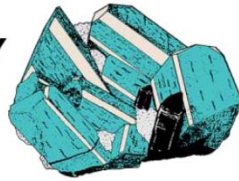


**FRIENDS OF MINERALOGY  
COLORADO CHAPTER**



**November 2019 Newsletter**  
**Meeting: Thurs., Nov. 14, 7:30 p.m.**  
**All are welcome!**  
***Berthoud Hall Room 109, CSM***

***Our Chapter's new meeting place: Berthoud Hall, room 109, Colorado School of Mines campus, Golden.*** We've moved to the CSM campus from last year's place at the Lakeview Event Center. Parking on CSM campus streets and parking lots is free after 5 p.m.; parking along Maple or Illinois Streets should work well, or you may use campus parking lots. Berthoud Hall is at 16<sup>th</sup> St., between Illinois & Maple; you may enter either from the east (Illinois St.), north, or west (Maple St.) sides. Go to the lower level, the 1<sup>st</sup> floor.

*November program:*

## ***Gold: A journey from the Big Bang to the forest of the Amazon***

*by Dr. Terry Wallace*



**Abstract:** Minerals are the DNA of the planet Earth. They contain the fragments of the complex history of our planet from its formation nearly 4.6 billion years ago, the creation of planet-wide ocean, an oxygen-rich atmosphere, and the rise of life. More than 4,500 mineral species have been identified on Earth, representing a variety nearly 100 times larger than any other planet in the solar system – a robust indication of the uniqueness of our planet. One of the most fascinating “strands of geologic DNA” is the mineral and element gold. No mineral (or metal) evokes more emotion; it has a warm glow that captures the eye and is the mineral most likely to evoke a retort of “beautiful.” Perhaps no material object comes closer to the ancient Greek philosopher Plato’s concept that true beauty is universal. But that veneer of “beauty” hides an incredible scientific story. That gold crystal--or nugget--is made of material that was not born in our planet or even our solar system; it can only be made by the most extreme forces of the universe, traveling through space between the

galaxy’s star systems, and then gathering in a gravitational storm that built our solar system 4.5 billion years ago. Some modest amount of gold was collected in a rocky mass of rubble that became Earth, but this material mostly disappeared into the planet’s fractionating core. However, the Earth was visited by a devastating rain of meteorite impacts about 4 billion years ago (called the Late Heavy Bombardment) that enriched the crust of the planet with metals, including gold. This new material was concentrated in ores through countless cycles of plate tectonic collisions. Mostly these ores were eroded by water, glaciers, and wind, leaving behind a nugget we describe as “beautiful.” But the real beauty is the cosmic journey that gold has taken – and the spell it has cast over humankind.

**Biography:** Terry C. Wallace Jr. is a geophysicist, with a doctorate and master's degree in Geophysics from the California Institute of Technology (1983) and bachelor's degrees in Geophysics and Mathematics from the New

Mexico Institute of Mining and Technology (1978). He was a Professor at the University of Arizona from 1983 to 2003. At Los Alamos National Laboratory from 2006 onward, Terry was an Associate Director for Science, Technology, and Engineering, then Associate Director for Global Security, and ultimately became the 11th Director of the laboratory from 2017-2018. He is currently Director Emeritus.

Terry is a Fellow of the American Geophysical Union, has served on the Board of Earth Sciences & Resources of the National Academy of Sciences, and is a past President of the Seismological Society of America. He has served on the board of directors of the Mineralogical Record, including as president from 1995 to 1997.

His awards include the Brown Medal (1978), the Langmuir Medal for Research (1985), the Macelwane Medal (1992), and the Carnegie Mineralogical Award (2002). In 2011, the mineral terrywallaceite was named after him in recognition of his efforts in education, research, and service to mineralogy.

Terry is a mineral collector — a hobby fostered by his father from an early age. He has visited mining communities and mineral localities across both North and South America and has written extensively on various aspects of mineralogy for amateurs. He was a co-editor of *Collecting Arizona* (Lithographie, 2012), and has a particular interest in the mineralogy of gold and silver, about which he has given many presentations in Tucson, Denver, and elsewhere.

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***From the President:***

Dear Friends of Mineralogy Members,

It has been a while since my last letter. Since then we have had several events that the FM has participated in. Among them was the spring mineral auction which took place on May 19<sup>th</sup>; attendance was down so the board is working to see what can be done to increase attendance. One thing that has been done is to change the venue and return the auction to a Saturday next year (May 16<sup>th</sup>). The new venue will be at the Wheat Ridge United Methodist Church, 7530 W 38th Ave., Wheat Ridge (1 block east of Wadsworth & 38th Ave.). Hopefully returning to a Saturday will make it easier for people to attend.

The Detroit City (Sweet Home) mine tour went well and was attended by 11 members. Everyone had an in-depth introduction to the geology of the site and an underground mine tour provided by Dean Misantoni, the mine geologist. Everyone who went expressed an interest in having more field trips, so we are looking at having another this next summer.

The fall mineral shows took place in September. Several members provided mineral identification services at the show at the Denver Mart. Members should start planning on helping next year as only a small group of folks have been volunteering for this activity and we need more participation in this activity and for the show in general. We have committed as a club to provide support to the show and we have been falling short so we do need to step up and do our part.

The speaker for our November meeting (November 14<sup>th</sup>) is Terry C. Wallace Jr., Ph.D. Terry is Director Emeritus of Los Alamos National Laboratory (LANL). He will be giving a talk entitled *Gold: A journey from the Big Bang to the forest of the Amazon*. The meeting is being held in Berthoud Hall on the Colorado School of Mines campus in Room 109 at 7:30 PM.



Don't forget that it is election time for officers and directors of FM. We are always looking for people to help run the club, so if you interested submit your name.

As always if you want to give a talk or have someone who might be of interest who would like to give a talk please talk to Gloria Staebler ([gastaebler@aol.com](mailto:gastaebler@aol.com)) who is in charge of finding speakers. We are always looking for speakers.

Since our next newsletter is not until January, I will wish everyone a Happy Holiday season.

Bob Hembree

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**Friends of Mineralogy Detroit City mine field trip, August 9, 2019**

Above is a photo from FM's field trip tour of the Detroit City Mine. FM had a total of nine people on the tour. Dean Misantoni, the mine geologist, gave us a great talk on the geology of the property and how the deposits were formed. He showed us a nice specimen from a pocket that was just opened. After the lecture on the geology and history of the property we went underground to see some of the veins and structures he described. Dean explained their mining methods and we were able to look at some of the muck coming out of the stope. The group was able to dig through some material that was stockpiled outside. Members who went on the tour were Bruce Geller, Steven Scott, Mike McGinnis, Dan Zellner, Jeff Lines, Charles Borawa, Danny Inmon, Connie Inmon, and Bob Hembree.

