



SASQUA

SOUTHERN AFRICAN SOCIETY
FOR QUATERNARY RESEARCH

NEWSLETTER

DECEMBER 2008

PRESIDENT'S REPORT

Well, another year passes by in a whirl of activity –it is my sense that somehow the days, weeks and months seem to be accelerating. Just as well then that, as Quaternarists, we have an abiding interest in pausing and peering back to reflect on the past. This certainly helps puts matters into perspective. SASQUA itself has a quiet time when there is no biennial conference, as has been the case in 2008, but your committee has been working quietly and consistently on the 2009 conference in September in Knysna – details are to be found in this newsletter. Please circulate this information to anyone you think may be interested. We will produce a second circular around March, calling for abstracts and registration. I am sure that you will be pleased to see that the registration costs have not risen since the previous biennial meeting (Howick) and that the Knysna meeting represents excellent value for money. Moreover, the venue is spectacular – sitting right on the edge of the Kynsna lagoon, the chalet accommodation is of excellent standard and there are river views for everyone. Spread the word!

No doubt the academics among our membership are just drawing breath after another hectic year of teaching and administration. With the mergers in our tertiary education system now behind us, hopefully most have got down to the serious challenges of educating our young scientists. Quaternary Studies remains a relatively low profile discipline in most institutions but at least the wide public acceptance now of the concepts (and problems imposed by) climate change has raised awareness of the significance of environmental dynamics. The Quaternary as the most recent of the geological periods (in fact some time ago it was demoted to a sub-period, but whatever...) represents our most important archive of how environments

change in response to climate change and this offers considerable impetus and motivation for students. The African Centre for Climate and Earth Systems (ACCESS) Programme, recently launched by the CSIR, also recognises the importance of the past in better understanding the present – and future of course. The focus of ACCESS is on climate related phenomena that range from the transient fluctuations in conditions on land and in the adjacent oceans, to future climate changes associated with global warming. You can find out more about this programme on <http://www.cogis.co.za/access>

SASQUA members have been busy with research during the time since our last newsletter was published, as indicated by the list of publications included in this newsletter provided by some of them (if you would like your own publications included on the list for the next newsletter, please contact Dr Huntsman-Mapila who has again done a sterling job in compiling this issue). Newsletters are useful means of communication only if the membership chooses to participate in the process.

In September, IGCP 500, under the leadership of Professor Dave Thomas of the University of Oxford and assisted by local organisers, held the 3rd Southern Deserts Conference at the Molopo Lodge in the southern Kalahari. The meeting was a great success and attended by geomorphologists, biogeographers, Quaternary scientists and archaeologists from South America, Australia and Africa along with a number of northern hemisphere participants. The environmental changes in southern hemisphere arid and semi-arid regions occurring in the geologically recent past provided the focus. Two field excursions, one into the Kalahari and the other a transect of semi-arid Namaqualand helped to develop a better understanding of these apparently sensitive systems. The

conference merry-go-round continues apace and, as I write this, Cape Town is preparing to host the Humboldt Conference on African Climate Change – check out the details on <http://www.humboldt5.uct.ac.za/index.htm>

Mike Meadows
University of Cape Town

Newsletter Editor: Philippa Huntsman-Mapila, Ottawa,
Canada

Report on SASQUA web page

Prepared by Brian Chase

Greetings all,
Efforts are being made to jump-start the SASQUA web page, which has been lying dormant since the 2005 conference. As I'm sure you are all aware, this is a critical time for southern African Quaternary studies. Key members of the community have left for jobs overseas, others are nearing retirement, and few new students are coming through the ranks to take their places. Considering this, it is very important that we pull together to revitalize the SASQUA network and create a framework for communication both within the community and as a link to international activities and research groups. While there may be many ways to stimulate these interactions, an active, functioning web site is probably the single most efficient way of disseminating information and promoting southern African Quaternary studies.

While this will be an ongoing process, as a first step it would be greatly appreciated if you could stand up and be counted by sending an email to **brian.chase@geog.ox.ac.uk** with a short note including the following information:

- 1) A word indicating that you agree to have your name and contact details posted on the site. While some of you may not want your email address included, it would be great if you could at least include a link to your institutional or personal web page.
- 2) Keywords indicating your research interests.
- 3) Any publications you would like to have listed on the website. These would ideally be sent as Word document attachments to an email with publications listed in the following format.

