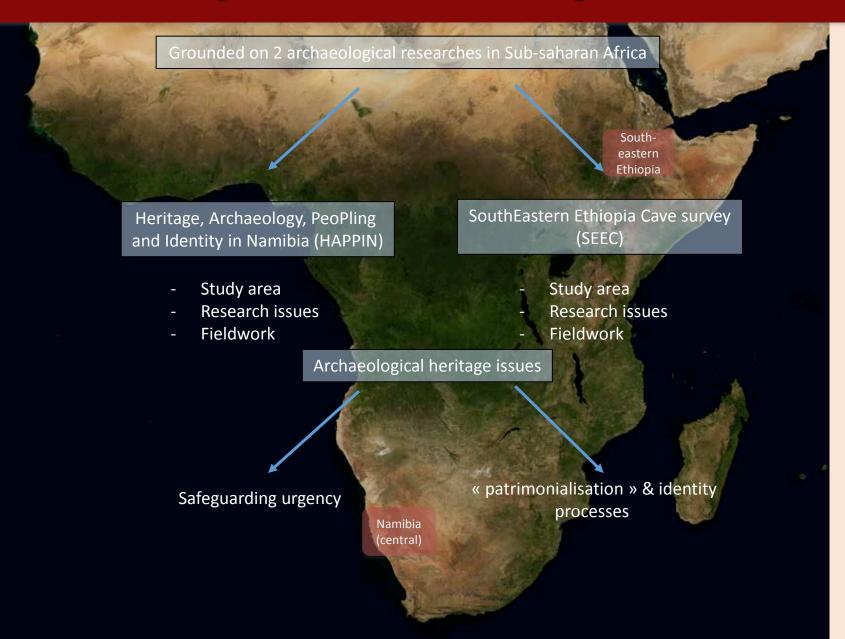
Archaeological research and Heritage in Africa : Ethiopian case study



Archaeological research and Heritage in Africa



Survey and explorations of caves in southeastern Ethiopia: MSA and LSA archaeology and rock art Cultural Change or Continuity in the Late MSA/Early LSA of SE Ethiopia?

> Southeastern Ethiopia



Southeast Ethiopia Cave Survey Project (SEEC)

 \rightarrow Since 2008

→ Financial support of NGS, Wenner Gren, MNHN and CFEE

\rightarrow International team:

- National Museum of Ethiopia, Addis Abeba, Ethiopia
- Authority for Research & Conservation of CulturalHeritage
- Museum National d'Histoire Naturelle, Paris, France (cood.)
- Smithsonian Institution, Washington, USA (cood.)
- Addis Ababa University, Ethiopia
- -Hebrew University, Jerusalem, Israël
- -Univ. of New Mexico, USA
- -Univ. Aix-Marseille, France

→ Survey and documentation of caves with rockart and sedimentary sequences from Upper Pleistocene in the Dire Dawa-Harar area



éHuaman Evolution » and archaeological issues

AMH origins

EMSA → ~300ka to ~130 ka : Gademotta, Kapthurin, Omo Kibish, Middle Awash, Olorgasailie

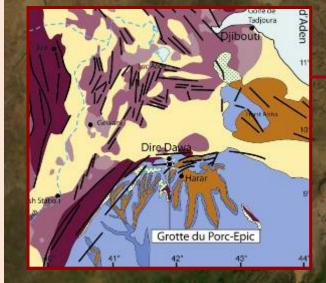
Hiatus

MSA → LSA: from ~60 ka to Holocene: Porc-Epic, Mumba, Moche Borago, K' oné, Gorgora ...

South- Eastern Ethiopia Cave Survey: MSA - LSA archaeology and rock art



Survey mission: rock art and archaeolog



Antalo limestones: 1/ Rockshelters and caves 2/ Denser concentrations o

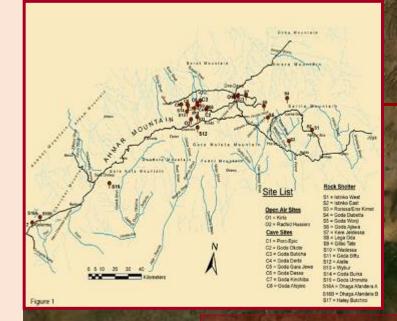
1/ Rockshelters and caves
2/ Denser concentrations of wellpreserved organic & inorganic materials
3/ Well-stratified accumulations
4/ Continuous or recurring record of occupation

Chercher and Ahmar Mountains = priviledged areas

MSA → LSA: from ~60 ka to Holocene: Porc-Epic, Mumba, Moche Borago, K' oné, Gorgora ...



Survey mission: rock art and archaeolog



<u>Three major objectives</u>: 1/ recording, documentation 2/ test and excavation 3/ protection and valorization issues

Chercher and Ahmar Mountains = priviledged areas

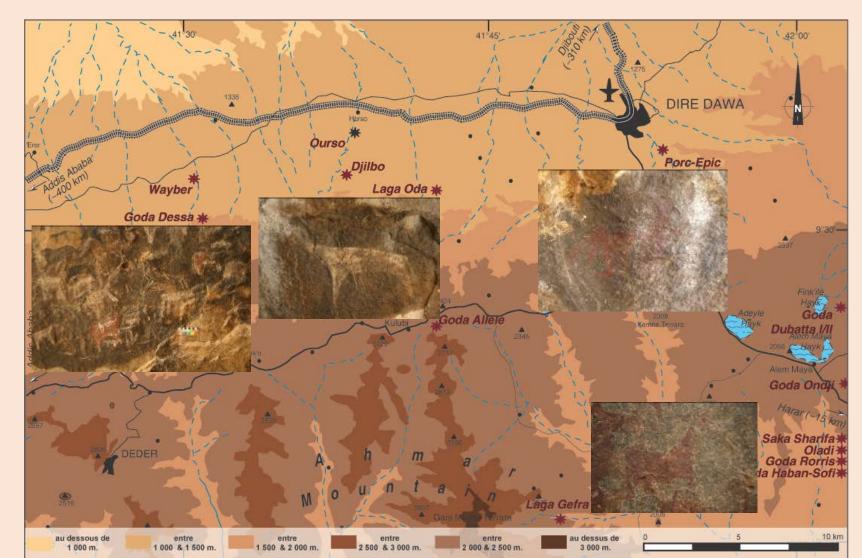
LMSA → ELSA: from ~60-70 ka: Porc-Epic, Mumba, Moche Borago, K' oné, Gorgora ...