--- Bob Hembree

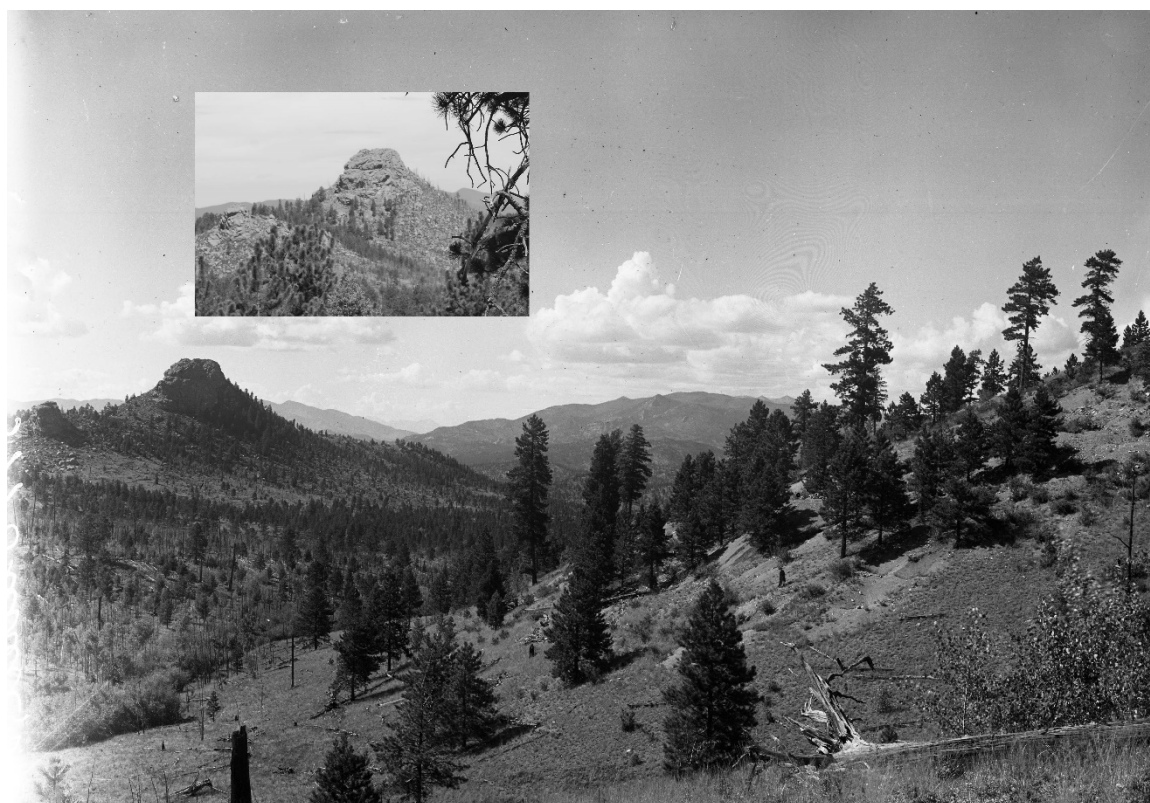
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## Copelen Dome Crystal Peak pegmatite District, Teller County, CO

Mark Jacobson and Jeff Self

In August 1913, Douglas B Sterrett, a geologist with the U. S. Geological Survey toured several gemstone deposits across the U.S. for preparing his *Gems and Precious Stones* section of the annual “Mineral Resources of the United States” report (Sterrett 1914, p. 668-670). The full format glass plate photographs he obtained from his work were never published with the gem reports. These were stored in the survey geological archives which have traveled from place to place as the survey progressed through its growth and downsizing life cycle.

The photograph shown below was taken north of the Albert Whitmore’s Crystal Peak Gem Company basecamp, looking northward across some of the amazonite productive ground. The original caption with this photograph was “N 40° W down draw ½ mile N. of the Crystal Peak Gem Co. Camp 6 miles W of N of Florissant. Copelen Dome on left, Tarryall Mountains in center in distance, smoky quartz and amazon stone prospect on hillside on right. Property of Crystal Peak Gem Company. August 1913.”



This summer with Jeff Self’s help, we reoccupied the position to obtain a duplicate view of the original photograph. Unfortunately the new tree growth was so dense that from the exact original position, no useable picture could be obtained. As such, I had to move slightly to the west to find a spot clear enough to almost duplicate the key feature of the picture – Copelen Dome, a rock prominence that today has the informal name of “Grandfather Rock.” The Crystal Peak Gem Company digging’s exposed on the right side of the picture, are fortuitously, on the western end of one of Jeff Self and Donna Ware’s mining claims.

The inserted picture in the skyline of Sterrett’s photograph is a portion of the modern, 2019 photograph reduced in size to almost overlay exactly the original 1913 photograph.

Copelen Dome is most probably named after one of the 1876 specimen diggers (who sold specimens to Albert E. Foote) and later was also a claimholder with Albert B. Whitmore’s original gem company claims. This was *George Addison Coplen* (born circa 1858 in Indiana and died in Teller County in January 1932) He

married *Rosa E. Connors* in August 1885. Sterrett (1913) referred to George Addison Coplen as George Copelen of Gillette [sic- actually Gillett near Cripple Creek], Colorado. This is also probably the Mr. Copeland who was mentioned in Hurianek (1938) as finding what was then the largest amazonite-smoky quartz pocket in the Crystal Peak area.

#### References

Hurianek, Jerome W. 1938. Smoky Quartz at Crystal Peak, Colorado. *Rocks & Minerals*, V 13, November, No. 11, p. 329.

Sterrett, D. B. 1914. Mineral Resources of the United States for the year 1913. Part 2, Precious stones. *United States Geological Survey*. p. 668-672.

