

TITLE

AMMONITE

Jan Baumeister, Editor
Official Publication of the
Western Dakota Gem & Mineral Society
PO Box 362
Rapid City, SD 57709-3620

TO:

MERRY CHRISTMAS AND A HAPPY NEW YEAR, ROCKHOUNDS!

CHRISTMAS PARTY

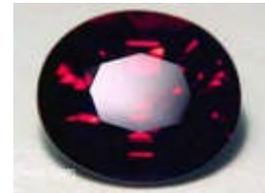
December 7, 6 PM at the Elks Club. Approved by the members present. It will be a buffet with roast beef slow roasted and tender/herb crusted chicken breast, potatoes, vegetable, salad greens, role, catered by Angel Catering The total cost including tax & gratuity is \$25.00 I have reserve the dining room. I need you to call me if you wish to attend. You can mail me a check or pay me that evening. I need to give Angel the number and pay him three days before. Please let me know by Dec. 1. Make check out to the club. Angel said you could have seconds. Annette Rathert 348-8948. Leave message OK.



Rubies- by Photo



Emerald and Garnet in rough via Bing.com/images



Garnet via PicSearch

The purpose of our club is to promote interest and education in geology, mineralogy, paleontology, archeology and lapidary, to sponsor and promote means of coordination of the work efforts of groups and individuals interested in these Science fields.



THE AMMONITE

Newsletter of the Western Dakota Gem & Mineral Society —
2012-Officers and Chairpersons

DECEMBER 2012
(area code- 605)

President:	Ellen T, 21653 Piedmont Meadow Road, Piedmont, SD	787 4659
Vice President:	Arland M, PO Box 1963, Rapid City, SD 57709	
Acting Secretary:	Paula G, 12009 Crook City Rd, Whitewood, SD 57793	2692522
Acting Treasurer:	Annette R 2701 Mystic Mountain Road, Rapid City, SD	348-8948
RMFMSM SD State Director:	Sony H, PO Box 376, Piedmont, SD 57769	431-2755
RMFMS PLAC SD Rep:	Janice B, 3901 Hall St, Rapid City, SD 57702	342-5517
Multiple Use Coalition Rep:	Ellen T, 21653 Piedmont Meadow Road, Piedmont, SD 57769	787-4659
Blue Ribbon Coalition SD Rep:	Martin O, 245 E. St. Charles, Rapid City, SD 57701	721-7770
1 year Board Member:	Mickey S, 201 Patton St, Rapid City, SD 57701	791-1953
2 yr. Board Member:	Stan H, 533 3445 Brooke, Rapid City, SD 57701	791-0442
3 yr. Board Member:	Gene W, 3205 Crane Dr, Rapid City, SD 57703	431-5491
Historian	Annette R., 2701 Mystic Mt. Rd., Rapid City, SD 57702	348-8948
Librarian:	Calvin L, 714 Halley Ave- Apt.# 2, Rapid City, SD 57701	420-1772
Show Chairman:		
Co -Show Chairman	David R, 1115 South 36 th Spearfish, SD 57783	722-5101
Newsletter Editor:	Jan B, 3901 Hall St, Rapid City, SD , 57702	342-5517
Refreshment Host:	711 Highland Ave, Lead, SD 57754	580-5579

Western Dakota Gem & Mineral Society, PO Box 3620, Rapid City, SD 57709-3620

Meetings: Second Friday of each month, 6:30 pm, Canyon Lake Senior Citizens Center, 2900 Canyon Lake

***Dues: Family - \$15, Single - \$10, Payable by cash, check, or money order to Treasurer Annette Rathert. Senior Citizens – free- (does not include a mailed bulletin).**

REMINDER: DUES ARE PAST DUE---- you will not receive the bulletin in January.

If you change your home address or e-mail address, please notify the Bulletin Editor. Thanks!

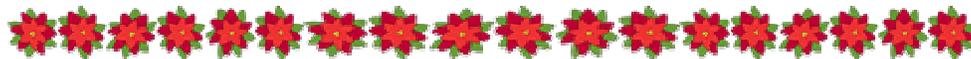
PRESIDENT'S MESSAGE by Ellen T

Just a few words about our November meeting. I want to take care of some bad business. Hard feeling and anger were expressed concerning accusations of inappropriate behavior of a member on more than one occasion. I apologized for not checking out one aspect of this situation. Generally speaking, if behavior problems arise, a signed letter needs to be sent to the Board of Directors. The accused and the accuser will be invited to a Board of Directors meeting and if necessary, it will be presented to the club for secret ballot of possible exclusion. Present proof or stop the verbal battling!! I hope this is enough said.