Chercher and Ahmar Mountains = priviledged areas

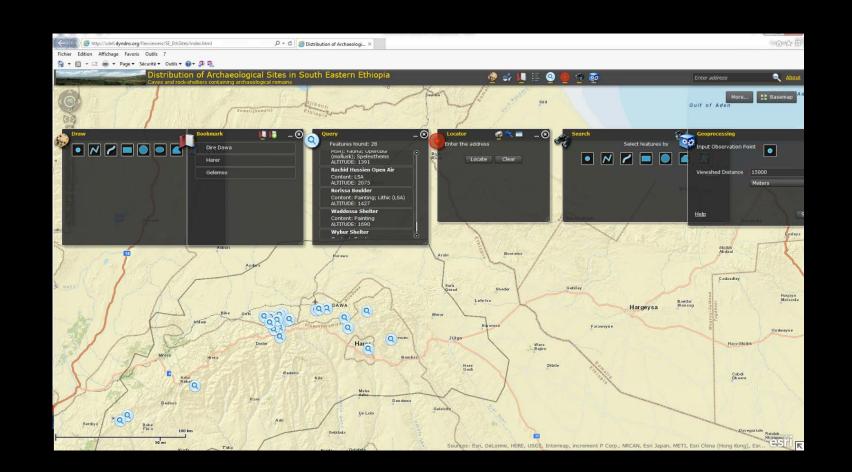
LMSA → ELSA: from ~60-70 ka: Porc-Epic, Mumba, Moche Borago, K' oné, Gorgora ...

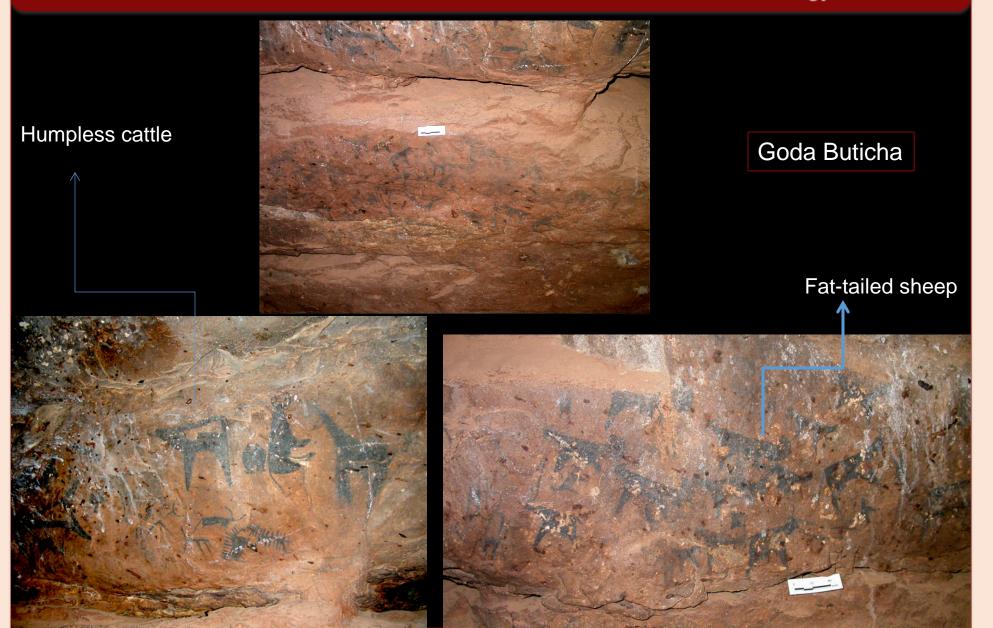




Site	Туре	Region	MSA	LSA	Neolithic	Rock art
Kirte	Open	Dire Dawa				
Rachid Hussein		Eastern Hareghe				
Porc-Epic	Cave	Dire Dawa				
Goda Okote?						Х
Goda Buticha		Easten Harerghe				Х
Goda Derbi						
Goda Gara Jewe*						
Goda Dessa						Х
Goda Kinchiba						
Goda Afejero						Х
Rorissa	Boulder					Х
Istinko East/West	Shelter					Х
Goda Dubetta						Х
Goda Wonji						Х
Goda Ajawa						Х
Kere Jeldessa		Dire Dawa				
Lega Oda		Dire Dawa				Х
Gilbo Tate		Eastern Harerghe				Х
Wadessa						Х
Goda Biftu						Х
Alelle						Х
Wybur						
Goda Burka*						
Goda Ummetta**		Western Harerghe				Х
Dhaga Afandera A/B						Х
Haley Butchiro						Х
*Contains a few non-diagnostic tools; **Speleothems						

 \rightarrow 30 rockshelters and caves visited





"Neolithic" issues



Fat-tailed sheep and humpless cows → suggest the presence of sheep prior the arrival of humped cattle i.e. ~1500-2000 BP

(Clark and Williams, 1978)

And possible caprines remains in holocene layers (env. 3 ka)

