



TAURANGA GEM & MINERAL CLUB INC

P.O. BOX 841 TAURANGA 3144

GEMZONE

November 2020

VILLAGE GEMS

**TAURANGA GEM & MINERAL CLUB Inc.
HISTORIC VILLAGE
17TH AVE TAURANGA**

**POLISHED STONES - CLOCKS – GREENSTONE PENDANTS - MINERALS
NOVELTIES - KAURI GUM - JEWELLERY - POLISHED FACES
MUSEUM & FLUORESCENT DISPLAY**

Rotorua Lapidary



WE HAVE BEEN SERVING NEW ZEALAND SINCE 1981

STOCKISTS OF:

- Tumbling Machines for Stone, Glass & Shell
- Rock Cutting, Polishing & Carving Machines
- Grinding & Polishing Media for Stone, Glass, Shell, Bone and Metal
- Crystals, Minerals & Rough Rock
- Polished Stones
- Fossils
- Gemstone Beads & Metal Clasps & Fittings
- Greenstone & Jade Carvings

SERVICES:

- Stone Cutting, Polishing & Drilling
- Jewellery Repairs & Bead Threading
- Stone Bead Necklace & Earring Making

**HOURS: Monday – Friday 9.30am to 5pm
Saturday 10am – 2pm**

Rotorua Lapidary Rock & Mineral Supplies Ltd
1120 Eruera Street, Rotorua 3010
Postal Address: P O Box 569, Rotorua 3040

Ph: 07 348 8996 Fax 07 348 8621

rotorualapidary@xtra.co.nz
www.rotorualapidary.co.nz

Colin & Bev Simmons

November Club Events

Workshop

Every Tuesday from 6pm to 7-30pm.

This is the only session where you will not pay workshop fees outside of club night activities. Otherwise ask at the shop or find details of the hourly rates in the workshop book.

Use of the workshop during shop hours:

\$2 per hour

Please pay at the counter

Club Night

Monday 9 November at the Club rooms

Juniors from 6 pm – 7.30pm: Jewellery and workshop activities.

Seniors at 7.30pm:

Make and prepare a pendant for binding. You can use any stone.

Stone of the Month: Field trip finds.

Committee

Wednesday 18 November 7.30 pm.

Meet at the clubrooms.

Collection Viewing Night

Wednesday 25 November at 6.00 pm

End of year gathering at the home of Graham and Pinny Hill, 120 Borell Road, Te Puna. Phone 552 4496.

Parking will be available in the paddock opposite the gate.

Please bring your drinks and choice of meat for the BBQ. Also bring a salad or dessert to share.

Field Trips

Sunday 29 November: Taupo for Obsidian – limited to 25 members only. Meet at Dunham Park, first on left as you enter Tokoroa by the Public Toilets. We will leave from there at 9.15am. Please bring a small gift for the farmer (e.g. produce) as we will be on private land.

NOTE: There will be an extra trip for Juniors and other members who miss out on the Taupo trip. **15 November:** Puriri. Meet in Paeroa just past McDonald's. We will leave there at 9.15am.

Contact me if you need to carpool and I can match you up. Graham Hill: 027 2566399 or 07 552 4496

Do check your email in case of any cancellation due to weather.

January 22 - 24 Field Trip: Retaruke

At Retaruke, there is a wide variety of shell fossils and other marine fossils.

Travel down on Friday with some fossicking in the afternoon. Saturday will be the main fossicking day, finishing with a shared meal and BBQ. On Sunday as we leave, we can checkout some other places that we will be driving past.

Accommodation is limited so if you are wanting a roof over your head, it will be on a first in - first served basis. Bedding will be needed, sheets, sleeping bags. etc. Plenty of places to tent or park up a campervan though.

Cost is \$20 a night per person.

If interested to book or wanting more details please contact Graham Hill: 027 2566399 / 07 552 4496
grahamsgardens@xtra.co.nz

Field Trip cancellations: TGMC takes the safety of its members seriously and has the right to cancel field trips in the event of severe weather warnings or other factors that prevent any trip from taking place. News about changes, postponements or cancellations to a proposed field trip will be advised via email and posted on the Facebook page as soon as possible.

