

The Tasmanian Geologist

March 2023



NEXT MEETING:

**Thursday 30th
March
6PM**

**Florentine Reflections
– a review of a 45-year long
rocky relationship.**

Phil Sansom and Clive Calver

Save the date:

*15th of April Saturday Autumn Field Trip:
Florentine Ramblings*

*27th of April Thursday 6 PM Meet the four new
CODES postdoctoral fellows who will each
provide a short presentation.*

*18th of May Thursday 6 PM Dr Katharina
Hochmuth (ACEAS). "From rainforests to
icesheets – a brief history of Antarctica and the
Southern Ocean".*

22nd of June Thursday 6 PM AGM

Earth Science Lecture Theatre
University of Tasmania

Join us for drinks and nibbles available from
5:30 PM

NEXT MEETING:

Clive Calver and Phil Sansom have been looking at rocks and fossils of the Florentine Valley for a long time. Come along to hear about their findings as a prelude to the autumn field trip they will lead in mid-April.

Florentine Reflections – a review of a 45-year long rocky relationship

The talk will briefly review the sedimentology, biostratigraphy and history of research on the Early Ordovician – Silurian sedimentary sequence in the Florentine Valley area where rocks of the Denison, Gordon and Tiger Range Groups crop out.

A conformable sequence of latest Cambrian to Early Ordovician clastic rocks belonging to the Denison Group includes the locally richly fossiliferous Florentine Valley Formation where graptolites and a starfish fossil of international significance have been recovered.

The largely carbonate Gordon Group rocks that dominate in the Florentine Valley are an extraordinarily thick (1.5 km) and complete succession of Middle-Late Ordovician limestone and minor siliclastics, representing a muddy warm-water carbonate platform system deposited at low northern paleolatitudes. Elsewhere in Tasmania, these carbonates are thinner (they onlap basement highs, or in part pass laterally into siliclastics). Deposition within the Gordon Group commenced with the Karmberg Limestone, an impure fine-grained dark limestone with chert nodules in places, representing a relatively deep (sub wavebase) environment. The Cashions Creek Limestone is a massive calcarenite or calcisiltite distinguished by the presence of large oncolites, probably representing an offshore bar or platform-edge environment. The Benjamin Limestone is a variable mosaic of lithofacies representative of a peritidal carbonate platform. In much of the sequence,

parasequences can be distinguished that repeatedly built up to intertidal-supratidal environments. The Benjamin Limestone grades up into siltstone-sandstone of the Arndell Sandstone.

The rocks of the Gordon Group often present an unfossiliferous aspect, but diverse marine assemblages are locally abundant at certain horizons. The fossils indicate a Chewtonian-Eastonian (late Early Ordovician – Late Ordovician) age for the limestones, and a late Ordovician to earliest Silurian age for the Arndell Sandstone.

Overlying the Gordon Group rocks are siliclastics of the Tiger Range Group ranging in age from Early Silurian to early Devonian. Shallow water, possibly tidal flats, has been postulated as the main depositional environment although somewhat deeper water is indicated for the Richea Siltstone where fossiliferous horizons are locally abundant.

Some ideas for future research on these rocks will be presented. A range of representative fossils will be available for attendees to view.



Limestone with fossils, Florentine Valley (Photo C. Calver).

Clive Calver



Clive Calver graduated in 1977 with an Honours project on the Ordovician limestone of the Florentine

Valley, at a time when these rocks were a significant focus of research at the Geology Department, UTAS. Most of his working life was spent at MRT (and its predecessor organisations), heavily involved in geological mapping in a variety of terrains. A PhD (Ediacaran chemostratigraphy) was accrued somewhere along the way. Clive maintains a keen interest in various aspects of stratigraphy and geochronology.

Phil Sansom



As a 10-year-old Philip Sansom started hunting fossils at his family's shack near National Park. This was the start

of an interest in palaeontology and geology that eventually led to him graduating from the University of Tasmania with a BSc(Hons) in 1978. Philip worked as a geologist in coal, petroleum, and gold exploration until 1986 when he was asked to take on a short-term contract teaching geology to Year 11 and 12 students. Thirty years later he retired from a teaching career as a secondary school science and maths teacher. "Once a geologist always a geologist" is Philip's motto and weekends and school holidays frequently found him in the field chipping away at outcrops as he attempted to bag the prize brachiopod, trilobite, or Triassic vertebrate. When he was able to convince school principals that students learning would be enhanced by a day in the field experiencing some "real" geology, he had a ready source of labour for the next outcrop to be "examined". Fossils were identified, catalogued, and displayed in the "Fossil Shed" that eventually had to be constructed at his Fern Tree residence.