Humpless cows



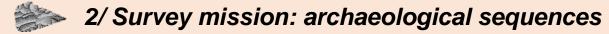
Fat-tailed sheep

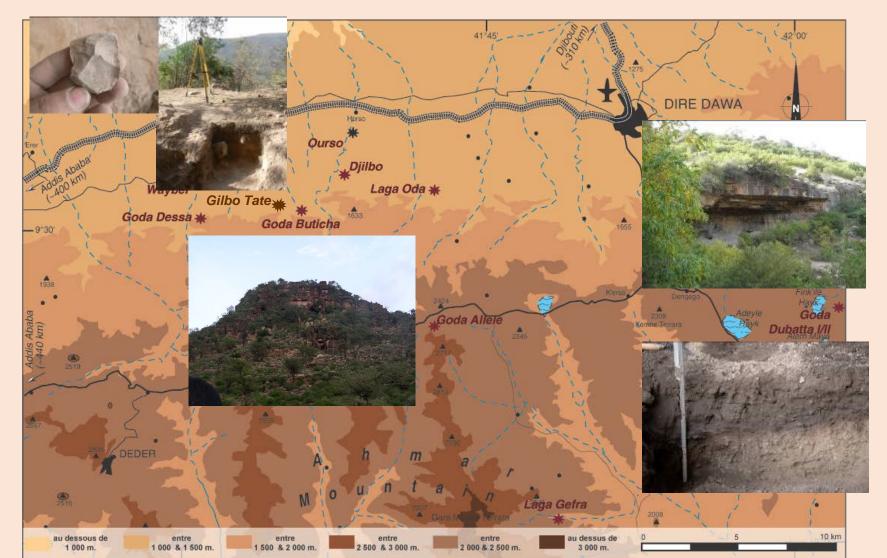




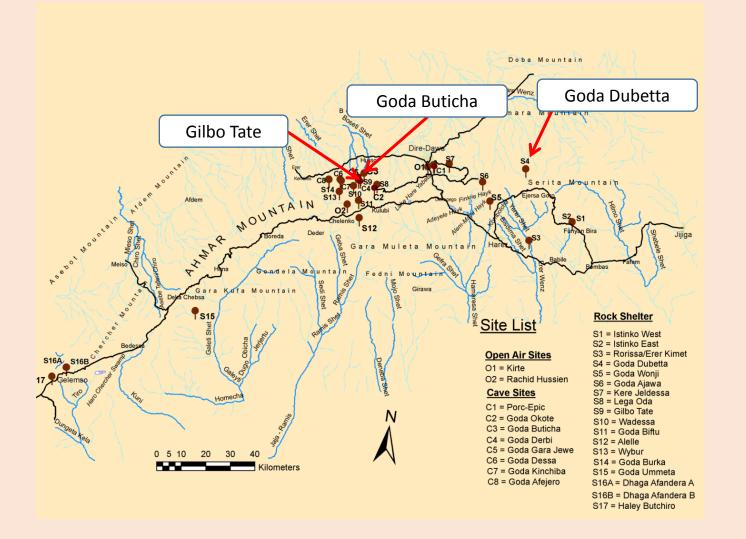
Laas_Geel Shelter Hargeisa -Somalia)

