

OVERBERG GEOSCIENTISTS GROUP (OGG)

Objectives & Achievements *2018 – Present*

Dr J W BRISTOW + TEAM

(OGG – Reg. No. 275-138 NPO)

1 March, 2025



Overberg Geoscientists Group (OGG)

- The **Overberg Geoscientists Group (OGG)** was conceived/initiated in 2018, and formalized as a registered NPC in early 2022; voluntary membership fees are R250.00 per annum. Audited/reviewed financial statements are available on request.
- The **OGG** pursues work and projects to highlight the underlying geology and soils of the Overberg and environs, including the **Malmesbury Schists, Cape Granites, Table Mountain Sandstones, Bokkeveld Shales, Bredasdorp Coastal Aeolinites, and Duricrusts**
- The organization holds regular in-person & on-line **Technical meetings and presentations** for members and interested parties, including industry experts, academics, non-geologists, students, scholars and families
- The OGG has built a library of **131 high-quality YouTube videos on geological and related topics**, and been co-organizer & fund-raiser for a number of successful workshops, symposia and seminars e.g. the *2022 On-Line Diamond Short Course & Mine Excursions*, the *2023 Kimberley International Diamond Symposium (KIDS)* and *Northern Cape Diamond Mine Excursions*, and *3 Overstrand Environmental Association Conferences*
- **The OGG** constructed informative & educational *Rock Gardens* and *Earth-Age* displays representing 4,600 million years of Earth History at:
 - **Gansbaai:** African Penguin and Seabird Sanctuary – APSS (partner: *Marine Dynamics*)
 - **Betty's Bay:** Harold Porter Botanical Gardens – HPG (partner: *South African National Biodiversity Institute - SANBI*)
- **Geological Excursions, walks and trails** – the OGG regularly organizes and leads professionally managed Excursions and outdoor activities in the southern and western Cape, and into the Karoo
- The **OGG** engages Pre-primary, Junior and Primary/High Schools in the Hemel & Aarde Valley, Hermanus, Gansbaai and elsewhere, to expose **learners, educators, and laypersons** to the local geology, rocks and minerals, soils, water, and their critical role of underpinning the natural environment, water and mineral resources, food supplies, and infrastructure
- **OGG Sponsors and Partners** include (amongst others): Members and Donors, *35IGC Legacy Fund*, *Marine Dynamics (Gansbaai)*, *SANBI (Harold Porter Gardens)*, *Kogelberg Botanical Society*, *John Weaver (South African Bottled Water Association)*, *Hermanus Botanical Society*, *John Roff Guiding*, *Stonefly Environmental Education*, *Khodani Matshusa (Krugers National Park Geoheritage)*, various wine farms, companies and general supporters.



De Balie – Cederberg Mountains Excursion (22-24 October, 2021)

Contemporaneous glacial folding in the TMG

Typical Cederberg Mountains topography –
top of the Pass down to De Balie Campsite



- Backeberg, N.R. and Rowe, C.D. (2009). Mega-scale (~50m) Ordovician load casts at De Balie, South Africa: Sediment Fluidization by thermal destabilization. *South African Journal of Geology*, 112, 187–196.
- Blignault, H.J. (1970). Contemporaneous glacial folding in the Table Mountain Group, Western Cape. *MSc Thesis, University of Stellenbosch, RSA*.



Prominent folding in TMS strata with horizontal fold-axis, immediately west of the De Balie Campsite



De Balie – Cederberg Mountains Excursion

22-24 October, 2021



Some of the Excursion Participants (L-R) - Anthony Keen (*Cape Mountaineer extraordinaire & Amateur geologist*), Cameron Penn-Clarke (*Bokkeveld geology expert*), Nils Backeberg (*blue jacket – Excursion Leader*), Tim Lewis (*rear of image, TMS glacial & folding expert*), Kevin DeBruin (*front, green collar, Hydrogeologist, Umvoto*), Mike Dormer (*OGG, back adjacent to Tim Lewis*), and Others.



