

The Tasmanian Geologist



Newsletter of the
Tasmania Division

August 2017

NEXT MEETINGS:

Thursday 24th August

Main Lecture Theatre
School of Earth Sciences
University of Tasmania
6.00pm – 7.00pm

Speakers:

Ralph Bottrill
Clive Calver
Keith Corbett
Peter Manchester
Andy Spate

GEOTOURISM IS TASMANIA

REFRESHMENTS AND DINNER:

Drinks and savouries will be served before the meeting in the CODES tea-room at 5.30 pm. All members and guests will be very welcome – particularly students!

Afterwards, members and guests will be invited to accompany the speaker to an informal dinner at a local restaurant.

Late arrivals: The building doors close at 6 pm, so if you arrive after this time, please use the handset at the right hand side of the building main entrance, and ask Security to let you in for the talk.

Also inside:

- *20-22 September Tenth International Mining Geology Conference 2017, Hobart*
- *16 November GSA Earth Science Students Symposium, IMAS, Hobart*
- *7-8 December Tasmania Geoscience Forum, Strahan*

NEXT MEETING:

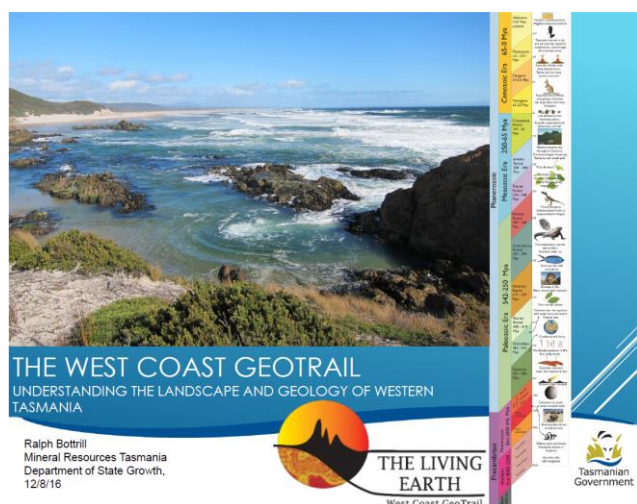
Geotourism in Tasmania

This meeting will feature a series of short presentations by members of the GSA(Tas) Geotourism subcommittee which will provide an overview of the current state of, and problems faced by Geotourism in Tasmania.

Understanding the landscape and geology of Western Tasmania

Ralph Bottrill, Mineralogist, MRT

The geology of Tasmania is often very spectacularly exposed and complex in its history and content, and if explained simply and accessibly can be of great interest to both tourists and the general public, though sadly this is rarely done. The state government has recently provided some support for the development of a "Living Earth" geotrail on the west coast. This has mostly been driven by MRT, with GSA support, and we have 16 sites nominated to date, with large, key signs installed in Queenstown, Zeehan and Tullah, plus large descriptive signs in four geosite locations to date, and two more in preparation. These are all supported by a lot of information on linked websites (<http://thelivingearth.com.au>). We would like to see this concept spread right around Tasmania, linking with geotrails developed by Peter Manchester and others, but more financial and logistic support is needed, and we will need a long term view on it all.



A guide to the geology of King Island

Clive Calver, Geotourism author

The "Guide to the Geology of King Island", soon to be published, is a non-technical description of the geology of the island, and was funded by the King Island Natural Resource Management Group. The Guide is based on MRT field mapping between 2007 and 2012. It includes seven self-guided excursions, based on the superb coastal exposures around the island. These include the late Cryogenian diamictite and cap carbonate, and mid-

Ediacaran mafic volcanics on the east coast, and the Mesoproterozoic metamorphics and younger granites on the west coast. It is hoped that the Guide will broaden the appeal of King Island to potential visitors, as well as informing landowners and land managers.



West Coast experiences and geotourism in Tasmania – where is it?