Dhage Afandera





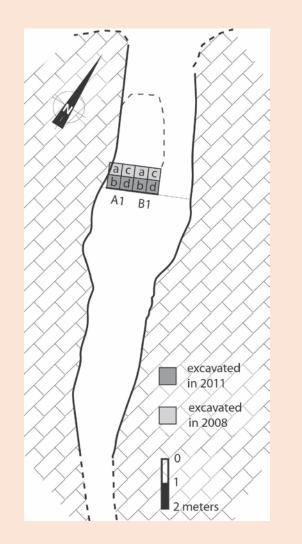
2/ Test excavations

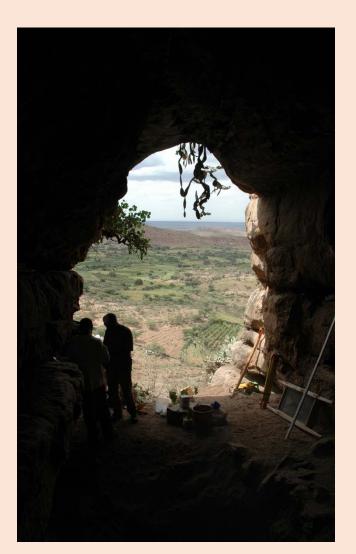








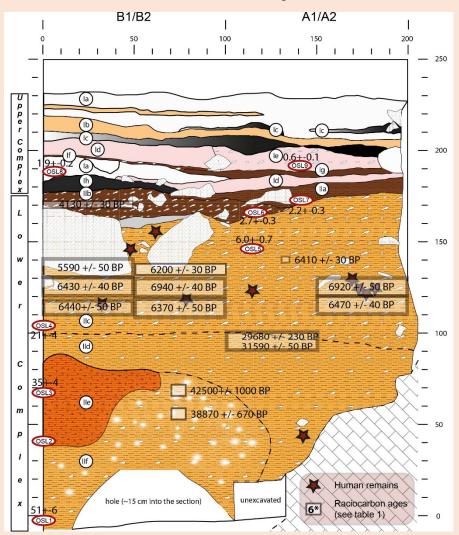


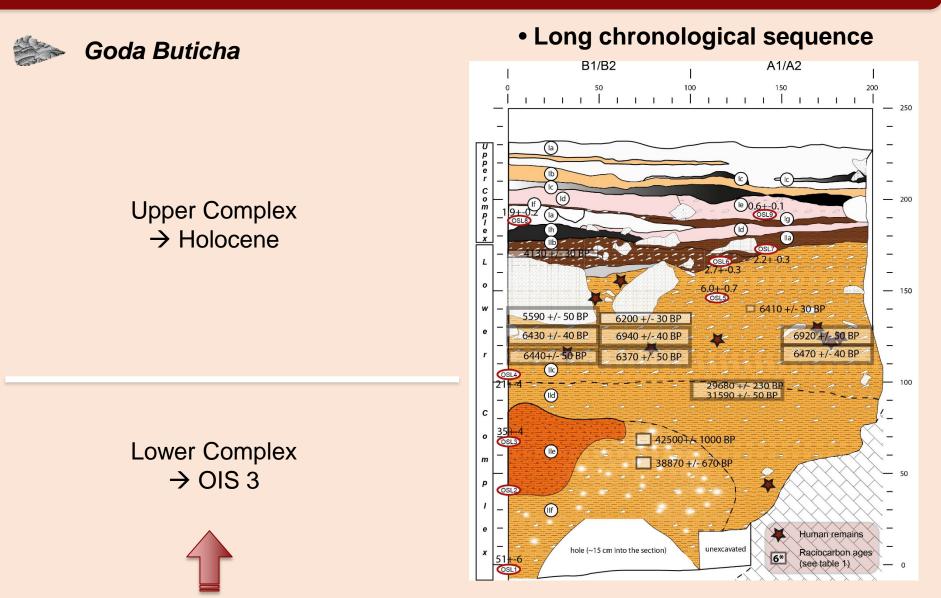




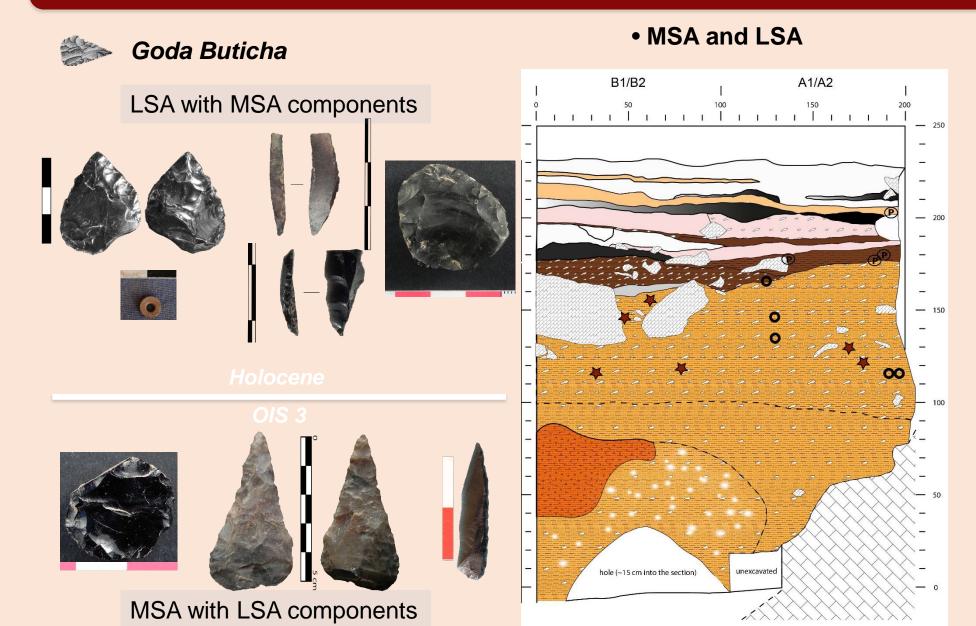


~2 meters sequence





Radicarbon samples and analysis





• Human remains



Human remains





→ Local traditions with MSA and LSA components (Hargesian, Magosian, Som. Stillbay)?

→ MSA-LSA Transition ? - but is >20ka time span still a transition?
 - which definition for ELSA (and LMSA) (cf. Border Cave case)

→ Which populations? (continuum or replacement?)

Prehistoric sites i.e. Rock art & Human occupations \rightarrow high scientific value



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→ Refugium?

Prehistoric sites i.e. Rock art & Human occupations \rightarrow high scientific value



→ Local traditions with MSA and LSA components (Hargesian, Magosian, Som. Stillbay)?

→ MSA-LSA Transition ? - but is >20ka time span still a transition?
 - which definition for ELSA (and LMSA) (cf. Border Cave case)

→ Which populations? (continuum or replacement?)

→ Refugium?

→ Migration routes

 \rightarrow Nile Valley corridor (and which direction?)

- \rightarrow Bab al Mandeb ?
- \rightarrow Are few artefacts, even diagnostic, really significative?
- \rightarrow How can be achaeologically be traced large population mov.?



- → Local traditions with MSA and LSA components (Hargesian, Magosian, Som. Stillbay)?
- → MSA-LSA Transition ? but is >20ka time span still a transition?
 which definition for ELSA (and LMSA) (cf. Border Cave case)
- → Which populations? (continuum or replacement?)
- → Refugium?
- \rightarrow Migration routes
- \rightarrow Neolithic in the Horn (domestication, arrivals routes...)
 - Prehistoric sites i.e. Rock art & Human occupations → high scientif value

3/ A valuable archaeological heritage to protect and valorize

Paradoxal process

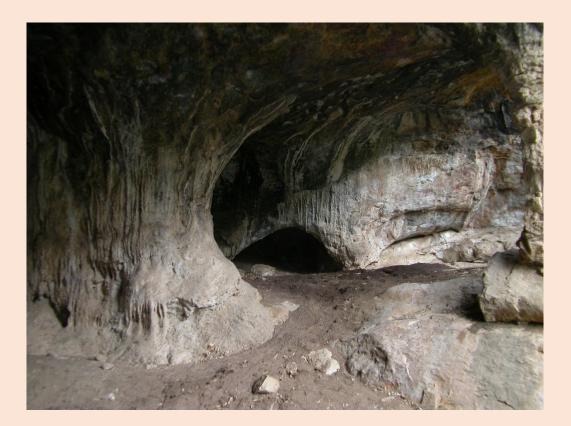
missions to increase awareness of the local community about their heritages

Increase of interest for some people to the hypothetical commercial value

Potential destructive activities



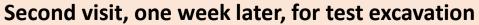




First visit

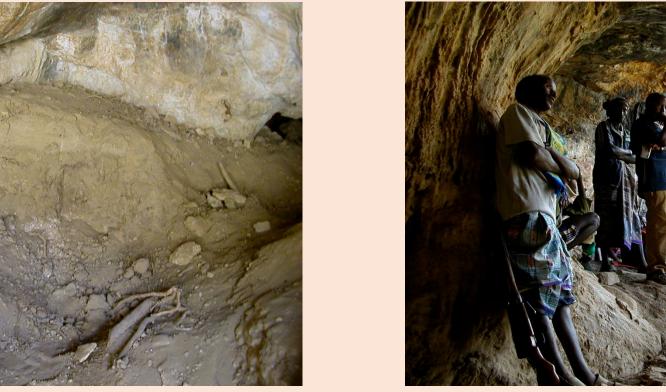














Second visit, one week later, for test excavation





3/ A valuable archaeological heritage to protect and valorize

Paradoxal process

Excavation and ancient Rock art planning

Potential "destructive" activities

1975 – J. D. Clark ©M. Williams







2011 – SEEC



3/ A valuable archaeological heritage to protect and valorize

Paradoxal process

missions to increase awareness of the local community about their heritages

Increase of interest for some people to the hypothetical commercial value

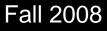
Potential destructive activities

Diagnostic

<u>Continued damages on rock art</u> and other archaeological remains will lead to complete destruction (even visible during these 7 last years)









Early 1970's (Clark & Williams) (color enhanced)

3/ A valuable archaeological heritage to protect and valorize

Paradoxal process

missions to increase awareness of the local community about their heritages

Increase of interest for some people to the hypothetical commercial value

Potential destructive activities

Diagnostic

<u>Continued damages on rock art</u> and other archaeological remains will lead to complete destruction (even visible during these 7 last years)





3/ A valuable archaeological heritage to protect and valorize

Objectives

- ✓ To protect the rock arts and other associated archaeological remains
- ✓ To <u>build awareness of the local community</u> on significance and importance of the historical/cultural heritage in their surroundings.
- ✓ To make this rich heritage accessible to everyone → accessibility issues
- To support and strengthen technical capacity of local cultural offices for more effective administration of such important heritages.
- ✓ To revitalize economic potential of the area linked to increased tourism activity.
- ✓ To facilitate new research activity on sites identified for protection



> 3/ A valuable archaeological heritage to protect and valorize

Stakeholders

- Researchers (new sites and reevaluation of scientific (\rightarrow heritage) value
- Federal to local institutions :
 - Ministry of Culture,



- Authority of Research and Conservation of Cultural Heritage
- National Museum of Ethiopia
- Regional cultural offices (Dire Dawa and Harar)
- Municipality of Dire Dawa & Harar (mayor, tourism administration)
- Local communities (village authorities)
- Funding institution (FSD program of French Embassy, ARCCH, European Union
- Researchers (discovery and evaluation of new sites and reevaluation of ancient ones. Scientific value → heritage value ? and experts







3/ A valuable archaeological heritage to protect and valorize

Actions

Site protection and valorization

- ✓ <u>Selecting</u> the most endangered and valuable sites for protection..
- ✓ Installing fences around selected caves and rock shelters
- \checkmark Improving access to and from the sites by clearing trails
- ✓ <u>Placing</u> information placards to visitors at the entrance of protected sites
- ✓ <u>Enhancing</u> valorization actions towards tourist bureau and agencies
- ✓ <u>Training</u> local guides for visiting sites

in collaboration with local communities for advancing economic and socio-political objectives

3/ A valuable archaeological heritage to protect and valorize

Actions

Advancing economic and Socio-political objectives

 \checkmark <u>Formulating</u> a small team of representatives from local communities to consult with and collaborate with site protection activities in their respective areas.

