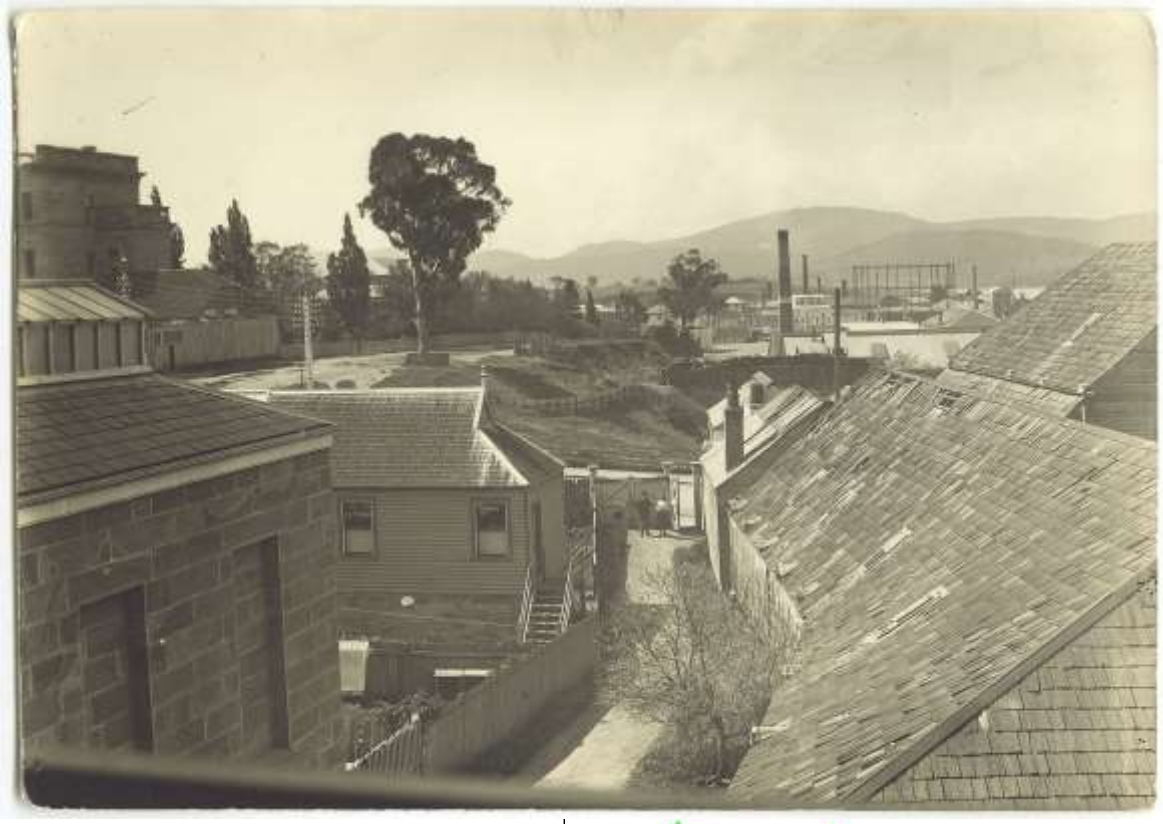


# The Tasmanian Geologist

## May 2022

***Meetings in 2022: put them in your diary***

***23rd of June AGM*** *and Tsunami Hazards in Tasmania Claire Kain*

***21st of July TBA***

***14th of August-*** *Launceston Joint Meeting with the RST N Branch, Dr. Peter McGoldrick 'Tasmania's oldest fossil'*

***1st of Dec: Tasmanian Geoscience Forum*** *Tullah Lodge.*

**NEXT MEETING:**
**Joint meeting with RST**

## Sunday 15th May 3:00 PM

**Speaker**
## Tony Webster

## Geology, landscape and European settlement: small things meant a lot

Geology Lecture Theatre,
University of Tasmania
**If you are attending, bring your mask**

