

THE CMLC NEWS

The Canterbury Mineral & Lapidary Club Inc.
Newsletter for May 2022



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Facebook: Canterbury Mineral and Lapidary Club
Meeting Venue & Clubrooms: 110 Waltham Road, Waltham, Christchurch 7:30 pm on the second Thursday of the month [Feb. to Nov.]

General Meeting (7.30pm): May 12, June 9
Committee Meeting (7.30 pm): May 19, June 16
Show Committee Meeting (6.30 pm): May 19, June 16
Micro Mineral Meeting: Tuesday evenings (7 pm)
Workshops: Every Tuesday evenings, 6.30 p.m.

The May Meeting: Our speaker will be Kate Pedley from the University. She will be talking about geology and photography.

Kitchen Duty for the May Meeting: Put the tea and coffee and cups out on the counter, do the dishes, and make sure the kitchen and toilet areas are tidy and clean at the end of the meeting. Thanks. **Malcolm Luxton Jean Penrice, Scott Pierce, Graham and Dianne Poskitt Graham & Dianne Ron Poskitt & Rosalie Clarke, Frank Pugh, Tamara Rookes**

Auction at the April Meeting: Material from Vince Burke

Field Trip: 21 May to Motunau. This is a week later than usual as it is tide dependent. Meet at the Belfast Hotel at 9 a.m. The trip leader is John Taylor.

Subscriptions: Reminder: Subscriptions for 2022—2023 are now due, and must be paid by 31 May to take advantage of the rebate. There will

be an eftpos machine at the May meeting for those who have forgotten or cannot do online banking.

Monthly Competitions for May

Lapidary:.....Any polished item you made this year.(2021-22)

Fossil.....Any fossil you collected this financial year.

Mineral:.....Bring your favourite mineral and tell us why you like it.

Alphabet Cup:.....XYZ

Recent Find:..... From the last Whitecliffs club trip

Bring and Brag.....Be prepared to talk about it

Monthly Competitions for April results

Lapidary, from High Peaks forest.....1st,John Taylor, 2nd Craig McGregor

Fossil, Fern,1st John Taylor, 2nd David McDonald, 3rd Craig McGregor, 4th Errol Hitt.

Mineral, Baryte ...1st David McDonald

Alphabet, UVW ... 1st Craig McGregor.

Bring and brag, ... 1st Craig McGregor

The National Show and Competitions (14-16 October at Riccarton Park): A brief one-page summary of the **COMPETITION CLASSES** is available on our club website. Please have a look at it and decide what you could enter, then forward the entry form to David Macdonald (email address is on the entry form)

The show **FOSSICKING TRAILER:** Please keep all your unwanted rocks and off-cuts so we can have a great fossicking trailer for the public at our show. Even gather up those unwanted rocks in the garden.

Donated **RAFFLE PRIZES** are very much needed for the show. These can be brought to Val Lear any time from now on.

Lots of **DISPLAYS** are needed. John Taylor is coordinating these. Please give your name to him, and let him know how many displays you can do. Even a general display from your own collection would be much appreciated by the public.

And finally: **PEOPLE POWER.** We will need lots of our club members to volunteer for the various jobs that need doing. Most critical will be the setup on the Thursday (13 October) from 8 am and the breakdown on the Sunday from 4 pm. We need lots of people for these times. Val Lear is developing a roster of jobs. Please see her and let her know when you

will be available.

New Club Members: Please make welcome these new club members: Jay Johnston , Andy Owen, Sam Holt, Layla & Aaliyah.

The Old Club Show Cases: The committee have decided to keep the old show cases until at least after the National Show, and then make a decision as to what to do with them. It would be great if someone who has a large storage shed, and a means to get them there could offer to store them in the meantime.

In View of the very interesting talk by Morne Wium at our April meeting, here is an article submitted by Chris Wright.

3D rendering brings rocks to life at Thames

A collection of three-dimensional virtual replicas from the world-renowned collection goes online at the Thames School of Mines.

WORDS: John O'Hare..... IMAGES: Vanessa Coca-Smith

Auckland University of Technology Master of Science student, Vanessa Coca-Smith, has been working on a project to digitise 30 rare rock and mineral specimens via photogrammetry, making them publicly available on-line and accessible to people around the world.

"The collection at the Thames School of Mines is highly valuable - both scientifically and historically, and the school itself demonstrates the strong connection between geology and society," says Vanessa.