Tasmanian Palaeozoic fossils dominate his collection and of course the clastic and carbonate rocks of the Florentine Valley area have been a favourite fossil hunting ground over the years. Perhaps Philip's most significant find has been the Early Ordovician (Tremadocian) *Maydena roadsidensis* gen. et sp. nov- the world's oldest known asterozoan (starfish).

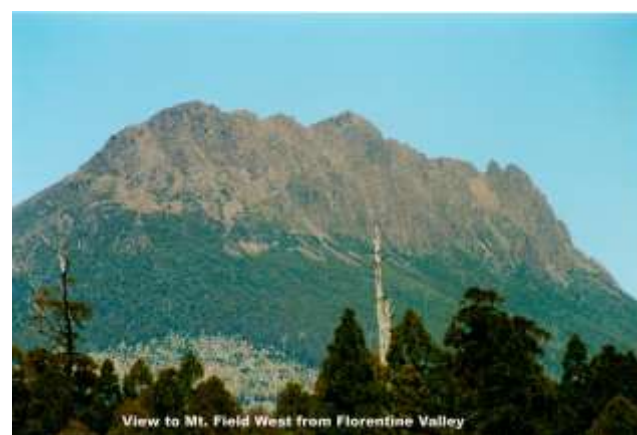
Philip frequently presents workshops on geology topics at state and national science teacher conferences and as Tasmanian Co-ordinator for the Teacher Earth Science Education Programme has up-skilled teachers in Earth Science across the country.

If you cannot make it in-person you can zoom in on the evening using the link below:



Field Trip Autumn Saturday, 15th April 2023 Florentine Ramblings

One day field trip to the Florentine Valley to explore the geology and geobiology led by Phil Sansom and Clive Calver. They will give the prelude to this trip in a presentation on the 30th of March so come along to hear about what we might find.



To register please contact Phil Sansom on geoedtas@inet.net.au

PREVIOUS MEETINGS

Sunday 26th of December GSA-AIG Welcome back picnic at Legacy Park Bake Ovens

The weather was a bit cloudy but the rain held off for our welcome back picnic on the Domain at Legacy Park. It was great to see families come and enjoy the morning. Young and old were kept amused. There was a large playground for the children to explore while parents got the pizzas organized. We were fortunate to have the team from the Hobart City Council stoke the fires for the ovens (at 2 AM because of Total Fire Ban the day before) and cook all our food. Pizzas were the most popular and took only minutes to cook. I made some scones which disappeared very fast and were delicious hot from the oven and I took home a perfect roast and lots of good tips for baking. The children cut out and decorated dinosaur biscuits of various thicknesses. These were yummy and like all dinosaurs before them, they became extinct.



Preparing dinosaur biscuits (Photo P. McGoldrick).



GSA and AIG members and families enjoying the picnic, Legacy Park Bake Ovens (Photo P. McGoldrick)

Saturday and Sunday 18-19th of March Hobart Gem, Mineral and Fossil Show

The Hobart annual Gem, Mineral and Fossil show was in full swing over the last weekend, with nearly 2000 people passing through the hall (in the old K&D building). There was lots of interest in geology and mineralogy, with \$2600 worth of geology maps and books sold on the MRT stall. There were lots of interesting things to see, including someone with a mohawk and backpack full of what he swore were dinosaur bones but looked remarkably like dolerite and sandstone! Now for the Devonport Gem show this weekend!

Ralph Bottrill

Obituaries

It is with sadness that we mark the deaths of two long serving members of our Tasmania Division of the GSA. Dr Jan Van Moort passed away in January and Anthony (Tony) Hope passed away late in March.

Some members of the Tasmanian Geoscience community reflect on the contributions and lives of Jan and Tony.

