

Symposium and Workshops
November 16 - 20, 2009
Frankfurt am Main, Germany



THE ROLE
OF CULTURE
IN EARLY
EXPANSIONS
OF HUMANS

Human Expansions and Global Change in the Pleistocene - Methods and Problems

Program and Abstracts

senckenberg
forschungsinstitut und naturmuseum



HEIDELBERGER AKADEMIE
DER WISSENSCHAFTEN

Akademie der Wissenschaften des Landes Baden-Württemberg



Biodiversität und Klima
Forschungszentrum

Monday 16th November

8:30 Registration

9:30

Coffee Break

State of the art and Problems

10:00

Volker Mosbrugger, Friedemann Schrenk, Volker Hochschild
Opening and introduction

11:30

Robin Dennell

Hominin dispersals across Eurasia: where were the core populations?

12:30

Lunch Break

14:00

Sarah Elton

Exploring dispersal in the Plio-Pleistocene: can we use primate models to elucidate environmental influences on hominin movement within and out of Africa?

15:00

Roberto Macchiarelli

Late Pleistocene human expansion(s) from eastern Africa through southwestern Arabia. A look at both sides of the Red Sea.

16:00

Coffee Break

16:30

Lydie Dupont

*Vegetation and climate change in southern Africa associated to the last occurrence of *Australopithecus africanus**

17:30

David S. Strait

*Phylogeny and the dispersal of *Homo**

18:30

Break

19:00

Nicholas Conard

How the evolution of art and music contributed to the colonization of western Eurasia by modern humans

20:00

Welcome Dinner (Dinosaur Hall)

Tuesday 17th November*Ecology*

- 8:30 Heikki Mannila, Jussi Eronen, Mikael Fortelius
Other Expansions: On the Temporal and Spatial Dynamics of Mammalian Taxa and Taxon Assemblages in the Eurasian Neogene
- 09:10 Maria Rita Palombo
Advances in mammalian palaeoecology: Problems and perspectives
- 09:50 Thomas Tütken
Isotope analysis - a tool to reconstruct the behaviour and environment of early humans

10:30 Coffee Break

Vegetation

- 11:00 Marion Bamford
Methods for reconstructing past vegetation based on fossil macroplants
- 11:40 Raymonde Bonnefille, Doris Barboni
Reconstructing paleo-environments at East African hominid sites : methods and results from pollen, phytoliths, and isotope
- 11:20 Ulrich Salzmann, A M Haywood, D J Lunt , D J Hill, H J Dowsett
Reconstructing late Pliocene global vegetation with a new BIOME₄-based Data/Model Hybrid

13:00 Lunch Break

Climate

- 14:00 Brian M. Chase
A little knowledge can be a dangerous thing: southern African palaeoenvironments
- 14:40 Martin H. Trauth, M A Maslin, A G N Bergner, A Deino, A Junginger, E Odada, D O Olago, L Olaka, M R Strecker, R Tiedemann
Human Evolution and Migration in a Variable Environment: The Amplifier Lakes of East Africa
- 15:20 Pavel E. Tarasov
Quantitative pollen-based reconstructions of the late Quaternary vegetation and climate: case studies from northern Asia

16:00

Coffee Break

Infrastructure

16:30

Espen Uleberg

Creation and implementation of national museum databases

17:10

Matthias Lang , Stefan Printz

ArcheoInf - Allocation of archaeological primary data

17:50

Eric C. Grimm

Neotoma: A Multiproxy Community Database for the Pliocene and Quaternary

18:30

Session end

Wednesday 18th November

Geography

- 8:30 T.C. Partridge
Did orbitally forced climate change trigger hominid dispersal and cultural innovation in southern Africa during the Early and Middle Pleistocene?
- 09:10 Zvi Ben-Avraham
The Dead Sea Fault and its Effect on Civilization
- 09:50 Ari Matmon
Plio-Pleistocene landscape development along the western margin of the Dead Sea rift

10:30 Coffee Break

General discussion

- 11:00 Chair : Volker Mosbrugger
Conclusions and outlook

12:30 Lunch Break

Beginning of Workshops and Meetings

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|-------|---------------------|----------------|-------------------|---------------------------|
| 14:00 | Workshop 1 : | Infrastructure | Meeting 1: | Phytolites |
| | Chair : | M. Märker | Chair : | K. Neumann |
| | Address : | Jügel Haus | Address : | Campus Westend |
| | room : | Jüg 32 b | | 6th Floor, V4, Room 6.455 |

