



Grindings

Idaho Gem Club, Inc.

P.O. Box 8443  Boise, Idaho 83707-2443

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JANUARY 2021

DIRECTORY

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PRESIDENT'S MESSAGE

Greetings!

As I write this message and work on this newsletter tonight, Dana Robinson and I realize that we would typically be at IGC's Annual Banquet Dinner, hearing Emcee Gene Stewart's 3rd hilarious joke and enjoying our friends and a delicious dinner. Covid related interruptions and inconveniences started in 2020. We are all so tired of the virus. We have lost good friends to it. And it has forced the world to rethink community gatherings.

We regret to announce that the Board of Directors and Officers have decided to cancel our 2021 Annual Gem and Mineral Show scheduled for February 20 & 21. Expo Idaho has to abide by requirements for trade shows. In order to comply with 6' social distancing our showcases would be omitted. Visitors touching slabs and minerals would require constant sanitizing, we would need constant head count and stay within a small amount of persons in the building at one time, including vendors and staff. We could not have features like the black light room, along with several other restrictions. All of this would make it a disappointing effort. We couldn't guess how many people would risk coming to see the show. No attendance leads to failure. The enormous effort to set up and produce our show would be a major let down. We have one of the best shows in the nation and wish to keep our reputation strong. It is not worth risking the health of our dealers, members or the community who look forward to our popular event. There was no choice but to cancel. We apologize for the inconvenience. Thanks to Willa Renken and our Treasurer Teresa Nebeker, and careful money management and planning, our club stands solid financially and can make it through the year with the loss of income from show attendance. During 2021, we will work on some upgrades and produce an outstanding Gem Mineral and Fossil Show in February 2022. Thank you to our vendors who make this event a favorite for rockhounds nationwide. We appreciate you staying on board to 2022. Let's bring our ideas to light and work towards the best show ever for next year!

We will hold a February 16 General Meeting at Mtn. View Church, 2823 N Cole Road, 7:00 pm. We hope to provide a neat program on rocks and briefly cover business. Our library will be open to check out and return books! Bring a small door prize donation if you have a cab or slab to share. Just one item per bag (or gift wrapper) please! If you have any nicer slabs to add to our Building Fund Drawing, please bring to Dana Dancer at the entry table. Tickets are sold for the Building Fund raffle items.

Please read this newsletter thoroughly for special announcements, like our Facebook live-feeds and workshop details. Don't miss out! Contact any of your officers for questions and suggestions any time!

I look forward to seeing you in the weeks to come. You are all the greatest gems in Idaho!

*Respectfully submitted,
Deana Ashton, President*

The deadline for issues is the Friday after each Board Meeting for the current month's edition. To submit articles, please send them through email to Dana Robinson, Editor drobinso@boisestate.edu

MEETING AGENDA

Next General meeting will be Feb. 16, 2021 at 7:00pm, Mtn. View Church

ACTIVITY CALENDAR

JANUARY

SUN	MON	TUE	WED	THU	FRI	SAT
					1	2
3	4 ROLE Workshop 6-8:45 pm	5 Board Meeting 7 pm	6	7	8	9
10	11	12	13	14	15	16
17	18	19 General Meeting 7 pm	20	21 Workshop 6-8:45 pm	22	23 Facebook Live Feed 2 pm & 5 pm
24 31	25	26	27	28	29	30 Workshop 10 am-2 pm

APRIL

SUN	MON	TUE	WED	THU	FRI	SAT
				1	2	3
4	5 ROLE Workshop 6-8:45 pm	6 Board Meeting 7 pm	7	8	9	10
11	12	13	14	15	16	17
18	19	20 General Meeting 7 pm	21	22 Workshop 6-8:45 pm	23	24
25	26	27	28	29	30	

FEBRUARY

SUN	MON	TUE	WED	THU	FRI	SAT
	1 ROLE Workshop 6-8:45 pm	2 Board Meeting 7 pm	3	4	5	6
7	8	9	10	11	12	13
14	15	16 General Meeting 7 pm	17	18 Workshop 6-8:45 pm	19	20
21	22	23	24	25	26	27 Workshop 10 am-2 pm
28						

