



**SLABS & CABS**  
**OFFICIAL BULLETIN OF THE**  
**GULF COAST GEM & MINERAL SOCIETY**

**P.O. Box 60781**  
**Corpus Christi, TX 78466**  
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**Volume 50**

**Number 1**

**January 2011**

**Next Meetings**

Board Meeting  
1 February 2011  
Downtown Library  
6:00 PM– 9:00 PM

General meeting  
18 January 2011  
Watergarden Room  
Corpus Christi  
Museum of Science & History  
1900 No. chaparral  
Corpus Christi, Texas  
6:30 PM

**Membership Fees for 2011**

Membership dues for 2011 are due in January 2011  
We have 4 types of memberships and they are as follows:  
Single \$ 15.00  
Spousal \$ 20.00  
Junior \$ 5.00  
This is for any member from the age of 6-17 years Of age  
Honorary  
Sandra Hinkle , Membership Chairlady

**Bad News From The Bluntzer Home**

Our Nicky boy came home from the hospital on the 25th November late in the evening (about 7:30pm) by ambulance with the biggest happy smile on his face. because he was HOME!!!. SEVERAL FRIENDS WERE HERE TO WELCOME HIM....AFTER THEY LEFT HE WANTED A CHEESE SANDWICH AND I/2 OF A HAM SANDWICH. I FED HIM THAT PLUS A LITTLE CANTALOPE, BANANA AND STRABERRY DESSERT. ABOUT 12:45 he decided he wanted to go to sleep. about 30 minutes later he started complaining that he was not getting the proper oxygen and the nurse was here and she called the oxygen people and he finally got here and adjusted the maching. (it was not right)...he started complaining again about the shortness of oxygen. he had two #9 machines going one at 10 liters and the other one at 8 liters. So, I called the hospice people again, talked to the oxygen man and he finally decided to come out to check. I told him that .Nicky was in distress, he was complaining of his left arm hurting and he just slipped away after that about 2:30 this morning  
Mildred came over and stayed until the funeral home came for him...Becky, Naomi and I made the arrangements this afternoon at Sawyer George Funeral home for Friday at 10:00 AM  
I am heart broken and at this time of the afternoon I am getting very tired. NO sleep does that to you. Love, Rusty

**INSIDE**

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**We are on-line**

**www.gcgms.org**

**Thanks to Chris Davis of Spurfire and Owen Hopkins**  
**For getting us back up and running! Take a look.**

Our annual Christmas Party was held on 12/10/10. It was a brief meeting and was called to order by President Kevin Schleicher at 7:06pm. Joe Grimes introduced and installed the new officers for 2011. They are, Kevin Schleicher (President), Kyle Hinkle (Vice President), Gene Schade (Treasurer) and Suzy Nick (Secretary). Kevin Schleicher presented a plaque to Owen Hopkins for Honoree Membership in the club. The meeting was adjourned at 7:30pm.

### **2 January 2011 Board Meeting of the Gulf Coast Gem & Mineral Society**

The Board Meeting was called to order on 1/4/11 at 6:40pm by President Kevin Schleicher.

Board members in attendance were Gene Schade, Kevin Schleicher, Kyle Hinkle, Shanda Hinkle, Art Worley, Donna Grimes and Suzy Nick. Member Joe Grimes was also in attendance.

Shanda Hinkle gave the membership report as 32 regular Members, 4 Junior Members and 11 Honoree Members.

Since Art Worley has been sick, there have been no published Cabs and Slabs but he is feeling much better and will be publishing a newsletter this month that will include the minutes that have not been published but have been E-mailed to the board members. Gene Schade made a motion to approve all E-mailed minutes and Kyle Hinkle seconded it. The motion was approved.

Gene Schade presented the Treasurer's Report. Kyle Hinkle made a motion to accept the report as submitted and Suzy Nick seconded it. The motion was approved.

The Shop Report was given by Kevin Schleicher since Mark Wolbrink was not in attendance. Mark is working on fixing the Vice for the slab saw and the rest of the shop is doing well.

There was no Field Trip Report.

The Show Report given by Gene Schade reporting we now have 25 dealers to date. Donna Grimes has arranged publicity for KVTN III and Tejas Radio.

