

# November 2021 Highlites Newsletter.



**November Meeting – November 19<sup>th</sup> at St Phillip Lutheran Church  
7:30 pm.**

## President's Message

**November 2021**

**LIVE!.....FROM LITTLETON.....IT'S GENERAL MEETING TIME AGAIN!!!**

We're starting in-person general meetings on November 19<sup>th</sup> at St Phillip Lutheran Church (Kendall and Ken Caryl Ave)! This is a great follow-up to our auction in October when many members from our club and local rockhounding community showed up to support us. It was wonderful seeing so many of our friends and catching up after such a long shutdown. Thanks to all our members who helped organize, set-up, serve food and close this year's auction. Without your help we could never have had such a fantastic day.

Let's keep the momentum flowing and continue with another of our traditions....the Odiorne Award for best self-collected mineral of the 2021 season. Bring your entry and other nice finds from your field trips this year and share your stories. We'll have plenty of tables and space for boxes so don't be shy. I know there are several great finds this year so come and share!

We'll also have a brief meeting to hold final nominations and elections for 2022 officer positions. Please consider becoming involved and helping LGMC remain one of the biggest and best clubs in Colorado. It's our volunteers that keeps our club active, sustainable, and successful.

The City of Littleton has a new person, Kelsey Stansfield, in charge of the Memorial Tree Program after our long time contact recently retired. LGMC has a long legacy of memorializing members by having their names placed on a tree planted on City grounds. Each tree has the names of 5 members. I recently met with Kelsey and the new City Arborist to walk the grounds and select a tree. I'm pleased to report that we selected a beautiful redbud tree to honor the next 5 members in LGMC's Memorial Tree legacy: Alice Ake, Nell Troxell, Annette North, Duane VanVleet, and Bette Hurlbut.

See you on the 19<sup>th</sup>!

Ron Wankner  
President



# Selected upcoming LGMC and Earth Science Events

**November 19th, 7:30 pm** – Littleton Gem & Mineral Club November meeting. St. Phillip Lutheran Church (Kendall and Ken Caryl Ave).

**November (no meeting) - The Faceters and Cabbers group** - Zoom meetings have been suspended. I'll keep the group posted about an opportunity for an in-person Faceters and Cabbers meeting. If you would like to be added to our faceters and cabbers mail list, let me know at [jkleber@att.net](mailto:jkleber@att.net).

John Kleber

## Grab Bag News

### November Grab Bag News

Not much news this month. If you have any minerals or sewn grab bags to contribute, contact me, John Kleber, at [jkleber@att.net](mailto:jkleber@att.net) or 303-570-8164, or Lynette Warren.

The Bag Party Lady and the Bag Begger  
Lynette Warren and John Kleber



## Voting For the Odiorne Award

The contest for The Odiorne Award, named in honor of late club member Tom Odiorne, will be held at the upcoming November meeting. The Odiorne Award is for the best specimen collected from the field by an LGMC member since the previous November. Any collected natural material, crystals, agates, faceting material and fossils are eligible for entry. No distinction will be made between specimens collected on private, federal or on a fee-only site. The winner is announced at the December meeting. The winner receives a patch for their club vest, and a \$50 cash award, and they get to sign the travelling trophy, which is a copy of Tom Odiorne's book, *Colorado Amazonstone, the Treasure of Crystal Peak*.



## LGMC Auction

To everyone who participated in our Auction this year, I would like to give you a special thanks whether it was to those who helped with all the aspects of making the auction work, or to those people who brought specimens/items to sell, or those of you who were the buyers. You all made our LGMC Auction a success! The turn-out was much greater than expected and from what I saw, the social interaction with "Rock People" again was wonderful.

Thanks again,  
Lynette Warren

Littleton Gem and Mineral Club

**"A special thank you to:**

**Dave Bunk Minerals**

**Lithos**

**Collectors Edge**

**Marty Zinn**

We appreciate your support of LGMC's 2021 auction held last month."

# Geology Corner

## Crystal Diving for Fluid Inclusions

Recently I received a number of fluorites from Rosiclare, Ill. They were clear enough for me to indulge in a favorite activity- crystal diving. Crystal diving is using a hand lens to focus down on different levels within a crystal. You can see various bizarre flaws, fracture patterns, mineral inclusions and even the backsides of crystal faces come into focus like exotic fish emerging from serene blue, purple or yellow depths. My favorite finds (present in abundance in the Rosiclare fluorites) are fluid inclusions. These are small liquid filled cavities of various shapes, often with small, perhaps movable, gas bubbles. Rockhounds are familiar with the large fluid inclusions (enhydros) in agates. Most minerals contain a myriad of microscopic fluid inclusions, most too small to see even with a hand lens. Milky quartz, for example, is milky because of thousands of tiny fluid inclusions. The same is true of ice, whether found in lakes or ice cubes in your freezer. Fluid inclusions (or “finks”) have been studied by geologist and reveal much about mineral histories. The fluorites of Rosiclare are good examples.