Keith Corbett

Geological consultant and Geotourism guide

Keith Corbett conducted geotours to the West Coast for 5 years from 2000-2004, based at Queenstown. It was worthwhile and educational for all concerned, but many of his clients made the point that it was difficult to find out about Tasmanian geology, because of the lack of signs and of books and brochures written for lay people. Hardly any of our best geological views, or even our tourist icons, such as Cradle Mountain, The Nut at Stanley, the Freycinet granites, Mt Wellington, have any geological interpretation that visitors can see and understand. The University Geology Department erected many geological signs in the 1960's, but these have long since been removed and not replaced. Other signage is ad hoc and uncoordinated. It should be the State Government's responsibility to promote and interpret our unique geology, as part of our tourism strategy, like our wines and wilderness, and the Geological Survey is the logical place to base this function. We have neglected our geology for far too long.

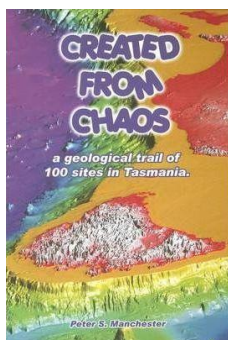


Tasmanian Geotourism.... My way!

Peter Manchester

Geotourism guide and author

Lecturing and teaching Tasmanian geology for 43 years to students and adults for education institutions, adult education, service organisations and tourism, Peter Manchester will outline 8 types of geotrails he has set up in Tasmania in order to guide people to experience some of the significant landscapes, geological outcrop sites in accessible areas of Tasmania.



Geotourism

What is it and does it work?

Andy Spate

Optimal Karst Management

www.karstmanagement.com

In this brief presentation, we look at definitions of the term 'geotourism' and then look at the underlying principles of geotourism. From there we try to look at how geologically-based tourism can contribute to local and wider economies. We move on to the twin, and remarkably parallel, concepts of 'Australian National Landscapes' and that of 'Geoparks'. Some examples of Australian geotourism sites are given. It seems that much of Australia's tourism is driven by geologically-based sites and landscapes. The Tasmanian tourist industry should take the opportunity to promote the State's remarkable geodiversity.



The Bailong Elevator (literally Hundred Dragons Elevator) is a glass elevator built onto the side of a huge cliff in the Wulingyuan area of Zhangjiajie, People's Republic of China that is 326 m tall built solely so that visitors could rise up into the sandstone spires.



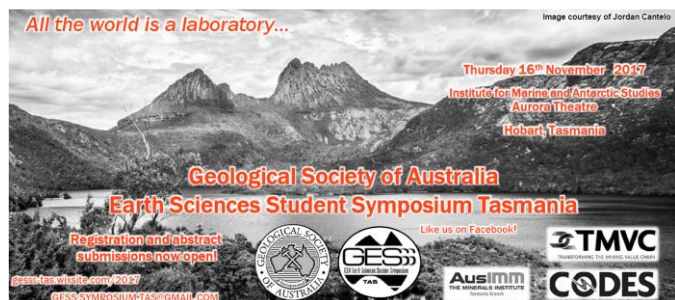
Geotourism Subcommittee



GSA(Tas) Division has established a Geotourism Subcommittee to

- Promote tourism to geosites and raise public awareness and appreciation of the geological heritage of Australia including landforms, geology and associated processes through quality presentation and interpretation.
- Provide advice to the Governing Council about how geotourism can best be nurtured throughout all areas of Australia, including within, but not limited to, declared National Landscapes, World Heritage and National Heritage areas as well as National Parks and reserves, urban environments and mining heritage areas.
- Review and recommend strategies that offer the potential for active participation of governments, land managers, tourist bodies and GSA members in geotourism and related interpretation activities.
- Undertake conference/symposium and seminar activities directed at raising awareness of geotourism amongst Society members and others.
- Foster the publication of content which serves to raise awareness and appreciation of geotourism amongst governments, land managers, the tourism industry, the geological profession and the Australian public.

If interested in helping out please contact:
mvcary@mrt.tas.gov.au.