Now, the election of officers was accomplished with several positions open: Field trip chairman, Show chairman and Blue Ribbon Coalition Representative. These three positions are just as important as the other thirteen. We need all sixteen positions filled. We encourage new members to participate. We have guide line directives printed for each position to make the job easier.



**DECEMBER -Christmas dinner at Elks Lodge-3333 Jolly Lane Drive- No regular monthly meeting.
JANUARY: The 'sign up' sheet was not filled in for January. Needed: volunteers to provide goodies for the refreshment table**



MINUTES OF DECEMBER 9th MEETING by Annette R, Acting Secretary

The meeting was called to order at 6:50 by President Ellen T. There were 20 members present.

- Ellen brought grassland maps for members at no cost. She reminded members to stay on the marked roads or run the risk of being fined.
- Treasurer's Report (see below). Request was made by the Treasurer to renew dues for the following: Black Hills Multiple Use Coalition-\$100; Blue Ribbon Coalition-\$100; Utah Federation-\$50. Motion to approve by Deb R, Second by Paula H. Approved.
- Motion to approved minutes in newsletter made by Jan B; Second by Sony H. Approved.
- Sheet passed for signing up for 2013 refreshments/door prizes/programs. See Paul G.
- Election of Officers. Ellen presented the slate for additions, corrections, approval. Officers for 2012-2013: Motion to approve the below made by Deb R; Second by Patricia D.

President - EllenT; Vice President - Arlend M; Secretary - Paula G; Treasurer - Annette R;
RMFMSM SD/NE State Director - Sony H; RMFMSM PLAC SD Rep. –
Jan B; BHRMUC Rep. - Ellen T; 1 Yr. Board Member - Stan H; 2 yr. Board Member – Gene W;
3 yr. Board Member - David R; Historian - Annette R; Co Show
Chairman Librarian - Calvin L; Newsletter Editor - Jan B; Webmaster - Jan B;
Refreshment Host (Make coffee for meetings, set up) - Patricia and John D.

VACANCIES remain for the following: Blue Ribbon Coalition Rep.; Field Trip Chairperson; Show Chairperson.

- Jan B will bring current lists of members to the Party/January meeting for members. She keeps the addresses, so inform her of any changes to address/phone/e-mail.
- Earl R reported on information about buying a power point through Office Depot/Office Max. He recommends using a lap top, digital projector, and a screen. Cost estimated about \$1000-1300. He also reported on a system to photograph agate/rock collections. He knows a person who would be willing to present a program to the members. Use for ID/insurance if stolen.
- Jan B presented information on the formation of Dugway Geodes and Ardis Van C related her experience as a "Dugway trip survivor" in a rock hounding trip SW of Orem, Utah. Other members shared their experiences rock hounding.
- Meeting adjourned at 7:50.

TREASURER'S REPORT by Annette Rathert, Treasurer

Balance on Hand last report	\$8084.92
Deposited	136.25
Bills Paid	1344.35(Civic Center Deposit-\$500; trailer/content insurance-\$395; late silent auction check, editor expenses, web, rent)

Balance on Hand 11/09/12 \$6876.82

38 families; 38 singles. 115 members including 8 honorary members.

RMFMS –Message from President DeLane Cox

The Wasatch Gem Society of Sandy, Utah, has graciously volunteered to host the 2013 RMFMS convention May 17 - 19. The Show dates are firm, but they are still tying down final plans for the RMFMS convention, such as host hotel, banquet menu, etc. There will be more information as soon as it is available. For now, be sure to put this on your calendar for next year. We expect to have a great convention.

We offer a big WELCOME to the Leaverites Rock and Gem Society of Phoenix, Arizona. Steve Pegler is their president. We are delighted to have you as fellow RMFMS members. I look forward to meeting some of the members at

PUBLIC LAND NEWS by Jan B.

Ellen and I carefully compared trails on the old Buffalo Gap Grasslands map to the new off road travel map. We found many roads closed off, and some of these were side roads leading to good rock hunting areas! Even short trails going west of Scenic were posted “no vehicle travel due to ferrets”, along with trails going southwest. It looks as if the Agate Allotment and trails in rattle rock beds are not longer printed on the new map.