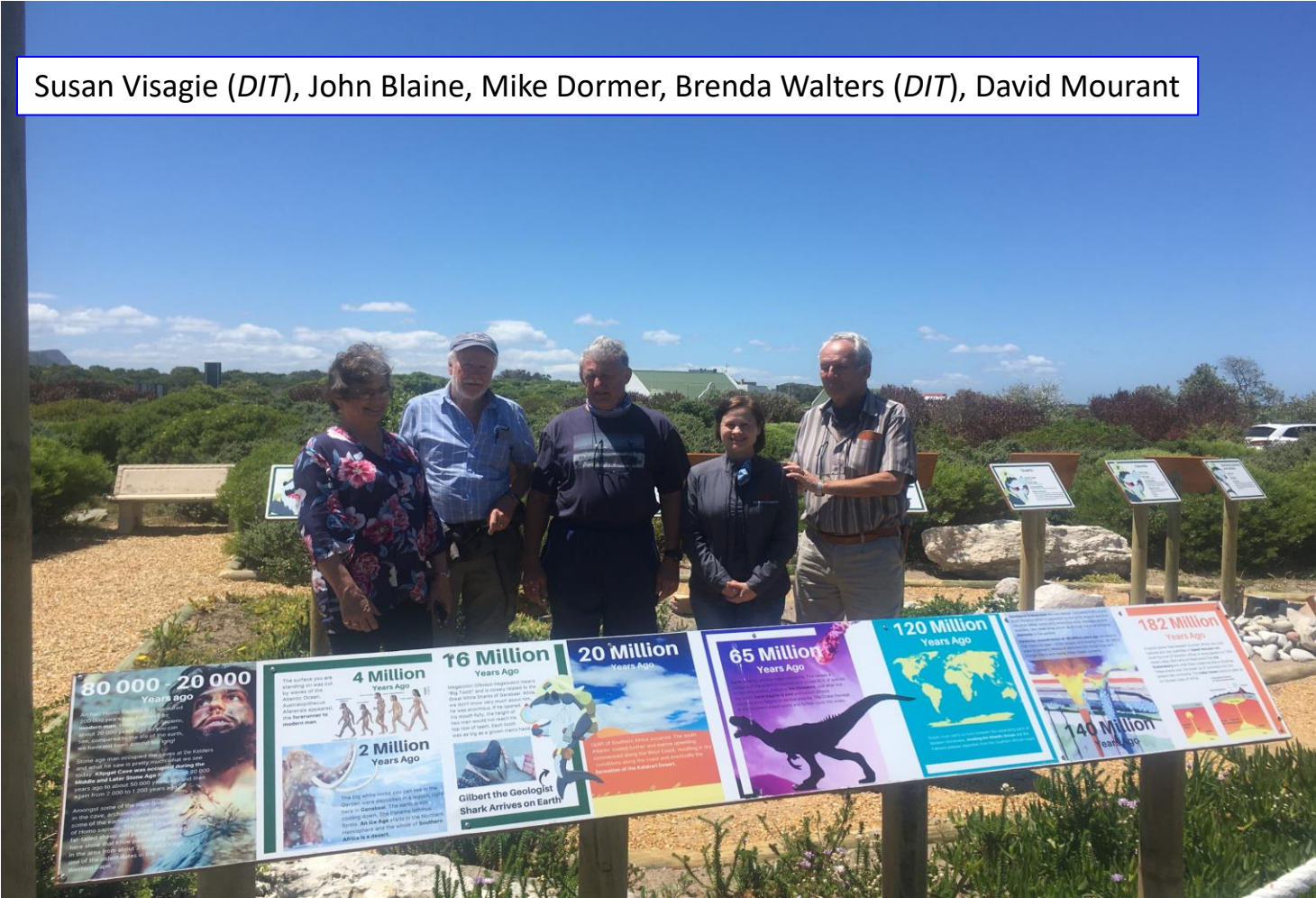
- Not for the faint-hearted, this southern-Cederberg single-width Road-Pass, winds down the western flank of a ravine carved-out by the perennial Leeurivier, ending at the **Balie's Gat** camping site
- Sections of the Pass are propped up by dry-packed stone walls, similar to Thomas Bain's remarkable engineering, though this construction work is more rudimentary
- (*Western Cape Mountain Passes* - <https://search.app/tvtUYpetyTShBCEE8>)