The first student-run, student-focussed, GSA Earth Sciences Student Symposium of Tasmania (GESSS-TAS) will be held on the 16th of November, 2017, at the Institute of Marine and Antarctic Studies (IMAS), located on Hobart's scenic Salamanca waterfront. Convened by Earth and Marine Science students from the University of Tasmania (UTAS), the symposium will provide students with a unique opportunity to be the stars of the show, promoting themselves and their interests and talents to prospective employers, mentors, academic supervisors and fellow students in a variety of fields. This conference is a new initiative of the Geological Society of Australia's (GSA) Governing Council, and we hope it will be widely attended by appreciators of water, rock, the environment, and life. We aspire for this conference to benefit students at all levels by providing broader exposure to other Earth Science sub-disciplines, as well as providing examples of good scholarly research and project management.

Much progress has been made in organising the inaugural Tasmanian GESS Symposium. We have secured our venue at IMAS on Hobart's scenic waterfront, our registration and abstract submission portals are open, we have two exciting keynote speakers organised, Richard Arculus and Anita Parbhakar-Fox, and we have been actively seeking support from industry, government and research institution allies.

Abstracts, posters and talks are invited from students at all levels. Presenting authors of the highest quality abstracts will be invited to share their work through oral or poster presentations during four sessions: 1) Igneous, Metamorphic and Structural Geology, 2) Geoenvironmental Sciences and Biogeochemistry, 3) Economic Geology, and 4) Geophysics, Computational and Analytical Geoscience. Our sponsors will also be giving short introductions to their business activities, which include Tasmanian geology, ore deposit and environmental geology, and technological and training development. An evening social event and catered poster sessions will encourage an informal atmosphere for student, academic and industry conference participants to share discussions on current and future works.

Don't forget to check out our websites at:-

<https://gesss-tas.wixsite.com/2017> and <https://www.facebook.com/GESSSTasmania/> to keep up to date in the run up to the conference!

The conference is organised and will be fronted by Earth Science students from the University of Tasmania. The organising committee and fellow UTAS students are involved in many exciting Earth Science projects! Matthew Ferguson and Sally Watson study massive

continental and seafloor magmatic events, respectively, Naomi Potter studies carbonatite volcanism at the Maasai's *Mountain of God*, Tom Ostensen is using geophysics to study Tasmania's lithospheric structure, Laura Jackson is working on predicting and preventing mining waste before it's even created, Tristan Wells is using elements found in some minerals in minute quantities to evaluate the potential for nearby copper mineralisation, and Jodi Fox has been working on improving our understanding of the only active Australian volcano on Heard Island in the southern Indian Ocean. Some of the other projects our students are working on include: diamonds and kimberlites, the plumbing systems of magmatic and ore systems, using ice cores and advanced analytical techniques to study Earth's recent history, geochemical cycling in the ocean and around glacial terrains, automated characterisation of rock properties, stratigraphy and deformation in volcanic belts, and the geology and geophysical characteristics of Antarctica.

So far, we must say a big thank you for the financial support pledged from the Australian Research Council's Transforming the Mining Value Chain Industrial Transformation Research Hub (TMVC Hub) and Centre of Excellence in Ore Deposits (CODES), the Tasmanian Branch of the Australasian Institute of Mining and Metallurgy (AusIMM), Mineral Resources Tasmania (MRT), PYBAR Mining Services, Bureau Vertias, and the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE CRC). Most of all, thank you to the GSA Governing Council and broader GSA for their intellectual, financial, and emotional support during the setup and run up to the GESS conferences!

We are pleased to announce that the symposium will host Anita Parbhakar-Fox and Richard Arculus as keynote speakers.

Richard is a Professor Emeritus at the Research School of Earth Sciences at Australian National University. Richard has dedicated his academic career to the study of volcanoes and the products of their eruptions. His primary interest is the differentiation of the Earth, particularly the formation of the continental crust and global geochemical recycling. He pursues this through the study of island and back arc magmatism, and the geochemical changes accompanying subduction of crustal materials.

Anita is a Research Fellow specialising in environmental geochemistry and mineralogy at the TMVC Hub at the University of Tasmania. Anita is focussed on mine waste characterisation in order to improve mine planning and waste management practices. During the course of her research, Anita has developed new tests and protocols, particularly for acid rock drainage prediction. Anita is also involved in identifying remediation options for abandoned/historical mine sites.

The symposium sessions will showcase the significant research being conducted at the students' parental institutions.