I check out anti-wilderness web sites and found something interesting in the web site of American Land Access Association web site- www.Amlands.org. They have a feature that opens up a US Forest Service map that has all the states, with little FS balloons, click on each one shows new regulations or parking/entry fees to certain areas. They have a page of legislation actions There was a bill put in the Senate: S-2493 that is trying to allow the states to maintain their own regulations on land issues and other matters. I checked the Senate bills and couldn't find anything yet, I will contact Senator Thune about it.

COMPUTER FIELD TRIP: COMPUTER FIELD TRIP: Search engine to: **Pick and Pack bulletin, Colorado Springs, CO.** It will bring up the listing –click on the club website to find many Mike Nelson, an mineralogist, rock hound, author and great photographer, and member of the Colorado Springs Mineral Society, has written several articles of Western SD which I'll be passing on to you to enjoy: **TRAVELING THE BLUE HIGHWAYS V: WEST RIVER SOUTH DAKOTA** by (Mike Nelson -csrockguy@yahoo.com; or www.csmsgeologypost.blogspot.com)

SHOP TIPS:

***Jeweler Saw Sander:** Tear or cut off narrow strips of cloth-backed silicon carbide (broken expanding drum belts are ide Clamp the\ ends in your jeweler's saw and you have an excellent sander for hard-to-get-at places.

(From Geolap News, date unknown, via The Nugget, 11/98.)

***Razor Sander:** Remove the blade from a safety razor and wrap sand paper around the curved blade holder. Tuck ends under the teeth and tighten the handle. This is ideal for sanding small curved surfaces.

Original source unknown via The Nugget, 11/98.

*Tighten vice clamps after every few cuts for a smoother cut even if successive slabs are saved from one piece of rough.

*Grinding Obsidian Slabs: Approach the grinding wheel with the material at a slight horizontal angle. If material is put straight in, it may be a shattering experience since obsidian fractures easily if not worked correctly. (RockChips -Dec.2011)

DECEMBER BIRTHSTONES:

Zircon and Turquoise



If not for its presence in the crust of the earth, Zircon is a great and remarkable mineral. They are primarily found in igneous rocks, sedimentary rocks and metamorphic rocks. The least abundant type of zircon is the large zircon crystals. Zircon is one mineral that is found worldwide and is a very common accessory. These minerals can be found in Australia, India, Sri Lanka, Canada, Quebec, United States, Italy and so on. The largest producer of zircon which accounts to 37% of the world's total production, Australia is the leading country in zircon mining. The zircon can be found in a wide variety of colors. They can be seen in black, colorless, hazel, yellow, brown and red. Below gem quality, zircons can be changed to heat treatment. It really depends on the amount of heat being applied to the mineral. They can be changed to blue, golden yellow, and colorless. (www.ezinearticles.com/turquoise) Photos by Bing.com

Turquoise is the lovely blue gemstone that is used in December birthstone jewelry. It is a bluish green stone that has been used since at least 6000 B.C. when the Egyptians used it in mosaics and decorative work and in the jewelry worn by their Pharaohs. It was also used more recently by Aztec kings, in masks, shields and knives, and by Native Americans and the Persians in beautiful ornamental pieces and jewelry. Turquoise is a relatively rare gemstone. Turquoise of gemstone quality is mined in Australia, Iran (formerly Persia), Afghanistan and in the US in New Mexico, Arizona and other South-west regions. (Article Source: <http://EzineArticles.com/>)

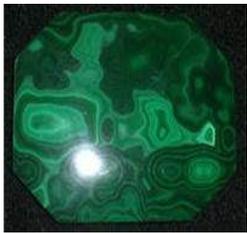
COPPER MINING IN ARIZONA

Mining and the 21st Century Arizona Economy | About 65 percent of the nation's copper is mined in Arizona and for many years Arizona led the nation in production of nonfuel minerals; chiefly because of our large copper reserves. In 2005, there were 72 mining companies operating 126 mines in Arizona. On top of that, 70 sand and gravel quarries operated throughout the state. Arizona mines a quarries directly employ nearly 22,000 people who collectively earn more than 1 billion dollars each year. The direct and indirect economic impact of mining is estimated at about 3.5 billion dollars annually. Of this, about 277 million is accounted for in exports abroad. The future of mining is assured by the following fact: each American uses more than 45,000 pounds of newly mined minerals annually! (Image to left: Open-pit copper mine in Arizona)



Mining districts in Arizona on the accompanying [mineral resource map](#) (see right) are categorized by the specific geologic environment in which the mineral deposit formed. Base- and precious-metal mining districts are classified according to the dollar value of metals produced. Only districts for which the total value of reported production of copper, lead, zinc, gold, or silver is greater than \$500,000 (based on 1996 metal prices) are shown. Manganese, uranium, and tungsten districts have had significant production. Only minor quantities have been produced from the iron and mercury districts. Locations of economically or historically significant mines are also shown.