 \checkmark <u>Discussing</u> with the local community about the purpose of the project, and expected short and long term involvement of the members of the local community.

✓ Coordinated by the local and regional cultural offices and ARCCH, <u>series educational</u> <u>briefings</u> to members of the local communities on significance of the heritages

 \checkmark Short brochures will be prepared describing the contents of archaeological materials in selected sites.

 \checkmark <u>Training</u> will be provided to a small number of local guides about historical and scientific significance of all major sites in the region.

3/ A valuable archaeological heritage to protect and valorize

Funding



AMBASSADE DE FRANCE EN ETHIOPIE

Application for FSD subsidy – Embassy of France in Ethiopia

Identification of the project

Title:

ENDANGERED CAVE ART IN SOUTHEASTERN ETHIOPIA: CONSERVATION AND VALORISATION THROUGH TOURISM

Beneficiairy or ganization (or group): Regional Cultural Offices of the Dire-Dawa, Eastern Hararghe, and Western Hararghe Aministrations

Localization: Dire-Dawa

Contact representing the beneficiary: Gebeyew Wegayew Mulatu (expert, cultural office, Dire Dawa), Alemayu Teshome

Head of project: Mohamme Taha, head of the Culture Department/office, Dire Dawa administration

Bank reference of beneficiary (bank paper):

Project subsidy application date: September 2012

Requested FSD subsidy:

Project duration: . 18 months. Social Fund for Development (FSD)

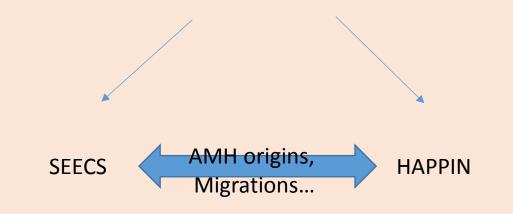
2014 → Expertise mission for elaboring action planification (French Embassy funds)

To be continued

Site name	Entered	
Simien National Park	1978	
Rock-hewn Churches, Lalibela	1978	World Heritage Sites in Ethiopia Tentative list of Ethiopia Bale Mountains National Park Dirre Sheik Hussein Religious, Cultural and Historical Site Gedeo Mixed Cultural and Natural Landscape Holqa Sof Omar: Natural and Cultural Heritage (Sof Omar: Caves of Mystery) Melka Kunture and Bachilt Archaeological Site
Fasil Ghebbi, Gondar Region	1979	
Lower Valley of the Omo	1980	
Aksum	1980	
<u>Tiya</u>	1980	
Lower Valley of the Awash	1980	
<u>Harar Jugol</u>	2006	
Konso Cultural Landscape	2011	

\rightarrow URGENCE

Grounded on 2 archaeological research



- Study area
- Research issues
- Fieldwork

- Study area
- Research issues
- Fieldwork



5154-5162 | PNAS | March 29, 2011 | vol. 108 | no. 13

Hunter-gatherer genomic diversity suggests a southern African origin for modern humans

Brenna M. Henn^{a,1}, Christopher R. Gignoux^b, Matthew Jobin^{c,d}, Julie M. Granka^e, J. M. Macpherson^f, Jeffrey M. Kidd^a, Laura Rodríguez-Botigué^g, Sohini Ramachandran^h, Lawrence Hon^f, Abra Brisbinⁱ, Alice A. Lin^j, Peter A. Underhill^j, David Comas⁹, Kenneth K. Kidd^k, Paul J. Norman^I, Peter Parham^I, Carlos D. Bustamante^a, Joanna L. Mountain^f, and Marcus W. Feldman^e

Africa is inferred to be the continent of origin for all modern hu-Hunter-gatherer populations also tend to have the lowest levels man populations, but the details of human prehistory and evo- of genome-wide linkage disequilibrium among 27 African populalution in Africa remain largely obscure owing to the complex tions. We analyzed geographic patterns of linkage disequilibrium histories of hundreds of distinct populations. We present data for and population differentiation, as measured by Fsr. in Africa. The more than 580,000 SNPs for several hunter-gatherer populations: <u>observed patterns are</u> consis<mark>ent with an origin of modern humans</mark> the Hadza and Sandawe of Tanzania, and the ≠Khomani Bushmen in southern Africa rither than eastern Africa, as is generally asof South Africa, including speakers of the nearly extinct Nlu lan- sumea. Additionally, genetic variation in African hunter-gatherer guage. We find that African hunter-gatherer populations today remain highly differentiated, encompassing major components of variation that are not found in other African populations.

populations has been significantly affected by interaction with farmers and herders over the past 5,000 y, through both severe population bottlenecks and sex-biased migration. However, African hunter-gatherer populations continue to maintain the highest levels of genetic diversity in the world.

RESEARCH ARTICLE

www.sciencemag.org SCIENCE VOL 324 22 MAY 2009

The Genetic Structure and History of **Africans and African Americans**

Sarah A. Tishkoff, ^{1,2}* Floyd A. Reed, ¹†‡ Françoise R. Friedlaender, ³‡ Christopher Ehret, ⁴ Alessia Ranciaro, ^{1,2,5}§ Alain Froment, ⁶§ Jibril B. Hirbo, ^{1,2} Agnes A. Awomoyi, ¹|| Jean-Marie Bodo, ⁷Ogobara Doumbo,⁸ Muntaser Ibrahim,⁹ Abdalla T. Juma,⁹ Maritha J. Kotze, ¹⁰ Godfrey Lema, ¹¹ Jason H. Moore, ¹² Holly Mortensen, ¹¶ Thomas B. Nyambo, ¹¹ Sabah A. Omar, ¹³ Kweli Powell, ^{1#} Gideon S. Pretorius, ¹⁴ Michael W. Smith, ¹⁵ Mahamadou A. Thera,⁸ Charles Wambebe, ¹⁶ James L. Weber, ¹⁷ Scott M. Williams¹⁸