MAY

SUN	MON	TUE	WED	THU	FRI	SAT
						1 Workshop 10 am-2 pm
2	3 ROLE Workshop 6-8:45 pm	4 Board Meeting 7 pm	5	6	7	8
9	10	11	12	13	14	15
16	17	18 General Meeting 7 pm	19	20 Workshop 6-8:45 pm	21	22
23 30	24 31	25	26	27	28	29 Workshop 10 am-2 pm

MARCH

SUN	MON	TUE	WED	THU	FRI	SAT
	1 ROLE Workshop 6-8:45 pm	2 Board Meeting 7 pm	3	4	5	6
7	8	9	10	11	12	13
14	15	16 General Meeting 7 pm	17	18 Workshop 6-8:45 pm	19	20
21	22	23	24	25	26	27 Workshop 10 am-2 pm
28	29	30	31			

JUNE

SUN	MON	TUE	WED	THU	FRI	SAT
		1 Board Meeting 7 pm	2	3	4	5
6	7 ROLE Workshop 6-8:45 pm	8	9	10	11	12
13	14	15 Meeting 7 pm Project of Year Contest	16	17 Workshop 6-8:45 pm	18	19
20	21	22	23	24	25	26 Workshop 10 am-2 pm
27	28	29	30			

Note from the Editor:

The calendar on the previous page is very much a work in progress. The field trips are usually worked out and ready for the February Show, which is conspicuously missing as well. The entries are only for our regular schedule through the next six months, and do not reflect when meetings and workshops will resume.

Hopefully things will return to some kind of normal very soon. Stay tuned for any new information as field trips and workshops are scheduled.

IDAHO GEM CLUB MEMBER FIELD TRIPS

Idaho Gem Club Field trip day is the 3rd Sunday of each month and Owyhee Gem & Mineral Society Field trip day is the 3rd Saturday each month.

Kathe and Jeff Miller are ready to schedule our field trips for the year. Also send her ideas for rockhounding trips. Volunteer if you can lead us to new spots! Share your maps if you want! This is their first year, so lets help them out!

Field Trip Leaders Contact Information:

IGC -- Kathe & Jeff Miller 208-713-6807

OGMS -- Robert Murphey 208-590-1848

New Members:

Our website at idahogemclub.com has all of the information regarding our Articles of Incorporation, By-Laws and Operating Procedures. Please contact any Officer or Board Member with questions or suggestions.

NEW!! FACEBOOK GOING LIVE!

Our Facebook page allows us to reach a wide audience of rockhounds interested in learning new skills, seeing what they can do at our workshops and what is possible in lapidary. Two of our gem crafters have stepped up to feature live feed segments on our Idaho Gem Club Facebook page. First, you must sign up for free membership to the page by answering 2 simple questions. Once a member, you can view the live feeds

The first live feed will begin at **2:00 pm on January 23, 2021. ROBERT COGGINS** will feature a segment on Sunstones, from rough to faceted stone, and encourages you to interact by typing in comments which he will answer during the segment. There is no limit to the number of people who can participate in live feeds.

At **5:00 pm on January 23, Jason "Fuzzy" Smith** will start his live session from his home workshop. You can watch cabochon creation from his perspective, from a rough slab to a finished cabochon.

Both Robert and Fuzzy are masters of their crafts. Robert is a master faceter/gem cutter. Fuzzy does everything from mining and making cabs, to silversmithing and custom work. Both will continue scheduling segments on a variety of topics. Please tune in and learn! Our workshops will hopefully begin again in February with a limited number of participants.



SCHOLARSHIP RECIPIENT CHEYENNE ANDERSON



My name is Cheyenne Anderson, I am twenty years old and have lived in Idaho my whole life. I have grown up in Bowmont, Idaho, while constantly exploring the incredible vastness and geologic grandeur of the Owyhee territory. I have lived a life bedecked with curiosity of the natural realm, while additionally living amongst the true remains of the wild

west, and being privileged to walk in the actual footsteps of history. This interest has led me to pursue a degree in Geology at the College of Western Idaho, with the intention of having the opportunity to work outdoors while learning more about the land which I hold excessively dear.

