

Our website

The BASE Newsletter, vol. V, issue 1

I haven't written for three months, an unusually long time. This issue will therefore be the first to have two pages; there is just too much going on, worth to be reported.



The 2nd BASE core sampling workshop March 10-12 in Spandau was largely attended by stratigraphers and sedimentologists from the Universities of Münster, Bremen, Jena, and scientists from GFZ Potsdam. In addition, requests from two international groups were filled. Cindy and Katja were present to take care of data and labels. Good weather allowed us to work outside again.

By invitation of the Geol. Soc. of South Africa, Christoph toured the country in February as the Alexander du Toit Memorial Lecturer. He presented BASE overview talks at Stellenbosch, Bloemfontein, Wits, Durban, and Barberton within a bit more than two weeks. All were well attended and judged to be interesting and easy to understand. <u>This</u> is the video (at Wits); the ppt has been uploaded to our website. Christoph, of course, had a lot of fun and is very grateful to GSSA !

The BASE database on the ICDP servers continues to expand. Very-high-resolution (10 px / mm) optical scans of many drill cores, mostly acquired by Nina Wichern in September 2023, have been uploaded. Printing a scan of an attractive core tray at 1:1 scale will fill an A0-format poster, make for an impressive display, and is also well suited for teaching.

The CGS hyperspectral data set for all cores (dominant mineral maps etc.) has also been uploaded.

The geochemical reference data set, coordinated by Stefan, is nearing completion. This has been a massive effort and generated a huge data set of well-calibrated major and trace element abundances by LA-ICP-MS, fusion disk XRF, XRF core scanning (Avaatech), μ-XRF scanning (Tornado), and XRD.



Galaxy Gold, owner of Agnes Mines outside Barberton, granted access to a 72 m-section of MdS1 core from the Moodies Hills Block (shown left, in the background). It is an unfaulted and unmineralized, silty-tuffaceous, densely laminated, barely slumped section with few faint jaspilites, clearly a distal deep-water facies. Christoph logged it cursorily, and we are trying to have the entire core donated to us.

Interest in the Moodies workshop, July 15-20 in Barberton, to be taught by Christoph (and helpers!) is beyond expectations. Christoph had anticipated a group of perhaps 10 BASE PhD-students but has currently ca. 25 registered participants and another 15 expressions of interest, so we will split into smaller groups. Participants, please prepare an evening "lightning talk" of < 5 minutes !

There are currently 47 research projects registered with BASE, each described on less than a page. Not all of them are up-to-date, so Christoph asks that you periodically keep him updated about your plans (not results). What we do is no secret but please do not share this compilation outside the BASE Science Team.



Our first citable BASE publication (Mashele and Heubeck 2024; Fig. 3 to the left) was published in *Frontiers for Young Minds: Earth Sciences*, targeting children and adolescents.

Please keep Christoph updated on any publications related to BASE.

The BASE Scientific Report is under review by *Scientific Drilling*; the voluminous (online) BASE Operational Report is done and awaits to be linked to the Scientific Report.

We voted in Oscar Laurent (Toulouse, France) who will, with PhD-student Jean-Baptiste Combaz, work on the volcanic – plutonic connection as a tool to bridge the gap between Archean surface environments and deep geodynamics.

A <u>photograph of a BASE core tray</u> made it into the large-format, full-color 2024 DFG calendar.



Near the end of BASE operations in 2022, Nic Beukes initiated the construction of an additional room to the Barberton Museum, dedicated to the scientific investigation of Archean Geology and the BGB, justification for the WHS. The room was constructed within BIAS Hall and financed from remaining ICDP drilling funds and CIMERA; its exhibitions were developed from the former BASE exhibition. The room was dedicated and handed over to government in a small ceremony on March 3. Michiel and Bertus represented CIMERA. Thank you !

Frohes Forschen! Christoph and the BASE Management Team