Dr Jan Cent van Moort

(1933-2023)



Photo provided by C. Allen

Dr Jan van Moort was born in Haren, the Netherlands. He studied geology at Utrecht, starting in 1951, and graduating with a Doctorate in “Mathematics and Natural Sciences” on the geology and

geochemistry a French granite (February 1965). After a winter in the Northern Territory, Jan came to Tasmania and took up a lecturing position in Hobart in November 1965.

Jan joined the Tasmanian Division of the Geological Society of Australia in 1966. He was a member for 57 years. He attended the first AGC in Adelaide in 1975, and most of the other AGC’s through the 70’s and 80’s. He was active within the Specialist Group in Geochemistry and Mineralogy (SGGM) through the 70’s and chaired the specialist group from 1981 to 1983. Within the Tasmanian Division. Jan was chairmen in 1981, He also was convener of the second Tasmanian Division symposium (Coal, tin, surficial deposits and geology of NE Tasmania) in Launceston in 1980. Jan always liked a good argument and was active in many geological discussions with other members of the GSA over the years.

Jan's academic interests were in geochemistry and mineralogy. In the 70's he was interested in soil geochemistry, including the clay deposits of Tasmania and the oxidized zone above the Broken Hill deposit. This led to his most influential paper with Simon Gatehouse and Dave Russell on application of sequential soil analysis in exploration geochemistry. He went to Gottingen on a Humboldt Fellowship in 1972 and worked with Prof Wedepohl leading to a paper on secular changes in the composition of pelitic rocks in 1973.

Many will recall his great interest in the electron spin resonance (ESR) of quartz through the early 1990's. We remember many seminars on ESR, and the correlation of this spectra with the trace element composition. Then there was that special zoned quartz crystal from the Mt Cameron tin deposit, that he held up in many seminars as he proselytized about ESR applications in exploration. He also worked on many other projects from Rosebery and Beaconsfield in Tas to Rotorua in NZ, Chile and Germany. Less conventional projects included work on heavy metals in lobsters and sewerage! He was always keen to question conventional wisdom.

Jan retired in July 1999. For a few years he continued working with Aung Pwa using quartz composition (trace element and ESR) in exploration but mostly he enjoyed retirement. However, in 2014 he showed a renewed interest in the geology of various tin granites in NE Tasmania. This was spurred along by his partnership with Neil Allen, Dave Duncan and Ralph Bottrill. He reported on this work at Goldschmidt 2019 and other international conferences. He was still working on these projects up to his death.

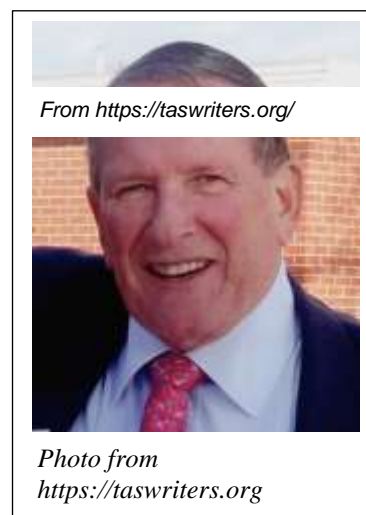
Jan had many interests outside geology. He spent many weekends in the 80's terracing the garden in his Battery Point home. After retirement he concentrated on developing the garden of his new home at Kingston, including building a garden

retreat. As well there were many family vacations throughout Australia and overseas, including a recent trip to South Africa. Throughout all these years he was a stalwart of the St Georges Anglican Church, Battery Point.

Ron Berry, Geoff Green and Ralph Bottrill

Tony (Anthony) Hope

(1940-2023)



Tony Hope, geologist, historian and member of the GSA, passed away on 27th of February at St John's Hospital Hobart at the age of 83. Tony was born in Hobart in 1940, initially

educated in Hobart and then moved to Trinity Grammar School, Sydney, and completed a BSc in geology at the University of Sydney in 1961. Tony started his career with the BMR, but soon moved into mineral exploration where he spent all his time till retirement. Throughout his geological career Tony worked for several companies, including CRA, BHP, Lepanto, Kennecott, Mount Morgan Ltd., Peko-Wallsend, Murphysores and BeMax Resources. He was involved in exploration for porphyry copper deposits (Queensland, Northern Territory, PNG and Philippines), VHMS (NSW, Philippines and Queensland), Carlin-type gold (Australia wide), mineral sands and bentonite (Queensland, NSW and Victoria). He was also involved with exploration and early mine feasibility of the giant million-ounce Lihir gold deposit in PNG from 1984 to 1987.