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***Dues for 2020:*** *To become a member or to renew your membership for 2020 in the Colorado Chapter of Friends of Mineralogy, please send us your dues payment using the membership form included as a separate attachment with this newsletter, or, see our website, <https://friendsofmineralogycolorado.org/> . Dues are \$15 for individual, \$25 for a family. Dues automatically include membership in the National organization, Friends of Mineralogy, Inc.*

***Our mailing address for dues and other correspondence is now:***

*Friends of Mineralogy – Colorado Chapter  
c/o Mark Jacobson  
1714 S. Clarkson St.  
Denver, CO 80210*

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### **Denver Gem & Mineral Show 2019 - Winners in the Special Competitions**

**Richard M. Pearl Award:** Phil Gregory (Elbaite on Quartz, Himalaya Mine, San Diego County, California)

**C. E. Withers Award:**

- 1st Place(a Tie): Eldon Hunewell (50 Years of Hunting Rocks in Colorado and Beyond) and Carolyn Manchester (Worldwide Tourmalines)
- 3rd Place: Judy and Ron Knoshaug (Worldwide Miniatures)
- 4th Place (a Tie): Dan and Dianne Kile (Amethyst from Thunder Bay, Ontario, Canada) and John Warn (Worldwide Tourmalines)

**Donna Chirnside Memorial Museum Trophy:**

- 1st Place: Royal Ontario Museum (Minerals of Canada)
- 2nd Place: Canadian Museum of Nature (Minerals of the Canadian Arctic)
- 3rd Place: Smithsonian Institution (Minerals of Canada)

**Best of Species Trophy:**

- Thumbnail:** Carolyn Manchester (Serandite, Poudrette Quarry, Mont Saint-Hilaire, Quebec, Canada)
- Toenail:** Nick North (Rhodochrosite, Poudrette Quarry, Mont Saint-Hilaire, Quebec, Canada)

**Miniature:** Nick North (Vesuvianite, Jeffrey Mine, Asbestos, Estrie, Quebec, Canada)  
**Cabinet(a Tie):** Lesley Sebol (Selenite, Red River Spillway, Winnipeg, Manitoba, Canada)  
Nick North (Selenite, Red River Spillway, Winnipeg, Manitoba, Canada)  
**Oversize Cabinet:** Nick North (Manganite, Caland Pit, Atikokan, Ontario, Canada)

**Best Fossil:** Nicholas Kimber (Diplomystus dentatus (a fossil fish), Chordata - Actinopterygii, Green River Formation, Eocene, Kemmerer, Wyoming)

**Prospector Trophy:** Randall Kokkinen (Amazonite, Fluorite, Cleavelandite combo, Park County, Colorado)  
2nd Place: Randall Kokkinen (Fluorite with Amazonite, Park County, Colorado)  
3rd Place: Bill Mahnken (Smoky/Amethyst Quartz Crystal, Montana)

**Junior Prospector Trophy:**

1st Place: Natalya Kent (Smithsonite, Kelly Mine, New Mexico)  
2nd Place: Alexandria Kent (Fluorite, Blanchard Mine, New Mexico)  
3rd Place: Natalya Kent (Fluorite, Blanchard Mine, New Mexico)

**Club Prospector:**

1st Place: Colorado Mineral Society  
2nd Place: Littleton Gem and Mineral Club

**Individual Competitive Cases:**

**Worldwide Thumbnails** - Kent Havens (Masters)  
**Worldwide Miniatures** - Phil Gregory (Masters)  
**Educational, General Audience/Concept:** Erin Delventhal (Advanced, What are Pseudomorph Minerals?)  
**Educational, General Audience/Concept:** Michael Gobla (Novice, Minerals from Ontario, Canada)  
**Educational, Informed Audience/Concept:** Stanley Korzeb (Advanced, Formation Mechanism of Precious and Base Metal Minerals in Epithermal or Hot Springs Systems)

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**The FMCC mineral journal reprinting project                      April 2019**

Wendell Wilson announced in the 2018 November-December issue of the Mineralogical Record that the Colorado Chapter of the Friends of Mineralogy was going to reprint three pre-1900 mineral journals. These three journals were the *Exchangers' Monthly* (1885-1890) as volumes 1 to 5, the *Mineralogists' Monthly* (1890-1893) as volumes 6-8, and William Goldthwaite's *Minerals* (1892-1893) as volumes 1 to 3. Interested parties were invited to pre-pay for a one time reprinting of these volumes. A handful of people across the United States responded.

In March 2019, the journals were successfully reprinted with softbound perfect binding and shipped to the buyers. Free sets were provided by FMCC to the Mineralogical Record, Tucson for their library, the University of Arizona Library, Tucson and a partial set to the Library of Congress, Washington, DC. The project was a success at no expense to the Chapter.

**Donations to the FMCC silent and oral mineral auction: society annual fund raiser  
May 2019**

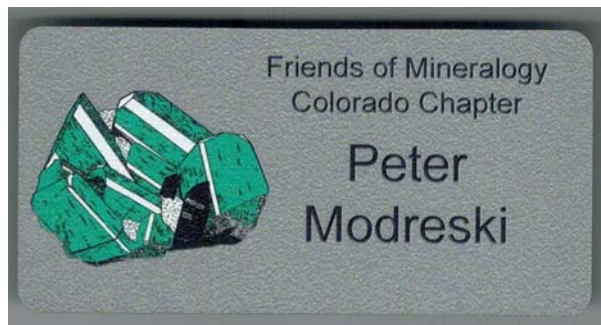
This year, 2019, the following individuals and companies donated specimens to the society for increasing our funds for activities. We greatly appreciate their support this year and in past years. Many of these people have made donations to support our organization for decades.

Thank you all, both sellers and buyers. The Donors are listed below.

Dan's Used Rocks, Dan Unruh  
Marty Zinn  
Leonard Himes  
Donald Olson  
Costigan's Minerals West, Brian Costigan  
DanZ Rock Shop, Dan Zellner  
Self-a-Ware Minerals, Jeff Self and Donna Ware  
Top Gem Minerals, Jason New  
Larry Havens  
Collector's Edge, Bryan Lees  
Jane Dianich

**FMCC new membership badges – first and second batches                      October 2019**

FMCC has received the first batch of 50 badges and second batch of 19 badges for paid 2019 members. These badges will be available for pickup at monthly meeting on the campus of the Colorado School of Mines.



**Membership report (October 2019)**

As of October 4, 2019, FMCC has 69 paid members. This includes two free lifetime members. We have 21 members from 2018 who have not paid their 2019 dues. These members will be dropped from the email newsletter list after the last FMCC meeting of 2018 which is in November.

**Status of Gilman mine, Eagle County, CO photograph project**

The Colorado School of Mines mining archive collection at the CSM Library, has completed digitizing the first 150 photos (of approximately 500) from the Gilman mine that FMCC had delivered to them earlier this year. A new work session will be schedule to create the finding aids for the remaining photographs.

