come out of the ground ready to wear as jewelry. Come to the museum to learn how gold is extracted and processed in our Gold Assay class. Instructed by Brad Paulson. Due to the popularity of this class, reservations are requested.

<RSVP@WMMI.org> or call 719-488-0880.

FREE admission to WMMI is one of the benefits of CSMS membership!



ASK A GEOLOGIST

BY MIKE NELSON, CSMS

Jack writes: *I liked your articles on agates and have a question—are new agate fields still available "for discovery"? I am heading to Utah next summer to hunt for Dugway Geodes and wondered about locating agates on the way out.*



Jack, this is an interesting question since I am now in Utah looking at rocks, trying to rediscover old fossil localities, and hunting for agates. At first I was going to postpone answering your question until next month. However, with the wonders of electronic communication and a plethora of coffee shops with Wi-Fi, an answer is coming to you "from the field".

I too wondered about "discovering" new agate fields since my luck in finding agates at localities listed in the various guidebooks has not been very fruitful. And, it is more exciting to locate new discoveries by walking across the outcrops with your eyes on the ground and rocks. At any rate, I will tell you about my recent experiences in Utah.

Many years ago, while serving as a ranger at Dinosaur National Monument, I spent much time camping and hiking in and about the Uinta Mountains (a Laramide Range like our local Front Range), the highest range in Utah (Kings Peak at 13,528 feet). I vaguely remembered seeing brightly colored pieces of jasper and chalcedony among the numerous surficial gravels littering the south flank of the mountains (Fig. 1). These gravels lie on rocks of many different ages but seem most common on the Mesozoic rocks east of the Colorado-Utah state line along U.S. Highway 40 in Moffat County.



Fig. 1. Surficial gravels cover virtually every part of the landscape in this photo taken north of Blue Mountain, CO. Many of the pebbles in the gravel are brightly colored jasper, chert, chalcedony and banded agate. Search the ground surface as well as the road gravels. Photo by the author.

Voynick (2002) noted a general collecting area of several hundred square miles for agate and jasper and gave some specific directions to a few collecting areas. I decided to check out other localities remembered from my "Dinosaur days" and found that virtually any road leading north off U. S. 40 would yield some really nice specimens—agates, chalcedony, jasper, chert—all sorts of cryptocrystalline quartz. So, take an adventure on a back road and pull over whenever you see some gravel. In fact, I found several nice specimens along and in the road (from the covering gravel).

Pearl (1972) and Voynick (2002) suggested that the cryptocrystalline quartz comes from the Morgan (Pennsylvanian), Chinle (Triassic) and Morrison formations. However, one nice red agate I located is encased in a piece of black basalt—the above listed formations are all sedimentary accumulations.

The Uinta Basin lies directly south of the Uinta Range and is a synclinal basin related to the rising anticlinal mountain range. These resulting rocks are an interesting sequence of latest Paleocene (~58 my) to early Oligocene (~28 my) basin-fill sediments consisting of the Colton Formation (stream and flood plain deposits), the Green River Formation (Lake Uinta, part of a large fresh water lake system), the Uinta Formation (lake edge and lake fill-

ing sediments), and the Duchesne River Formation (stream and flood plain sediments on top of the lake sediments). I have spent a fair amount of time rummaging around the Basin, mostly prospecting



Fig. 2. Lag gravels associated with the Uinta Formation near Bonanza, UT. At this locality over 60% of the observable clasts are orange-tan jasper and chalcedony with an occasional banded agate. Photo by the author.

for vertebrate fossils, but also keeping my eye out for interesting rocks. Therefore, I decided to take a jaunt to some localities from my past and check out the composition of some lag gravels in the Uinta Formation (Fig. 2). I was pleasantly surprised to locate some beautiful orange-tan jasper along with a few banded agates (Fig. 3). If you want to try your hand at collecting these minerals head south from Vernal on Utah 45 toward the mining community of Bonanza and the Deseret Power Plant. Prospect any of the conspicuous outcrops of the Uinta immediately before reaching the power plant.



Fig. 3. Close-up photo of small pebbles associated with lag gravel seen in Fig. 2. Note the numerous orange-tan pebbles along with the banded agate (bottle cap for scale). Photo by author.

I have not been able to locate much information (no access to a research library) about the source of the pebbles in the gravel. However, a few of the jasper specimens are still attached to pieces of basalt, an indication of an igneous origin.