Since retirement Tony has had a second career as an author and historian. Tony published his first book *A Quarry Speaks* which provides an

illustrated history of Hobart's Sullivans Cove, Salamanca and Battery Point. His second book, *The Hope Factor*, discusses mineral exploration and discovery of many of the mines that Tony was involved with through his career and was published in 2011. Tony was also a co-editor of the successful recent book on Australian Mineral Discoverers published in 2020. Since then, Tony has written and published two further books, one on the life and achievements of master mariner *James Kelley of Van Diemen's Land* and more recently his autobiography *Drifting on the Sea of Life*.

There is no doubt Tony Hope has had an exciting career, combining his two loves, initially of geology and mineral exploration throughout Australia and the SW Pacific, and secondly of Tasmanian history through his extensive published writings. I have enjoyed having a glass of wine with Tony at our favourite drinking hole in Salamanca and discussing our past times as young geologists when we both worked for Peko-Wallsend. His friends will miss him and may I pass on sincere condolences from the Geological Society of Australia to his wife Suzie and the Hope family.

Ross Large (OA)

Student Members

Welcome to student members. We hope to see you at our meeting later in the month or on our field trip to explore the rocks and fossils of the Florentine Valley after Easter.

The book deal is available to student members so if you want to purchase your copy see the information below.

Honours, Masters and PhD students

Endowment Fund

THE GEOLOGICAL SOCIETY OF AUSTRALIA

Please take the opportunity to apply for the **\$1000 grants** available for at least one Honours or Masters students in Tasmania in 2023 and the one national grant up to **\$5000** available for PhD students. Applications close on the 29th of April so **HURRY!**

[Endowment Fund details available here](#)

Olivia Wilson won the Honours Endowment Scholarship for Tasmania in her honours year in 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/>

There are also **special rates for graduate membership** so no need to miss out once you have graduated. We would love to keep in touch!

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 are complete 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.

Membership Renewal

Don't forget to renew your membership for 2023 to stay in touch and enjoy the many benefits of being a part of the GSA. The AESC is face to face in Perth this year and members will be accorded a discount for registration.

AESC2023 in Perth

27-30th of June 2023.

Registration Open Now

Other Meetings

25-26th of March Devonport Gem and Mineral Fair

2023 Jewellery, Gem & Mineral Fair
East Devonport School Gymnasium

Opens March
Saturday 25th 9am - 4pm
Sunday 26th 9am - 4pm

Trade Tables
 Jewellery & Gems
 Minerals & Fossils
 Children's Activities
 Lapidary Equipment

Entry: Adult \$5 - Under 16 FREE

For more information contact
 Richard (0488 501 222) [redacted]
 Colleen (0497 462 005)





If you are in Sydney on the 1st of April SMEDG/ASEG 2023 Rocks Geotour (of the Rocks area in Sydney), hosted by Jim Austin and Tony Webster Pre-registration queries please contact Mark Gordon – 0437 867931

Final Words

From Noel Kemp



GSA Tasmania Division Committee 2022-2023

Chair: Karin Orth

Secretary: Sebastien Meffre

Sebastien.Meffre@utas.edu.au

Treasurer: Claire Kain

Committee Members:

Sheree Armistead

Jeremy Asimus

Rebecca Carey (Membership)

Acacia Clark (Student Rep)

Jacqueline Halpin

Wei Xuen Heng

Claire Kain (Geotourism)

Peter McGoldrick

Sebastien Meffre

Phil Sansom (Education)

Olivia Wilson

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 20th of March 2023



Keys Dates

Abstracts Opening	Now Open
Registrations	Now open
Abstracts Close	1 March 2023
Early Bird Deadline	27 April 2023
Work Shops	26 June 2023
Conference Welcome Reception	26 June 2023
Conference Day one	27 June 2023
Field Trips	Pre and Post Conference