Gansbaai Earth-Age Display – southern Cape (November, 2021)

African Penguin + Sea Bird Sanctuary (APSS) – Gansbaai

Susan Visagie (DIT), John Blaine, Mike Dormer, Brenda Walters (DIT), David Mourant



- Gansbaai Earth-Age Display and linked Rock-Garden Display highlight the local ~600 million years of Overberg geological history; constructed in 2020
- This educational & informative well used display was funded through the generous support of the *Dyer Island Trust (DIT)*, conservationists and owners of APSS
- Mike Dormer, key OGG member based in Gansbaai, supported by Dave Mourant and OGG Team, provided the planning and engagement with *DIT*, local conservation groups, schools and educators to ensure its completion adjacent to the *Penguin Sanctuary*
- *February 2025* - Mike Dormer is currently advising SANParks (Cape Agulhas) and Cape Peninsula University of Technology (CPUT), with design/costing of a similar geological display at the southern-point of Africa



Harold Porter Gardens (HPG) - Bettys Bay (28 February, 2023)

OGG Earth Age Display under Construction – 28 February 2023

- Supporting local employment and skills



Bettys Bay – OGG Earth Age Display (EAD)

Harold Porter Gardens (HPG) – SANBI (launched September, 2023)



HPG Excursion Groups lead by OGG Geologists *(primarily David Mourant – 2023/24)*

- 15/11/23: Betty's Bay interested parties (7)
- 30/12/23: Local area geologists & laypersons (10+)
- 15/02/24: Local Invasive Vegetation Hacking Group (15+)
- 29/02/24: Hermanus Rotarians (36 members)
- 13/04/24: John Compton HPG book-launch (60+)
- 17/05/24: Local Schools Expo (22+)
- 31/05/24: Local school's group, including Home-schoolers (20+)
- 30/10/24: Friends of HPG (15+)
- 28/11/24: Probus Group (21)



SANBI School Expo - Harold Porter Gardens (5 March, 2023)

OGG experts sharing knowledge – John Blaine & Mike DeWit



Sharing basic geological knowledge and information with Educators, Schools and disadvantaged Learners is an important driver of OGG activities



Home Schoolers & Disadvantaged Schools

Education & Excursion Programs



Home Schooling-group: Lower Hemel & Aarde Valley - Onrus River & devastated Wetland/Peat Beds due to severe September 2023 floods (Overstrand area) - *John Blaine & John Bristow.*



Hamilton Russell Pre-school

- 1: **Outings** - natural environment safe-places; emphasis on geology, soil, water, erosion, water & plants (indigenous and invasive) and human impacts
- 2: **Educational materials** – posters and basic-booklets of Basic-geology, Geological Cycle, Key Minerals, Water Cycle, Dinosaurs, Fossils, Erosion
- 3: **Basic geological sample collections** – local rocks & minerals, polished agates & coloured stones
- 4: **Box of Rocks Educational Set** – 16 representative rock samples + basic hand-lens (by Barry Bryant) – emphasis on colour, touch+feel
- 5: **Expo's & Education of Teachers & Parents** (mostly Mothers) - and other Instructors from time to time
- 6: **Localities** – Greater Hermanus (local beach-sections, Hemel & Aarde Valley), Kleinmond (Harold Porter Gardens) & Gansbaai (Penguin Sanctuary Earth-Age & Rock Display)
- 7: **Schools** – Hemel & Aarde Valley (Pebbles + Hamilton Russell) Hermanus (Junior School, Waldorf, Enlightenment Trust), Gansbaai (Junior School)
- 8: **Conservation & Environmental Groups** – SANBI, SANParks (Cape Agulhus), Cape Nature, Rooiberg-Breede River Conservancy Group.