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Dudley Blauwet was our speaker in September at the Colorado School of mines, talking about the tourmaline discoveries in Vietnam and the changes in the gem business in Vietnam over the last 10 years.



Dudley Blauwet, his spouse, and Bob Hembree presenting speaker's appreciation certificate

#### Dudley Blauwet's autobiography

I was born in Sioux Falls, South Dakota in 1954, the oldest son of eight children born to August and Edna Mae Blauwet. I grew up on a small farm on the South Dakota-Minnesota-Iowa border, and graduated with honors from West Lyon High School in 1972, lettering in three sports and as a member of the academic National Honor Society. I attended South Dakota State University for two years, uncertain of a major, but taking all varieties of science classes. I then transferred to the University of Iowa, studying pre-med, and this is where a chance event in 1975 propelled me into the mineral world. While searching for an off campus room, I ended up in a house that had been rented by George Witters, a geology major. George had converted the fireplace into a mini cactus garden, studded with mineral samples. George's goal was to collect every one of the known mineral samples. The other significant event was a chance meeting of someone who had just come back from a long trip to Nepal, who regaled me with adventurous stories of the exotic Himalayan kingdom. Eight years later these two events converged to alter my life's course. After George graduated in 1976, he moved to Colorado where his family had a second home in the mountains near Guffey. I dropped out of school to hitchhike and travel cheaply and work odd jobs for several years, not having had the luxury to travel in adolescence. I then attended the University of South Dakota and Augustana College in Sioux Falls South Dakota, while in a live-in relationship with a woman working at the EROS Data Center. I eventually graduated with a BS in chemistry in 1980. I then moved to Eugene, Oregon to attend some graduate classes at the University of Oregon, and that is where I met Kevin Ringer, who eventually became my office manager for nearly three decades, starting in 1989 when I bought out my mineral business partnership that had been formed with George and Cindy Witters. I had kept in touch with George after our university days, and I would visit him in Colorado and he would take me mineral collecting in some old abandoned mine shafts or collecting arrowheads on his Guffey property. At that time I had a girlfriend in Tucson, whom I would visit in the winter and I started to dabble in Southwestern Indian jewelry, buying from Native Americans who had set up stands at rest areas in New Mexico.

In December 1982 my rented house was destroyed in a fire while I was traveling. After losing almost all of my personal belongings, including prolific amounts of essays, poetry, and analytical papers that I had written, I decided that it was time for a big change and I began to begin planning for a long trip to Nepal and the Indian Subcontinent and onward to SE Asia.



When George Witters moved to Colorado in 1976, 40% of the geologists there were unemployed, so he took a management job with Pease Industries, but never lost his love of minerals. He had talked of us doing some business together and when I moved to Colorado he suggested that we make a partnership and buy some mineral samples in Asia and sell them back in the US to offset the cost of a four month trip. We visited local Denver area mineral dealers to get an idea which minerals to buy and pricing and also visited Marty Zinn who already had a fine collection assembled. I left for Asia in the early fall of 1984, flew into then Bombay (Mumbai) and met the Zhaveri brothers, proprietors of Zeolite Minerals who happened to be looking for an American contact to sell Indian minerals in the US. So along with my small purchase, they shipped a significant amount of consignment minerals to us. After a trip to Indian Kashmir and 7 weeks of trekking around Annapurna (the most classic trek in the world at that time) and the Everest regions in Nepal, spending significant time between 15,000 and 18,000', I realized that I was very good at traveling to remote mountainous regions and absorbing the languages and cultures. I finished this tour with a swing through Thailand, Australia, and a trek and climb near Mount Cook on the Southern Islands of New Zealand.

I returned to the US just in time for George, Cindy, and me to clean, label, and price our specimens and then drove to Tucson for our first show, a room on the 2<sup>nd</sup> floor of the La Quinta, one of 4 shows in Tucson at that time. Unbeknownst to us, two of the American dealers who had been importing Indian minerals, Rusty Kavthavala, and Rock Currier, had not imported any specimens from India for two years, and with a void in the market and after being discovered by Bill Pinch and other collectors, we sold out most of our room of specimens in four or five days. We were invited to exhibit at various shows throughout the country, so our expected one time business with minerals was forever altered, and George and I decided to make this a full time partnership. Less than a month later, I was on a plane back to India, where I spent 18 days going through a warehouse in Bombay, selecting from tons of specimens stored there. Luckily, one of the finest discoveries of green apophyllites ever found had been uncovered at Pashan Quarry no. 2 in Puna (Pune) near the end of 1984, and I ended up with 32 flats, which became my claim to fame in the US. To save on hotel costs, Rupesh Zhaveri, a vegetarian Gujarati Hindu, had me stay in his tiny apartment with him and his wife, and that is where I began to learn Hindi and experience a complete immersion in other cultures. I returned to the US, and waited while our shipment was delayed because the ship's containers had become contaminated with cotton boll weevils and needed to be fumigated. I barely arrived on time to the Cincinnati show and opened the doors with boxes of un-priced merchandise under the tables. The show was chaotic with dozens of people going through flats as I was trying to quote prices off the top of my head. The scene was repeated at the Rochester symposium and other shows throughout the year. It was my destiny and we could do no wrong. George managed to get us into the 1986 main TGMS show in Tucson, which at that time was extremely difficult to receive a booth.

In the fall of 1985, I returned to India, and then flew into Peshawar, Pakistan, a wild place full of Afghan Mujahedeen, walking the streets with automatic weapons; it was their base for fighting the Russians in nearby Afghanistan. On my very first night there, two small bombs exploded in the alley behind my hotel room, and luckily a third one under my own outside air-conditioner failed to detonate. To this day, if there are two beds in a hotel room, I always take the bed away from the window. I made my first journey into my beloved mountains while there, visiting Swat and its famous emerald mines, which I turned into a presentation for one of the local Denver mineral clubs. I then journeyed to Nepal, where I trekked with my best Nepali friend to the base camp of Makalu, where we were caught in a horrendous winter snowstorm on Christmas Eve, the worst December blizzard in the Nepal Himalayas in 30 years, with some places recording 14 feet of snow. We barely survived the seven day return trek to the Arun Valley in the severe cold, over three high passes with almost no food except garlic and flour ball soup. We still had enough energy left to trek to the extremely remote and famous Hyakule and Phakuwa tourmaline mines, near Chainpur in eastern Nepal, a further three to four day hike. The three and a half week near death experience left an indelible mark upon me, with a confidence that I could travel under any circumstances, no matter how harsh, anywhere in the world; and a profound respect for high mountains. My Nepali friend and I bonded like brothers, and now I am financing his grandson's education in Kathmandu.