ANCIENT HUMANS AT COOPER'S FERRY

By Cheyenne M. Anderson
Scholarship Recipient

Scalding desert heat cast its penetrating rays upon the backs of ancient man in western Idaho, long before the time which scientists predicted their span of habitation in North America altogether. Little did these people know how much their humble living quarters would impact the future, helping us to re-examine previous hypothesized migrations to American land far before the opening of glacial ice corridors. Cooper's Ferry, an archaeological site in Idaho along the Salmon River, has yielded discoveries which conclude people were in North America over a thousand years earlier than previously suspected. In addition to the remarkable radiocarbon dates, some of the artifacts displayed particular similarities to nonfluted projectile point traditions in Japan (Davis 5). These connections begin to paint a much broader picture, bringing valuable information to light regarding the culture and history of not only Idaho, but all of North America as well.

It has been previously theorized that ancient man traversed southward into North America from eastern Beringia, otherwise known as the Bering Strait, through a corridor

near the present-day Dakotas where glacial ice had melted some fourteen thousand years ago. Now pre-Clovis evidence has emerged from Cooper's Ferry that justifies the Pacific coastal migration route, where man traveled along unglaciated shorelines, and entered the Columbia River corridor (National Geographic). Oregon State University professor Loren Davis first came upon the site in 1997 for his PhD dissertation, returning only a decade later to perform a more in depth analysis of the area. His initial finds included a cache of stone points, in which bone and charcoal fragments were sent away for radiocarbon dating, returning with ages up to thirteen thousand-three hundred years old. With further questions, he continued to excavate deeper, returning with dates in the fourteen thousand to fifteen thousand year range, however astoundingly, one tooth fragment from an extinct form of horse was found and recorded to be over sixteen thousand years old. From these artifacts, a probabilistic model assessed the start of occupation at Cooper's Ferry between 16,560-15,280 years (Wade).

In total, the team excavated one hundred and eighty nine stone artifacts, twenty seven of which being stone tools such as various projectile points, biface fragments, blades, and flake tools. Along with eighty six animal bone fragments, evidence of a fire hearth and a fire-cracked rock gave insight to the configuration and specific practices of domestic activities about the site (News Staff). These fragments of the past have brought forth actual proof that humans were not only here in North America over a thousand years earlier than previously thought, but were also engaged in making tools and butchering large game on a fairly complex level, which was proven by various clues found about a food processing station within the encampment. The discoveries found indicate these humans were not simple monkeys roaming the savanna, but they were fully aware of creative processes in construction of a variety of tools and weapons.

The details of this site only get more interesting upon knowing some of the artifacts resemblance to those in Japanese collections from the according thirteen to sixteen thousand year range. Professor Davis remarked, "The oldest artifacts uncovered at Cooper's Ferry also are very similar in form to older artifacts found in northeastern Asia, and particularly, Japan." (Sci-News). These similarities hint to the growing mass of evidence available which connect genetic ancestry of late Pleistocene peoples of northern Japan and North America (Davis 5). Although these archaeological connections need further study, the adoption of these principals of thought puts

what is known into better alignment with what is historically evident fact.

In conclusion, the Cooper's Ferry archaeological site has redefined what we know of ancient people not only within Idaho, but all of North America as well. The tools and bones unearthed within the settlement along the Salmon River have blown enormous holes in the "Clovis First" theory, which stated that man did not exist in the Americas prior to thirteen thousand years. Only the Native American people of the Nez Perce tribe had any conjecture on the true age and origins of man at this site, in which they called it an ancient village named "Nipéhe" (News Staff). The ruins of a once forgotten people have finally emerged to complete details which were left only to speculation before their arrival. These exceptional artifacts allow us to have a broader understanding about the cultivated lands of our time, showing how the impressions of today will undoubtedly change tomorrows perspective.