Tauranga Gem & Mineral Club Show

30 April – 2 May 2021

(Last weekend of the school holidays)

TGMC Committee Members 2020 and other Club Officers		
President	Graeme Dewhurst	576 7874
Vice President	Carla van den Hout	552 5175
Treasurer	Naera Wilton	07 864876
Secretary Club Email	Carol Cunningham sec.tgmc@hotmail.com	578 1639
Membership		
Publicity	Bryce Cooper	027 6950606
Shop	Carla van den Hout	552 5175
Shop supplies	Olga Nicholson Bryce Cooper	575 2070
Field trips	Graham Hill	552 4496
Field trip assist.	Charlie Harris	021 0409332
Workshop	Bryce Cooper Raymond Schroder	576 3027
Museum display	Margaret Parker	576 2660
Facebook admin	Ian Mason Kristy Pawson	543 4951
Newsletter advertising	Steve Raynor	282 8126
Patron	Roger Eade	576 0117
Newsletter	Sue Millman	544 4878
Library/Museum	Marcel Authier John Clark	572 3034 022 0206812
Maintenance	Bryce Cooper	
Microscopes		
Silent Auction	Ian Mason	543 4951

New Zealand Events

21 - 22 November

Stone Carving For Beginners

The Artery - Art Learning Space, Historic Village with Rex O'Brien, Tickets cost \$295.

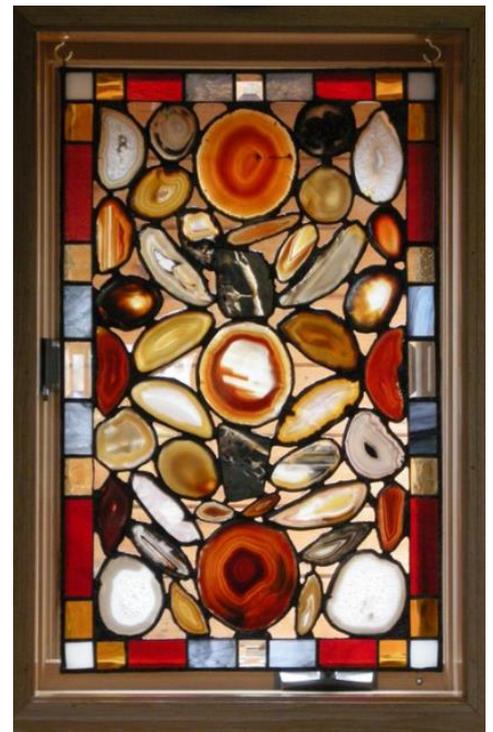
2021: National Show: Hosted by Mineral Club of Hutt Valley & Wellington, Lower Hutt

2021: 30 April – 2 May: Tauranga Gem & Mineral Club Show, Tauranga Racecourse, 1383 Cameron Road, Greerton.

2022 – National Show. To be hosted by the Canterbury Mineral & Lapidary Club.

Australian events

2-5 April, 2021, Gemboree, Tasmania
15 -19 April 2022 Gemboree Mudgee, NSW



Left: Stained glass cottage window

Right: Window by The Agate Lady, Karen Brzys.

October Field Trip to Waihi

A group of about 30 enthusiastic rock hounds, including a number of new members, enjoyed a Club outing to a farm on Woodlands Road, near Waihi, to search for obsidian. The obsidian was in the form of cobbles and boulders in the bed of the Waimata Stream, so most of us got wet! As it was a warm day, nobody seemed to mind.

The obsidian in this area is part of the Whitianga Volcanic series of rocks, and was erupted from a small Rhyolite Dome Volcano. The Geological age is late Miocene to Pliocene about 3-6 million years ago. During this period, the Coromandel Peninsula was a centre of intense volcanic activity, with a chain of volcanoes producing lava flows, ignimbrites and obsidian.

Obsidian is essentially Rhyolite lava, which has cooled too rapidly for crystals to form. This creates natural volcanic glass with a high silica content. The rock has different colours – brown, black or green- which relate to the different mineral content. Larger pieces of obsidian can show attractive colours when polished.

The obsidian at Waihi is black or grey in colour and has a high lustre on freshly broken surfaces. Some pieces were dark olive green with a waxy feel. The obsidian found here is commonly banded in different shades of grey and black, and has attractive patterns. A rarer variety found here has a reddish brown shade, known as “Mahogany Obsidian”.



One feature of obsidian is that it can be split to give very sharp edges. Because of this, it was used by Pre European Maori to make cutting tools where a razor sharp edge was needed. Obsidian is found on many Maori archaeological sites around New Zealand, and much of it was sourced from the Coromandel area. Obsidian is found in a number of places on the Coromandel Peninsula – Hahei, Whangamata, Tairua, and some offshore islands. Some locations show evidence of obsidian being used to make flake tools, including Waihi. This location was known to early Maori as a source of obsidian, because the Waimata Stream includes the Maori word for obsidian – “mata”.