The San Rafael Swell is a beautiful area

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south of Price, Utah (central Utah) where uplifted and tilted Mesozoic rocks surround a central core of late Paleozoic rocks. The Swell is actually a Laramide anticlinal uplift but without Precambrian rocks reaching the surface in the center (as in the Uinta Mountains and the Front Range). I spent several



Fig. 4. Mudstones and claystones of the Cedar Mountain Formation easily erode to form "badlands". The sandstone in the foreground, and capping the slope across the gully, is the overlying Dakota Formation. The Rough Road Quarry, from a small knoll in the mudstone, has produced early mammals (some new to science), lizards, dinosaurs, dinosaur egg shells, snails, crocodilians, rays, turtles, sharks, and bony fish. Photo by author.

summers in the Swell at the Rough Road Quarry extracting and screening the rocks for early fossil mammals and ended up naming some critters new to science (Fig. 4). While prospecting for fossils I was always in search for brightly colored and polished specimens of quartz, chalcedony, chert, jasper, and agate located in the Cretaceous Cedar Mountain Formation (Early Cretaceous, ~125 my—97 my; Kirkland and Madsen, 2007). These interesting clasts are highly polished, almost as from a tumbler, and are quite conspicuous in the gray clays and mudstones of the Formation (Fig. 5). Some geologists have called these stones gastroliths or gizzard stones and have attributed them to polishing within the intestinal tracts of dinosaurs. However, the evidence is less than conclusive for the many stones present in the Cedar Mountain (and some other formations) and the



Fig. 5. Highly polished pebbles, including jasper, chert, quartz, petrified wood, and banded agate, in the Cedar Mountain Formation. Photo by author.

"origin debate" is ongoing. In addition, geologists remain uncertain as to the ultimate provenance of the polished stones. At least some of the chert clasts contain marine fossils reworked from rocks in Arizona and Nevada (Kirkland and Madsen, 2007).

To locate prospecting areas take any of the gravel roads heading east from near the communities of Huntington or Castle Dale but particularly the Buckhorn Draw road immediately north of Castle Dale (the San Rafael Recreation area road). The road at first (for several miles) traverses the gray and brown Mancos Shale (don't drive in the rain) then cuts through the brown and resistant sandstone of the Dakota Formation and then into the gray mudstones and shales of the Cedar Mountain (Fig. 5). Park your vehicle and begin to prospect the outcrops—you can't miss the polished pebbles.

These are only a few of the possibilities for "discovering" new agate fields in Utah. I am certain that neither I nor you will be the first to see actually "see" these fields but we will be able to collect some really nice specimens. So, good luck in your search. I am off to prospecting near Moab!

As Woody Allen came close to saying, "I'm astounded by people who want to know the universe when it's hard enough to find your way around the Uinta Basin."

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GEM-O-RAMA: HANKSITE AND PINK HALITE

BY BOB KING, CSMS

October 9th of this year I flew from Denver to Las Vegas, NV and was met by a friend of mine, Steve Scott. After checking out Steve's very impressive crystal collection and eating a delicious meal that his wife, Dee, had prepared, I went to sleep in their guest bedroom. At 4 a.m. the next morning Steve and I were on the road to Trona, CA, a town of about 2,000 people, and the site of the 68th Annual Gem-O-Rama, located 30 miles west of Death Valley. We arrived at 7:30 a.m., and as Steve signed us in for the two field trips that was my trip purpose, I went to the Searles Lake Gem and Mineral Society's store and bought several pink halite specimens ranging in price from 50¢ to \$15. (Photo of the \$15 specimen which I carried on the plane back to Denver.) I also bought a video tape of the 2005 Gem-O-Rama (DVD's are also available.) You pay \$10 per vehicle for each field trip that you go on. The night before a friend of Steve's had parked his car in the line for the Mud Trip. At 9:00 a.m. we were escorted about a mile to the Mud Trip's digging area; there were 415 vehicles behind us, and only one vehicle in front. That's right, we were second in line!



Pink Halite

It's called the Mud Trip because you dig through sticky black mud to collect barrel hanksite, bladed trona, borax, and

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thenardite crystals. This muddy salt-watery mess is about a foot deep and is spread out over the dry Searles Lake in long rows. Being one of the first vehicles at the dig site meant being among the first of 1,374 people to pick a good spot to dig. You can find large clusters of hanksite crystals at this site. There are no limits on how much you can collect. Children and adults had a great 2½ hours collecting crystals and good crystals were plentiful.



At 11:30 a.m. everyone headed back to town to get in line for the afternoon's field trip. While we were digging in the mud, a friend put our car in line for the afternoon trip to the Blow Hole; we were 7th out of 502 vehicles. While waiting for the 2:30 p.m. Blow Hole field trip, a free bus tour was offered to Searle Valley Mining

Plant which processes 55 million gallons of brine a day, a self-guided tour of the Pinnacles, food, a visit to the club store and dealers, observe geode breaking, and a sphere making machine.