Tejas Radio will also give us advertising on Beach Radio for an additional \$150. This was unanimously approved by the board.

The Education Report was given by Kyle Hinkle and we will have a Geology DVD about the Permian Basin for our January meeting.

Kyle is also working on a Junior Rockhound presentation for the February meeting and would like to have an activity for the March meeting for any Jar members in attendance to start to earn their badges. Kyle would also like to purchase one vest and all the badges they can earn to display at the show. Donna Grimes made a motion that we purchase one vest and the badges. Suzy Nick seconded it and the motion was approved. No scholarship applications have been received to date.

There was no Federation News.

Old business was Gene Schade asking if anyone had contacted the Lubbock Club to see how they had doubled their membership. Kevin Schleicher will be contacting the club.

New business is our next board meeting to be held on 2/1/11 will have three board members not in attendance. It was agreed to move the board meeting to 2/10/11. Kevin Schleicher will contact the Library to see if the board room is free and if not, the meeting will be held at the Rock Shop.

Donna Grimes attended the Victoria Show and said they did a beading class where a fee was charged for materials and an amount going to the club. There was a discussion on how to do this at our show and if we wanted to do it. Donna Grimes made a motion to do a beading class with Casa D'Oro at our show for a set price for materials and an amount going to the club. Details would be presented at our next board meeting. Suzy Nick seconded

the motion. Gene Schade abstained and the motion was passed.

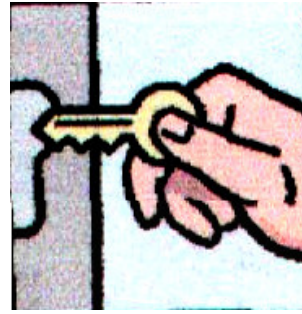
Kyle Hinkle made a motion to adjourn the meeting and Donna Grimes seconded it. The meeting was adjourned at 7:30pm.

Respectively Submitted by  
Suzy Nick Secretary

**GCGMS Lapidary Shop Rules**

1. The lapidary shop equipment may not be used by anyone who has not signed a liability waiver.
2. Shop equipment use flat fee is \$2.00 per hour. Sign in on arrival.  
Pay Supervisor and sign out before leaving the shop.
3. "Open shop" hours are to be used only by those who have taken the cabochon class or have shown proficiency on the equipment.
4. All children under the age of 17 must be accompanied by an adult trained on the use of the equipment.
5. Supervisor must inspect rock "set-up" prior to anyone starting slab saw.
6. Long hair should be tied back, loose sleeve should be secured, and safety procedures followed.
7. Safety glasses are recommended and are the responsibility of the individual. Some are furnished by the GCGMS, or you may bring your own.
8. The last person to use a piece of equipment before the shop closes is responsible for cleaning that piece of equipment and the work area. This may include tabletop, sponges, aprons, catch trays, etc.
9. Shop Supervisor is the final authority on shop rules and usage.

Revised May 2009



Those with keys to the Lapidary Shop are

Mark Wolbrink 361-991-2495 Shop Supervisor  
 Jerrold Simpson—361-851-8788  
 Cell - 361-877-3073  
 Hank Swan—361-993-9861/361-857-2405

Please call one of these when you would like to use the shop. They will not all be available at the same time, and once in a while none of them will be available. Most of the time at least one of them should be able to work out a time and date the shop could be open for you. Remember the club has a lot of good equipment to use. Several different classes are being conducted on Monday evening from 6:00 PM to 9:00 PM. The shop is open during these times for use of the equipment even if you are not involved in a class. Shop is also open Saturday 9:00 Until Noon.

**Botswana Agate  
 Bought 2004**



**Any Articles, Minutes are other items not received by Thursday Morning 9:00 am After the Board Meeting. Will Not Be Published in That Months Newsletter The Editor**

# January Birthstone, Garnet

Compiled by Roger K. Pabian, Research Geologist, Emeritus  
School of Natural Resources, UNL

**Garnet** is a rather complex mineral that has a general chemical formula of  $R_3R_2(SiO_4)_3$ , where  $R_3$  is a **bivalent** (gives up two electrons) metal and  $R_2$  is a **trivalent** (gives up three electrons) metal when forming a chemical bond. The metal  $R_3$  may be Calcium ( $Ca^{++}$ ), Magnesium ( $Mg^{++}$ ), ferrous Iron ( $Fe^{++}$ ), or Manganese ( $Mn^{++}$ ), and the metal  $R_2$  may be Aluminum ( $Al^{+++}$ ), ferric iron ( $Fe^{+++}$ ), or Chromium ( $Cr^{+++}$ ).