De Kelders Caves, Walker Bay (NE-point)

Geological and Anthropological treasure trove

- Located on the contact between fractures in quartzose sandstone of the peneplaned Silurian Cape Supergroup & overlying Pleistocene Bredasdorp Group carbonate-cemented aeolianites
- Cave *Middens* have been subjected to extensive local & international Anthropological studies
- *Our First Home* – YouTube documentary of early human development and activities on the south-coast of the Cape Floristic region featuring Dr's Curtis Marean, Hayley Cawthra & Richard Cowling: https://www.youtube.com/watch?v=AWjgp_wSfmY
- The OGG organises regular excursions to these exceptional world-class sites



Carbonate cemented Pleistocene cross-bedded dunes - Bredasdorp Group (Waenuiskrans Formation), ~2 kms west of the De Kelders Caves



De Kelders Caves, Walker Bay; and internal view of excavations & Cape Nature information signage



Southern Cape - Quoin Point (Saturday, 11 January 2025)

Excursion: Geology & Mega-dunes - (Bredasdorp Formation)

- Pearly Beach Conservancy Group
- Mike Dormer (OGG, Gansbaai) with 75 participants

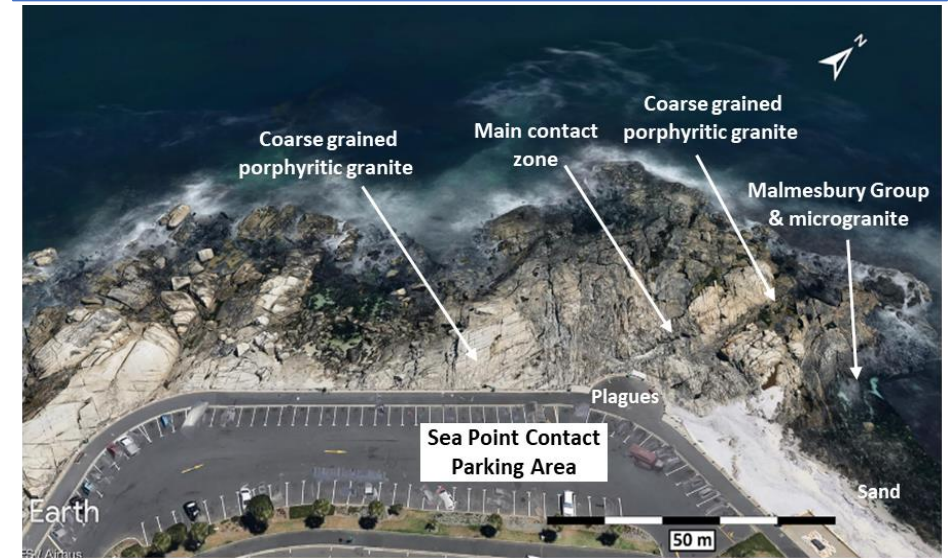


OGG Geological Excursion Guidebooks

Available for sharing & distribution

1. The Fold Zone of the Upper Peninsula Formation at de Balie, Koue Bokkeveld, Cederberg – *Nils Backeberg (22 October, 2021).*
2. OGG & Minrom Southern Cape Coast Geology Excursion – *Jean Malan (November, 2022).*
3. Bikini Beach (Gordons Bay), Clarence Drive, Aasbank, Harold Porter Gardens (Betty's Bay) - *Dave Mourant & John Bristow (Geocongress - January, 2023).*
4. Umvoto & OGG Table Mountain Group (TMG) Aquifers: Geology & Wellfield Development in the Greater-Hermanus & Steenbras Area - *Dylan Blake (Umvoto) (Geocongress - January 2023)*
6. Hemel + Aarde Wine Valley – *John Blaine (January, 2023)*
7. Hermanus Cliff Path: Raised-Beach Profile: *John Blaine (January 2023).*
8. OGG Cape Town & Sea Point Contact Geo-Excursion – 24 March 2024: *Jean Malan and John Bristow - with contributions by Prof Mike Bruton, Russell Bailie and Stephen Davey (24 March, 2024)*
9. Bot River-Kleinmond Estuary & Surroundings Geo-Excursion – *Jean Malan & Mike De Wit (19 October, 2024).*
10. Bonnievale, Robertson, Montagu & Keisie Valley Geoexcursion – *Jean Malan, (9-11 May, 2025)*