"Chase, B.M. and Meadows, M.E. (2007) Late Quaternary dynamics of southern Africa's winter-rainfall zone. *Earth-Science Reviews*, 84: 103-138."

If possible, it would be very helpful to people interested in your work if

you could hyperlink the title of the paper to its address on the publishers website

Beyond this, we would also like to include pages highlighting the history/recent developments in the major sub-disciplines such as palynology, aeolian geomorphology, etc. if you are interested in writing up or collaborating in the construction of such a page please signal your interest. Similarly, we are also interested in highlighting recent or ongoing projects in the region. If you would like to include your work on the site please include a sentence or two outlining the project so we can consider it in the development of the site's structure.

Once we have the basic site constructed, we hope to have sections on news, conferences, jobs, studentships, etc as well as some type regular digest that can be sent to interested members.

Thank you for time and we look forward to hearing from you!

Workshop Announcements

1) African Palaeofire Workshop

Late-Quaternary charcoal records provide a unique opportunity to examine the interactions among climate, vegetation and humans and to evaluate components of earth system models. The Global Palaeofire Working Group (GPWG) has successfully created the first Global Charcoal Database through two successful workshops in the UK. These data were used for the first global reconstruction of fire regimes since the Last Glacial Maximum (Power et al., 2008). A key motivation for developing the Global Charcoal Database is to provide a tool for evaluating state-of-the-art coupled vegetation-fire models.

The success of the GPWG in building a community of >90 fire researchers, combined with its strong scientific and organizational structure, have contributed to the rapid growth (> 430 records) of the global charcoal database. Thus, as a result of this success and the growing interests by

the international palaeofire community, including a palaeo-component of the new International Geosphere Biosphere Program (IGBP) cross-project FIRE activity (endorsed by the IGBP Scientific Steering Committee in March 2007), the GPWG is moving forward through continued database growth and capacity building activities.

The next step in our five-year plan is to hold a palaeofire workshop in Nairobi, Kenya in October 2009. The goals of this workshop are to bring together fire scientists working throughout Africa and to increase the number of late Quaternary charcoal records in the Global Charcoal Database. The workshop will facilitate knowledge transfer of state-of-the-art analytical techniques used in fire history reconstructions, and introduce workshop participants to palaeofire model simulations. This workshop will expand the existing data coverage of late Quaternary charcoal records from Africa and result in the publication of a multi-authored science paper synthesizing late Quaternary palaeofire activity in Africa.

Location:

Nairobi, Kenya

Date(s):

26-30 October, 2009

Contact person:

Mitchell J. Power
University of Utah
Utah Museum of Natural History,
Department of Geography
Salt Lake City, Utah
U.S.A.
mitchell.power@geog.utah.edu

Website:

http://www.bridge.bris.ac.uk/projects/QUEST_IGBP_Global_Palaeofire_WG/index.html

2) EAQUA 2009

Our sister organisation, EAQUA, will be holding its second biennial meeting in Addis Ababa next April. For more information contact Mohammed Umer at <moha_umer@yahoo.com>.



XVIII Biennial Congress
Knysna, South Africa
7th-10th September 2009

FIRST CIRCULAR

Understanding Quaternary Change: Southern Hemisphere Perspectives

Invitation to participate

On behalf of the Council of the Southern African Society for Quaternary Research (SASQUA), the organizing committee is pleased to invite you and your colleagues to participate in the XVIII SASQUA biennial congress.

Date

The congress runs from 7th to 10th September 2009 (Monday to Thursday).

Venue

The meeting will be held at the Phantom View River Resort (Lightley's), near Knysna (southern Cape): www.phantomview.co.za Phantom View River Resort is quietly

positioned 5 km from the town of Knysna and around 45 minutes from George airport. Shops, restaurants, beaches, forests, mountains, nature reserves and at least ten top-flight golf courses are all within a few kilometers of the venue. Accommodation comprises lagoon-side log cabins with wide, shaded wooden decks and large entertainment areas. The cabins are luxuriously equipped 2- and 3-bedroom units. All bedrooms en-suite, and all have river views.



Theme

The congress theme; "Understanding Quaternary change: southern hemisphere perspectives, enables SASQUA to focus attention on the importance of the southern hemisphere in global environmental change. We are sure that contributors will use this theme to highlight the broad significance of southern hemisphere environmental dynamics during the Quaternary. Researchers working in the fields of, *inter alia*, Quaternary geology, palaeoecology,

palaeontology, archaeology, sedimentology, geomorphology, palynology, climatology, chronology and oceanography are encouraged to attend.