With so much substitution possible, the single garnet crystal may include a hodge-podge of elements, and garnets may be a multitude of colors; natural garnets are known in every color but blue.

Garnet crystallizes in the **isometric** system; the crystals have three axes that are all equal length and are perpendicular to one another. Garnet favors the **dodecahedral** (12 faces) crystal habit, but another common habit is a **trapezohedron** (24 faces). The dodecahedral crystal can be modified by the trapezohedron producing many smaller crystal faces. **Hexoctahedral** (48 faces) crystals are sometimes observed as are many other modifications of the basic isometric crystal plan. Garnet may also be found in **massive** forms and this was the foundation of a large abrasive industry in the United States. Much of the garnet abrasive has been replaced by manufactured silicon carbide but garnet paper is still available.

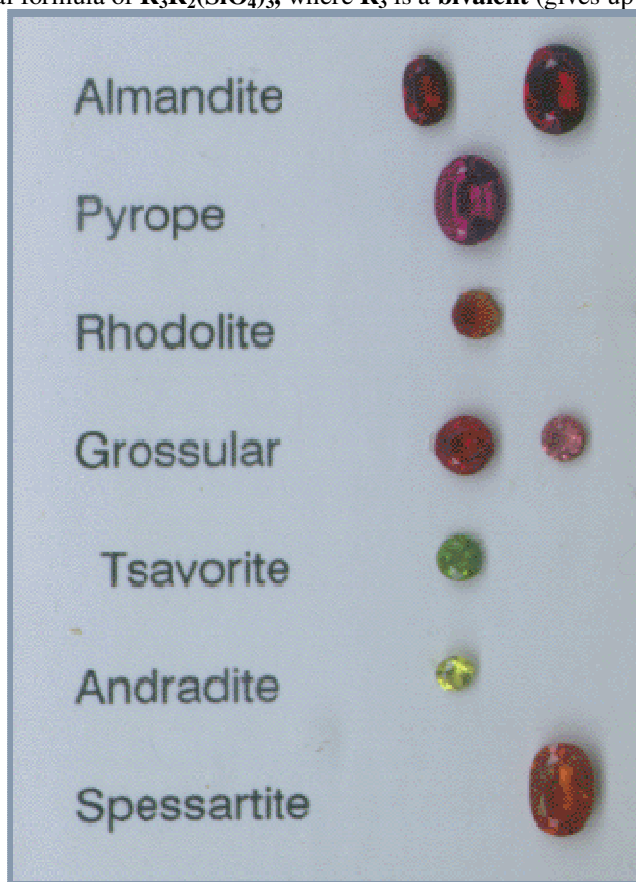
Because of the variation in chemical composition, bonds between some ions are stronger than those between other ions and the **hardness** may vary from about  $6\frac{1}{2}$  to  $7\frac{1}{2}$  on the MOHS scale, and the **specific gravity (S. G.)** (weight of the stone compared to the weight of an equal volume of water) may vary from about 3.5 to 4.3. The luster of garnets ranges from vitreous to resinous to subadamantine. Colors can be red, brown, yellow, orange, white, green, or black or shades in between.

Because garnet crystallizes in the isometric system, it is **isotropic** (has only one refractive index); that is, a beam of light passing through a garnet travels at the same velocity regardless of the direction of travel. The **refractive index** of a substance is defined as the velocity of light traveling through air divided by the velocity of light traveling through a substance and is given by the formula:

$$R. I. = V_{air} / V_{substance}$$

The refractive index of garnet can vary somewhat. These variations are helpful in determining the varieties of garnet but there can be some overlapping so other phenomena must be taken into account when working with garnet.