The Discipline of Earth Sciences at the University of Tasmania is currently ranked amongst the top 75 Earth

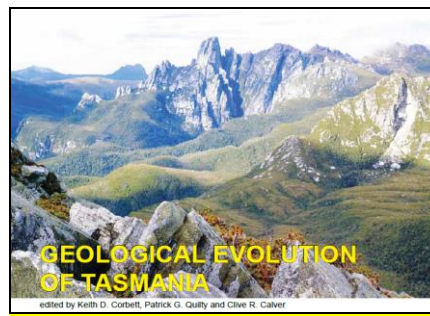
Science departments in the world. The disciplines current research directions include Economic Geology and Geoenvironmental Science, Computational and Analytical Geoscience, Marine Geoscience, Deep time Earth, and Mantle structure, dynamics and geochemistry. The TMVC encompasses a wide array of activities from exploration, discovery, ore deposit characterisation, and environmental assessment, through to mining, ore processing and waste rock disposal. IMAS is the base of operations for scientists at the University of Tasmania and those working in collaboration to improve our understanding of temperate marine, Southern Ocean, and Antarctic environments, their resources, and broader role in global systems. CODES has both a remarkable national and international visibility and reputation for research. The large university-base team of researchers use their wealth of ore body knowledge to provide the tools and techniques to enhance the prospects for new discoveries and ensure optimisation of existing resources.

November and December are exciting times in Tasmania. Come along for the student symposium and you can also catch the Australian Acid Mine Drainage Workshop, the AusIMM and GSA Geoscience Forum, Christmas in the City, Effervescence Tasmania, the Spring Flower Show, the Huon Show, the Bicheno Food and Wine Festival, the Tasmanian Youth Orchestra Gala Concert, and the Point to Pinnacle Road Run and Walk.

Finally, a plea to all lovers of life and science! In order to provide the best meeting place and conditions for some of the brightest students, researchers, and representatives of government and industry who are attending the inaugural Tasmanian GESS Symposium, we seek your financial and/or material support – at any level possible. All levels of donation will include mention of your company or business in our marketing materials and at the event itself. There are several opportunities to contribute to the success of the conference, showcase your company, meet with prospective future employees, and keep up to date on the latest developments in the field – for more details, please send us an email at gess.symposium.tas@gmail.com. Registration and abstract submission are now open and close end of September, 2017.

For more information or to register, go to <https://gesss-tas.wixsite.com/2017>, and check out our Facebook page for interesting articles and to keep up to date!

Matthew Ferguson, Naomi Potter, Jodi Fox, Laura Jackson, Sally Watson, Tristan Wells, Tom Ostensen, and Ana Gencic
GESSS-TAS Organising Committee



The flagship publication of the Tasmanian Division of the GSA, "The Geological Evolution of Tasmania" (Special Publication 24 of the GSA) has now been published and 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/0003/45531/3/Flyer_Order.pdf

Copies of the book can be obtained personally from Claire Rutherford

(publications@CODES.utas.edu.au or phone on +61 3 6226 1773 (Monday & Wednesday)).

Members Price is A\$90 + GST + postage where appropriate. Postage can be avoided by buying in person from Claire in Earth Sciences (Utas). 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.

GSA Tasmanian Division Committee

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Committee Members:

Rebecca Carey
Grace Cumming
Matt Ferguson (Student rep)
Sean Johnson
Peter McGoldrick
Sebastien Meffre
Jacob Mulder
Phil Sansom
Michael Vicary

Geological Society of Australia website:

www.gsa.org



This conference is the premier Australian mining geology forum and has developed strong international support since the first event in 1990.

Consider registering now. AIG members have access to a [dedicated registration page](#) via the AusIMM web site. Visit the [conference web page](#) for the latest information.

The Tenth International Mining Geology Conference 2017 will feature a 3 day technical program of peer reviewed papers presented in multiple formats such as standard conference presentations, snap shot presentations and poster presentations. The program will include Q&A sessions plus an extensive program of networking events to continue the exchange of technical knowledge.