Everyone who went on this field trip came back with interesting pieces of obsidian, and many sharp eyed junior members made some interesting finds. The field trips are of particular benefit to junior members, because this gives opportunities for more senior members to share their knowledge of rocks and geology with the younger people. This benefits everyone.

Thanks to Graham Hill for organizing an interesting trip.

Peter Nixon

Reference: “Obsidian Sources of the Coromandel Volcanic Zone, Northern New Zealand” P.R.Moore. Journal of the Royal Soc. of N.Z. January 2011.



Large piece of chert

October Field trip to Whangamata



Above: Floating rocks?

Below: Damon's jasper

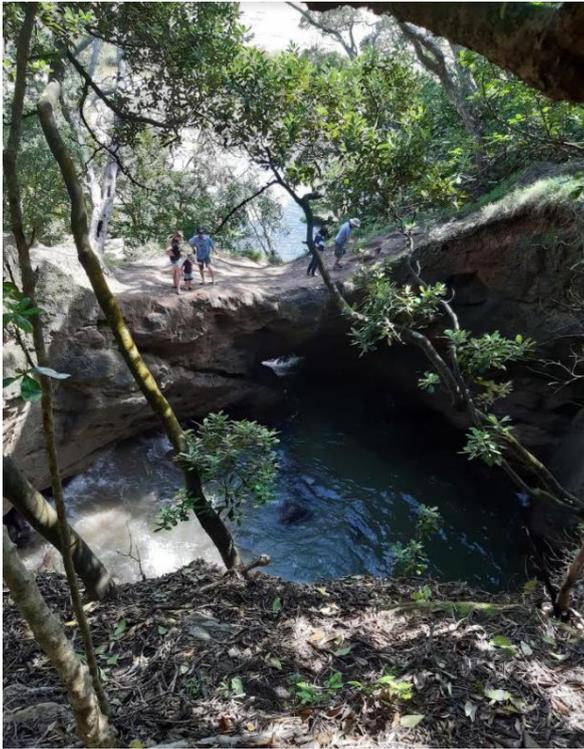
Our field trip held on Labour weekend Sunday, was fairly popular and the weather was perfect. The terrain from Waihi onwards is gold mining country and also where the not so valuable but interesting jaspers, chalcedony, chert, calcite, rhyolite and quartz rocks can be found.

At our destination near Whangamata, Graham and Charlie scouted the area and suggested several fossicking spots, so we headed off all in different directions. We were in a wide valley surrounded by forested hills, with a steep craggy volcanic bluff in the near distance. Several rocky streams meandered through the flat valley. Jasper was easy to spot beneath the surface, with its intense shades of red. Some of the rock finds were quartz with chert veins, quartz with rhyolite, jasper with chalcedony and a piece of layered quartz. Damon and Pinny carried huge pieces of yellow jasper and bright red jasper for some distance while others loaded up their backpacks. Richard found the rocks in his bucket would float but only when going in the same direction as the current.

There was so much rock to choose from that families with Juniors left early. Richard and I visited Whiritoa on the way home to see the blowhole at high tide.

By Sue Millman





Whiritoa Beach Blowhole

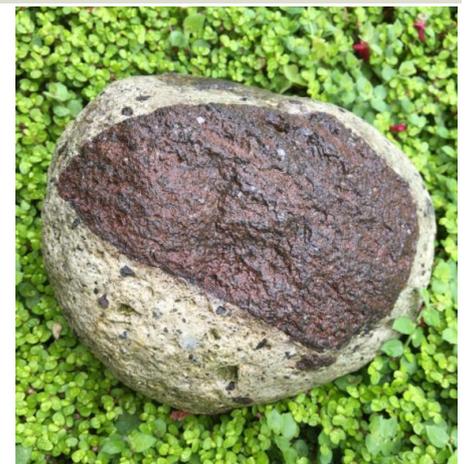
The blowhole has two entrances to the sea, the smaller one often throws up a rainbow coloured misty spray. On the landward side there is a short tunnel into a lagoon which is refreshed by the changing tides. The surrounding rock is pink dacite with a top layer of orange volcanic ash. Richard took these photos just after high tide. A good time to visit would be during an easterly storm when the mist rises above the blow hole. For more on this topic, look for Vanishing Volcanoes in our Club library.