Works Cited

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IDAHO GEM CLUB RESOURCE GUIDE PROJECT

I have been working on a Directory or Resource Guide for rockhounds to contact dealers and support their businesses. Introduce yourself to the rockhound community and feature your lapidary goods in this resource guide. I'd like to give everyone associated with our club an opportunity to sell their jewelry and rock creations. Send an email with photos of your inventory or list the items you sell and we will organize this into a catalog. Send an email to dashtonigc@gmail.com with subject line: Rock Resource Catalog. A fee structure will be decided on in the near future.

WORKSHOPS

Workshops can be held if we sign up in advance and keep size limited. Please, contact Kathe to sign up for in-person workshop slots. We can arrange days for you to come once we have 6 people, plus 3 instructors.

Our normal workshop schedule is the Thursday evening after the general meeting, and the Saturday of the following week. Please be sure to bring your mask. The dates are listed on the calendars page.

WORKSHOP LOCATION

2620 W. Idaho St., Boise, ID
Next door to Stewart's Gem Shop
\$5 Fee for each visit (kids free)



TURQUOISE

Turquoise is an opaque, blue-to-green mineral that is a hydrated phosphate of copper and aluminium, with the chemical formula $\text{CuAl}_6(\text{PO}_4)_4(\text{OH})_8 \cdot 4\text{H}_2\text{O}$. It is rare and valuable in finer grades and has been prized as a gemstone and ornamental stone for thousands of years owing to its unique hue.

The gemstone has been known by many names. The word *turquoise* dates to the 17th century and is derived from the French *turquois* meaning “Turkish” because the mineral was first brought to Europe through Turkey from mines in the historical Khorasan of Iran (Persia).

Properties

The finest of turquoise reaches a maximum Mohs hardness of just under 6, or slightly more than window glass. Characteristically a cryptocrystalline mineral, turquoise almost never forms single crystals, and all of its properties are highly variable. With lower hardness comes lower specific gravity (2.60–2.90) and greater porosity; these properties are dependent on grain size. The lustre of turquoise is typically waxy to subvitreous, and its transparency is usually opaque, but may be semitranslucent in thin sections. Colour is as variable as the mineral’s other properties, ranging from white to a powder blue to a sky blue and from a blue-green to a yellowish green. The blue is attributed to idiochromatic copper while the green may be the result of either iron impurities (replacing aluminium) or dehydration. Under longwave ultraviolet light, turquoise may occasionally fluoresce green, yellow or bright blue; it is inert under shortwave ultraviolet. Despite its low hardness relative to other gems, turquoise takes a good polish. It may also be peppered with flecks of pyrite or interspersed with dark, spidery limonite veining.

Turquoise is nearly always cryptocrystalline and massive and assumes no definite external shape. Crystals, even at the microscopic scale, are rare. Typically the form is a vein or fracture filling, nodular, or botryoidal in habit. Stalactite forms have been reported. Turquoise may also pseudomorphously replace feldspar, apatite, other minerals, or even fossils. Intergrowth with other secondary copper minerals such as chrysocolla is also common.

Formation

Turquoise deposits probably form in more than one way. However, a typical turquoise deposit begins with hydrothermal deposition of copper sulfides. This takes place when hydrothermal fluids leach copper from a host rock. The copper is redeposited in more concentrated form as a copper porphyry, in which veins of copper sulfide fill joints and fractures in the rock.

Turquoise is a secondary or supergene mineral, not present in the original copper porphyry. It forms when meteoric water (rain or snow melt infiltrating the Earth’s surface) percolates through the copper porphyry. Dissolved oxygen in the water oxidizes the copper sulfides to soluble sulfates, and the acidic, copper-laden solution then reacts with aluminum and potassium minerals in the host rock to precipitate turquoise. This typically fills veins in volcanic rock or phosphate-rich sediments. Deposition usually takes place at a relatively low

temperature (194–383° F), and seems to occur more readily in arid environments.

Turquoise deposits are widespread in North America. Some deposits, such as those of Saguache and Conejos Counties in Colorado, or the Cerrillos Hills in New Mexico, are typical supergene deposits formed from copper porphyries. The deposits in Cochise County, Arizona, are found in Cambrian quartzites and geologically young granites and go down at least as deep as 54 meters (177 ft).