**Pyrope**, a magnesium-aluminum garnet is probably the most common gem variety. It is usually a dark red to black and is usually transparent only in fairly small stones. Much of the garnet of antiquity was probably pyrope and fine stones came from Czechoslovakia. Many tiny stones were drilled and the Czechs developed very fine beadwork with these. Its' R.I. ranges from about 1.72 to 1.75 and its' S.G. ranges from about 3.6 to 3.9 and is usually about 3.8. Pyrope may contain



Continued on Page 6



## Coming Events

**Jan 15-16—FREDERICKSBURG, TX: Gem, mineral, and fossil show; FREDERICKSBURG ROCKHOUNDS;** Ladybird Johnson Municipal Park, three miles south of Fredericksburg on hwy 16; free admission; Sat 9-6, **Sun 10-5**; Rolling Rockhounds meeting Sun 9 am; contact Jeff Smith, jeffbrenda@windstream.net or 830-895-9630; printable flyer on website: fredericksburgrockhounds.org

**Jan 29-Feb 13—TUCSON, AZ:** Gem, Mineral & Fossil Showcase. For two weeks every winter, the world meets in Tucson as it becomes a bustling, international marketplace of buyers and sellers; thousands of participants and attendees at more than 40 sites around town. For details: [www.visittucson.org/visitor/events/gemshow](http://www.visittucson.org/visitor/events/gemshow)

28-13—TUCSON, ARIZONA: Show; ColorWright; ColorWright Warehouse, 1201 N. Main Ave.; 10-6 daily; free admission; cutting and carving rough, slabs, cabochons, gemology equipment, fossils, fossil preparation equipment, Covington lapidary equipment, new Highland Park slab saws, books, jewelry; contact Rob Kulakofsky, 1201 N. Main Ave., Tucson, AZ 85705, (520) 792-1439; e-mail: rk3@color-wright.com; Web site: [www.rglshow.com](http://www.rglshow.com)

31-6—TUCSON, ARIZONA: Wholesale show; Arizona Global Gem & Jewelry; The Hotel Arizona, 181 W. Broadway; Mon. 10-6, Tue. 10-6, Wed. 10-6, Thu. 10-6, Fri. 10-6, Sat. 10-6, Sun. 10-6; contact Ron Swanson, (520) 396-4469; e-mail: ron@aggjs.com; Web site: [www.aggjs.com](http://www.aggjs.com)

### FEBRUARY 2011:

1-28—QUARTZSITE, ARIZONA: Show, “Desert Gardens International Gem & Mineral Show”; Desert Gardens RV Park; 1064 Kuehn St. (I-10 Exit 17, south side); 9-6 daily; free admission; crystals, minerals, rough, polished, jewelry, lapidary equipment; contact Sharon or Sandy, 1064 Kuehn St., Quartzsite, AZ 85346, (928) 927-6361; e-mail: [info@desertgardensrvpark.net](mailto:info@desertgardensrvpark.net); Web site: [www.desertgardensrvpark.net](http://www.desertgardensrvpark.net)

March 2011

**March 5th & 6th RICHARD M. BORCHARD REGIONAL FAIRGROUNDS**  
1213 TERRY SHAMSIE BLVD, ROBSTOWN TX Sat. 10-6\*\* Sun 10-5 **GULF COAST GEM & MINERAL 50TH ANNUAL SHOW JEWELRY-MINERALS-FOSSILS-BEADS AND MORE!**

**Botswana Agate**  
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Garnet Continued from Page 4

needle-like inclusions.

**Almandite** may be deep red or brownish red. Magnesium has replaced ferrous iron and ferric iron has replaced aluminum. The S.G. ranges from about 3.9 to 4.2 and is normally about 4.05. The refractive index is normally around 1.79 and varies only slightly above or below this parameter. Almandite may have enough **silk (oriented needle like crystal inclusions)** to produce **asteriated (starred)** stones of normally 4 rays. Other inclusions are zircon crystals that are frequently surrounded by dark haloes that are caused by damage from sub-atomic particles emitted by radioactivity in the zircon. Star garnets have been reported from only India and Idaho, the latter source being the more prolific. To produce the best stars, the lapidary should use one of the dodecahedral crystal faces as the base of the cabochon.

**Rhodolite** garnets are rose red to purple and in composition are about 2 parts pyrope to one part almandite. Rhodolites often contain snowflake like inclusions and some stones have numerous snow flake-like inclusions that produce the appearance of an "internal blizzard."