In 1986, I signed up for a gold exploration and mining trip to the Madre de Dios River, four hours upstream from Puerto Maldonado, in a virgin triple canopy rain forest in the remote upper Amazon basin in Peru. With vastly fluctuating water levels and difficulties in trapping the fine gold, this venture with the Belcher brothers, who were originally from Denver, ended prematurely. With four extra months of free time in South America, I hitch-hiked to Macchu Pichu and other Incan ruins with Dan Belcher and then I went alone to Huaraz and teamed up with an American to do a circumnavigation of the remote Huayhuash range, which was partially under control of the Maoist Sendero Luminoso, and then joined up with another American team to climb Pisco, Huascaran, the highest peak in Peru at 22,300', and then the Southwest Face direct of Alpamayo, a perfect triangular peak of 19,512', named in 1 by worldwide climbers as the most beautiful mountain in the world. All of the climbs were done lightweight alpine style with minimum equipment and no tents. On Alpamayo, I met fellow Coloradan Steve Monk, with whom I teamed up over the next decade to climb peaks and ice falls throughout North America. I then went to Chile to meet a Colorado friend working as an avalanche control

expert in Portillo and did a solo winter technical climb to the Argentinian border and made a ski descent, and then returned to Peru to do a solo trek to Mount Cayash.

A few months after my return, I was off again for three and a half months to Asia, and I expanded horizons and traveled to Sri Lanka and Burma in search of minerals and gems (I had started a separate gem company apart from my mineral partnership) and again ended up in Nepal and attempted to travel overland to Lhasa, Tibet, but once again was caught up in snow on Christmas Eve, tramping on foot through three feet of snow on the north side of Everest to escape back to Nepal.

By 1987, I began my journeys into East Africa, to Kenya, and Tanzania. George's chance contact with a Nigerian led to a journey there in 1988, where after surviving the horrible hell hole of Lagos at that time (there were warnings on the departure from Zurich's airport that one's safety was not guaranteed, even within the airport) I made my way to Keffi, stayed as a guest in the local Emir's house there, and Kaduna, before eventually reaching the famous Jos Plateau with its wonderful pegmatites. Along the way, I contacted cerebral malaria, and if I had not been so fit, would have died there or a few days later in Kenya. I have had reoccurring bouts of that malaria for more than 25 years after the initial occurrence. By 1990, I made my first trips to China, and then started with Eastern Europe, immediately after the fall of communism. A trip in the early 90's was my most varied, traveling to Germany, Czech Republic, Bulgaria, South Africa, Malawi, Tanzania, Kenya, India, Hong Kong and into interior China in about 5 weeks, and then ending in Pakistan. In the early days of my mineral travels, I had kept detailed travel journals, but in the early nineties, it had evolved into existential travel, always moving, and never detailing the trips, only possessing thick old passports with entry stamps to determine where I had been. By the early 1990's I had touched base in 90 countries. Sometime thereafter I met Bill Smith, avid mineral collector, recently retired from a private company after a long stint as an office chair at the NSA, and a man of unbelievable integrity. He had just relocated to nearby Broomfield, along with his wife Carol. Bill and I both shared love of maps and geography (Bill once told me that he had never met a map that he did not like). With his strict guidance and set parameters, he guided, coerced, and directed me to produce my first mineral article: Mineral Localities of the Northern Areas of Pakistan, published in the Mineralogical Record in 1996. After that, I started to write many articles for Mineral News, detailing mineral buying adventures around the world, focusing on the traveling as well as the minerals. Bill and Carol often helped to edit and critique my articles. Similarly, I co-authored or contributed on between 50 and 100 article for Gem News International in GIA's Gems and Gemology. The editor said that I was the most mentioned name for a 20 year period for new discoveries around the world. For 17 years, Brendan Laurs edited this magazine, but had such a good working relationship, that when Brendan quit and went to the revamped Gem A, the *British Journal of Gemmology*, I followed him there, together producing up to five articles about new gems occurrences in one quarterly.

In the late 90's the legendary Mogok in northern Burma re-opened after being closed to foreigners for 35 years. I managed to get permission to visit, and traveled there with my Czech friend, Vashik Budina. When I walked into the gem market for the first time, I was stunned to hear Nepali being spoken. The Nepalese Gurkha soldiers who had come to fight the Japanese in WWII had stayed, and their descendants were a significant percentage of the population. I had the time of my life in the market, talking to the locals in Nepali and Hindu while their Burmese counterparts stood baffled. I was overwhelmed and nearly crushed by 40-50 Nepalis trying to show me their goods. I still have good Nepali friends there, who sometimes come to see me in Bangkok, or will invite me to their house in Mogok for traditional masala tea and dahl baht to eat.

By the mid 2000's, I started writing articles for the Mineralogical Record, with the first one on the alpine cleft deposit of Alchuri in Pakistan and then a series of article on mines in Northern Viet Nam. Throughout all of this time, my experience in climbing at altitude, hardship travel, language skills which embedded me with local people allowed me to go to areas where few mineral dealers had ever set foot. I always loved studying culture and languages, becoming conversant and business language fluent in Hindi, Urdu, along with some Pashtu, Nepali, Vietnamese, Thai, Sinhalese, French and Spanish.