Turquoise was among the first gems to be mined, and many historic sites have been depleted, though some are still worked to this day. These are all small-scale operations, often seasonal owing to the limited scope and remoteness of the deposits. Most are worked by hand with little or no mechanization. However, turquoise is often recovered as a byproduct of large-scale copper mining operations, especially in the United States.

Locations

Iran has been an important source of turquoise for at least 2,000 years. In Iranian architecture, the blue turquoise was used to cover the domes of palaces because its intense blue colour was also a symbol of heaven on earth. This deposit is blue naturally and turns green when heated due to dehydration. It is restricted to a mine-riddled region in Nishapur, the 6,601 ft. mountain peak of Alim-mersai. Weathered and broken trachyte is host to the turquoise, which is found both in situ between layers of limonite and sandstone and amongst the scree at the mountain’s base. These workings are the oldest known, together with those of the Sinai Peninsula. Iran also has turquoise mines in Semnan and Kerman provinces.



Since at least the First Dynasty (3000 BCE) in ancient Egypt, and possibly before then, turquoise was used by the Egyptians and was mined by them in the Sinai Peninsula. This region was known



as the Country of Turquoise by the native Monitu. There are six mines in the peninsula. The two most important of these mines, from a historical perspective, are Serabit el-Khadim and Wadi Maghareh, believed to be among the oldest of known mines.

The turquoise is found in sandstone that is, or was originally, overlain by basalt. Copper and iron workings are present in the area. Large-scale turquoise mining is not profitable today, but the deposits

are sporadically quarried by Bedouin peoples using homemade gunpowder. The colour of Sinai material is typically greener than that of Iranian material but is thought to be stable and fairly durable. Often referred to as “Egyptian turquoise”, Sinai material is typically

the most translucent, and under magnification, its surface structure is revealed to be peppered with dark blue discs not seen in material from other localities.

The Southwest United States is a significant source of turquoise; Arizona, California, Colorado, New Mexico, and Nevada are (or were) especially rich. The deposits of California and New Mexico were mined by pre-Columbian Native Americans using stone tools, some local and some from as far away as central Mexico. Cerrillos, NM, is thought to be the location of the oldest mines; prior to the 1920s, the state was the country's largest producer; it is more or



less exhausted today. Only one mine in California, located at Apache Canyon, operates at a commercial capacity today.

The turquoise occurs as vein or seam fillings, and

as compact nuggets; these are mostly small in size. While quite fine material is sometimes found, rivalling Iranian material in both colour and durability, most American turquoise is of a low grade (called "chalk turquoise"); high iron levels mean greens and yellows predominate, and a typically friable consistency in the turquoise's untreated state precludes use in jewelry.

Arizona is currently the most important producer of turquoise by value. Several mines exist in the state, two of them famous for their unique colour and quality and considered the best in the industry: the Sleeping Beauty Mine in Globe ceased turquoise mining in August 2012. The price of natural untreated Sleeping Beauty turquoise has risen dramatically since the mine's closing. The Kingman Mine, as of 2015, still operates alongside a copper mine outside of the city. Other mines include the Blue Bird mine, Castle Dome, and Ithaca Peak, but they are mostly inactive due to the high cost of operations and federal regulations.

Nevada is the country's other major producer, with more than 120 mines which have yielded significant quantities of turquoise. Unlike elsewhere in the US, most Nevada mines have been worked primarily for their gem turquoise and very little has been recovered as a byproduct of other mining operations. Nevada turquoise is found as nuggets, fracture fillings and in breccias as the cement filling interstices between fragments. Because of the geology of the Nevada deposits, a majority of the material produced is hard and dense, being of sufficient quality that no treatment or enhancement is required. Nevada has produced a wide diversity of colours and mixes of different matrix patterns, with turquoise coming in various shades of blue, blue-green, and green. Some of this unusually-coloured turquoise may contain significant zinc and iron, which is the cause of the beautiful bright green to yellow-green shades. A significant portion of the Nevada material is also noted for its often attractive brown or black limonite veining, producing what is called "spiderweb matrix". Small scale mining operations continue at a number of turquoise properties in Nevada, including the Godber, Orvil Jack and Carico Lake mines in Lander County.