**Spessartite** is a manganese-aluminum garnet. It is usually brownish to red but some sources have yielded orange stones. It is not commonly seen in the gem trade and was almost unknown until the end of the 19th Century. Its' R.I. is about 1.81 and its' S.G. about 4.2. It may have wavy feather-like inclusions that are formed by minute liquid droplets.

**Grossular** garnet derives its' name from the color of the common gooseberry. A massive form of such color is often marketed under the name of *Oregon Jade* although the gem industry frowns upon such mislabeling. It is a calcium-aluminum garnet. Grossular garnets also come in shades of orange, red, and yellow. The term **hessonite** is applied to orange to yellow grossular; these stones have a syrupy or heat-wave effect and have rounded inclusions that resemble vitamin capsules. The S.G. of grossular ranges from about 3.58 to 3.73 and is normally around 3.61. Its' R.I. is in the range of 1.72 to 1.75, with the greens being in the lower range and the oranges in the higher range. **Tsavorite** (=Tsavorite) is an emerald green variety of grossular that has been known only since about 1970. It has been found only in Tanzania and derives its name from its source near Tsavo National Park.

**Andradite** is a calcium-iron garnet and it comes in shades of yellow, green, brown, and black. Its' S.G. is normally 3.84 to 3.85 and its' R.I. ranges from about 1.77 to 1.81, and is commonly about 1.79. **Demantoid** (diamond-like) is a Dutch term that is applied to transparent andradite that has a R.I. near 1.81 and has a very high **dispersion** (the ability of a stone to break white light up into its component colors). A fine demantoid may cast the appearance of a yellow or light green diamond. Demantoids are usually characterized by horse-tail like inclusions of the amphibole mineral, byssolite.

**Uvarovite** is a calcium-chromium garnet that shares the emerald-green distinction of Tsavorite. Uvarovite is usually found only as very tiny drusy crystals and pieces large enough for faceting are virtually unknown. With the increase in popularity of jewelry using small plates of drusy crystals, uvarovite that was formerly confined to the mineral collector's cabinets has found its niche in the gem world.

Garnets may be confused with spinel which has lower physical and optical properties and corundum which is doubly refractive. Glass has bubbles and swirl lines that are easily seen under magnification.

#### References

- Ford, W.G., 1958. A Textbook of Mineralogy with an Extended Treatise on Crystallography and Physical Mineralogy. John Wiley & Sons, Inc., New York, 851 p.
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- Hurlbut, C., 1963. Dana's Manual of Mineralogy, 17th Ed., John Wiley & sons, New York, 609 p.
- Rouse, J. D., 1986. Garnets. Butterworth's, London. 134 p.
- Schumann, W., 1977. Gemstones of the World. NAG Press, Ipswich, 256 p.
- Zeitner, J. C., 1996. Gem and Lapidary Materials. Geoscience Press, Inc., Tucson, Arizona, 347 p.

**October 2010 Board Minutes Gulf Coast Gem & Mineral Society**

The meeting was called to order by president Kevin Schleicher at 6:41 pm. Present were board members Kevin Schleicher, Art Worley, Kyle Hinkle, Shanda Hinkle, Gene Schade, Mark Wolbrink, Donna Grimes and Suzy Nick. One member present, Joe Grimes

The Membership Report was given by Shanda Hinkle and we have 77 Regular Members, 10 Junior Members and 9 Honoree Members.

There were no minutes for the board meeting or the General Meeting in September. Kyle Hinkle will resend the Board Minutes and Gene Schade will send the General Meeting minutes to Art Worley to publish in the newsletter.

Art Worley is having trouble with his computer and the newsletter will be published shortly.

The Treasurer's Report was given by Gene Schade. Kyle Hinkle made a motion to accept the report as given and Suzy Nick seconded it. The motion was approved.

The Shop Report was given by Mark Wolbrink. The shop has been very busy. He made minor repairs to equipment that was damaged and it is now working correctly. He replaced the trim saw blade. There is some trouble with the big saw since it will run and then stop because it has become over heated. Some possible solutions were discussed.