The trips to Pakistan were some of the hardest and most dangerous. One of the most memorable was on September 1, 1994, when I was sitting in the power house at Sumayar village in Nagar, when Fida Hussain, president of the miner's union, abruptly asked me if I would like to go to Chumar Bakhloor with him. I readily agreed, and within a few minutes had loaded my backpack with bare essentials, and together we left at a brisk pace for the famed deposit known for its aquamarine, fluorites, and pink apatites. The climb was horrendous, starting at about 8000', with the trail later joining the Sinkiang Glacier and then climbing very steeply to the base camp at 15,200'. Along with at least 6 miles of horizontal, they reached their destination in 5 and ¾ hours. At that time the camp was a scattering of canvas tents, anchored by rocks. After resting and then climbing further to visit the mining sites, I spent the night in a tent with about eight miners, sleeping under the head of a freshly killed yak. It is dangerous to climb so high and so abruptly, but my years of altitude experience had taught me that I had a 30 hour window before I felt altitude sickness, so I visited the mines the following morning and then descended the next day within that time frame. In the late 90's I made my first trip to Zegi Mountain in the Federally Administered Tribal Areas, with its decomposed alkaline pegmatites that has produced

world class bastnaesites and xenotimes. I climbed to the top of the mountain with a Kalashnikov slung over my shoulder through a hole named after a rabat, a stringed instrument similar to a sitar. Perhaps my most terrifying trip was one taken just a month after the 9/11 tragedy, which started with a trip to Peshawar, 25 miles from the Afghan border while the war against the Taliban was occurring. I was one of only a handful of foreigners traveling to Pakistan (the airline staff on the PIA flight from Dubai was terrified of me when they found that I was an American) and the only mineral dealer during the peak fall season. This allowed me to acquire one of the best groups of minerals from any of my trips. En route to the Northern Areas, I was detained by Pakistani authorities crossing the Shangla Pass from Swat to the Indus Valley, convinced someone holding an American passport and speaking Urdu and looking Pakistani was up to something not right, released and then made my way to Skardu and the Shigar valleys, followed by the long journey to Nagar where I bought a pink apatite that ended up as the cover photo of Lithographie's Apatite issue. I have had a good working relationship with Gloria Staebler and has supplied articles and photos or my specimens for her Lithographie's Pakistan, Beryl, Fluorite, Garnet, and Topaz issue (which won the 2011 Friends of Mineralogy article of the year) and have just finished the Viet Nam chapter on rubellites for her next upcoming book.

In 2005, after a massive earthquake devastated the mid-mountains in Pakistan from around Balakot to Besham, I rushed over and delivered a supply of tents, batteries and blankets to Battagram where a close friend was working with a Japanese relief organization. I continued up the KKH alone with my non English speaking driver as my old Pakistani traveling and business partner was too disabled by arthritis to be able to walk long distances in the event of a road closure from aftershocks. I had to send my rented car back to Peshawar because of an incompetent driver who was on his first trip to the mountains, and then hired a jeep in Nagar, only to have it break down in Shengus, where I had to flag down a local bus to get to Skardu just in time to find my jeep driver to have him take me up to the Braldu valley on the following morning. The entire trip up and back with more than 60 hours on the road was completed in one week and also during the fasting month of Ramadan.

Immediately after that trip, I journeyed to Viet Nam for the first time in search of the spinel and tourmaline locations, arriving in Hanoi with only a vague location given to me as being near Yen Bai. A supposedly one day trip to the gem and mineral market and spinel mine turned into an eight hour ordeal just to arrive in Luc Yen. My English speaking guide had to return to Hanoi the next day, so I was left with my Vietnamese phrase book and a quick course in useful business words, with the first being "dat qua", "too expensive". It turned into a magical trip, and without a word of English spoken, met a family with a house near the base of the Cong Troi spinel mine, who then took me to the top of the mine, and then to many others over the following years. To this day, I have a home cooked meal every night in Luc Yen at either of the two sister's and their husband's houses. I chronicled that trip and a subsequent one to the Minh Tien tourmaline mine and published the accounts in the Mineralogical Record. A chance arrival in May 2009 just as a new tourmaline find had been discovered in a cornfield in a remote tribal area west of Luc Yen near Khai Trung resulted in a Rocks and Minerals article. It was most memorable, akin to a gold rush, with an uncontrolled frenzy of hundreds of people from seven year old girls upward to seventy year old men digging frantically, even with their bare hands, for bubble gum pink tourmaline. In May 2011 I set out from Hanoi to Thanh Hoa Province and specifically to Thanh Xuan district on the border of Laos in search of incredibly deep blue aquamarine that had been reported in a Gems and Gemology article. In the intervening 30 years since the Vietnamese Geological Survey had produced a map, a dam had been constructed in the area and roads had been altered, but I drove with Vietnamese friends to a village near one of two major valleys draining the east side of the 10 mile long mountain range. We quietly asked around and found someone to guide them to some aqua mines. It was a 100F with extreme humidity, and after climbing 1700 vertical feet on jungle trails, we emerged unto a shoulder dotted with vertical decomposed pegmatites, and found several miners digging. I managed to buy an excellent gem aqua crystal from one miner and then continued up another 700' to the Doi Ty mine, where the aquamarines were found in a massive quartz vein. I bought some of the day's production from a wiry old miner who had hid it under his tarp tent. As I descended, I was utterly ecstatic in not only finding the mines but able to purchase specimens and pinpoint their locations with a GPS - a perfect article awaited. As we rode back into the village on motorbikes from the base of the climb, we were stopped by local police and promptly hauled to jail, facing various nefarious charges. They made me open my camera, and found the photos of the wiry miner. He was shirtless, working in a heat index of 120F, but the police charged me with possession of photography detrimental to the image of Viet Nam.

They thought that I would report that Vietnamese people were so poor that they could not afford a shirt. The reality was that miner had made more money that day from his sale than the policemen made in two years. I also faced charges of traveling in a restricted area without a permit, and the worst a terrorism charge for arriving the day before some local elections which they suspected I had come to disrupt. The day dragged on as inquisitive villagers stopped in the jail to see the "foreign devil". But as dinner time appeared, lengthy papers were produced, stamped and signed by the sole policeman on duty (whom I think was hungry), and we were released and shockingly, even allowed to keep our specimens. This prompted a most entertaining article published in the French *Gemmological Review*. In the fall of 2009, Pakistan's security had deteriorated to record lows and my passport was at the Pakistan embassy in DC for a week, with

promises of a business visa being issued each day, but it was finally denied at the last minute and my passport was returned two hours before departure out of the U.S. I had my travel agent change my ticket at the last minute while at O'Hare airport and rerouted from a Dubai-Peshawar flight to Dubai-Doha-Kathmandu, where I managed to get a Pakistani visa at the embassy there. As I was boarding the flight to Karachi, a CNN channel at the airport announced 129 people had just died in a massive bombing in Peshawar at the Khyber Bazaar, barely more than a quarter mile from the mineral market and feet from the site of a hotel where I had stayed for years. Bombings continued almost on a daily basis after I arrived in Peshawar, but to add to it all a violent earthquake of about 6.5 magnitude struck, shaking the house where I was staying so severely that I had trouble staying upright scrambling for the door. (On the 9/11 trip my close friend invited me to stay in his new house in a room he had made for me. For 18 years I have stayed there while in Peshawar, the only case of a foreigner living in a Pashtu household as a family member that I have heard.) My trip to the newly renamed Gilgit-Baltistan was nothing but trouble, marred by a car accident, intense security on the KKH, unusually cold and snowy weather in the Shigar Valley but rewarding in being present in Skardu for the first elections in the newly name province, and arriving within a week of the first electricity provided in Dassu in the Braldu Valley. I returned to Peshawar a day after a military intelligence office was bombed right next to the track where I did my daily morning runs while in Peshawar. The details of that trip were written up in the "The Absolute, Truly Ultimate Trip from Hell" article published in *Minerals News*, and it was awarded The Friends of Mineralogy 2011 Best Article in *Mineral News*.