At 2:30 p.m. the caravan of cars and trucks headed back onto the dry surface of Searles Lake, this time to collect at the Blow Holes for the allotted 2½ hours. As we were near the front of the line, we again had an advantage to collect from the millions of terminated hanksite, borax and sulfohalite crystals that were pretty much on the surface of the salt flats where we parked our cars. As soon as we parked, we each ran around with a bucket and picked up as many large hanksite crystals as we could (some up to 6" across). Young and old, serious collectors, or amateurs picked up crystals which were plentiful, though the sulfohalites are a little more illusive. Where did all these crystals come from? A demonstration explaining this was given an hour after we began digging. Days before the dig, sixteen 16" diameter holes were drilled down 43' below the surface. Explosive charges were set off down near the bottom of these holes, shaking the crystals loose in their watery home but no damaging the crystals. A large pipe

which has a smaller pipe attached is lowered down into the hole. When compressed air is forced down the small pipe, the brine carrying the crystals is forced up the large pipe and sprayed out onto the ground. This also does not damage the crystals.



Everyone had plenty of crystals by 5 p.m., and we left for town. This is when Steve and I headed back to Las Vegas, arriving at 9 p.m. On Sunday while some people (1,108) were collecting beautiful pink halite groups, Steve and I were cleaning our specimens in salt water (hanksite and borax will dissolve in water) and coating them with mineral oil. The crystals will absorb water from the air and slowly disintegrate unless they are oiled.

Monday morning I was on a plane back to Denver with 72

pounds of crystals. My "carry-on" bag contained one 24-pound hanksite group which caused great interest when it went through the x-ray machine at the airport.



Best Halite Specimen

Steve mailed me another 40 pounds of crystals via the US Mail flat rate boxes. This is one of those experiences that every rockhound should experience. It was a fantastic trip.

Google: Gem-O-Rama Searles Lake
Write: Searles Lake Gem and Mineral Society, P.O. Box 966, Trona, CA 93592

FROM THE LIBRARY

BY FRANK ROSENBERG, CSMS



We thank Kevin Witte for volunteering to write a monthly book report for this column.

This is your Library. We encourage you to take advantage of a sizeable inventory of interesting and informative reading material. For those of you who have not yet made use of this club benefit, all you need to do is browse the Library's inventory on the CSMS website, request the book you desire by contacting us by email at <emr80918@yahoo.com>, phone at 594-0948. The book(s) will be brought to the next monthly meeting to be returned the following month. If you wish to sign out a book between meetings, we will make every effort to accommodate your needs.

We always welcome your donations of reading material to the Library.

Book report: By Kevin Witte, CSMS:
Gemstones and Minerals
by John Sinkankas 1961

Sinkankas does an excellent job of providing the amateur collector with a wealth of information on how to find worthwhile material for your rock or mineral collection. The book is written to assist collectors in various phases of rockhounding and does not become overly scientific in its explanations. I found the chapter on identifying rock outcrops, quartz float, and finding pegmatite (gem bearing rock formation) particularly instructive. There are chapters on everything from rock classes and how to identify them, how mineral deposits form, collecting practices, preparation of specimens, and storage and exhibit to name a few. Special mention is made of pegmatite formations, and how to properly find and mine them for gem specimens. While

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Sinkankas is primarily focused on California pegmatite, he speaks in general enough terms to be helpful on Colorado pegmatites too. There is also a chapter in the book on care and display of specimens which I found very instructive. Most of the information is useful and easy to understand, though some of Sinkankas' references are now obsolete.

JUNE CULP ZEITNER, THE GEM OF THE WEST, 1916-2009

BY MIKE NELSON, CSMS

Growing up in the Midwest and attending school in South Dakota, I was acutely aware of an author by the name of June Culp Zeitner. Ms. Zeitner mesmerized me with stories of collecting gems and minerals, and I tried to read all of her publications (an almost impossible job). Even today I refer to many of her books as I travel to the Midwest.



June Culp Zeitner

Ms. Zeitner passed away on October 11 at an age of 93 years in Rapid City, SD. Her last book, *Geodes*, was completed at age 91, and she was well on her way to writing another when she became ill. In her early life Ms. Zeitner taught school and was a County Superintendent in South Dakota. She then decided, along with her husband Albert, to start a natural history odyssey across the country slated for one year. Instead it occupied a 30 year period!

The couple's cross-country adventure was a trip from one gem or mineral locality to another. Each new mine created an impetus for another side trip and an opportunity to work with miners and scientists in the field. This process provided Zeitner with material for her Gem Trails books: *Midwest Gem Trails*; *Midwest Gem Trails*; *The Great Lakes States*; *Midwest Gem Trails: The Prairies States*; *Appalachian Mineral and Gem Trails*; *Southwest Mineral and Gem Trails*. In later years she also authored *South Dakota: Borglum's Unfinished Dream*; *How to Crave Jade and Gems*; *Gem and Lapidary Material*; and *Geodes*.

Over decades Zeitner's expertise also formed the basis for more than 1000 magazine articles, many appearing in *Lapidary Journal* the primary journal for the lapidary arts.

