

Dear SAHRA,

I have a team of French karst specialists doing research at Kromdraai, and they wish to analyse sample flowstones and breccias for thin section analysis, chemical and environmental analyses, and dating (see attached list of samples). The work at Kromdraai is supported by my NRF grant and by institutions in France. I am a team member of the Kromdraai project. Similar research is being done at Sterkfontein and Swartkrans. My collaborators include:

Professor Jose Braga (palaeontologist)

Paul Sabatier University, University of Toulouse
Toulouse, France

Dr Laurent Bruxelles (karst specialist)

Geoarchaeologist in the French National Institute of Preventive Archaeology (INRAP)
Member of UMR 5608 of CNRS (TRACES, University of Toulouse le Mirail, France)
President of the French Association of Karstology since 2009
Honorary Research Associate, University of the Witwatersrand, School of Geography,
Archaeology and Environmental Studies

Dr Richard Maire (karst geomorphology, sedimentology, petrography, & micromorphology)

Director of Research, CNRS-University of Bordeaux
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Antilles, 33607, France

Dr Richard Ortega and Dr Stephane Roudeau (karst geochemistry)

Geochemists with the CNRS (5084 CNAB)

PROPOSAL FOR THE EXPORTING OF SAMPLES:

Flowstones and breccias are sampled from Kromdraai for the following analyses, to be done in the French CNRS laboratories of my collaborators:

- thin sections analysis for study of petrography and micromorphology to most accurately identify diagenesis in breccias and flowstones; this will enable us to date target the best samples for dating
- dating samples for Uranium Series work (U Pb)
- thin section analysis of samples at the contact of flowstone and breccia to reconstruct details of site formation
- geochemical analysis using microchemical imagery to map samples chemically; this will give precise information on diagenetic processes, detect elements that are specific to closed or open sources of sediments, and address the mineral composition of sediments (see below)

- Isotopic analysis of speleothems for palaeoenvironmental data

Submitted by Professor Francis Thackeray
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