In an attempt to recoup profits and meet demand, some American turquoise is treated or enhanced to a certain degree. These treatments

include innocuous waxing and more controversial procedures, such as dyeing and impregnation (see Treatments). There are some American mines which produce materials of high enough quality that no treatment or alterations are required. Any such treatments which have been performed should be disclosed to the buyer on sale of the material.

Cultural associations

In many cultures of the Old and New Worlds, this gemstone has been esteemed for thousands of years as a holy stone, a bringer of good fortune or a talisman. The oldest evidence for this claim was found in Ancient Egypt, where grave furnishings with turquoise inlay were discovered, dating from approximately 3000 BCE. In the ancient Persian Empire, the sky-blue gemstones were earlier worn round the neck or wrist as protection against unnatural death. If they changed colour, the wearer was thought to have reason to fear the approach of doom. Meanwhile, it has been discovered that the turquoise certainly can change colour, but that this is not necessarily a sign of impending danger. The change can be caused by the light, or by a chemical reaction brought about by cosmetics, dust or the acidity of the skin.

The goddess Hathor was associated with turquoise, as she was the patroness of Serabit el-Khadim, where it was mined. Her titles included "Lady of Turquoise", "Mistress of Turquoise", and "Lady of Turquoise Country".

In Western culture, turquoise is also the traditional birthstone for those born in the month of December. The turquoise is also a stone in the Jewish High Priest's breastplate, described in Exodus chapter 28. The stone is also considered sacred to the indigenous Zuni and Pueblo peoples of the American Southwest. The pre-Columbian Aztec and Maya also considered it to be a valuable and culturally important stone.

Imitations

Some natural blue to blue-green materials, such as botryoidal chrysocolla with drusy quartz, are occasionally confused with or used to imitate turquoise.

The Egyptians were the first to produce an artificial imitation of turquoise, in the glazed earthenware product faience. Later glass and enamel were also used, and in modern times more sophisticated porcelain, plastics, and various assembled, pressed, bonded, and sintered products (composed of various copper and aluminium compounds) have been developed: examples of the latter include "Viennese turquoise", made from precipitated aluminium phosphate coloured by copper oleate; and "neolith", a mixture of bayerite and copper(II) phosphate. Most of these products differ markedly from natural turquoise in both physical and chemical properties, but in 1972 Pierre Gilson introduced one fairly close to a true synthetic (it does differ in chemical composition owing to a binder used, meaning it is best described as a simulant





Handmade polymer clay turquoise

rather than a synthetic). Gilson turquoise is made in both a uniform colour and with black “spiderweb matrix” veining not unlike the natural Nevada material.

The most common imitation of turquoise encountered today is dyed howlite and magnesite, both white in their natural states, and the former also having natural (and convincing) black veining similar to that

of turquoise. Dyed chalcedony, jasper, and marble is less common, and much less convincing. Other natural materials occasionally confused with or used in lieu of turquoise include: variscite and faustite; chrysocolla (especially when impregnating quartz); lazulite; smithsonite; hemimorphite; wardite; and a fossil bone or tooth called odontolite or “bone turquoise”, coloured blue naturally by the mineral vivianite. While rarely encountered today, odontolite was once mined in large quantities—specifically for its use as a substitute for turquoise—in southern France.



Genuine Turquoise

Dyed Magnesite

These fakes are detected by gemologists using a number of tests, relying primarily on non-destructive, close examination of surface

structure under magnification; a featureless, pale blue background peppered by flecks or spots of whitish material is the typical surface appearance of natural turquoise, while manufactured imitations will appear radically different in both colour (usually a uniform dark blue) and texture (usually granular or sugary). Glass and plastic will have a much greater translucency, with bubbles or flow lines often visible just below the surface. Staining between grain boundaries may be visible in dyed imitations.

Some destructive tests may be necessary; for example, the application of diluted hydrochloric acid will cause the carbonates odontolite and magnesite to effervesce and howlite to turn green, while a heated probe may give rise to the pungent smell so indicative of plastic. Differences in specific gravity, refractive index, light absorption (as evident in a material’s absorption spectrum), and other physical and optical properties are also considered as means of separation.