16:00 Coffee Break

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|-------|---------------------|----------------|-------------------|------------|
| 16:00 | Workshop 1 : | Infrastructure | Meeting 1: | Phytolites |
|-------|---------------------|----------------|-------------------|------------|

18:30 Break

- 19:00 Elisabeth Vrba
G.H.R. von Königswald Lecture 2009 (Museum, Festsaal)
Palaeoclimate and evolution with emphasis on human origins

Thursday 19th November

9:00	Workshop 2 :	Paleo-ecology
	Chair :	C. Hertler
	Address :	Jügel Haus
		room : Jüg 32 b
10:30		Coffee Break
11:00	Workshop 2 :	continuation
12:30		Lunch Break
14:00	Workshop 3 :	Reconstructing Climate
	Chair :	A. Bruch
	Address :	Jügel Haus
		room : Jüg 32 b
15:30		Coffee Break
16:00	Workshop 3 :	continuation
18:30		Session end

Friday 20th November

Connected working group meetings

9:00	Meeting 2 Working group on past African vegetation – WAVE meeting 2009 Chair : A. Bruch
10:30	Coffee Break
11:00	Meeting 2: continuation
12:30	Lunch Break
14:00	Meeting 3 Meeting - Future field research in Makuyuni, Tanzania Chair : C. Hertler
15:30	Coffee Break
16:00	Meeting 3: continuation

Workshop 2 :

Reconstructing Ecology – Indicators, gaps, and prospective links Thursday, November 19th, 2 to 4 p.m

Chair : Christine Hertler

An introductory talk summarizes suggestions and open questions which were raised during the symposium. It should also attempt to provide an overview on available approaches and examine links among them.

The following topics are suggested for discussion:

- taxon-free vs. taxon-bound methods
- comparison of indicators (vertebrates: mammals, birds, reptiles and amphibians; invertebrates)
- mutual links, supplements; how to deal with inconsistencies?
- habitats, bioms, ecosystems – differences and similarities; and ecological classification methods
- quantitative approaches and possibilities for quantification
- quality assessment and minimum requirements for eco-space reconstructions
- identifying gaps and desiderata for research
- market place for further initiatives

Workshop 3 :

Reconstructing Climate – Quantitative proxies, gaps, and prospective links

Chair: Angela Bruch

An introductory talk summarizes proxies and methods for quantitative climate reconstructions, similarities and differences, methodological problems and addresses issues which were raised the day before.

The following topics are suggested for discussion:

- methods
- identification of gaps and problems
- suggestions for problem solving
- establishing working groups on specific topics (methodological comparison, African vegetation)
- encouraging and starting cooperations, projects, proposals

Meeting 1 :

Meeting on Phytolith research in Africa

Chair: Katharina Neumann and Doris Barboni

Phytolith research in Africa at human and ancient hominid sites or at important time periods for human evolution is one goal, but much still needs to be reconciled before phytoliths could be confidently used to provide accurate and quantified reconstructions of paleo-vegetation and climate.

Phytolith taphonomy, the build up and handling of modern reference collections with plants and soil samples, and the diagnostic- vs assemblage-based interpretations of the phytolith data are important aspects of the phytolith research in Africa that will need to be taken into account in the future.

The objective of this meeting is to create an open atmosphere of exchange and cooperation. We therefore suggest that every participant briefly presents his/her current research (5 minutes), followed by an open discussion on the most important aspects of future phytolith studies in Africa. The reconstruction of Plio-Pleistocene palaeoenvironments is one goal, but people working on Holocene sites can also contribute, especially for problems of taphonomy.

Meeting 2 :

Working group on past African vegetation – WAVE meeting 2009

Chair: Angela Bruch and Doris Barboni

The main aim of this meeting is to discuss and agree about the general objectives of this new working group, to define common interests and to get the WAVE group officially started. They are meant to be informal and open to everybody who is interested. With this initiative would like to foster scientific exchange among palaeobotanists working on reconstructing African pre-Holocene Cenozoic vegetation or on modern reference material as a prerequisite for such studies.

Meeting 3 :

Future field research in Makuyuni, Tanzania

Chair: Christine Hertler

For planning and coordination of short- and mid-term fieldwork at the locality Makuyuni (Northern Tanzania) participants in the activities will gather in frame of the meeting.