Her other accomplishments are also nota-

ble and include: being crowned at the White House by the International Gem Show as the First Lady of Gems in 1976; receiving the 2006 Carnegie Museum of Natural History's Mineralogical Award, which celebrates significant contributions to the science of mineralogy; having the largest emerald found and cut in the United States named after her; founding a dozen gem and mineral clubs and the National Rockhound and Lapidary Hall of Fame; founding the State Stone Program; assembling a collection of gemstones (1309) for display at the Smithsonian Institution; State Vice-President and later President for the Midwest Federation (AFM); first honorary member of the Midwest Federation in 1963; and perhaps the most amazing of all the assembling of what has to rank as the largest mineralogical field trip in history—2000 collectors in 1970 at Murdo, SD.

I would guess that almost all of the CSMS members have come across articles and/or books written by June Culp Zeitner. She inspired me as a student and young geologist and certainly is a model for all mineralogical club members.

Some material taken from an obituary written by Kristin Donnan.

PHOTOGRAPHING GEMS—A MINIMALIST APPROACH

BY DOUG MENADUE <WWW.BESPOKE-GEMS.COM> VIA FACETS, 10/09

Here are some notes regarding how I take the gem pictures for my website. I have been often asked by people often because they want to photograph their own gems for personal or insurance reasons. I have to admit that my methods are a bit crude, but I have to work with what I've got and keep it simple.

Part 1

I like to take my photos in the morning using just **sunlight**. The light seems to be better this time of day. I don't use artificial lighting or lamps. Eventually I would like to get some proper lamps like the pros use and experiment with them, but at the moment I can get by without them.

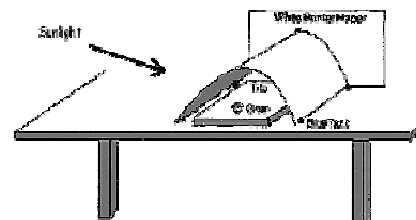
I like to setup with the morning sunlight coming through a window. The earlier in the morning, the better. By 11 a.m., give or take a bit, I find the quality of the light is gone.

At the moment, for a base to put my stone on, I just use a white tile. Give it a clean to make sure no marks or specks are on it. An alternative that I have used is a piece of smooth (window) glass placed on top of a black surface (a book, folder, etc.). This will create a nice reflective surface effect in the photo. Depends on the gem as to which surface I use.

Position the tile on a table in the sunlight close to the edge. I would recommend that you avoid doing all this on tables or floor that have hard surfaces. I dropped a stone once, and it chipped when it hit the floor. Alternatively, place towels or something similar over any hard surfaces (except the tile).

Next, in order to diffuse the direct sunlight and soften any shadows, I get a piece of white printer paper and make a "tunnel" over the tile.

I use bluetack to keep it from moving. At the rear of



(Continued on page 8)

the paper "tunnel", I stand another piece of white printer paper and fasten it in place. Told you it was pretty crude.

Now, you'll need a digital camera that (a) allows you to take really close up pictures (mine has a "macro" zoom mode), and (b) has a timer.

Put the camera on a tripod.

To clean the stone, I use a polishing cloth and eyeglass cleaner. Same thing you use for cleaning your glasses.

With a pair of tweezers (if you need them) take the stone and place it **gently** on the tile. Be **very careful** not to drop it as it could chip.

Position the camera on its tripod as close as possible to the tile and stone. I usually have the lens on mine about 1-2" from the stone.

Orient the stone accordingly to get the best position/angle, and make sure it's in the picture. You may also need to move the tile slightly to take advantage of the sunlight and compensate for shadow creep.

Now, to avoid camera movement when taking the photo, I use the **timer**. When I have the shot composed, I set the timer (it's 10 seconds on mine) and shoot. This one of those little secrets and means you don't get blurred photos.

Using the tweezers, move the stone around and take a number of shots from different angles. I usually take up to a dozen or more photos of a gem. This gives me a good choice to work with.

Part 2

When finished, download all the photos to your computer.

What I do next is sort through the photos to select a few with which I am most happy. I adjust these using Photoshop.

You will need a photo editing program. I use Adobe Photoshop, but there are plenty of others out there like Paintshop Pro, etc. Use the one you are most comfortable with. They can all pretty much do the same thing.

The reason I adjust my photos is to make the gem look as close to natural as possible. The camera rarely takes a perfect picture. I also crop the picture to remove extraneous background things and focus in on the stone. This allows me to get consistently sized images.

The adjustments I usually make are combinations of:

- Levels (i.e., lighting levels, aka White Balance)
- Curves (adjusts the entire tonal range of the image)
- Brightness and contrast
- Touch up and remove any spots/dust/marks/fluff, etc. that might be on the stone.