Scientific programme

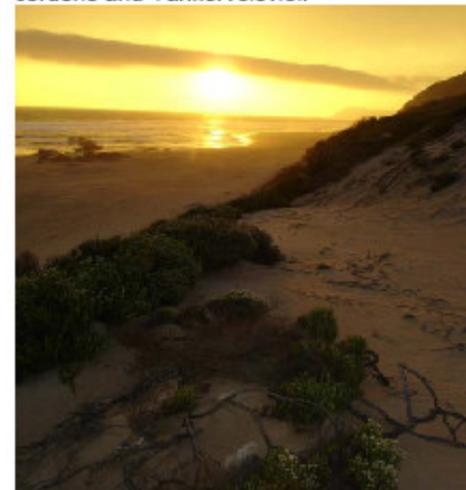
The programme provides opportunities for both oral and poster papers.

Awards

The organizing committee, as is customary at SASQUA meetings, will make merit awards for the 'Best student presentation' and 'Best student poster'.

The Knysna-George region

There will be a mid-conference field excursion to key Quaternary sites in the region that include the Wilderness lakes, Tertiary and Quaternary coastal dune cordons and Vankervelsvlei.



Student grants

SASQUA will offer student subventions towards registration and accommodation costs. Please submit your CV to the organizing committee, supported by a letter from your faculty supervisor.

Accommodation (per person per night: sharing/single)* R200/R450

Conference registration fees **

SASQUA Members R1250, Non-members R1500, Students R700; includes breakfasts, teas, lunches, evening meals, ice-breaker function, congress dinner, mid-congress field trip

** subject to change depending on possible sponsorship and rising costs

Post-congress field excursions

The organizing committee is planning two different post-congress field excursions. Costs, including transport, accommodation and all meals: R2500.

- a) The Garden Route. Two nights *en route* Cape Town to explore the landscapes of the Garden Route. Approximate cost R2500.
- b) The Swartberg and Karoo. Two nights *en route* to Bloemfontein to explore the landscapes of the Little and Great Karoo. Approximate cost R2500 including accommodation and meals.

Expression of interest

To receive the **Second Circular**, please submit (email or fax) the following details;

Name: _____

Affiliation: _____

Address: _____

Tel: _____

Email address: _____

Contribution: Oral / Poster

Tentative title of contribution: _____

I am/am not interested in participating in post-congress field excursion (a) or (b) (delete as appropriate)

Contact details

Organizing Committee; SASQUA 2009
Department of Environmental & Geographical Science
University of Cape Town
Rondebosch
7701
South Africa
Fax + 27 21 650 3456

Prof Mike Meadows
mmeadows@mweb.co.za

Prof Peter Holmes
holmespj.sci@ufs.ac.za

This is your congress, play an active role to ensure that you derive maximum value from your SASQUA membership !!



RESEARCH NEWS AND UPDATES

Graham Avery

Award for Heritage Contribution

Rarely, if at all, are South African archaeological and palaeontological sites recognized for attempts to preserve them. Few can be developed for public access.

The upper levels at Die Kelders Cave (Klipgat), which is in the Walker Bay Reserve, overlie an ancient dune. They yielded shell middens and the oldest then known sheep bones and ceramics (2000 ka old). Below the dune were well-preserved 50,000-70,000 ka old bones and stone artefacts. I first became involved in the excavations in 1969 as a student volunteer under Franz Schweitzer, archaeologist at the SA Museum, who had just initiated the project.

Schweitzer's excavations were extended in the 1990s by an American and SA Museum team. Subsequent annual re-sand-bagging of the sections by Mr Wilfred Chivel of Gansbaai and me was a temporary but 'ugly' solution, made worse by perlemoen poachers who found the bags 'the right size' for their purposes, while we waited the fulfilment of our long-term vision to have the site more accessible to the public.

With partners, including community members from the Die Kelders and Gansbaai areas, the Klipgat Trust, Iziko SA Museum and the Western Cape Province, Cape Nature developed a project to upgrade Klipgat. The Lotto granted them R2 million. Plans were drawn up for shoring up sections, board walks and information boards, additional parking, new entrance control to 'Die Plaat' and the upgrade of two unused municipal houses above the cave for ablution blocks and the shell of a future Information Centre. These have been finished. Information boards, describing finds in the cave and changes in the coastline with climate and sea level change and some landscaping to be completed at the top await the next Lotto tranche. So, in the near future, there will be a first class facility for local communities as well as visitors, which will add significantly to the available amenities of the area.