A northwest-trending belt of metallic mineralization across the state is a striking feature on the map. The southeastern part of this belt is dominated by porphyry copper (red on map) and associated lead, zinc, gold, and silver deposits (blue and purple on map). These deposits are associated largely with granitic rocks that were intruded 70 to 55 million years ago. Many important deposits in central Arizona are associated with Precambrian (1,750 to 1,650 m.y. ago) volcanic activity. The western end of the belt is dominated by gold deposits (orange on map), mostly related to volcanic activity between 25 and 15 million years ago. In addition, economically significant uranium deposits (



Azurite is an intense deep blue color with a Mohs hardness between 3 and 4. Different sources claim the name is derived from the Persian word lazward or from the Arabic word azul, both of which mean blue. It often occurs with [malachite](#), [chrysocolla](#) or [turquoise](#) in areas with copper deposits.

Azurite is found in Australia, Chile, France, Mexico, Morocco, Namibia, the southwestern USA, and Zaire. For thousands of years this stone has been used in jewelry and ornamental objects. During the Middle Ages and Renaissance it was ground into pigment for use in paint and eye shadow. It is not known widely as a birthstone, but several references indicate it may have been used as a birthstone for the sign of Taurus.

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The two minerals azurite ($\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$) and malachite ($\text{Cu}_2\text{CO}_3(\text{OH})_2$) are closely related. Both are hydrous copper carbonates, which contain the carbonate anion group, $(\text{CO}_3)^{2-}$, the hydroxyl anion (OH), and the copper cation (Cu^{2+}). Azurite is royal blue or brilliant blue in color while malachite may be bright to dark green. The coloration in both species is idiochromatic and is due to the presence of copper, which is a chromophore and possesses a strong pigmentation effect. Malachite's green results from the fact that the copper which it contains is more highly oxidized than that of azurite. Aggregates of crystals of both species are frequently botryoidal or mammillary in habit. Large individual crystals of malachite are rare. More commonly the mineral occurs in rings, bands, and concentric layers composed of varying shades of green. Both azurite and malachite occur as earthy, incrustated masses. (continued on next page)

Rhodocrosite (MnCO_3) is member of the carbonate class and an ore of manganese. Its characteristic rose pink or red color is idiochromatic and is due to the presence of the chromophore manganese (Mn). Rhodocrosite is translucent and will transmit light diffusely; it possesses a vitreous or pearly luster. Like azurite and malachite, rhodocrosite is a member of the carbonate class. However, rhodocrosite contains neither water (H_2O) nor the hydroxyl anion (OH^-) and is therefore not a hydrous carbonate. Instead it is a member of the calcite group. Rhodocrosite is like all calcite minerals a member of the rhombohedral crystal system. Rhodocrosite's cleavage is perfect in three directions and provides external indication of its rhombohedral internal structure. Crystals are rare but may be rhombohedral in shape; more typically the mineral demonstrates botryoidal, encrusting habit.

The hydrous silicate chrysocolla ($\text{Cu}_2\text{H}_2\text{Si}_2\text{O}_5(\text{OH})_4$) is an ore of copper. Chrysocolla is a hydrous or basic copper silicate because it contains the hydroxyl anion (OH^-). This species is not a true mineral and does not possess a crystalline lattice. Instead, it is an amorphous 'silica gel' or gelatinous precipitate. It is, however, a copper-bearing solid substance which is commonly found in association with minerals such as azurite, malachite, and native copper.

In color chrysocolla is green to sky-blue. This coloration is idiochromatic and is due to the presence of the chromophore copper (Cu). Chrysocolla is translucent; samples may be of vitreous or glassy luster or appear greasy, dull, or earthy. It is very brittle, sometimes fragile; it has no cleavage, and demonstrates uneven or conchoidal fracture. Specimens of chrysocolla are typically of massive or earthy habit. The substance may also display reniform or bulbous, botryoidal habit. It lacks macroscopic crystals.