Any good photo editing program will have these functions (though possibly named differently). There is no easy way to describe exactly the changes that are required as each photo is different. It's basically a case of trial and error until you get the results you want.

A word of caution before you begin editing your photos, make a backup of them so if you happen to really botch things up you can always go back to the beginning. I usually ZIP everything up first to make my backup.

I also rename my photos to identify the stone, e.g., "Stone3_Citrine_RoundBrilliant.jpg".

That's more or less it. It really is a case of playing around and experimenting until you hit on a formula that works for you. Try to keep it simple, and have fun. Good luck!!

Reprinted from Facet Talk, March/April 2009, Number 166. Facet Talk is the newsletter of the Australian Faceters Guild.

UPCOMING SHOWS

Nov 7-8

OK Mineral & Gem Society, Okla City, State Fairpark, maburkhalter@cox.net, 405-732-0808

Nov 14-15

New Mexico 30th Mineral Symposium, Socorro, NM; Dr. Virgil Lueth, vwlueth@mtu.edu

Nov 6-8

Mineral, Fossil, Gem and Jewelry Show, Jefferson Co Fairgrounds, Golden CO; free to the public.


Dec 5-6


46th Annual Pikes Peak Gem & Mineral Show, Phil Long Expo, Colorado Springs, CO; Ron Yamiolkoski, Ron.Yamiolkoski@aecom.com, 719-488-5526, Francine Jampetero, francijam@gmail.com, 719-634-4880


Dec 11-13

Flatirons Gem and Mineral Show, Boulder County Fairgrounds, 9595 Nelson Rd. (Nelson & Hover), Longmont, CO; see <<http://bcn.coulder.co.us/community/fmc/>>

TIPS & TIDBITS . . .

 **Gemology**—Like to know more about gemology from a scientific rather than commercial or artistic viewpoint? There is a website with a 10-lesson FREE course which will give you a good grounding in the subject. Look at <www.bwsmigel.info/> (from *Mingus Rocky Times*, 5/09 via *Quarry Quips*, 8/09).

 **Opals lost their fire?**—When opals dry out, they lose their iridescence. One thing you can do is to give them a bath in a mixture of glycerin and water once in a while. This will keep them from drying out. An opal needs lots of care. If one ever was a true pet rock, it's the opal (from *"Antique Jewelry: A Practical Guide"* by Rose Leiman Goldenberg, via *Gem City Rock News*, 7/09, and *T-Town Rockhound*, 10/09).

 **Nice & Brassy Pyrite**—First wash it carefully in water. Then put it in a bowl or shallow dish and pour vinegar over the specimen, making sure all the pyrite is covered. Turn the specimen over several times. When it looks clean and shiny, rinse with water, and place on a paper towel to dry (from *Quarry Quips*, 8/09, via *Rockhound Rambling*, via *The Slate* 09/08).

<i>Sunday</i>	<i>Monday</i>	<i>Tuesday</i>	<i>Wednesday</i>	<i>Thursday</i>	<i>Friday</i>	<i>Saturday</i>
NOVEMBER 2009 CSMS CALENDAR						
1 Daylight Saving Time ENDS (fall back)	2	3 Election Day	4	5 7p Board Meeting	6	7
8	9	10 7p Micromount Group	11 Veterans Day	12	13 7:30p Crystal Group	14
15	16	17 7p Fossil Group	18	19 5:15p Junior Mtg 6:30p Pebble Pups 6:30p Show Mtg 7:30p Gen Assembly	20	21 10a—Micromount Group 2nd meeting 12n—Jewelry Group
22	23	24 7:30p Camera Group	25	26 Thanksgiving	27	28
29	30	12/1	12/2	12/3	12/4	12/5

REFRESHMENTS FOR GENERAL ASSEMBLY MEETINGS

Nov—Board

Dec—All



Area Code 719

ELECTED EXECUTIVE COMMITTEE MEMBERS

PRESIDENT	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
VICE PRESIDENT	Mike Nelson	522-1608	csrockguy@yahoo.com
SECRETARY	Bob Germano	487-8945	gliders1@hotmail.com
TREASURER	Ann Proctor	684-9010	annmgmt@msn.com
MANAGING EDITOR	Betty Cain	634-8205	bettycain3@comcast.net
MEMBERSHIP SECRETARY	Bill Cain	634-8205	billcain4@comcast.net
MEMBER-AT-LARGE	Laura Canini	260-6007	caninid@comcast.net
MEMBER-AT-LARGE	Charles Webb	392-7214	(none)
PAST PRESIDENT	Drew Malin	531-7594	advanceone@comcast.net