Themes

Setting new standards

- mining geology practice – drilling, sampling, grade modelling and control, and mine/mill production support; innovation and application of industry best practice, and internal and external standards
- efficiently linking exploration and mining geology – fundamentals for better projects
- beyond the assay – building holistic rock property models for mining and metallurgy
- demonstrating value through best practice reconciliation
- mining geology and the future – technology, automation, applied research, and innovation
- education, interface and knowledge management – gaining skills and communicating opportunity.

The conference will host an extensive tour and workshop program to maximise learning opportunities for delegates.

For more information contact:

Suzie Chan

Senior Coordinator, Events | AusIMM

Phone: +61 3 9658 6126 | Email: schan@ausimm.com.au

GEOLOGICAL SOCIETY OF AUSTRALIA EARTH SCIENCES STUDENT SYMPOSIUM TASMANIA



Thursday 16th November 2017

Institute for Marine and Antarctic Studies
Aurora Theatre

Registration and abstract
submissions open now!

This November, Earth and Marine Science students from the University of Tasmania will convene the first Tasmanian Division, Geological Society of Australia Earth Sciences Student Symposium (GESSTAS).

This student-run, student-focussed conference will be widely attended by Earth Science-related students and research professionals, and industry and government representatives. We aspire for this conference to benefit students at all levels by presenting examples of good scholarly research and project management as well as providing broader exposure to other Earth Science sub-disciplines.

The symposium will give students an excellent opportunity to present their work, and promote themselves and their interests to prospective employers, mentors and academic supervisors in a variety of fields. This is a unique opportunity rarely available to students at large national and international conferences!

Abstracts, posters and talks are invited from students at all levels, covering topics that include tectonics and structural geology, geochemistry, geophysics and remote sensing, environmental sciences, oceanography, biogeochemistry, atmospheric sciences, climate systems, igneous and metamorphic petrology, and economic geology.



gess-tas.wixsite.com/2017

GESS.SYMPOSIUM.TAS@GMAIL.COM

All the world is a laboratory...

Image courtesy of Michael Fuller.ca



TASMANIA BRANCH GEOSCIENCE FORUM

THURSDAY 7TH - FRIDAY 8TH DECEMBER 2017

Fast Facts

Topic: Minerals, maps and mountains.

The Tasmanian Geoscience Forum: Talks on all aspects of geoscience: geology, exploration and research

When: Monday 4th – Wednesday 6th December Field Workshop

Seminar - Thursday 7th December

Field Trips - Friday 8th December – arranged by the Geological Society of Australia – Details TBA

Where:

[Strahan Village](#)

45 Esplanade

Strahan

TAS 7468

0364714200

www.strahanvillage.com.au

Accommodation to be booked directly with the venue

Registration:

Please register your interest for this event by clicking the Register here button below and providing your name, contact details and your AusIMM Membership number if applicable.

You must book your Accommodation direct with the venue.

[Register here](#)

The purpose of this forum is to assemble geoscientists in one pleasant place to share their progress in exploration, mining and research.

This forum is for sharing results and ideas in the geosciences and learning more about geology, in particular the geology of Tasmania.

Forum presentations will be held on Thursday 7 December with a Conference Dinner afterwards.

The Geological Society of Australia - Tasmania Branch are arranging optional, field trips for Friday 8th December.

There is a proposed two day field workshop, hosted by MRT and the GSA commencing on the evening of Monday 4th Dec at a venue on the North West coast. The workshop will mix talks and field visits on new tectonic models for the geological development of Tasmania. Numbers will be limited.

We are looking for sponsorship and speakers!

Book your accommodation with the venue

Strahan Village

Hilltop Standard Room inc Breakfast = \$199 per night/ 2 persons

Hilltop Harbour View Room inc Breakfast = \$249 per night/2 persons

Delegate bookings: Attendees wishing to book at the agreed delegate rate must call the property direct and quote "AusIMM Geology Conf"
Phone: +61 3 6492 1404

Expressions of interest for speakers or attending the field workshop

Should be lodged with Andrew McNeill, email:

Andrew.mcneill@stategrowth.tas.gov.au

AusIMM members and non-members are encouraged to join us.