Treatments

Turquoise is treated to enhance both its colour and durability (increased hardness and decreased porosity). As is so often the case with any precious stones, full disclosure about treatment is frequently not given. Gemologists can detect these treatments using a variety of testing methods, some of which are destructive, such as the use of a heated probe applied to an inconspicuous spot, which will reveal oil, wax or plastic treatment.



Rick Corbett Wire Wrapped Opal

SUNSHINE LADY REPORT

By Deana Ashton

If you know of members who are ill, facing surgery, in need of prayer, are isolated, and needing cheer or who have passed away, please call Sunshine Lady at 208-794-5628.



Ray Chancelor Harshman

Sept. 20, 1936 ~ Dec. 27, 2020

Ray Chancelor Harshman, age 84, of Boise, Idaho, died at his home of natural causes on Friday, December 27, 2020. He was born September 20, 1936, in Parma, Idaho, to Foster Miller Harshman

and Bertha Johanna Roedel. He was the seventeenth of eighteen children.

Ray graduated from Wilder High School in 1955. Soon after graduation, he joined the Idaho Army National Guard, serving in the 615th Transportation Company in Homedale, Idaho. While serving there only a few months, he decided to enlist in the US Navy. While serving in the Navy, he married Diana Lynne Rankin on February 6, 1960, in Las Vegas, Nevada. They have been happily married for 60 years.

Roy was the small business owner of A-1 Superior Cleaning for 25 years. It was a family business where every member of the family contributed in the work.

Ray was an avid hunter and fisherman. He enjoyed going on his hunting trips -- duck, pheasant, deer, elk. He was an expert marksman. Ray also took the opportunity to teach all of his kids how to fish, some learning how to fish successfully (way to go Terri), and some not so much (Eric is still waiting to catch that BIG one).

Ray was a member of the Idaho Gem Club and was an avid rockhound, enjoying the field trips in search of gems and minerals.

Ray loved serving his country, and joined the Idaho Army National Guard, where he served in the 158th Engineering Detachment until 1980, and then later transferred to the Idaho Air National Guard. He retired in 1995 with honors after 25 years of service in the armed forces.

Ray was a member of the Church of Jesus Christ of Latter Day Saints and enjoyed serving others.

Ray is survived by his wife Diana and their six children, 3 sisters, 3 brothers, 13 grandchildren, and 2 great-grandchildren. He is preceded in death by his father, mother, 5 brothers and 6 sisters.



Realgar Crystals, Nevada



Stone concretions, Utah

THE GRINDINGS

is the monthly newsletter of the Idaho Gem Club, Inc., associated with the Northwest Federation of Mineralogical Societies. Permission to copy is freely granted when proper credit is given to both the publication and the author.

Articles without bylines are written by the Editor or President.

CHECK OUT THE CLUB WEBSITE!
www.idahogemclub.com

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MINUTES OF THE IDAHO GEM CLUB GENERAL MEETING DECEMBER 15, 2020

The General Meetings have been cancelled until further notice. Board Meetings will continue to conduct club business.

Respectfully submitted, Deana Ashton, President

MINUTES OF THE IDAHO GEM CLUB BOARD MEETING JANUARY 5, 2021

Deana Ashton called the meeting to order at 7:07 pm.

Present: Deana Ashton, Willa Renken, Teresa Nebeker, Cheryl Link, Ed Moser, Jason Smith, Kathe Miller, Jeff Miller, and Teri Frostrom.

Absent: Brent Stewart, Gia Stewart, Rick Corbett.

Deana asked for any corrections to the minutes as printed in the Grindings. Willa made a motion to accept the minutes as printed in the Grindings, which was seconded by Jason Smith. Board members voted, motion passed.

Secretary Report by Gia Stewart: No report.

Treasurer Report by Teresa Nebeker: Teresa went over the month's expenses and membership renewals. She needs the final receipts to finish out the year. Discussion over show dealer deposits and membership renewals.

Federation Report: No report.

Refreshments Report: No report.

Program Report: There will still be no meetings for January or February. The Banquet was also cancelled.