Recognition came at the recent Concrete Manufacturers Association's Western Cape Awards for Excellence 2008, which celebrate southern Africa's trend setting designers and project developers across multiple disciplines. Cape Wall cc, designers and erectors of the Klipgat shoring, using 2,200 of their "Terraforce" blocks", received a "Highly Commended" award. Although costly, the "Terraforce" approach clearly demonstrates an important link between archaeologists, palaeontologists and the preservation of some of the fragile heritage sites on which we work.



Die Kelders Cave (Klipgat)

Marion Bamford University of the Witwatersrand

I have continued with my research on East African fossil plants and visited Kenya in March and June-July and Tanzania in April and July-August this year. In March I went to see Oldonyo Lengai, the only active carbonatite volcano in Africa, erupting and spewing out clouds of ash. At Olduvai Gorge we (Olduvai Landscape and Palaeoanthropology Project team) are continuing with excavations at FLKN and are hoping to publish these and other research results in a dedicated issue of the Journal of Human Evolution next year in time for the 50th anniversary of the discovery of *Zinjanthropus boisei* by Mary Leakey (15 July 1959). There will also be a conference in Arusha in mid August 2009 to mark this occasion. In Kenya the Koobi Fora Field School and National Museums of Kenya staff continued with excavations and research on the palaeoenvironment. I am working on the fossil woods and my PhD

student, Lucy Pereira, is working on the phytoliths from Area 1A, near Ileret. I presented some of my results at the 8th Congress of the International Association of Palaeobotanists in Bonn, September, and the PSSA (Palaeontological Society of Southern Africa) in Matjiesfontein in September.

Standard Bank and PAST (Palaeontological Scientific Trust) initiated a series of annual awards at their 6th Annual Lecture Series in October this year. These awards are for scientific excellence in three categories. The Best Student Award went to Rob Gess, a PhD student at BPI, Wits, for his research on Devonian fish and palaeoecology. The Best Young Researcher Award went to Dr Frederick Manthe from the National Museums of Kenya, Nairobi, for his research on microfauna from East African hominin sites and the Best Senior Researcher Award was given to Prof Marion Bamford for her research on the Plio-Pleistocene vegetation of South and East Africa.

Sallie Burrough **Oxford University**

Some of the great deserts of the world lie in the southern hemisphere. This series of conferences brings together research from the desert regions of South America, Southern Africa and Australia focussing on the history of desert landscapes, desert people and their future, as well as the history of ideas that have shaped desert science in the southern Hemisphere. The 3rd Southern Deserts Conference (organised by Professor David Thomas and Dr Sallie Burrough, Oxford University and Professor Mike Meadows, UCT) fittingly took place this September amongst the red dunes and white pans of the Northern Cape Kalahari. Over 50 delegates from 4 continents attended to discuss issues on the theme of "Climate Change and the Peopling of the Southern Deserts". The meeting was a resounding success bringing together a real diversity of interests. Conference themes included: Southern desert science: a history of ideas, Environmental responses to global Quaternary changes; the peopling of the deserts and the development of desert

societies; southern desert futures. For more information on this conference please visit: www.geog.ox.ac.uk/news/events/3sdc/

Brian Chase **Oxford University** **University of Cape Town**

Southwestern Africa is a region critical to understanding southern hemisphere climate and circulation dynamics over 10¹ – 10⁵ year timescales. The region occupies a transition zone between temperate and tropical systems and is known to have experienced phases of significant environmental change resulting from variations in hemisphere-scale atmospheric and oceanic circulation patterns. The environmental history of southwestern Africa, however, remains poorly resolved, principally due to the region's semi- to hyperarid climate, which is not conducive to the accumulation and preservation of organic material and traditional palaeoenvironmental archives. Recent work, however, has identified fossilised rock hyrax (*Procavia capensis*) middens as a valuable archive of palaeoenvironmental information. Over the last two years, the UK and South African members of this team have established a collaborative relationship through the development of a pilot project funded by Leverhulme Trust. This grant has brought together researchers from the two countries, sharing capacity and expertise to explore and expand the potential of fossilized hyrax middens as a palaeoenvironmental archive. Together, the team has taken the methodologies developed in the 1990s by Louis Scott and increased both the number of proxies and the resolution of the records to the extent that they are now some of the most detailed records of climate change from southern Africa.