## NEXT MEETING:
## Tony Webster will present 'Geology, landscape and European settlement: little things meant a lot.'

Historical accounts of the first European responses to Australian landscapes rarely mention the ways that their decisions were influenced by the terrain. This talk is about the role that geology and landscape played in the places chosen for permanent European settlements in Australia, and in the earliest land-use choices made as they adapted to their new environments. The most historically significant sites of first European settlement are now occupied by the modern central business districts of Australia's largest cities and are now intensely urbanised and modified landscapes. Using examples from Hobart, Sydney, Melbourne, and Perth, it will be shown that despite the intensity of two centuries of urban development and landscape modification, the geology and pre-European landscapes of these places had a profound influence on their early development. It will also be shown that the effects of the original land-forms remain deeply embedded in the modern urban landscapes.

*Elizabeth St Pier in the foreground, with high rise 10 Murray St directly behind. Hill St rises in the background traversing West Hobart south (left) to north (right).This was the view 10 years ago, (Damien Ramon Naidoo).*

**Dr Anthony Webster**

Tony is a Hobart-based consulting geologist working with GeoDiscovery Group Ltd. He has spent over 30 years in the mining industry, academia and government, working in and around several historically significant base metal and gold mines, including Broken Hill and Kalgoorlie, Zeehan, Mount Farrell, and Rosebery (Hercules). Tony started his career as an underground mine geologist on the Golden Mile (Fimiston) but has since worked in a variety of roles, including mining heritage, environmental regulation and research roles in Tasmania and Queensland. Tony has particular skills in structural geology, historic data compilation and analysis, and the geological interpretation of complex mineralised systems.

Tony is also an honorary senior fellow of both the University of Tasmania and the University of Queensland. He was formerly Chair of the Queensland Division, Geological Society of Australia and an Associate Editor of the Australian Journal of Earth Sciences

**Register in ADVANCE: Click below (note this will take you to the RST website to register)**

Register here for livestream

After registering, you will receive a confirmation email containing information about joining the webinar.

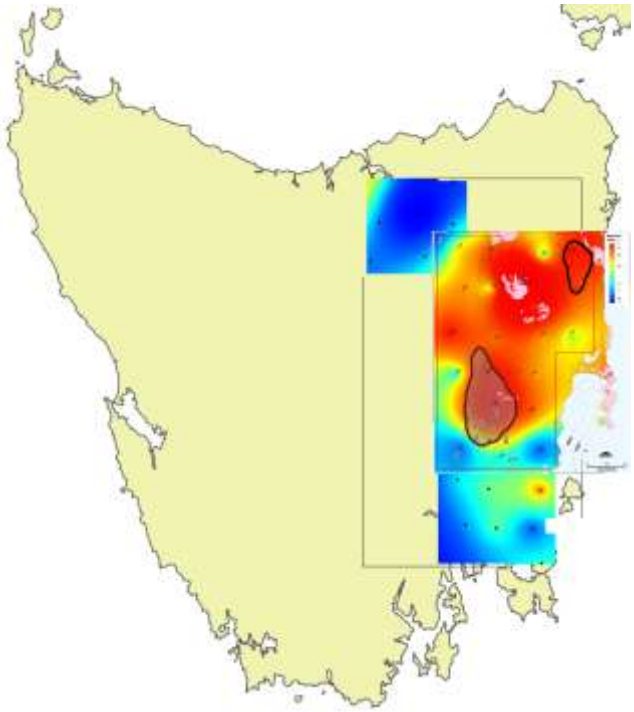
**PREVIOUS MEETINGS**

**April 28th John Bishop presented 'Getting warmer: The search for geothermal resources in Tasmania' in a joint meeting of Tas Div GSA and the local ASEG. For the ASEG this was the first talk in their series of seminars/webinars on Energy Transition.**

It was an auspicious start to the Energy Transition seminar series for the ASEG in Hobart in a joint meeting with our local GSA. 30 people attended in person and there were about 40 people across Tasmania and Australia online. John Bishop provided some background on geothermal energy and how both flow as well as heat output were needed to make a viable geothermal energy powerplant. He then went on to discuss the process of finding a potential target in Tasmania. The Tamar Fracture zone seemed like an attractive target for through flow but proved to be cooler than expected for heat flow and not considered a likely candidate for geothermal energy production. A blanket covering to insulate any hot granites was modelled as important so areas where granites high in K, U and Th, buried by the Tasmania Basin could be prospective. Heatflows in drillholes for petroleum exploration were measured across the Tasmania Basin. From this work, two prospective areas were delineated: one are Lemont in the midlands and another near Fingal.