Many of the existing materials were collected and used as educational tools when the School was operational in the 1900s, and some even earlier. "The School presents the progression of educational, technological and scientific advances in the 19th and 20th centuries which is something I hope to continue into the 21st century with this research," she explains. Photogrammetry involves taking a series of overlapping images which are then stitched together using software designed for the task, producing a 3D rendering of the scanned object - complete with colours and textures captured in the images.

The 3D images have been uploaded to the open-source website Sketchfab, allowing for a new form of cataloguing and the ability to share the collection virtually.

The painstaking process of capturing the images involved setting up a purpose- designed temporary studio within the School. It also involved, surprisingly, a cake turntable. Each item was placed on the turntable and rotated at 10° intervals, then photographed to manually capture the images via Bluetooth connection to Vanessa's phone.

"Nothing can replace the real deal, but with many specimens being very fragile - like epsomite which has tiny fibrous crystals formed by the evaporation of mineral water - these images allow the minerals to be 'handled' without causing degradation," she says.

"They also allow people to look at the minerals from different angles and to zoom in to identify features that may not be clear when they're on display. In years to come, the images of the specimens could even be linked to 3D mine cross sections and maps." As well as close details, the collection also tells a big-picture story. "It's a beautiful story," Vanessa says, explaining how the rocks inform us of the knowledge of the first iwi and their relationship to the whenua; as well as the Pakeha settlers who came from a global gold rush to settle in the Coromandel and make Thames, briefly, bigger than Auckland.

"It also tells the story of how mining helped New Zealand gain its wealth for nation building - as well as the stories of women and men who made the mines and settlements possible. In more recent times it's also about how the School educated miners and the wider community, and how today it is the guardian and custodian of these natural treasures," she explains.

The specimens are part of the rich geoh heritage of the area, linked to its over 50 epithermal gold deposits as part of the Coromandel Volcanic Zone. Going forward, the Thames School of Mines will continue to feature in Vanessa's Masters project, incorporating both geological science and social history. "My research aims to establish links between local geology and mineral samples to specific mines and the stories that emanate from them, looking further into the connections with tangata whenua and women - two historically under- represented groups," she says.

To view the collection, visit: sketchfab.com/wzs1518/collections/thames-school-of-mines

Her research will also look at developing strategies for public outreach to create an accessible museum experience while also disseminating and integrating the photogrammetric models in ways that can enable them to be used as an educational tool. Vanessa is particularly keen to look at links between rock specimens and the mine locations they came from - and from there, the families who supported the miners, the relationship between iwi and Pakeha settlers, the wealth mining generated - and how it shaped modern New Zealand.

New Zealand Heritage Aut 2022



TOP RIGHT: Augmented reality of barite levitating overhand.

ABOVE RIGHT: An image detailing the photographic sequencing of individual images that are then `stitched' together to form a 3D scan.

ABOVE LEFT: Vanessa Coca-Smith.



New Zealand National Gem Show 2022

**GEMS, CRYSTALS,
FOSSILS AND MINERALS**

WHEN: 14,15,16TH OCTOBER 2022

**WHERE: RICCARTON PARK
RACECOURSE ROAD**

**ADMISSION: ADULTS \$5
CHILDREN \$2
UNDER 5'S FREE**



**PROUDLY HOSTED BY
CANTERBURY MINERAL AND LAPIDARY CLUB
WWW.CMLCLUB.ORG.NZ**

From: <https://mnch.uoregon.edu/rocks-and-minerals-everyday-uses>

We use things made from rocks and minerals every day. It is estimated that every person in the United States will use more than three million pounds of rocks, minerals and metals during their lifetime.

900 pounds of lead

700 pounds of zinc

1,300 pounds of copper

3,600 pounds of bauxite (aluminum)

30,000 pounds of ore

20,000 pounds of clay

28,000 pounds of salt

1,500,000 pounds of stone, sand, and gravel

6,500 pounds of cement

82,000 gallons of petroleum.

As each of us use the Earth's natural resources on a human time scale, it is important to consider that mineral resources form on geologic timescales, and the vast difference between the two. The items in this case are just a few of the ways that we use rocks and minerals in our everyday lives.

HETTIE'S ROCK & CRYSTAL SHOP

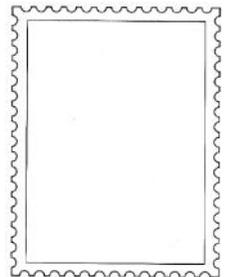
Birdwood Ave, Beckenham, Christchurch.

Also: Akaroa and Queenstown





Sender CMLC, 24 O'Briens Rd, Sockburn, Christchurch 8042.



«Field1»
«Field2»
«Field3»
«Field4»
«Field5»