
REPORT ON THE ANNUAL MEETING OF THE TRANSSVAAL WORKING GROUP IN KIMBERLEY AND THE EXCURSION TO THE TRANSSVAAL SUPERGROUP IN GRIQUALAND WEST

The annual meeting of the Transvaal Working Group took place in Kimberley on the 16th July 1990. The working group was hosted by De Beers, which organized a welcome barbeque party and made the auditorium of the William Humphreys Art Gallery available for the meeting.

During the meetings, six lectures and progress reports were delivered by A Danielson, I W Hällich, G Henry, S Schütte, U Schreiber and C Smith. The talks dealt with the sedimentology, stratigraphy, structural geology and geochemistry of the rocks of the Transvaal Supergroup.

After the lunch in the Kimberley Sun Hotel, part of the group left to Prieska for a four-day excursion on the structural geology, stratigraphy and sedimentology of the Griqualand West Sequence of the Transvaal Supergroup. On our way to Prieska, on the farms Elandsfontain and Koupoort south of Griekwastad, recumbent folding and thrusting of the Kuruman Banded Iron Formation (BIF) were demonstrated.

The second day was devoted to the structural geology of the Debeerskloof area, where the participants examined the complex folding and thrusting in the Vryburg, Campbellrand, Asbesheuwels (BIF), Koegas and Matsap rocks. Three generations of folds and thrusts were demonstrated, which, in places, eliminate stratigraphic units or turn the stratigraphy upside down, placing the Campbellrand carbonates on top of the Kuruman BIF.

The third day was spent on thrusts in the Kuruman BIF, which are accompanied by metamorphic growth of large pyroxenes (acmite) and amphiboles, across-rod structures and parallel to the northeasterly movement direction of the overriding plate. These thrusts are mostly subparallel to the bedding, but in places



Standing in front of the art gallery from left: Aleck Birch (Shell), Faan Grobbelaar and Tommy McKeith (Samancor), Dave Cornell (Univ Natal/Durban), George Henry (Wits), Mike Robertson (Anglovaal), Solly vd Merwe (Samancor) and Craig Smith (Bernard Price Inst). Sitting from the left: Sabine Schütte (Univ Natal/Durban), Antje Danielson (RAU), Ute Schreiber (UP) and the excursion leaders Ingo Hällich and Wlady Altermann (US)

intersect the stratigraphy with angles of 30° to 45°. Thereafter we had a short glimpse of the stratigraphic relationship of the Campbellrand carbonates, Naute shales and the Kuruman BIF.

During the afternoon, outcrops exhibiting an angular unconformity between the Koegas siliciclastic rocks and the Makganyene fluvio-glacials, as well as the unconformity between the Makganyene and the Ongeluk andesite, were inspected. The significance of thrust in the Koegas formation and the controversial age relationship of thrusting, unconformities and folding were discussed. Shearing seems to have predated the deposition of the Makganyene tillite but the participants could not agree on the intensity of these movements, or whether they were due to thrusting.

On the last day of the excursion, we examined a section of the upper Campbellrand carbonates in the vicinity of Prieska, where several very shallow-water depositional features in the carbonates were demonstrated.

After four days of exciting outcrops and fruitful discussions, the excursion ended with the general agreement that the stratigraphy, sedimentology and structural geology of the Griqualand West Sequence of the Transvaal Supergroup between Griekwastad, Prieska and Boegoeberg Dam bear many surprises which are not addressed by the existing geological models. Careful remapping of this area is certainly warranted, in order to understand the true nature of the southwestern rim of the Kaapvaal craton.

W Altermann