Further investigation using passive seismic and other techniques delineated several major fault structures that intersect to provide fluid pathways from a deep granite at Lemont. Surface granites nearby are high in radioactive elements and in general the NE Tasmanian granites are also elevated in lithium.

Although all the transmission grid infrastructure is present in the area it has been difficult to generate interest in investment in geothermal energy in Tasmanian because of the already considerable renewable energy resources of the state.



The presence of lithium may add a sweetener to the projects Lithium recovery from deep brines could see enough investment potential to allow deep drilling in the future to test these models. My personal favorite sideline mentioned by John are hot spa resorts. That could keep the winter blues at bay.

Thanks for the talk was given by Matt Cracknell and a bottle of red wine was presented to John by Tom Ostersen.

*Tom Ostersen (left) presents John Bishop (right) with speakers' wine at the end of the meeting (Photo K. Orth)*

Thank you to Mark Duffett for organisational help and Matt Cracknell for running the meeting.

**March 29th International Women's Day special presentation: by Lila Landowski Women in STEMM and the neuroscience of key challenges women face in leadership.**

At our March meeting, Dr Lila Landowski presented a fantastic talk on Women in STEMM and the neuroscience of key challenges women can face in leadership. Lila is a neuroscientist with the UTAS School of Medicine and is a passionate and talented science communicator. Her research focuses on therapeutic development for nerve injury, stroke and fatigue. In her talk, Lila shared some fascinating and useful insights about how our brains learn, respond to stressors and change as we age. Previously, it was thought that our brain cells were a finite resource, but recent neuroscientific research has shown that our brain is constantly changing and we can help stimulate neuron growth and focus through simple lifestyle measures like exercise, sleep health, stress management and connecting (in person!) with others. Research has also shown that there are some common and sometimes unconscious biases in the scientific workplace, particularly around expectations for parenting and leadership roles. Although the percentages of men and women in geoscience is somewhat even at university, that commonly drops off when considering the relative proportions in higher level positions. Lila also raised some pertinent differences in experiences for men and women (e.g. bathroom breaks in the field for geologists), and people of different ages or abilities, that highlighted perspectives and issues that are not always seen or understood from the other side. As always, compassion and consideration of others' perspectives makes for a better workplace, and we would like to thank Lila for her insightful and thought-provoking talk.
Claire Kain

Well done Indrani for organising this presentation.

**Cygnet Field Trip Saturday, 30th April 2021**

Twenty-one people come on the Cygnet field trip. John and I were very ably assisted by Ralph Bottrill and John Everard and Mike Vicary was also there. Michael Roach drove the bus. We couldn't have done it without them. And the landowners were amazingly supportive (thanks Claire, Jane, Sam and Ben). Alas, the tides were not so kind to us at the second last stop - site of the famous 'swirling sanidines'! John and I learnt a lot about the geology of Cygnet by doing this and we hope that other people might be inspired to organise field trips of their own to places they want to know more about.

The weather was generally kind to us (and often sparkling), and the landscape was just a pleasure to be in.