OGG Sea Point Contact Excursion, 24 March, 2024 (with Jean Malan, Prof. Mike Bruton, Russell Bailie, Stephen Davey)



Forward Looking Plans & Activities

1: Unlocking the Geoheritage potential of South Africa

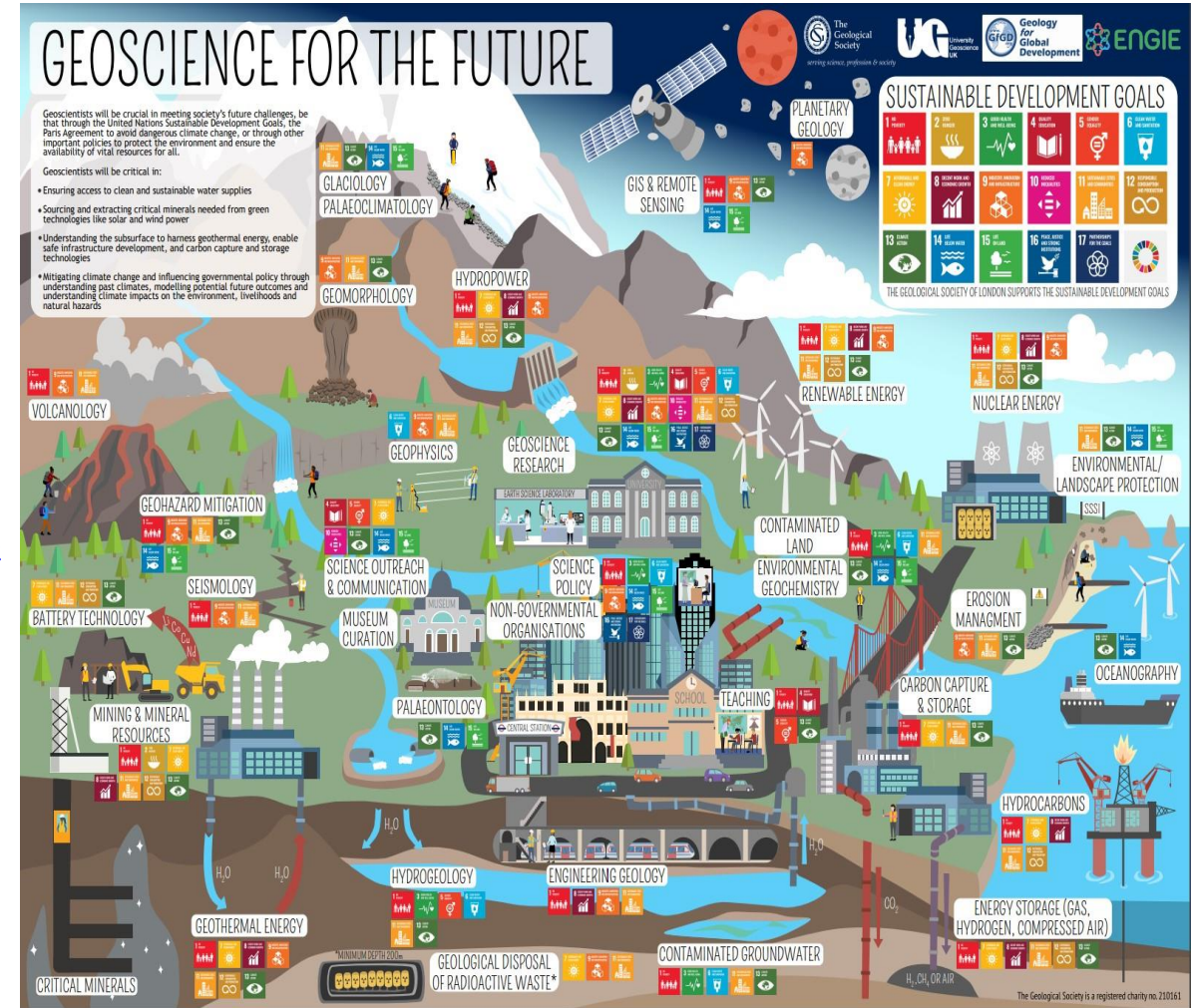
- **OGG YouTube Library** - Adding relevant Geoheritage information to existing library
- Documenting & Unlocking the Geoheritage potential & opportunities of the **S & W Cape**
- Assisting with documentation of Geoheritage opportunities in Kruger National Park