There are several kinds of flinks. Primary flinks, found randomly scattered through a crystal, form at the same time as the mineral and are samples of the mineral-forming solutions. Secondary flinks line up along later fractures and form from fluids seeping through the mineral long after it has crystallized. These are less useful to geologist. Pseudosecondary flinks form at the same time as the mineral, but are aligned along fractures that form during mineral growth. They also sample the mineral- forming fluids.



There are two kinds of primary and pseudo secondary flinks in the Rosiclare fluorites. One type is dark to golden brown and is composed of petroleum with little bubbles of methane gas. The chemicals in the petroleum are thought to have catalyzed the deposition of the fluorite. The second type are clear and contain a salt water solution enriched with sodium, calcium and fluorine, usually with a small gas bubble of CO<sub>2</sub>. Analysis of such small amounts of fluids requires special equipment. The salinity of the fluids is most easily measured by cooling the mineral grains until the liquid in the flinks freezes. As we know from our car radiators, the freezing of water depends on the amount of stuff dissolved in it. Water in the fluorites has a salinity ranging from 1 to 3 %, similar to sea water and to groundwater associated with petroleum. The only unusual element present in these fluids is fluorine, which could have come from a deeply buried magma sending off fluids that mixed with the water in the oil field's brines. The fluorite was deposited where these two fluids mixed.



The temperature of fluorite deposition can also be estimated from flinks. The samples are heated until the little gas bubbles dissolves back into the liquid, which fills up a flink. This gives the minimum temperature of mineral formation. Geologists have found that the Rosiclare fluorites formed at temperatures of 90-140 degrees C, similar to temperatures seen in oil field waters.

More sophisticated instruments can even get more data out of flinks. For example, some recent tests of amber flinks have suggested that the air the dinosaurs breathed may have been richer in oxygen than our

air. So, as we “dive” into crystals, we may be astonished anew at the information locked in their pellucid depths.

-Dr. Bill Cordua, University of Wisconsin-River Falls

# Upcoming Geo Events

**Dec. 10-12, Flatirons Gem & Mineral Show**, Boulder County Fairgrounds, Longmont CO. Sponsored by the Flatirons Mineral Club, Boulder, CO; see [www.flatironsmineralclub.org](http://www.flatironsmineralclub.org).

**Feb. 25-27, Denver Gem and Mineral Guild Show**, (*returning to its old location*), Jefferson County Fairgrounds, Exhibit Building. *The club had earlier announced that it would be necessary for this show to move to the Wheat Ridge United Methodist Church gymnasium; but this will NOT be necessary, the show will take place at the Jeffco Fairgrounds after all, as in past pre-covid years.*

**Mar. 25-27, Fort Collins Rockhounds Show**, Larimer County Fairgrounds, Longmont, CO

## Club Announcements

**Moving?** Change of Address, Email or Phone Number?

Ready to go paperless?

Please notify **Ian Duncanson** of any changes at [idunc@q.com](mailto:idunc@q.com) or 303-798-9174.

**Club Vests** Show your club support **Ian Duncanson** has club vests available for sale. Price includes vest, sewed on club patch (on back) and a club pin

\$18 for small and medium sizes

\$19 for large and X-large sizes

\$20 for XX-large and XXX-large

*Do you know someone who could use some sunshine? Nobody knows everybody. If you know of a club member or family who is having a health problem or other problem, and who could be encouraged by receiving a thinking-of-you card, please let us know so that we may encourage them. Send a note to our sunshine coordinator and let her know, **Lynette Warren**, [flywithle123@comcast.net](mailto:flywithle123@comcast.net).*

## Its Dues Time Again!

**2021 Membership Dues Slashed!!!**

We're celebrating the end of 2020 and the arrival of 2021 with the hope for a return to more "normal" activities. Imagine....awesome field trips, general meetings, parties, picnics, incredible rock & mineral displays and even getting free rocks!! We're sharing our enthusiasm with existing 2020 members by **slashing the 2021 annual dues to only \$10** (from \$20.00)!! Yes, you read that right, **ONLY \$10!!!!**.