Tony Webster


*Cygnet Field Trip group. Photo by Hana Jones, provided by T. Webster*

*Geologists on a pile of sandstone rocks near the No 2 Pit of the Mt Cygnet Coal Mine. Image from T. Webster.*

**Farewell Indrani**

Indrani Mukherjee our Inclusion, Equity and Diversity Officer has been working hard to provide the local GSA with speakers, showcasing other viewpoints and highlighting issues faced by some of our members*. Talks by Patrick Nunn (September), Melanie Finch (March 2022) and Lila Landsowski (March 2022 see earlier summary) were organized by Indrani. As well as her special role, Indrani has been an active committee member, helping with all manner of tasks from big to small, including liaising with GSA Federal for broader reach audiences, technical organization of zoom livestream of meetings and shopping and chopping nibbles as needed. She is leaving us to go to Canada to a postdoctoral position at the University of Toronto. We will miss her enthusiasm and her warm and dynamic personality. We wish her all the best in her career and hope she will livestream into some meetings if time and time zones permit.

***No problem hey?**

Have a look at this evidence-based paper
https://research-management.mq.edu.au/ws/portalfiles/portal/134802834/132981063.pdf
and/or
this video by Melanie Finch, who gave a similar presentation to us earlier in the year
https://melaniefinch.net/presentations/

**Vale Russell Shaw**

It is with sadness that we mark the passing of Russell Shaw on March 21st in Devonport. Russell was known to many in the Tasmanian geoscience community through his membership and engagement with the local division of the GSA and as an honorary researcher at the University of Tasmania.

Russell undertook his geology degree at the University of Sydney where he graduated with Honours in 1964. By this time, he was already a cadet with the Bureau of Mineral Resources. The young Russell was sent to Alice Springs and worked there on groundwater, petroleum and mineral resources and geological mapping in the 1960s. In 1969, when the Commonwealth handed government of the Northern Territory to an elected Assembly, Russell was transferred to Canberra. However, this was not the end of Russell's association with the Northern Territory. He spent many field seasons mapping across central Australia and the Tanami area. The accommodation was tent encampments, full of BMR geoscientists and sometimes their families as well as geology PhD students and their professors from around Australia. Russell also worked in Western Australia on the Canning Basin and the Kimberley area. He also used both his geology and geophysics skills on broader Australia-wide maps including the Australian Metamorphic Map and Crustal Elements maps. His tramping the outback resulted in many single author and co-authored maps and accompanying explanatory notes, reports as well as scientific papers.

*Russell near Mt Murchison. Photo provided by A. Walley*.

After retiring from his Federal Government geologist position in Canberra, Russell headed south to settle in Devonport in Tasmania. This was the start of many adventures in a green and

wet landscape, in stark contrast to those semi desert to desert areas he encountered during his working life. A full obituary will be presented in TAG in a coming edition. We extend our condolences to Anne his partner on many Tasmanian bushwalks and his companion at many Tasmanian GSA meetings.

*Based on obituary by Alastair Stewart, Lynton Jaques, John Casey and Nick Direen*

**Renew your GSA Membership for 2022**

Renew your membership here

Any queries about your membership contact Tim Holland at GSA tim.holland@gsa.org.au or our local membership officer Rebecca Carey (Rebecca.Carey@utas.edu.au)

**STUDENTS**

The haaaarrrrd work for this semester is mounting. Maybe you can come along or livestream this Sunday's talk for a bit of light geological relief from your studies.

We would love to see you there!

**Honours, Masters or PhD students**

Endowment Fund
THE GEOLOGICAL SOCIETY OF AUSTRALIA

We hope that you have taken the opportunity to apply for the **$1000 grants** available for at least one Honours or Masters students in Tasmania in 2022 and the one national grant up to **$5000** available for PhD students. Applications are now **CLOSED** and we await the decision on who has been awarded the grant funding.

Olivia Wilson won this scholarship which helped her with her Honours in 2020. Despite the lockdowns of that year, she eventually managed to get into the field to spend her money. Olivia is now employed by Entura in Hobart. She was an undergraduate member of the GSA and here is her testament to how it can be helpful for your future.

'Being a student member of the Geological Society of Australia enriched my experience of studying geology. Especially important to me were the opportunities to make connections and learn about the research of other society members. As a student, it is also invaluable to have an environment in which you can interact with geoscientists from all career stages – hearing their experiences allows you to develop your own career aspirations. GSA membership also demonstrates that you have a level of passion and commitment to your field beyond the compulsory courses in your degree, helping your resume stand out as you transition to professional life.'