Philippa Huntsman-Mapila **University of Botswana**

I'm no longer at the University of Botswana. I left in October and am currently based in Ottawa, Canada working on a project investigating metal speciation in mine effluent. It's quite a change both

professionally and personally – it's been many years since I've had to shovel a driveway full of snow!

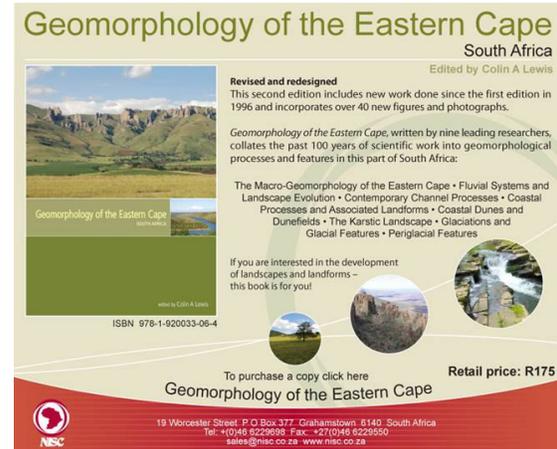
Before leaving I was engaged in 2 major projects. Firstly the investigation of elevated levels of arsenic in the groundwater of the Okavango and a second project doing a palaeoclimate reconstruction of the Gcwihaba Caves site in NW Botswana. The latter project was set up as a collaborative study between the University of Botswana and the Botswana National Museum and will be continued by my colleague Sue Ringrose. The aim of this project is to conduct a palaeoenvironmental study of the caves to 1) enhance our understanding of the cave system and its formation 2) determine the impact of climate change on human habitation in the Gcwihaba Valley and 3) to explore the significance of the caves to local livelihood options for San and other communities living in and around the Gcwihaba Valley.

Colin Lewis Rhodes University

Colin retired from Rhodes University at the end of 2007 but is still heavily involved in research. This year, in addition to the new edition of *Geomorphology of the Eastern Cape, South Africa*, NISC, Grahamstown, xii + 188 pp., he has published a number of journal articles (see list of publications).

In July 2009 Colin is due to lead a tour to the island of St Helena, departing Cape Town on the RMS St Helena on 5 July returning on 24 July. The RMS is the last mail ship sailing between South Africa and Europe and has accommodation for 128 passengers. The ship maintains the luxurious traditions of the old mail ship days, with full meals, entertainment and a series of talks by specialists on what tour participants are likely to see on St Helena. The passage from Cape Town to Jamestown (St Helena) takes five days. On St Helena the group will stay in the Consulate Hotel in Jamestown and Basil George and other local specialists will lead them through the natural and

historical wonders of this fascinating island. Details are available from sthelenaline@mweb.co.za or from reservations@aws.co.uk or by phoning 021-425-1165.



Mike Meadows University of Cape Town

A range of different proxies, including pollen, diatoms, stable isotopes, physical characteristics and geochemistry is applied to wetland sediment cores from a range of sites in southern Africa. Wetlands, apart from their ecological significance, represent important archives of evidence of environmental change, especially during the last glacial-interglacial cycle. Analysis of these multiple proxies facilitates reconstruction of the environmental conditions and drivers and radiocarbon and other dating techniques are used to resolve the chronology. The resultant vegetation histories reveal dynamic characteristics of the environment and enable a more robust understanding of the range of mechanisms involved in climate change in the region. Recovery of more recent sediments demonstrates the relative roles of human-induced and natural environmental change on southern African ecosystems. Examples of localities that have been studied in this way include Verlorenvlei on the Cape west coast, the Cederberg, Groenvlei near Knysna and Ncamasere in the Okavango delta region of Botswana. The work meshes with other palaeoecological research

conducted in the laboratory using hyrax midden archives (see Brian Chase entry).

Stephanie Mills
Queen Mary, University of London

Since successfully completing my PhD in December 2006, I have been a Visiting Research Fellow at Queen Mary, University of London, attempting to drum up some interest in Southern African Quaternary Research in the northern Hemisphere. A Royal Society Joint International Project grant was awarded to Dr Simon Carr (Queen Mary) and Prof Stefan Grab (University of the Witwatersrand), with Dr Stephanie Mills and Dr David Horne (both Queen Mary) as named collaborators. This grant provides funding for two research trips to Lesotho and the eastern Free State, with the aim to construct a quantified Ostracod-based Late Quaternary temperature record for the central highlands of southern Africa. In addition, we hope to derive precipitation data for the LGM through the modelling of steady-state dynamics of identified former niche glaciers in the high Drakensberg.