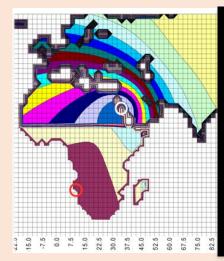
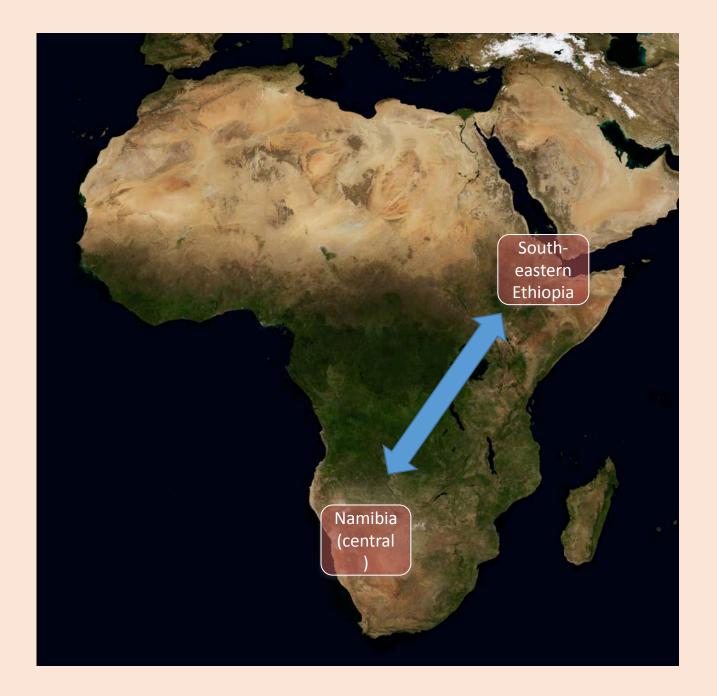


Figure S30: The geographic origin of modern humans [...] circle The red indicates the inferred origin of migration within Africa [...]



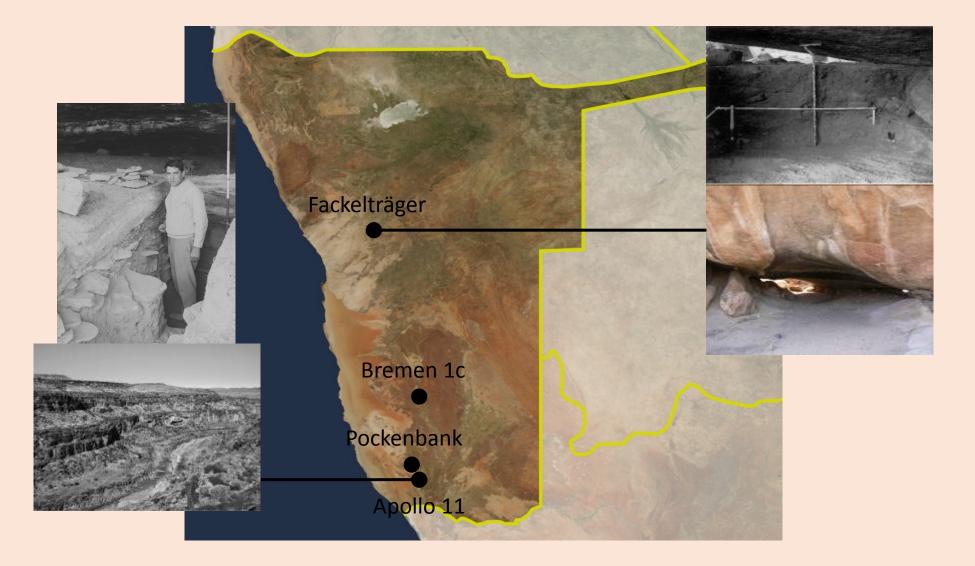
Grounded on 2 archaeological research



Safeguarding urgence \rightarrow implication to tourism development

« patrimonialisation » processes & identity appropriation

Only few stratified MSA sites have been recovered and excavated



 \rightarrow from 2007, collaboration between:



National Museum of Namibia (NMN) Windhoek



Muséum national d'Histoire naturelle Paris

Prehistoric archaeological part:

- Main issues (beginnings): Middle Stone Age period or MSA/LSA transition
- Location: Erongo Mountains
- <u>Approach</u>: survey, test pit, excavation

Study Area : Erongo Mountains

Damara people

- Khoisan langage group
- \rightarrow Origins unknown (centuries or millenaries?)
 - <u>Chaotic history</u>

Brandberg Uis Okombahe Tubussis Omaruru Tubussis Erongo Karirib

- → Concentration group between Erongo, Brandberg & Spitzekoppe
- → Past and current organization and relationship with environment?
- → Since Namibia independence, identity renewal process linked to heritage appropriation

Study Area : Erongo Mountains

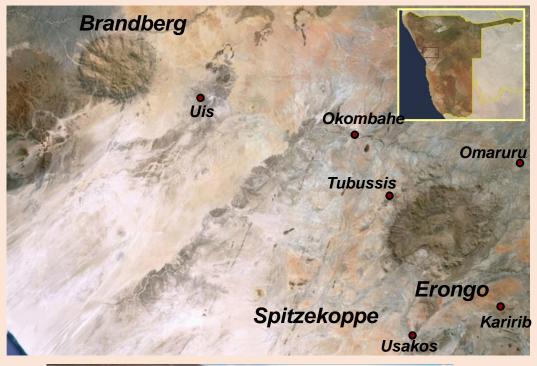
Damara people

> Archaeological heritage

Rock art



Philipp's Cave (Breuil's work 1950')



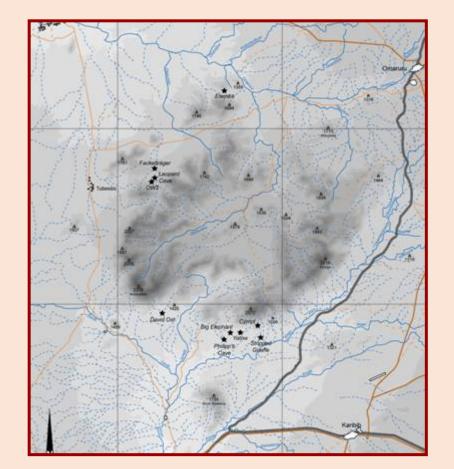


Study Area : Erongo Mountains

Damara people

> Archaeological heritage

- Rock art
- Prehistoric sites (Middle and Later Stone Age)