In May 2010, I again flew to Kathmandu to get a Pakistani visa, having trouble again collecting one in the U.S. This time I was refused because of new regulations that an applicant must obtain one only in their home countries. With a month with nothing to do, I decided to go trekking with my old friend Ram to Lo Mantang, the lost and forbidden city in upper Mustang, a knob of north central Nepal jutting into Tibet. We stopped at a village at 12,600' and walked into a 4 room guest house to find a 4 year old ethnic Tibetan girl teaching herself English from a book. I thought that it was such a shame for a mind to go to waste in this tiny village and contacted my sister, a heart specialist at the Mayo clinic. She agreed to help educate the girl, so we had her family move her to Kathmandu to stay with her aunt, and had her and her older brother enrolled in the best Tibetan-Nepali-English school in Kathmandu where she has been an outstanding student. At four she said that she wanted to be a doctor like my sister, and when we visited her at her top new middle school in December of 2018 in the mountains on the rim of the Kathmandu Valley she again stated that her goal was to become a doctor. My sister and I are setting up a foundation, Educate Nepali Children, as we accumulate more kids to educate.

A few years after my disastrous trip to Pakistan in 2009, another trip there resulted in the Sequel to the Absolute, Truly Ultimate Trip from Hell. Unfortunately another sequel is currently being written detailing the trials and tribulations of another trip up the KKH in the fall of 2018 to Gilgit Baltistan with unusual cold weather, horrible rough roads and long delays for construction, but also punctuated with a wonderful climb to a new sphen mine at 11,000' in the Haramosh Range in the remote Basha Valley and a second climb to a corundum mine in Hunza which resulted in a 15 foot vertical fall when a finger hold pulled loose. Things went downhill from there with my SUV stalling out hundreds of times in dangerous Kohistan, caused by a malfunctioning fuel pump located under my seat, with the smell of gas and a smoking driver and an exhaust leak from a cracked manifold making for a most unpleasant trip. After finally making it to Peshawar and relaxing and thinking my problems were over, the next day I was caught up in a religious protest over a blasphemy case overturned by their Supreme court.

All of the while on my trips, I kept up my daily running schedule, often running 70 to 80 miles per week in India, Vietnam, Burma, Nepal, and Pakistan, with me once covering 96 miles in a week in Skardu and the Shigar Valleys. I raced triathlons in my 30's and 40's, converting to long course duathlons of half ironman length or longer and raced for Team USA in the 50-54 division in three world championship for long course duathlon. After two bad bike accidents in 2007, I retired my racing bike and concentrated on running, some road, but mostly trails and ultras, eventually winning the Road Runners of American Colorado Senior Grand Master marathon Championship in 2016, and in 2018 finally won my first national championship, the 60-64 USA Track and Field 30km trail championships held on Pike's Peak in Colorado. I was single until I was 60, having difficulty with relationships when I was traveling 9 months of the year. In 2014 I married Darunee (Muy) Pisutadamongkol, a Thai woman whom I had met in Bangkok in 2011. She shared my interests in extremely healthy nutrition, yoga, and other interests. She is fluent in 6 languages, and stays in Bangkok to be with her large family while I am traveling in dangerous areas. She is also an avid runner, and won the women's senior grandmaster half marathon Colorado state championships in 2016, and in 2018 was second in the women's 60-64 US national 30 km mountain trail championships.

I feel that I am the luckiest man in the world, akin to Lou Gehring, doing something that I really love which allows me to travel to the greatest mountain ranges and remote villages of the world multiple times in a year for what for most people would be a trip of a lifetime. That same luck has kept me alive for all of these years. I do owe appreciation and recognition to my employees who have held down the home fort while I have spent decades of my life traveling overseas, my faithful customers who provided me with funds from sales to keep traveling on a whim, and all of those who guided and encouraged me to write about my adventures. And, I cannot forget all of my foreign friends and contacts who

helped me out of difficult and dangerous situations, many of whom are now deceased, but particularly Amir Ullah in Peshawar who put his life on the line for me too many times to count in our 60 plus travels together to the Northern Areas of Pakistan.

May they all rest in peace.

Dudley

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***FM Colorado Chapter meetings, 2020:***

Meetings are normally held at 7:30 p.m. on the 2<sup>nd</sup> Thursday of alternate (odd-numbered) months. Our meeting location is now Berthoud Hall Room 109, at 16<sup>th</sup> and Illinois Streets, Colorado School of Mines campus, Golden. Meeting dates may be shifted in September and November so as not to conflict with the Denver Gem & Mineral Show or the New Mexico Mineral Symposium. Visitors are *always* welcome at our meetings!

Planned meeting dates for 2020 will be:

**Jan. 9, 2020, Ryan Bowling, “The Pala Gem Pegmatite District, San Diego County, California”**

**Mar. 12, Scott Werschky, mineral dealer, “Miner’s Lunchbox”;** topic TBA

**Thurs., May 14, FM meeting,** topic TBA

**Sat., May 19, FM Silent Auction,** Wheat Ridge United Methodist Church, 7530 W. 38<sup>th</sup> Ave., Wheat Ridge

**Thurs., Sept. 10, FM meeting,** topic TBA

**Sept. 18-19, Denver Gem and Mineral Show; 2020 show theme, “Fabulous Fluorite” (53<sup>rd</sup> annual show)**

**Thurs., Nov. 19, FM meeting,** topic TBA [probable date, to avoid conflict with NM Mineral Symposium]

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***You are invited to submit suggestions of names (volunteering yourself, or others) as FMCC officers or directors for 2020! Please get in touch with the President, Bob Hembree, or any other Chapter officer.***