The hunt for fossil Ostracods (small crustaceans) began in July 2008, which was a reconnaissance trip to try and locate potential sites for coring during 2009. Two potential sites have been identified; the first is a natural lake and wetland located in western Lesotho near Tsa-Kholo, whilst the second is located along the Klip River in KwaZulu Natal, which was identified thanks to discussions with Spike McCarthy (University of the Witwatersrand) and Stephen Tooth (Aberystwyth University). The 2009 programme will involve coring one of these potential sites and include expeditions to Mafadi Summit and the Leqooa Valley in the remote high mountain regions of eastern Lesotho, partly to sample for high altitude Ostracods and map further periglacial and glacial deposits. Surface exposure dating will also be undertaken on identified moraines in order to constrain the timing of their deposition.

Louis Scott
University of the Free State

My research work focuses on the palynology of a variety of sites that include springs, swamps, lakes and caves all over Southern Africa but especially in Namibia. I am still working on the palynology of hyrax and hyena dung from caves, collaborating with several overseas colleagues. With my co-workers and student Lloyd Rossouw we are also looking at phytoliths.

Brian Chase, Greg Botha and myself are busy reviving the SASQUA website which had expired and we are still waiting for contributions from members for it.

Some SASQUA members including Dave Roberts, Mike Meadows, Peter Holmes and myself, attended the 3rd Southern Deserts Conference - Kalahari 2008 together with about 50 international delegates especially from South America and Australia at the Molopo Lodge, Northern Cape from 16th-19th September 2008.

Arnaud Temme
Dept of Environmental Sciences ,
Wageningen University and Research
Centre

Arnaud Temme is defending his PhD thesis at Wageningen University, the Netherlands on December 5. The title of his thesis is "Understanding landscape dynamics over thousands of years: combining field and model work with a case study in the Drakensberg foothills, KwaZulu-Natal, South Africa".

The thesis presents work done between 2003 and 2008 in the Okhombe Valley, KwaZulu-Natal, where Masotcheni-formation-type deposits have been studied. Fieldwork methods and landscape evolution modelling were combined, with results suggesting that: a) solifluction was a major landscape forming process between 50 and 33 ka BP, b) current landscape dynamics (erosion) may partly be a delayed and non-linear reaction to the major change in climatic drivers that occurred at the end of

the LGM. Papers presenting part of the work of the thesis have appeared in *Computers and Geosciences* (Temme et al, 2006) and *Geomorphology* (Temme et al, 2008). A chapter was contributed to the new Elsevier book: *Geomorphometry* (Hengl and Reuter, eds, 2008).

Work has partly been done in collaboration with Greg Botha, who will be one of the opponents on December 5.

RECENT PUBLICATIONS

Adams, J.W., Hemingway, J., Kegly, A.D.T. and Thackeray, J.F. 2007. Luleche, a new palaeontological site in the Cradle of Humankind, North-West Province, South Africa. *Journal of Human Evolution* 53, 751-754.

Albert, R.M., Bamford, M.K., Cabanes, D. 2008. Palaeoecological significance of palms at Olduvai Gorge, Tanzania, based on phytolith remains. *Proceedings 6th IMPR, Quaternary International*. DOI: 10.1016/j.quaint.2007.06.008

Andrews, P.J. and Bamford, M.K. 2008. Past and present vegetation ecology of Laetoli, Tanzania. *Journal of Human Evolution* 54, 78-98.

Balter B., Blichert-Toft J., Braga J., Telouk P., Francis Thackeray F. and Albarede, F. 2007. U-Pb dating of fossil enamel from the Swartkrans Pleistocene hominid site, South Africa. *Earth and Planetary Science Letters* 267, 236-246.

Balter, V., Telouk, P., Reynard, B., Braga, J., Thackeray, J.F., Albarede. 2008. Analysis of coupled Sr/Ca and $^{87}\text{Sr}/^{86}\text{Sr}$ variations in enamel using laser-ablation tandem quadrupole-multicollector ICPMS. *Geochimica et Cosmochimica Acta* 72, 3980-3990.

Bamford, M.K., Stanistreet, I.R., Stollhofen, H. and Albert, R.M. 2008. Late Pliocene grassland from Olduvai Gorge, Tanzania.

Palaeogeography, Palaeoclimatology, Palaeoecology 257, 280-293.