Erongo is the largest pluton of Namibia

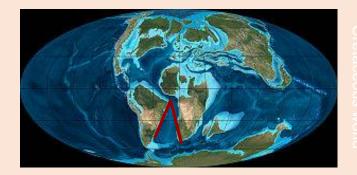


Early domesticates in LC: some issues

Last developments and perspectives

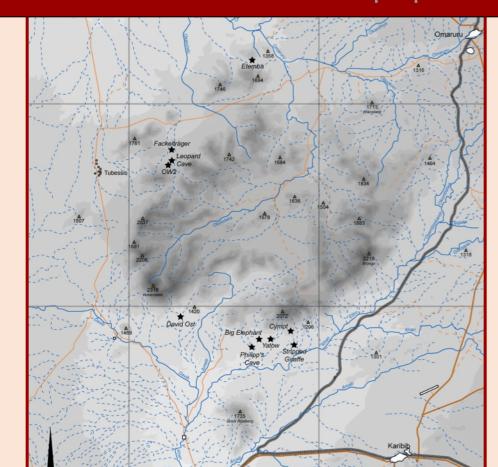
Erongo is the largest pluton of Namibia

 Lower Cretaceous with separation o Southern America and Africa



- ightarrow intense volcanic and intrusive activities
- Basalts flows and Granite boulders



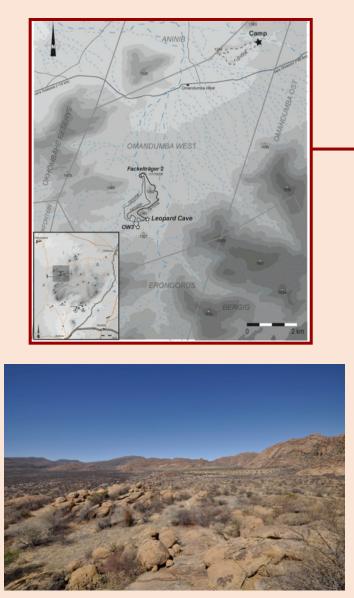


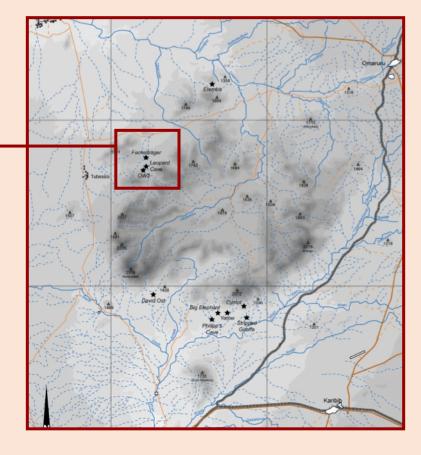




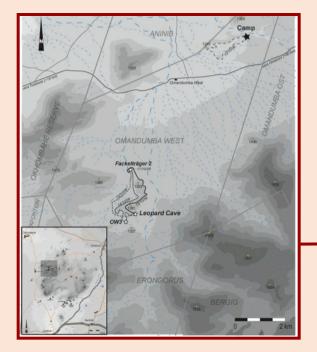
 \star

Omandumba West, Erongo: 2007 pedestrian survey





Omandumba West, Erongo: 2007 pedestrian survey



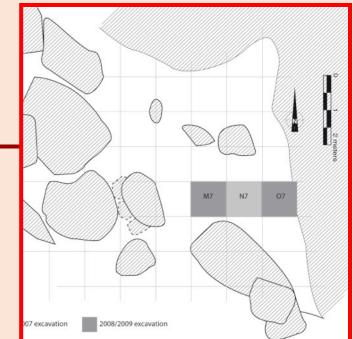


Discovery of Leopard Cave

Leopard Cave (Omandumba West, Erongo)





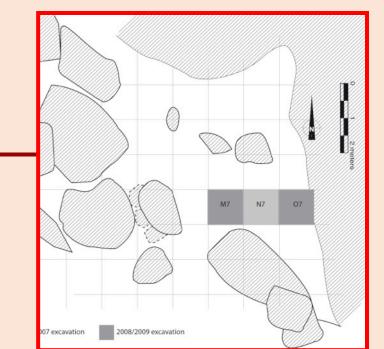












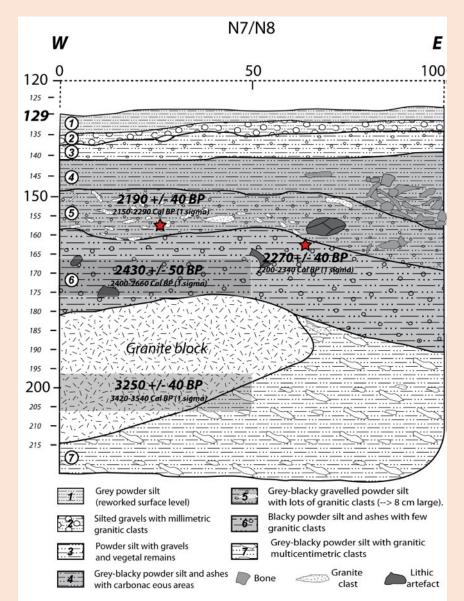
Leopard Cave (Omandumba West, Erongo)

- Continue sequence on more than 1,6 meter
- Ostrich eggshell beads, pendants

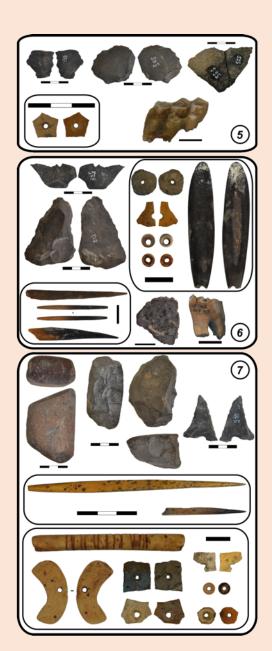


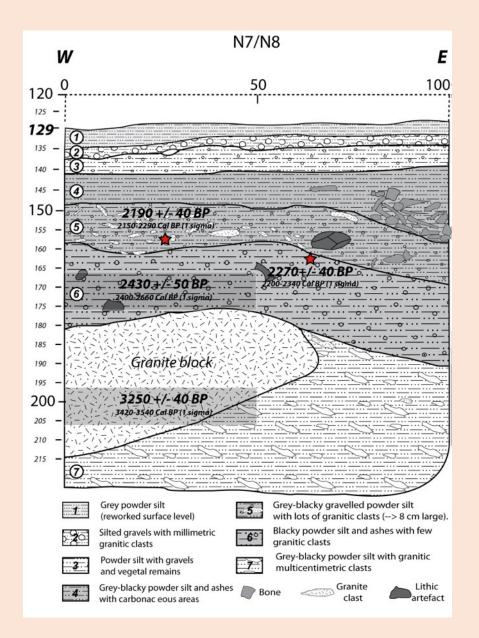
- Association lithic industry / fauna remains
- Levallois point in the lowermost part (MSA?)