At the last General Meeting Johnny French was named as Interim Field Trip Coordinator. Johnny has sent several E-mails about a field trip to the Walker Ranch in West Texas. More information will be given at the General Meeting.

The Show Report was given by Donna Grimes. Our ad for the show has always been in the Local Section. Last year, another show was advertised in the front section and she asked if we want our ad in the front or local section. There most likely will be an additional charge for the front section. Donna will find out the charge and let the Board know at the next meeting.

The Education Report was given by Kyle Hinkle. Kyle has ordered 2 DVDs for the meetings when we don't have a speaker. He would like to publish a list of guest speakers and/or DVDs for the meetings in advance and is working on getting this completed.

There was no Federation News.

Old business was the nomination committee for officers for 2011. Donna Grimes was chairperson for this committee and said all existing officers were qualified to serve another term and they had all agreed to run for 2011. This will be presented to the General Meeting in October and any other nominations will be taken from the club membership. This will be voted on in the November meeting and they will be installed at the December Meeting.

A long discussion was held on how to increase our membership and how to get more children interested in our club. Both the Midland-Odessa and Lubbock Clubs have increased their memberships. Our president Kevin Schleicher will contact the presidents of those clubs to see if there is anything we can use to increase our membership.

New business was from Art Worley who will need someone to take over the newsletter for a couple of months while he has surgery.

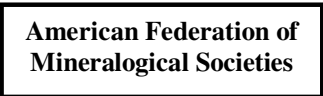

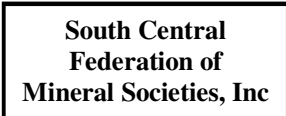

Kyle Hinkle made a motion to adjourn the meeting and Mark Wolberg seconded it. The meeting was adjourned at 8:06pm.

Respectively Submitted by  
Suzy Nick

**Botswana Agate  
Bought 2004**




**GULF COAST GEM & MINERAL SOCIETY, INC.**  
**P.O. Box 60781 Corpus Christi, TX 78466**


<b>MEMBER of</b>					
	<b>Meeting</b>	Held the third Tuesday of each month at 6:30 pm at the museum of Science & History 1900 North Chaparral September through May, and at the Lapidary Shop 3933 Timon Blvd., Corpus Christi TX for June through August.			
	<b>Membership Fees</b>	Individual \$15.00 Couples \$20.00 Junior (under 17) \$5.00			
	<b>2010 Officers</b>	<b>President: Kevin Schleicher</b> <b>Vice President: Kyle Hinkle</b> <b>Past President: Suzy Nick</b>		<b>Secretary: Suzy Nick</b> <b>Treasurer: Gene Schade</b> <b>gene@casadeoro.net</b>	
	<b>Board Appointees</b>	<b>Membership: Sandra Hinkle</b> <b>Education: Owen Hopkins</b> <b>Librarian: Linda Simpson</b> <b>Treasurer Gene Schade</b> <b>Show Chair: Jerrold Simpson</b>		<b>Show Publicity: Donna Grimes</b> <b>Shop coordinator: Mark Wolbrink</b> <b>Field Trip Coordinator: Johnny French</b> <b>Dealer Chair: Jerrold Simpson</b>	
<b>Standing Committies</b>	<b>Shop coordinator: Mark Wolbrink</b> <b>Field Trip Coordinator: Johnny French</b> <b>Federation Liaison: Linda Simpson</b> <b>Historiorn: Frances Marten</b> <b>Librarian Linda Simpson</b> <b>Communications: Suzy Nick</b> <b>Refreshment Hostess; Letty Rodriguez</b>		<b>Bulletin Editor; Art Worley</b> <b>Webmaster: Art Worley</b> <b>E-mail artleew@agates123.com</b> <b>Door Prizes; Gilbert Rodriguez</b>		

**Slabs & Cabs**  
 Art Worley  
 2561 Raintree Trail  
 Ingleside, TX 78362

**Slabs & Cabs Awards**  
**Small Bulletins**  
 2003 4th place SCFMS



**AFMS**  
**TROPHY**



**BULLETIN**  
**AWARD**  
**SCMS**

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 2nd 2002                      2001 1st  
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 2000 9th place SCFMS  
 1999-8th place SCFMS  
 1999- 9th place (new editor) AFMS

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