Xenoliths

Xenolith is a fragment of foreign rock within an igneous rock. Foreign rocks in other rock types are usually known as inclusions. “Xenolith” means literally ‘foreign rock’, but some xenoliths are not entirely foreign to their hosts. They may be genetically related e.g. gabbro xenoliths in basalt. Such xenoliths are called cognate inclusions or autoliths. They are related because they both crystallized from the same magma. True unrelated xenoliths are always older than their host rocks because they had to already exist as a solid rock fragment when the magma around them solidified. Many xenoliths are carried up from the mantle. They are therefore very valuable to scientists because such xenoliths give clues about the composition of mantle beneath the crust



Left: Peridotite (green) mantle xenolith within a (dark) volcanic bomb from Vulkaneifel, Germany (one euro coin for scale).



Right: Volcanic xenolith in Andesite, Kauaeranga River, near Thames.

WANTED TO BUY or SELL

Wanted to buy:

Rory Smith is looking for a rock tumbler and sphere polisher to buy.
Contact Rory on 027 5905554 or rorydsmith7@gmail.com

Wanted to buy:

Collections of Minerals, Crystals and polished faces. Large or small, part or all.
Contact Greg 575 3851.

Wanted to buy:

Gold, silver, any old or unwanted jewellery made of gold or silver for scrap. Top scrap prices paid.
Contact Graeme on 07 577 1979 or 027 4496 960
email carver.petersen@xtra.co.nz

Wanted to buy:

Bob Vear is looking for NZ Fossils Ammonites and Trilobites or any interesting fossils. Location identified preferably. Contact Bob (07) 543 0660.

Wanted: Please drop off any surplus egg cartons at the shop for Ian Mason.



WANTED TO BUY

Collections of minerals
and crystals.
Lapidary material rough
and cut.

Phone Greg 07 574 0905

DIAMOND & Co

Custom Jewellery Design & Manufacture

155 Maunganui Rd,
MT MAUNGANUI
07 575 3851

diamondandco@xtra.co.nz • www.diamondandco.co.nz

Pegmatites

A pegmatite is an exceptionally coarse-grained plutonic igneous rock. Most pegmatites have a mineralogical composition of granite but composition has no defining importance here. Pegmatites may have any magmatic composition and contain a large number of unusual minerals. The main constituents of pegmatites are usually at least several centimetres in diameter or more. The average grain size is approximately 10 cm. Pegmatites may contain huge crystals of mica, beryl, tourmaline, etc. which may be several meters across. Pegmatites have an extreme variation in grain-size. The largest magmatic crystals found are many meters in length. Most pegmatites have a fairly simple composition: Potassium feldspar (either orthoclase or microcline) + quartz + some other minerals. Complex pegmatites commonly contain tourmaline, lepidolite, topaz, cassiterite, fluorite, beryl etc.

Pegmatites are not rare rocks, but their overall volume is small. They form small marginal parts of large magma intrusions known as batholiths. They form as a late-stage magmatic fluid starts to crystallize. This fluid is rich in water, other volatiles, and chemical elements incompatible in main magmatic minerals. This is the reason why pegmatites are so coarse-grained and why they contain so much unusual minerals. They are coarse-grained because of high volatile content which makes the magma less viscous and therefore enhances mineral growth (chemical elements are free to move and combine with a suitable and already existing crystal). Unusual minerals form because the fluid is enriched in exotic chemical elements like lithium, boron, beryllium, rare earth elements, etc. These elements are forced to form their own mineral phases because they are rejected by major rock-forming minerals like quartz, feldspar, and others. This wealth of minerals makes pegmatites often valuable as a mineral resource. Pegmatites may be mined because of their high content of feldspars, clay (if weathered), mica, or many metal-bearing minerals. Most pegmatites are granites with or without exotic minerals, but mafic pegmatites (gabbro, diorite) are known as well. Silica undersaturated (without quartz) magmatic rocks may also be pegmatitic.

<https://www.sandatlas.org/pegmatite/>



Tourmaline pegmatite. Tourmaline is black, white is plagioclase, gray is quartz. Haapaluoma, Finland. Width of sample 15 cm.



Spessartine (Mn-garnet), sodic plagioclase, and muscovite in pegmatite. Width of sample 10 cm.

Bay of Plenty's largest independent tyre company for all your tyre needs including..

- new tyres
- budget tyres
- wheel alignment
- suspension and steering
- workshop
- mag wheels
- batteries

TYREMASTER

0800 TYREMASTER

www.tyremaster.co.nz

TAURANGA	cnr elizabeth & glasgow sts (OPEN 7 DAYS)
MOUNT	37 heulettts road. (beside the flyover)
GREERTON	1231 cameron rd (next to super liquor)
FRASER COVE	corner of fraser & brook streets
OTUMOETAU	95 ngatal road (near the otumoetai golf club)