Braga, J. and Thackeray, J.F. 2007. Diamond anniversary of Mrs Ples. *Quest* 4 (1), 23.

Braga, J., Subsol, G., Thackeray, J.F., Dasgupta, G., Balter, V., Dedouit, F., Telmon, N. 2008. Evolution of Late Pliocene hominin midfacial morphology: an approach using three-dimensional surface registration. *American Journal of Physical Anthropology Supplement*. 136:72.

Chase, B and Meadows, ME 2007: Late Quaternary dynamics of southern Africa's Winter Rainfall Zone. *Earth Science Reviews* 84: 103-138

Gommery, D., Thackeray, J.F., Potze, S. and Braga, J. In press. The first recorded occurrence of honey badger (*Mellivora*) at Kromdraai B, South Africa. *Annals of the Transvaal Museum*.

Gommery, D. S n gas, F., Thackeray, J.F., Potze, S., Kgasi, L., Claude, J. and Lacruz, R. In press. Plio-Pleistocene fossils from Femur Dump, Bolt's Farm, Cradle of Humankind World Heritage Site. *Annals of the Transvaal Museum*.

Gommery, D., and Thackeray, J.F. In press. A new hominid hip bone from Swartkrans (SKW 8012) in relation to the anatomy of the anterior inferior iliac spine (AIIS). *Annals of the Transvaal Museum*.

Huntsman-Mapila, P., Tiercelin, J.-J., Benoit, M., Ringrose, S., Diskin, S., Cotton, J. and H mond, C. 2008. Sediment geochemistry and tectonic setting: Application of discrimination diagrams to early stages of intracontinental rift evolution, with examples from the Okavango and Southern Tanganyika rift basins. *Journal of African Earth Sciences*. (in press).

Lewis, C. A 2008. Late Pleistocene and Early Holocene foragers. In: Pearsall, D M (editor) *Encyclopedia of Archaeology*, New York, Academic Press, Volume 1, 86-93.

- Lewis, C. A. 2008. Late Quaternary climatic change, and associated human responses, during the last c 45 000 yr in the Eastern and adjoining Western Cape, South Africa. *Earth-Science Reviews*, 88, 167-187.
- Lewis, C A, Reimer P J, and Reimer, R W. 2008. Marine reservoir corrections: St Helena, South Atlantic Ocean. *Radiocarbon*, 50, 275-280.
- Lewis, C. A. 2008 "The Late Glacial and Holocene avifauna of St Helena, South Atlantic Ocean", *Transactions of the Royal Society of South Africa* **63(2)**, 128-144.
- Meadows, ME 2007: Classics revisited: Coetzee 1968. *Progress in Physical Geography* 31: 313-317.
- Meadows, ME 2007 Conversations with others: Physical Geography in South Africa. *South African Geographical Journal* 89: 128-134.
- Meadows, M.E. 2009. Mediterranean Environments. in D.J.Cuff and A.S.Goudie (eds.) *The Oxford Companion to Global Change*. OUP, new York, pp. 415-419.
- Mladenov, N., Huntsman-Mapila, P., Wolski, P., Masamba, W.R.L., Mcknight, D.M. 2008. Dissolved Organic Matter Accumulation, Reactivity, and Redox State in Ground Water of a Recharge Wetland. *Wetlands*, 28 (3), 747-759.
- Mmualefe L.C., Torto N., Huntsman-Mapila, P., Mbongwe, B., 2008. Supercritical fluid extraction of pesticides in sediment from the Okavango Delta, Botswana, and determination by gas chromatography with electron capture detection (GC-ECD) and mass spectrometry (GC-MS). *Water SA*, 34 (3), pp. 405-410.
- Neumann, F, Stager, C, Scott, L, Venter, H.J.T. and Weyhenmeyer, C. 2008. Holocene vegetation and climate records from Lake Sibaya, KwaZulu-Natal (South Africa). Review of of Palaeobotany and Palynology (in press) (available online 22 April 2008).
- Olejniczak, A.J., Smith, T.M., Skinner, M.M., Grine, F.E., Feeney R.N.M., Thackeray, J.F. and Hublin, J.-J. 2007. Molar tissue volumes and enamel thickness in South African fossil hominins. *Paleoanthropology* 2007, A21-A22.
- Olejniczak AJ, Smith TM, Skinner MM, Grine FE, Feeney RNM, Thackeray JF, Hublin J-J. 2008. Three-dimensional molar enamel distribution and thickness in Australopithecus and Paranthropus. *Biology Letters*, Royal Society, (doi:10.1098/doi:10.1098/rsbl.2008.0223).
- Philippe, M., Bamford, M.K., 2008. A key to morphogenera used for Mesozoic conifer-like woods. Review of Palaeobotany and Palynology **148**, 184-207.
- Prevec, R., McLoughlin, S., Bamford, M.K., 2008. Novel double wing morphology revealed in a South African ovuliferous glossopterid fructification: *Bifaria* *intermittens* (Plumstead 1958) comb. nov. Review of Palaeobotany and Palynology 150, 22-36.
- Ringrose, S., Huntsman-Mapila, P., Downey, W., Coetzee, S., Fey, M., Vanderpost, C., Vink, B., Kemosidile, T., Kolokose, D. 2008. Diagenesis in Okavango fan and adjacent dune deposits with implications for the record of palaeo-environmental change in Makgadikgadi-Okavango-Zambezi basin, northern Botswana. *Geomorphology*, Volume 101, Issue 4, Pages 544-557.
- Scott, L., Holmgren, K., and Partridge, T.C. 2008. Reconciliation of vegetation and climatic interpretations of pollen profiles and other regional records from the last 60 thousand years in the Savanna Biome of Southern Africa. *Palaeogeography, Palaeoclimatology, Palaeoecology* 257: 198-206. doi:10.1016/j.palaeo.2007.10.018
- Seliane, M, Meadows, ME and Chase, BM 2009: Holocene palaeoenvironments of the Cederberg and Swartruggens mountains, Western Cape, South Africa: pollen and stable isotope evidence from hyrax dung middens. *Journal of Arid Environments* (in press)