APPOINTED COMMITTEES

FIELD TRIP CHAIR	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
HISTORIAN	Brenda Hawley	633-5702	bghsprings@hotmail.com
LIBRARIANS	Frank & Ellie Rosenberg	594-0948	emr80918@yahoo.com
PUBLICITY CO-CHAIRS	Mike Christianson Ann Schmechel	321-1739 488-2664	bigguglyxii@gmail.com annschmech@gmail.com
ROCK FAIR & SHOW CHAIR	Ron Yamiolkoski	488-5526	Ron.Yamiolkoski@aecom.com
SHOW CO-CHAIR	Francine Jampetero	634-4880	francijam@gmail.com
WEBMASTER	Allen Tyson	268-0775	allentyson@yahoo.com

VOLUNTEER SATELLITE GROUPS

CAMERA GROUP	Roger Pittman	683-2603	prpittman@directv.com
CRYSTAL STUDY	Kerry Burroughs	634-4576	kburrou@comcast.net
FACETING GROUP	Dave Wilson	635-7891	dlwilson@pcsisys.net
FOSSIL GROUP	Mike Nelson	522-1608	csrockguy@yahoo.com
JEWELRY GROUP	Bill Arnson	749-2328	ritaarnson@msn.com
JUNIORS & PEBBLE PUPS	Steven Veatch	748-5010	Steven.Veatch@gmail.com
LAPIDARY GROUP	Jennifer Bailey	638-3169	Notes_test@yahoo.com
MICROMOUNT GROUP	Phil McCollum		acc@frii.com

Locations

Board Meeting: 1st Thursday @ 7:00p, Senior Center, *Mike Nelson*, 522-1608

Camera Club: 4th Tuesday @ 7:30p, Senior Center, *Roger Pittman*, 683-2603

Crystal Study Group: 2nd Friday @ 7:30p, Senior Center; *Kerry Burroughs*, 634-4576

Faceting Group: 4th Thursday @ 7:00p, Senior Center, *Dave Wilson*, 635-7891

Fossil Study Group: 3rd Tuesday @ 7:00p every other month, Senior Center, *Mike Nelson*, 522-1608

Jewelry Group: 3rd Saturday @ 12n, 15610 Alta Plaza Circle, Peyton, *Bill Arnson*, 749-2328

Juniors & Pebble Pups: 3rd Thursday @ 5:15p & 6:30p, Senior Center, *Steven Veatch*, 748-5010

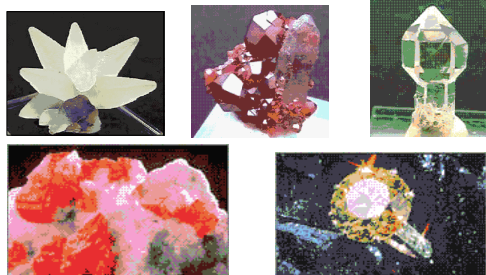
Micromounts Group: 2nd Tuesday @ 7:00p, 1514 North Hancock, *Phil McCollum*, acc@frii.com, *Moyra Lyne*, 442-2673. **Additional monthly meeting**—3rd Saturday, 10a-4p, 3609 Windsor Ave, *Marj Regel* 599-3031

2009



46TH ANNUAL PIKES PEAK GEM & MINERAL SHOW

December 5th -

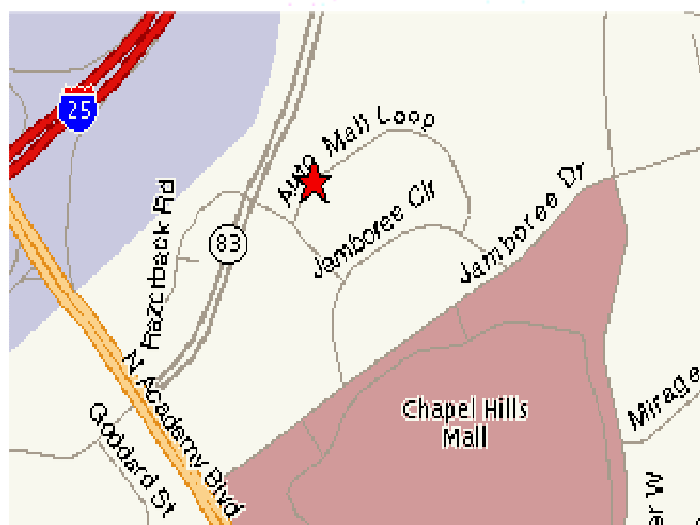


Hours: *Saturday 10am-6pm*
Sunday 10am-4pm

Adults \$5, Children (6-15) & Seniors (65+) \$3

*Free to Children under 6, Scouts & Leaders in uniform,
Active Military w/ID*

Phil Long
EXPO CENTER



- * Gem, Mineral, and Jewelry Dealers
- * Educational hands-on area for Kids and Adults
 - * Free Mineral Specimens
 - * Dinosaur Depot, Cañon City
 - * Dinosaur Resource Center, Woodland Park
- * Free Gold Panning provided by the **Gold Prospectors of Colorado**
 - * Model Trains Exhibits
 - * USGS Exhibits