*Olivia Wilson (supplied by O. Wilson)*

You can become a member here https://www.gsa.org.au/

Remember it's Time to Renew you GSA Membership

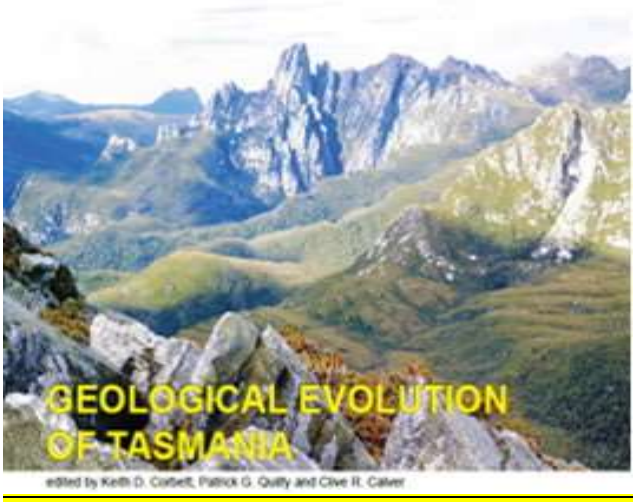
Any queries about your membership contact our membership officer Rebecca Carey (Rebecca.Carey@utas.edu.au).

**Undergraduate Student Members**
**Special price on the**
**Geological Evolution of Tasmania!**

**Become a GSA Member and you can obtain 'The Geological Evolution of Tasmania' for $75 including GST.**

Students Join Here

Once you have completed your membership please contact Caroline Mordant for your special price book. See details below




The flagship publication of the Tasmanian Division of the GSA, 'The Geological Evolution of Tasmania' (Special Publication 24 of the GSA) is available for ordering. All details are available on a specific part of the Utas CODES web site: http://www.utas.edu.au/__data/assets/pdf_file/0003/55313/Flyer_Order.pdf

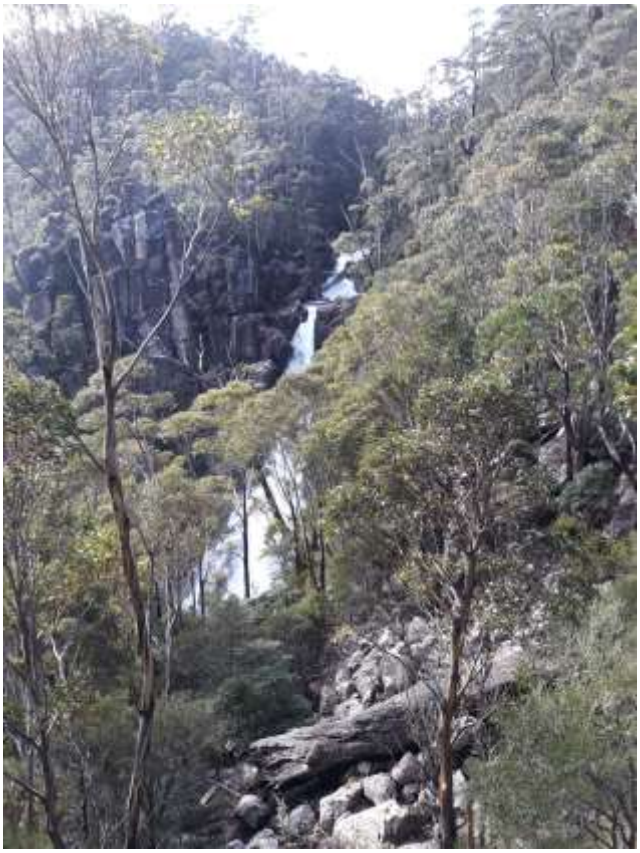
Copies of the book can be obtained personally from Caroline Mordant (publications@CODES.utas.edu.au or phone on +61 3 6226 7537.

