



## **Tectonic landforms in the Middle Kalahari**

Frank Eckardt (1), Tyrel Flügel (2), Beth Kahle (1), Marty McFarlane (3), and Christie Rowe (4)

(1) University of Cape Town, Cape Town, South Africa (frank.eckardt@uct.ac.za), (2) Department of Military Geography, University of Stellenbosch, Stellenbosch, South Africa (tyrel.flugel@gmail.com), (3) Bosele, Maun, Botswana (mcf.botswana@gmail.com), (4) McGill University, Montreal, QC, Canada (christie.rowe@mcgill.ca)

The land surface of the middle Kalahari is generally considered to be dominated by widespread fossil landforms, the result of aeolian and lacustrine processes active during the Late Quaternary. In this presentation we demonstrate that neotectonics are equally widespread being clearly manifested to the east and west of the well documented Okavango graben alongside the previously recognised dunes and shorelines. In addition to the transport by wind and water in the recent past it is evident that movement associated with graben and horsetail development are evident in the arenosols of the Kalahari sands of the Makgadikgadi basin and Ngamiland. This has led to a vertical displacement of palaeoshorelines as well as shearing and rotation of fossil dune forms. Vertical movement has exposed these elevated fault blocks to enhanced leaching, leading to the development of karst like surface forms and replicated dune morphologies. These observations raise questions about the extent of local tectonic processes and western branches of the East African Rift System operating in the southern African interior.