Azurite, malachite and chrysocolla are commonly found in the oxidized zones of copper veins and deposits. Rhodocrosite occurs in veins and hydrothermal replacement deposits in the company of manganese minerals as well as other metal ores such as copper.

The Morenci Copper Mine, AZ

Morenci is the largest copper producer in North America and remains a major contributor to Phelps's copper output, which is second only to that of Chile's Codelco. In 1986, Phelps Dodge Morenci, Inc. was established as a partnership between Phelps Dodge Mining Company and Sumitomo Metal Mining Arizona Inc. & Sumitomo Metal Mining Co Ltd.



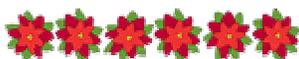
During 2006, Morenci mined 247mt of ore, milled 4.1mt grading 0.56% Cu, placed 230.70mt of ore onto leach pads, recovered 14,993tons copper in concentrate and electrowon 355,574t of copper cathodes. Copper production in 2011 stood at 614 million pounds. The mine produced 514 million pounds and 504 million pounds of copper in 2010 and 2009 respectively. (www.miningtechnology.com/project)

Editors note: *They give free daily tours at this mine which is very interesting -plus tourists are able to stop at higher sites (away from this major mine) and hunt a short time for rocks. I found 2 beautiful balls of blue Azurite to make into earrings, and several hunks of material.*

THE GEMSTONE, OPAL..

Chemistry: $\text{SiO}_2 \cdot n\text{H}_2\text{O}$; Hydrated Silicon Dioxide. **Class:** Mineraloids. **Group:** Some mineralogists place Opal in the Quartz **Uses:** As a gemstone and ornamental stone.

Opal has been a popular gem for many centuries and has a very interesting structure. Opal is considered a mineraloid because this structure is not truly crystalline. The chemistry of Opal is primarily SiO_2 and varying amounts of water. The amount of water varies from 5 -10% and greater. This water can help geologists determine the temperature of the host rock at the time the opal formed. Although there is no crystal structure (meaning a regular arrangement of atoms), Opal does possess a structure nonetheless. Random chains of silicon and oxygen are packed into extraordinarily tiny spheres. These spheres in most Opals are irregular in size and inconsistent in concentration. Yet in Precious Opal, the variety used most often in jewelry, there are many organized pockets of the spheres. These pockets contain spheres of approximately equal size and have a regular concentration, or structure, of the spheres. This has the effect of diffracting light at various wavelengths, creating colors. Each pocket produces a different color, with a different intensity depending on the angle from which a viewer sees it. The multicolored flashes of light that Opal emits gives it a truly beautiful and valuable look. (The Amythest House)



Wisdom: A snow flake starts out single and alone, but look what happens when they all band together!

THE PETRIFIED WOOD PILE



Wood opal either is a form of [petrified wood](#) which has developed an opal sheen or, alternatively, but more rarely, where the wood has been completely replaced by [opal](#).

Wikipedia: **Wood Opal** is an [amorphous](#) form of [silica](#) related to [quartz](#), a [mineraloid](#) form, not a mineral. 3% to 21% of the total weight is [water](#), but the content is usually between 6% to 10%. It is deposited at a relatively low temperature and may occur in the fissures of almost any kind of [rock](#), being most commonly found with [limonite](#), [sandstone](#), [rhyolite](#), [marl](#) and [basalt](#). Opal is the national gemstone of [Australia](#), which produces 97% of the world's supply.^[4] This includes the production of the state of [South Australia](#), which amounts to around 80% of the world's supply.^[5]

Opal's internal structure makes it [diffract](#) light; depending on the conditions in which it formed it can take on many colors. Opal ranges from clear through white, gray, red, orange, yellow, green, blue, magenta, rose, pink, slate, olive, brown, and black. Of these hues, the reds against black are the most rare, whereas white and greens are the most common. It varies in optical density from opaque to semi-transparent. For [gemstone](#) use, its natural color is often enhanced by placing thin layers of opal on a darker underlying stone, like [basalt](#) (www.wikipedia.com/wood opal.)-pictures by [Artfiberglass.com](#) and [Bing.com](#)

EDEN VALLEY PETRIFIED WOOD

There are several petrified forests located at Wyoming. Three main collecting areas are well known.

- a) the Big Sandy Reservoir located north of Farson
- b) the region around Oregon Buttes
- c) the legendary Blue Forest

Eden Valley petrified wood was formed from plants living about 58 million years ago (Eozän Geologic age). The rock exhibits features not found in fossil wood anywhere else in the world. The fossil wood is known for the light blue agate surrounding many of the pieces.