Members Price is A$90 + GST + postage where appropriate. Undergraduate student price is $75. Postage can be avoided by buying in person from Caroline Mordant in Earth Sciences (University of Tasmania). The book is also available at Fullers Bookshop and at TMAG in Hobart, and in the Devonport Bookshop, Devonport. Prices at these sites may vary from GSA prices, and the member price is not available at these sites either.

**Interesting Events, Books and Meetings**

CODES Shortcourse dates available at https://www.utas.edu.au/codes

**September date TBA** One day online AIG Workshop 'The Project Geologists Toolkit' For more information contact Jane Capp jane@omipl.com.au



*So much water so close to home! Welliington Falls were roaring this weekend after 150 mm of rain fell on kunanyi/MtWellington between Thursday night and Sunday. Hope you were all warm and snug and did not experience any flooding. Photo by K. Orth.*

## Final Words

*From Noel Kemp*


## The next meeting will start with our Annual General Meeting.

Please come along and hear what we have been doing in 2021-2022. We will also be electing our 2022-2023 committee and office bearers. See nomination forms attached at the end of the newsletter for application.

## GSA Tasmania Division Committee

**Chair: Dr Karin Orth**
**Vice Chair: Dr Matthew Ferguson**
**Secretary: Grace Cumming**
**Grace.Cumming@stategrowth.tas.gov.au**
**Treasurer: Dr Andrew McNeill**

**Committee Members:**

Sheree Armistead
Rebecca Carey (Membership)
Acacia Clark (Student Rep)
Jacqueline Halpin
Claire Kain (Geotourism)
Peter McGoldrick
Sebastien Meffre
Indrani Mukherjee (IED)
Phil Sansom (Education)

### Geological Society of Australia website:

**www.gsa.org**

and our own website

**http://www.gsatasmania.org**

Any news, announcements or interesting photographs of Tasmanian Geology you would like to include in the next Newsletter, please send it through via email to karin.orth@utas.edu.au prior to the 15th of June 2022

# GEOLOGIZE

# NOW FREE FOR GSA MEMBERS

*Do you want to strengthen your geoscience communication skills? Maybe you want to educate a non-specialist audience about why geoscience is important.*

*If you do, take advantage of the GSA members-only license to Geologize's critically acclaimed course* ***Practical Geocommunication*** *for 2022 for* ***FREE!***

*Geologize is a global leader in providing training to geoscientists who wish to communicate more effectively with their audience.*

*Geologize teaches geoscientists to bring the public to a greater understanding and appreciation of our planet through effective and powerful communication.*

*When you complete* ***Practical Geocommunication****, you will receive an accredited CPD-valid certificate.*

### What do you need to do next?

*Contact the GSA:* ***info@gsa.org.au*** *to get your code to this GSA-funded initiative.*

*"Passion. Education. Sustainability.*

*We believe that if people understand how the planet works, they will appreciate and care about it more. Geologize seeks to create and facilitate the creation of tangible and emotional connections between the general public and the world in which they live." Haydon Mort, Geologize.*

GEOLOGICAL SOCIETY OF AUSTRALIA Incorporated

GEOLOGIZE

**To nominate to be on the committee or for a position as office bearer (Chair, Vice-chair, Treasurer, Secretary) please bring these forms filled in by the nominee and two local GSA members to the AGM or lodge with grace.cumming@stategrowth.tas.gov.au prior**

*Note all positions are voluntary and require a level of commitment (hence the word committee).*

**2022-2023**

**I hereby nominate …….. for the position of ……**

**…….** **…….(nominator)**

(print name) (signed)

**……..** **…….(seconder)**

(print name) (signed)

**I accept nomination ……. (nominee)**

**2022-2023**

**I hereby nominate …….. for the position of ……**

**…….** **…….(nominator)**

(print name) (signed)

**……..** **…….(seconder)**

(print name) (signed)

**I accept nomination ……. (nominee)**