The Colorado Springs Mineralogical Society
46th Annual Pikes Peak Gem & Mineral Show
 December 5 & 6, 2009
 Phil Long Expo Center, Colorado Springs, Colorado

REQUEST FOR NON-COMPETITIVE DISPLAY SPACE

Name:	Society:	
Address:	Phone:	
City:	State:	Zip:

Exhibitors are urged to bring their own cases. A limited number of club cases are available upon request until the supply is exhausted. Exhibitors using club cases will need to furnish risers, linings, extension cords, or accessories as needed. Electrical power is available, but **EACH CASE IS BE LIMITED TO 150 WATTS.**

NON-COMPETITIVE EXHIBIT

Describe Display:			
	I will bring my own case	Case Length	
	I will need a case*	Approximate Case Length*	

*CSMS cases are 36" x 24" outside measurements

Set up is Friday 4:00 pm until 9:00 pm.

Signature of Non-Competitive Exhibitor: _____

Application must be signed by the Exhibitor

With the signing of this request, it is mutually agreed that the Colorado Springs Mineralogical Society and Phil Long Expo Center shall not be liable to any exhibitor for damage, loss, or destruction of any exhibit or injury to his person for any causes and all claims for injury are expressly waived by the exhibitor.

DEADLINE: December 1, 2009
 Applications will be accepted
 after 12/1 on a space-available
 basis.

RETURN TO: Bob Landgraf, Exhibits Chair
 304 Palmer Trail
 Manitou Springs, CO 80829
 (719) 685-1364
rmlwp74@aol.com

PLEASE USE ONE FORM FOR EACH ENTRY – FORM MAY BE REPRODUCED

A copy of this application which includes the signature may be emailed to the Show Chair.

OCTOBER 15TH GENERAL ASSEMBLY MINUTES

BY BOB GERMANO, CSMS SECRETARY

Yam called the October meeting to order at 7:31 PM and continued with the salute to the American Flag. He asked for a motion to approve the September 17, 2009 Minutes as they appeared in Pick&Pack, it was seconded and approved without changes. Ann Proctor followed with a positive Treasurer's Report. Dave Wilson introduced two guests who had joined him for the evening.

As always, Yam introduced our Satellite Group Leaders, noting that Jennifer Bailey has volunteered to lead the Lapidary Group. She will announce the first meeting of the new group in the very near future. If you are in possession of CSMS lapidary equipment, please contact Jennifer.

The Annual Show Chairs are Yam & Francine Jampet-ero. The next organizational meeting will be November 19th at 6:30 PM in the Senior Center lobby. We may hold one more meeting just before the Show, but the meeting on the 19th will be extremely important. Yam is still in need of volunteers. Any and all help will be greatly appreciated.

As the Field Trip Chair, Yam announced the October Peridot field trip will be rescheduled, with more info being posted on our website as soon as it is possible. Also, the Holcim Cement Quarry field trip, scheduled for October 31st, just needs confirmation from the quarry manager. We are still trying to get a couple more trips in before the snow flies, so check the website <www.csms.us>.

President's Report (Yam):

- It's almost time for the annual election of officers. Our Nominating Committee (Lorrie Hutchinson, Sharon Holte, and Al Zelenak) will present a slate of officers for the November election. Mike Nelson, VP, reported that he has already lined up General Assembly speakers through most of next year.
- RMFMS has selected CSMS to host their Annual Show in 2011. Phil Long agreed to add a day to our 2011 Show meeting the 3-day show requirement of RMFMS. This means more work than our regular show and will require more volunteers. More news on this to follow.
- The Colorado Federation of Gem & Mineral Societies has been reformed. The elected officers are President, John Hansen; Vice President, Ron "Yam" Yamiolkoski; Treasurer, John Haney; and Secretary, Marie Wester.

Bill Cain, our Membership Secretary, reported no changes but did remind the general membership that pins for years of membership are available and dues for 2010 may be paid. Please make sure you provide complete, updated information on your application form so that our database is accurate.

Our Pick&Pack Editor, Betty Cain, reported that we received the following 2009 Bulletin Contest awards:

- RMFMS—Amanda Adkins, Terry Beh, Bob Bernard, Ray Berry, Betty Cain, Bill Cain, John Casto, Lorrie Hutchinson, Mike Nelson, Mike Nelson, Roger Pittman, Ron Yamiolkoski, Jack Thompson, Allen Tyson, Steven Veatch, Ilona Vogt, Charles Webb, and

Mike Wheat.

- AFMS—Terry Beh, Bill Cain, John Casto, Mike Nelson, Roger Pittman, Steven Veatch, Mike Wheat, and Pick&Pack (Betty Cain).

Congratulations to all of our awesome authors! If you were not at the October meeting to receive your award or certificate, please see Yam.