2: Geological Education for Laypersons & Schools - Overberg area

- Cameron, A. & Drennan, G. (2017). The geoscience education pipeline in South Africa: Issues of skills development, equity and gender. *SAIMM*, 117(#6).Johannesburg. <https://doi.org/10.17159/2411-9717/2017/v117n6a7>
- Dolphin, G. , Dutchack, A., Karchewski, B. & Cooper, J. (2019). Virtual field experiences in introductory geology: Addressing a capacity problem, but finding a pedagogical one. *Journal of Geoscience Education*, 67, 114-130. <https://doi.org/10.1080/10899995.2018.1547034>
- Outdoor Learning – Education Scotland <https://education.gov.scot/media/Ofklf35p/hwb24-ol-support.pdf>
- Roca, N. & Garcia-Valles, M. (2020). Trainee Teacher Experience in Geoscience Education: Can We Do Better? *Geoheritage*, 12(#92), 16 November, 2020
- Teixeira, I. & Vasconcelos, C. (2024). Use of Educational Games to Promote Learning in Geology: Conceptions of Middle and Secondary School Teachers. *Geosciences*, 2024, 14(1), 6pp. <https://doi.org/10.3390/geosciences14010016>
- Waldron, J.W.F., Locock, A.J. & Pujadas-Botey, A. (2016). Building an Outdoor Classroom for Field Geology: The Geoscience Garden. *Journal Geoscience Education*, 64, 215–230 (2016).

3: Excursions & Field Trips

- OGG Guidebooks – Southern & Western Cape (see slide #12 above)
- Bibliography of many quality geological books & Guidebooks underway
- South eastern Cape example (PRIME) - <https://www.gssa.org.za/wp-content/uploads/RES-PRIME-Western-Cape-Field-School-Information-Booklet.pdf>



The Geological Society, London – see geolsoc.org.uk/Posters for **Posters** on Careers, Water, Space, Carbon Cycle and many more



Team Overberg Geoscientists Group (OGG) – 15 September, 2023



The OGG Team & some of its Sponsors involved in the construction of the *Harold Porter Gardens Earth-Age and Local Geology Displays* at the launch in 2023 - *left to right*, Mike Dormer, Mike De Wit, Oscar Van Antwerpen (*Minrom*), Kathy Blaine, John Blaine, Marilyn Bristow, Prof Izak Rust (retired; Honorary Member), Jean Malan, Anne Mourant, David Mourant, John Bristow and Richard Mourant.



Contact Details + Team Members

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Mike De Wit – 079 502 8029; dewit@icon.co.za

Betty's Bay: Dave Mourant - 082 923 5366; amourant@iafrica.com

Gansbaai: Mike Dormer - 072 222 6672; mikeydormer@outlook.com

Admin: Hennie Greef – 082 569 5314; hennie.greef@gmail.com

Banking & NPO Details

Bank details:

Bank Name: Standard Bank
Account Name: Overberg Geoscientists Group NPC
Account #: 10168933800 Type: Current Account
Branch code: 051001 Swift Address: SBZA ZA JJ

Non-Profit Organisation (Reg. No. 275-138 NPO).

- Donations and sponsorship enable the OGG to achieve more of its objectives
- Qualifying donations (*R2000 and above*) may qualify as a tax deduction under relevant SARS regulations
- Please provide full name and address to receive a tax certificates.

Kogelberg Mountains & Walker Bay from Clarence Drive. The highest mountain on the African shoreline (Koggelberg - 1,309 metres) is located on Clarence Drive