Sénégas, F. and Thackeray, J.F. In press. Temperature indices based on relative abundances of rodent taxa represented in South African Plio-Pleistocene assemblages. *Annals of the Transvaal Museum*.

Thackeray, J.F. 2007. Sea levels and chronology of Late Pleistocene coastal cave deposits at Klasies river in South Africa. *Annals of the Transvaal Museum* 44, 219-220.

Thackeray, J.F. 2007. Hominids and carnivores at Kromdraai and other Quaternary sites in southern Africa. In: T.R. Pickering, K. Schick and N. Toth (eds), pp 44 – 49, *Breathing Life into Fossils: Taphonomic Studies in Honor of C.K. (Bob) Brain*. Bloomington (Indiana): Stone Age Institute Press

Thackeray, J.F. 2007. Mrs Ples and other fossils from the Cradle of Humankind, South Africa, pp 10 - 13. *Yearbook of the Africana Society of Pretoria*. Africana Society of Pretoria, Pretoria.

Thackeray, J.F. 2007. Sexual dimorphism in early Homo. *South African Journal of Science*. **103**, 273.

Thackeray, J.F., Potze, S., Senut, B., and Gommery, D (eds). 2007. *Mother Africa and Mrs Ples, an exhibition at the Northern Flagship Institution – Transvaal Museum – celebrating the discovery of Mrs Ples and other fossils from Sterkfontein*. Istege Scientific Publications, Irene.

Thackeray, J.F. 2008. A statistical definition of a species in palaeontological contexts, based on morphometric analyses. *Transactions of the Royal Society of South Africa* 63, 104.

Thackeray, J.F., Gommery, D., Sénégas, Potze, S., Kgasi, L., McCrae, C., and Prat, S. In press. A survey of past and present work on Plio-Pleistocene deposits from Bolt's Farm, Cradle of Humankind, South Africa. *Annals of the Transvaal Museum*.

Thackeray, J.F. In press. Morphometric comparisons between the type specimen of *Homo floresiensis* (LB1) and other hominids. *Annals of the Transvaal Museum*.

Thackeray, J.F. 2007. Approximation of a biological species constant ? *South African Journal of Science* 103, 489.

Van der Merwe, N.J., Masao, F.T., Bamford, M.K. 2008. Isotopic evidence for contrasting diets of early hominins *Homo habilis* and *Australopithecus boisei* of Tanzania. *South African Journal of Science* **104**, 153-155.

Veenendaal, E., Mantlana, K.B., Pammenter, N.W., Weber, P., Huntsman-Mapila, P. and Lloyd, J. 2008. Growth form and seasonal variation in leaf gas exchange of *Colophospermum mopane* savanna trees in northwest Botswana. *Tree Physiology* 28, 417–424.