The petrification process for this area involved shallow "algae growing" lakes. In many cases for undetermined reasons the wood came to be in this water in its live condition before it had a chance to dry out. This wood became coated with algae which adhered to the surface making a cast or mold around the wood. Later the wood dried and shrunk in the mold made of algae. Over times these algae casts became part of a layered rock formation. Silicia-rich water solutions seeping through the rock then petrified the wood and filled in the spaces left between the dried wood and the hardened cast with blue agate, calcite and quartz.

As the agate coated the inside surface of the algae cast, perfect impressions of the bark were left in the agate. Because the petrification process seems to have been protected by the algae cast formation, unusually detailed representations of the wood have been preserved. (from Minertown.com) (pictures and article:<http://www.minertown.com/Reports/28/holz5-gross.jpg>)

PICTURES of Agatized Wood from the 'Blue Forest', Wyoming



HAPPY HOLIDAYS

FOR SMITHSMITHS: USING PRE-MADE BEZEL CUPS

As a general rule of thumb I assume it's going to take me 15 - 20 minutes to make a bezel for an ordinary cabochon, so for some projects buying pre-made cups can save a lot of time. But if you go this route, keep in mind three things. First, try to get cups made from fine silver, not sterling. Remember that fine silver is softer and burnishes over the stone more easily.

Second, you may have trouble matching the shape and size of the stone with the shape and size of the bezel cup. Purchase cups can only be found in a limited number of standard sizes. You may have to adjust your choice of gemstone to match the cup. The other consideration is that pre-made cups often have fairly low side walls. While these are fine for low-dome stones, they will not adequately secure stones with steep side walls.

Lastly before setting, check the fit of your gemstone in the cup, particularly around the bottom. The bottom corners of a stamped cup are much more rounded than a bezel you would fabricate yourself. This causes a problem with some stones. If your stone has a sharp edge around the bottom, burnishing over the bezel will place a lot of stress on the stone and may cause it to crack. To avoid this, I round off the bottom edge of the stone with a diamond file (or use sandpaper on soft stones). More BenchTips by Brad Smith –(FROM : VGMS bulletin, 2/2012)

What About Greed?

The judgment of how much material we should collect seems to be pretty generally agreed upon as based on use – "no more than we can reasonably use." "Reasonably use" is elastic – if you can alibi, and rockhounds can. We can think of lots of things to use rocks for. And if you've ever built a fireplace of rocks, made a rock wall, a rock garden, or even a garden border, you know how these things eat up rocks. With the number of rock yards in business, and the tons of rocks sold for building and landscaping, it's obvious the rock hobbyist is the least to blame for quantity collecting. Even gem quality material is hauled away in truckloads by dealers, not by hobbyists, in most cases.

"Gem quality" ., that's problematical, too. A large percent of the stuff we take home proves to be useless once we start sawing into it. And who, other than the rockhound, will spend the time trying to save, and to make something of the least likely material or the smallest scrap of good material?

We know that our efforts in gathering, cleaning, and preserving minerals & fossils, and our lapidary work of transforming rough rocks into gems and art objects – all serve to protect them against erosion and other ravages of the elements. We keep them in safe places – all to the benefit of posterity. We're actually practicing conservation!

And since the results of our efforts will remain probably many centuries after we're gone –who else but posterity will benefit most? We can rationalize, too, that in areas such as freeway construction cuts – tomorrow all those agates will be buried under tons of earth and concrete, and lost to posterity. Rescuing carloads of them from the bulldozers is actually saving them for future generations.

All this may be true, but the public may not understand. Make no mistake; it's that public image of ourselves upon which our chances of continuing to collect depends. The broadcasting of quantity collecting damages the reputation of not only the club involved, but all of its affiliated clubs.

If we much test the springs on our cars – even with useless junk – LET'S NOT BRAG about it. Maybe if we even trained our conscious to make....(From Lowell Foster, VGMS historian, via VGMS bulletin, Sept. 2011

Detecting Fractures: A good way to tell how solid a slab is, heat it in hot water. The surface will dry immediately when removed from the water, but the fractures will still be filled with water and show up clearly. They can be marked with a pencil and used to orient your slab. (Little Gem,1980 / Ghost Sheet 2010via VGMS bulletin March 2010

HAPPY HOLIDAYS!