Members-at-Large Laura Canini and Chuck Webb had nothing to report.

Yam introduced our guest speaker, Joe Dorris. Joe is a commercial miner who owns several claims north of Lake George. Joe started his presentation with some slides from his Topaz Mine operation and continued with a brief description of his Smoky Hawk claim. He then presented his Smithsonian Pocket, one of the best pockets to come out of the Crystal Peak District. Slides included mining and final piecing together of many of the pieces. The Smithsonian Pocket, found in 2008, has taken over a year to properly clean and prep. Some photos showed the specimens in the process of preparation. The Smithsonian Pocket was discovered the Thursday before the 2008 Pikes Peak Gem & Mineral Show when Mike Wise, of the Smithsonian, was hosted by the CSMS. Joe presented a very thorough presentation; thank you, Joe, for taking the time to share your discoveries with CSMS.

As Final reminders, Yam requested the General Membership to:

Check the CSMS website periodically for updates on field trips. Yam is still looking for more field trips.

If you have not paid your 2009 dues as yet, please get them to Bill Cain as soon as possible.

The Board will provide refreshments for the November General Assembly Meeting.

The next Annual Show planning meeting will be on November 19th at 6:30 PM. If you need some flyers, see Yam.

We need material for the Kid's Area at the Show and also for the Silent Auction. Obviously, we still need volunteers.

The meeting adjourned at 9:10 PM.



NOVEMBER 2009

**Our Staff...**

Betty Cain *Editor*
 Bill Cain *Mailer*
 CSMS Members *Reporters*

We encourage everyone to submit articles, photos, illustrations or observations.

Share your experiences, trials and tribulations, your new finds, or simply your experience at our last field trip.

The ability to write well is NOT a requirement. We will fix the grammar while keeping the author's voice, style, and work intact.

Handwrite it, type it, or email it. Format does not matter. All submissions are welcomed.

DEADLINE for items to be included is the Saturday after the General Assembly every month.

To submit an item, please use the following:

For hardcopy photos or articles, mail to the address below or bring them to the General Assembly Meeting. All hard-copy photos remain the property of the submitter and will be returned. Electronic photos should be submitted at resolutions above 200 dpi in JPG, BMP, TIF, or PIC format.

All articles not shown with an author are provided by the Editor.

Mail or email to:
 bettycain3@comcast.net or
 Info@csms.us
 PO Box 2
 Colorado Springs, CO 80901
 Phone: (719) 634-8205

The Pick&Pack is published at least ten (10) times per year with email distribution and/or printed copies to 450 recipients per month (no issues in January or August); special editions may be distributed during January or August.

Unless otherwise marked, materials from this publication may be reprinted. Please give credit to the author and CSMS Pick&Pack.

CLASSIFIEDS . . .

NOTICE—Items listed for sale in the Pick&Pack are displayed only as an informational service to our members and advertisers. CSMS and/or the Pick&Pack do not promote nor warranty any item displayed. The sellers and buyers are responsible for the condition and ownership of any item shown.

**** WANTED ****

Flat Lap Grinder/Polisher in good condition.
 Please contact Charlotte Bourg
 mcbourg@q.com

CSMS Caps & Hats are now available.

Pick yours up at the next meeting

CSMS Membership Pins

2008 New Members who have paid their 2009 dues are entitled to a one-year pin, as are other members renewing on 5-yr increments. Please see Bill Cain, Membership Secretary, to receive your **award**.

All back-year pins may be purchased for \$5 ea.

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Betty Cain, Editor



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November 2009



Joining the Colorado Springs Mineralogical Society (CSMS)

General Assembly meetings are held the third (3rd) Thursday of each month, except January & August, beginning at 7:30 p.m. at the Colorado Springs Senior Center, 1514 North Hancock Blvd., Colorado Springs, CO.

Visitors are always welcome.

CSMS also offers Satellite Group meetings that allow more focused attention in specific areas of our members' interests. Our current Satellite Groups consist of the following: Camera Club, Crystal Study Group, Faceting Group, Fossil Group, Jewelry Group, Lapidary Group, Micromounts Group, and Pebble Pups/Juniors. For details on Satellite Group meetings, see page 9.

Yearly dues include 10 issues of the *Pick&Pack*, all field trips (additional fees may be required on some field trips, and members are responsible for all transportation to and from), participation in all Satellite Groups (some groups may request additional fees to help cover resource costs), free admission to the *Western Museum of Mining & Industry*, a year of learning and enjoyment, plus a lifetime of memories. **New Members joining now receive membership for the balance of this year plus all of next year.**

Individuals—\$15

Family—\$25

Juniors—\$5

If you are interested in joining CSMS or would like more information, we encourage you to attend our next General Assembly meeting (see page 3 for details of the next meeting) or visit our web site at www.csms.us or send an email to Info@csms.us.