Desert lakes in the late Quaternary: Hydroclimate variability in the southern African interior.

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Despite a long history of investigation, our understanding of southern Africa’s climatic past remains poorly understood. This is due in part to a lack of robust palaeo-archives, and in part to the complexity of local hydrological responses to climate change. In direct contrast to previously held ideas on the nature and timing of sub-contontinal climate change, an increasing suite of climate model simulations suggest a wetter than present Last Glacial Maximum and a drier than present mid-Holocene “African Arid Period” in the interior of southern Africa. In addition, there appears to be distinct sub-contontinal spatial variability governed by the differing behaviour of the tropical rainbelt over continental and coastal regions. We examine the available palaeo-hydrological-records, including new data from the Makgadikgadi basin, one of Africa’s largest palaeolakes to test these model-driven hypotheses and attempt to shed light on southern Africa’s elusive hydroclimate history.