Don't delay!!! Send your 2021 to:

**LITTLETON GEM AND MINERAL CLUB**

**P.O. BOX 283**

**LITTLETON, COLORADO 80160**

Ian Duncanson

## LGMC Website

**Our website has been updated!**

Please check out the new "Member" section of the website! We'll archive Newsletters, share photos, and get details of upcoming field trips.

To view the "Member" section, you must register as a member of the website:

<https://littletongemandmineralclub.com/register/>

As only LGMC members will have access to this material, we'll be checking your name against the current club roster, so if you haven't yet, reach out to Ian Duncanson to pay your 2021 dues!

Thanks,  
Gus

LGMC dues for 2021  
Name(s)  
\_\_\_\_\_  
Due's payment (\$10) \_\_\_\_ Renewal  
Email address:



*Like us on FaceBook*

LIKE and FOLLOW us @LittletonGemAndMineralClub

Thanks to everyone who contributed to the newsletter! ~Tammy

**☞ 2021 Board of Trustees ☞**

President	<i>Ron Wankner</i>	303-618-5549
Vice President and Membership Chairman	<i>Ian Duncanson</i>	303-798-9174
Secretary	<i>Larry Havens</i>	303-757-6577
Treasurer	<i>Lesley Sebol</i>	720-999-1372
President elect	<i>Ron Wankner</i>	303-618-5549
Program Chairman	<i>Brittany MacRostie</i>	630-699-2415
Field Trip Chairman	<i>Jim Hooten</i>	303-770-7177
Highlites Newsletter Editor	<i>Tammy Jacobs</i>	303-489-7525
Trustee (Year of 2021 as past President)	<i>Travis Leach</i>	303-887-9787
Trustee (2-year term 2019 & 2021)	<i>Lynette Warren</i>	303-956-4634
Trustee (2-year term 2019 & 2021)	<i>Charlie Wall</i>	303-933-0368

**☞ Chairpersons & Appointed Officers ☞**

Sunshine Chairperson	<i>Lynette Warren</i>	303-956-4634
Refreshments	<i>Anne Jenkins</i>	303-730-7696
Librarian	<i>Mary Davis</i>	303-680-5112
Historian	<i>Open</i>	
Facebook Editor	<i>Nicole Bolger</i>	720 344-5280
Hospitality	<i>Nick North</i>	303-840-1177
Grab Bags	<i>John Kleber</i>	720-851-8510
Web Administrator	<i>Gus Hansen</i>	480-489-3978
Show Committee Representative	<i>Lynette Warren</i>	303-956-4634
RMFMS & AFMS Representative	<i>Larry Havens</i>	303-757-6577
Denver Council Representative	<i>Nick North</i>	303-840-1177
Cabbers & Faceters Group	<i>John Revis</i>	720-569-6685
“ “	<i>John Kleber</i>	720-851-8510
Mineral Study Group	<i>Bob Zartman &amp; Nick North</i>	303-973-0405

**Meetings:** The Littleton Gem & Mineral Club meets the third Friday of each month, September through May, at the St Philip Lutheran Church, 7531 S. Kendall Blvd, Littleton, CO 80128. Doors open at 7:00 p.m. and the meetings begin at 7:30 p.m. All meetings are open to the public. Club and section meetings may deviate from their regular schedules due to holidays, shows, inclement weather, etc.

The Littleton Gem and Mineral Club is affiliated with the American Federation of Mineralogical Societies, The Rocky Mountain Federation of Mineralogical Societies, The Colorado Federation of Gem and Mineral Societies, and the Greater Denver Area Gem and Mineral Council.

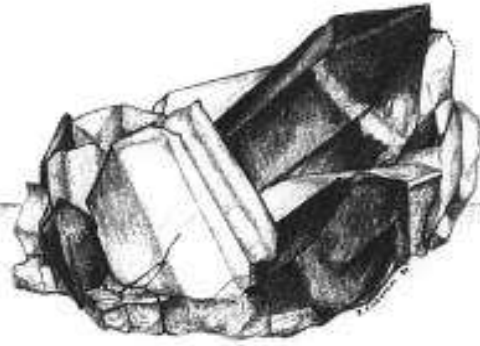
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# *HighLites*

LITTLETON GEM & MINERAL CLUB



HARRIS PARK AMAZONITE & SMOKY QUARTZ

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FIRST CLASS MAIL