Workshop Report: Eight people came to the Saturday workshop and 4 on Sunday so there were no crowding problems. Workshops will be cancelled until further notice.

Scholarship Report: The scholarship winner is sending a presentation article by email for inclusion in the newsletter. Then the check will be sent out to her.

Show Report: Brent talked to the vendors and was told they must carry extra insurance, etc., for any show, but most were still willing to come. With limited attendance there will be little money made to offset investments.

After much discussion a motion was made:

Ed Moser made a motion to cancel the show for 2021 postponing to 2022. Willa Renken seconded. the board voted and the motion passed.

Willa will notify Brent to contact vendors. They may either roll over their booth fee to 2022 or be reimbursed, their choice.

Vendors may put a business card size ad in the newsletter for \$3.00 to list their contact information and website or facebook page.

Deana suggested a post on Marketplace for vendors to sell also. Have Doug put links to vendor websites on the IGC web page.

Old Business: Cheryl spoke with her committee about black lights for portable field lights. She purchased 3 field lights with a box and 12 flashlights. She is still looking for a metal cabinet to store it all in, as well as more microscopes. She is also working on badge program packets to send out to juniors.

New Business:

There was discussion on having a signup sheet for workshops on facebook. The contact would be Kathe Miller and the limit would be 3 helpers and 7 workers.

Deana listed her cabinet for the new year:

Willa Renken, 1st Vice President
Cheryl Link, 2nd Vice President
Teresa Nebeker, Treasurer
Gia Stewart, Secretary (??)
Cheryl Lawson, Librarian
Cheryl Peterson, Historian
Randy Harrison, Federation Director
Dana Robinson, *Grindings* Editor

One new application was reviewed. Ed made a motion to accept the new member, Cheryl seconded, the board voted and the motion passed.

Meeting was adjourned at 8:35 pm.

*Respectfully submitted, Dana Robinson
and Deana Ashton, President*

BRAD'S BENCH TIPS

by Brad Smith

ADJUSTABLE CHUCK FOR DREMELS

Many of us have a Dremel motor tool to use at home or when out to a class or workshop. The one thing that makes this tool much more productive is the addition of one inexpensive option, an adjustable chuck.

The basic motor tool as sold typically comes with a collet chuck. This means you have to use a wrench to change every tool bit, you have to switch collets to use different shaft sizes (3/32 or 1/8 inch bits), and you can't use ordinary drills at all — only the special ones that have a 3/32 shaft.

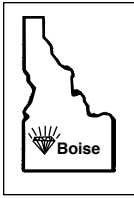
A simple and inexpensive (\$12) adjustable chuck solves all of this. It's available in most large local hardware stores or modelmaking outlets. Tightening the chuck is done easily by hand to any size shaft. No key is required.



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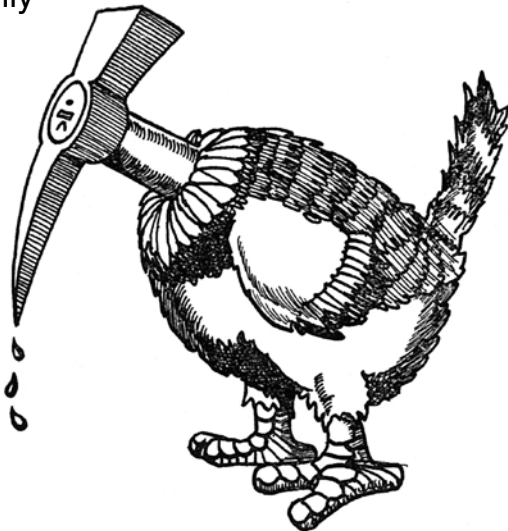
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The purpose of the Idaho Gem Club is to promote mutual, educational and scientific interests and benefits of it's members in mineralogy, geology, gemology, the art of lapidary and kindred arts and sciences

Dues:
\$22.00 individual
\$25.00 couple
\$28.00 family

Subscription only:
\$10 per year



GENERAL MEETING:
3rd Tuesday of every month: 7:00 p.m.

BOARD MEETING:
1st Tuesday of every month: 7:00 p.m.

ADDRESS:
Church of the Brethren