\* \* \* \* \*

**Friends of Mineralogy, Colorado Chapter, 2019 officers:**

- President:** Bob Hembree, rhembree@comcast.net, 720-201-5486
- Vice President:** Gloria Staebler, gastaebler@aol.com, 303-495-5521
- Treasurer:** Mark Jacobson, markivanjacobson@gmail.com, 1-337-255-0627
- Secretary** Ed Pederson, mineraljeep@aol.com
- DG&MS Council Trustee:** David Bunk, dave@davebunkminerals.com;  
Alternate, Mark Jacobson
- Newsletter editor:** Peter Modreski, pmodreski@aol.com, 720-205-2553
- Field trip planner** (not field trip leader): unfilled
- FMCC Website:** unfilled
- Postings for the FM national facebook page:** unfilled
- At-large Directors:**
  - Don Bray, don\_bray@copper.net , 303-681-3646
  - David Bunk, dave@davebunkminerals.com
  - Larry Havens, lwrnchavens@comcast.net, 303-757-6577
  - Peter Modreski, pmodreski@aol.com, 720-205-2553
  - Jeff Self, selfawareminerals@gmail.com, 303-898-7539

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## ***Calendar of Coming Events, 2019***

**Thurs., Nov. 14, 7:00 p.m., Archaeology of Peru's North Coast: The Moche Culture and Beyond**, by Michele Koons, Denver Museum of Nature and Science. Colorado Scientific Society monthly meeting, Shepherd of the Hills Church, 11500 W. 20<sup>th</sup> Ave., Lakewood; social time at 6:30; all welcome.

**Thurs., Nov. 14, 7:30 p.m., Gold: A journey from the Big Bang to the forest of the Amazon**, by Dr. Terry Wallace, Director Emeritus, Los Alamos National Laboratory. At the bimonthly meeting of Friends of Mineralogy, Colorado Chapter; Berthoud Hall Room 109, Colorado School of Mines campus, Golden. All are welcome.

**Fri.-Sat.-Sun., Nov. 15-17, Gem and Mineral Show, Jefferson County Fairgrounds**; 10-5 Fri. & Sat., 11-4 Sun., 15200 W. 6<sup>th</sup> Ave., free parking & admission.

**Sun., Nov. 17, 1:00-5:00 p.m., Rocky Mountain Micromineral Association (RMMA) monthly meeting**, across the hall from the Colorado School of Mines Geology Museum entrance. This November meeting will be on the 3<sup>rd</sup> instead of the usual 2<sup>nd</sup> Sunday of the month. Topic: Michael Gobla will present a talk on mounting micromounts; Richard Parsons will lead a discussion about what judges look for in a micromount competition; and there will be a silent auction of micromount specimens. For more info see <http://rocky-mountain-micromineral-association.com/>.

**Mon., Dec. 2, 3:00-4:00 p.m., DMNS Earth Sciences Colloquium, "The Fossil Atmospheres Project: A novel experiment to test CO<sub>2</sub> proxies using citizen scientists"**, Richard Barclay, Smithsonian Institute. VIP Room at Denver Museum of Nature & Science, all are welcome.

**Sat., Dec. 7, 2:30-5:30 p.m., WIPS (Western Interior Paleontological Society) Annual Auction Fundraiser**, Clements Center, 1580 Yarrow St., Lakewood. All are welcome.

**Thurs., Dec. 10, 6:30 p.m., "Funiculars of Golden Colorado"**, by Barb Warden, goldentoday.com; at "Golden Beer Talks" at the Buffalo Rose, 1119 Washington Ave., Golden. For more info see <http://goldenbeertalks.org/>

**Fri.-Sat.-Sun., Dec. 13-15, Flatirons Gem & Mineral Show, "Rocks & Rails"**, Boulder County Fairgrounds, 9595 Nelson Rd., Longmont CO, Main Exhibit Building. 10 a.m. – 5 p.m. each day. Held in conjunction with the Boulder County Model Railroad Club Show.

***For more lecture series during the year see:***

**Colorado Beer Talks** (usually 2<sup>nd</sup> Tuesday, 6-8 p.m.), Buffalo Rose, 1119 Washington Ave., Golden, "Golden's grassroots version of TED talks, Expand your mind with a beer in your hand", <http://goldenbeertalks.org/>

**Colorado Café Scientifique in Denver**, monthly lectures on science topics held either at Blake Street Station or Brooklyn's, Denver; open to the public, no charge other than food or drink; see <http://cafescicolorado.org/>.

**Colorado Scientific Society** (3<sup>rd</sup> Thursday, 7 p.m.), see <http://coloscisoc.org/>. Meets at Shepherd of the Hills Church, 11500 W. 20<sup>th</sup> Ave., Lakewood CO, except when noted.

**CU Geological Science Colloquium** (Wednesdays, 4 p.m.) see <http://www.colorado.edu/geologicalsciences/colloquium>

**CSU Dept. of Geoscience Seminars** (Fridays, 4 p.m.), see <https://warnercnr.colostate.edu/geosciences/geosciences-seminar-series/>

**Van Tuyl Lecture Series, Colorado School of Mines**, (Thursdays, 4 p.m.): <https://geology.mines.edu/events-calendar/lectures/>

**Denver Mining Club** (Mondays, 11:30), see <http://www.denverminingclub.org/> .

**Denver Museum of Nature and Science, Earth Science Colloquium series**, 3:00-4:00 p.m., VIP Room unless noted, day of the week varies. Museum admission is not required; see <http://www.dmns.org/science/research/earth-sciences/>

**Denver Region Exploration Geologists Society (DREGS)**; 1<sup>st</sup> Monday, 7 p.m.), <http://www.dregs.org/index.html>

**Florissant Scientific Society (FSS)**; meets monthly in various Front Range locations for a lecture or field trip; normally on Sundays at noon; all interested persons are welcome to attend the meetings and trips; see <http://www.fss-co.org/> .

**Rocky Mountain Map Society (RMMS)**; Denver Public Library, Gates Room, 3<sup>rd</sup> Tuesday, 5:30 p.m.), <http://rmmaps.org/>

**Rocky Mountain Micromineral Association (RMMA)**; meets in the conference room across the hall from the entrance to the Colorado School of Mines Geology Museum, 1-5 p.m., normally on the 2<sup>nd</sup> Sunday of the month. See <http://rocky-mountain-micromineral-association.com/>

**Western Interior Paleontological Society (WIPS)**; beginning January 2019, WIPS will meet on the 1<sup>st</sup> Monday of the month, 7 p.m., at Lowry Conference Center, 1061 Akron Way, Denver. See <http://westernpaleo.org/> .