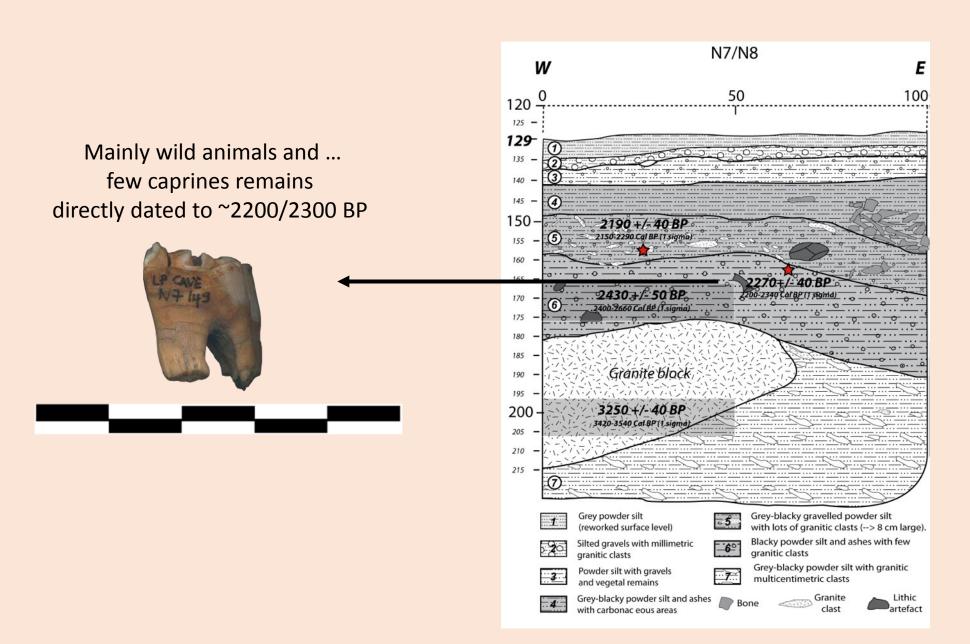




- Charcoal samples for C14 datations → from 2430 +/- 50 BP (up) to 3250 +/- 40 BP (bottom but still sediments)



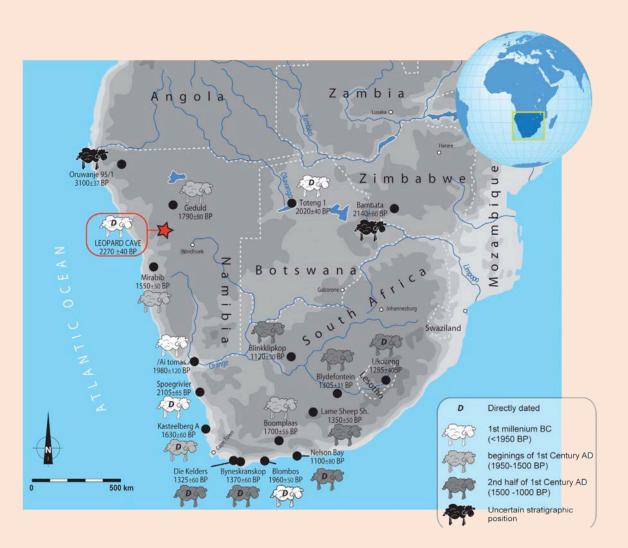




Mainly wild animals and ... few caprines remains directly dated to ~2200/2300 BP



First herders debate linked to the arrivals of Khoe-speaking people (?) (included Damara ?) → Western route ?





but still lack of strong archaeological arguments

Early domesticates in LC: issues and perspectives

Last developments

No true evidences of pastoralism (economy, symbolism, social org. focused on livestock)

Hunter with sheep, like Kalahari huntersgatherers during XIXth with small number of goat (Ikeya, 1993)

-small scale herding viable -mobile, from one group to another

 \rightarrow no migration

(cf., Sadr, 1998, 2008, 2013 ...)

Arrival of first herders/domesticates in Southern African issues

<u>2 models</u>

• migration (~2,5/2 ka BP) \rightarrow arrivals of Khoe-speaking people (proto-Khoekhoe)

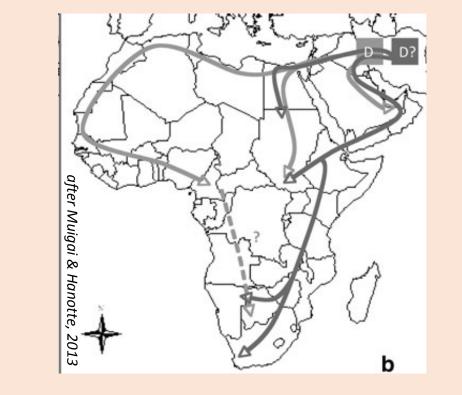
• cultural diffusion \rightarrow ("hunter with sheep")

 \rightarrow few caprines remains among autochthon's hunter/gatherer

Early domesticates in LC: issues and perspectives

Last developments

Eastern (fat-tailed) and western (thin-tailed) routes ?



Arrival of first herders/domesticates in Southern African issues

<u>Genetic and archeological data</u> \rightarrow independently of Human migration data

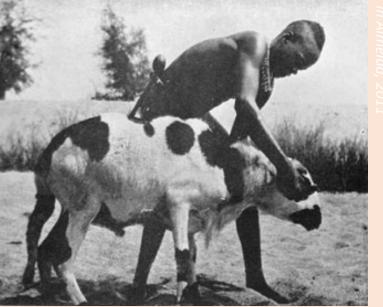
• thin-tailed and/or fat-tailed breed \rightarrow Southern African = fat-tailed sheep history

Early domesticates in LC: issues and perspectives

Last developments

Fat-tailed sheep

Indigeneous breeds of southern Africa



 \rightarrow Damara sheep, reported from arrivals of Europeans

Early domesticates in LC: issues and perspectives

Last developments

Damara sheep

Internationally known



Adapted to semi-desert, wRdmara sheeps

 tolerance to heat, seasonal weight loss, common sheep diseases, parasites
 Long legs for covering large areas

→ "no care" breed→ Unknown origins and ancestors

Early domesticates in LC: issues and perspectives

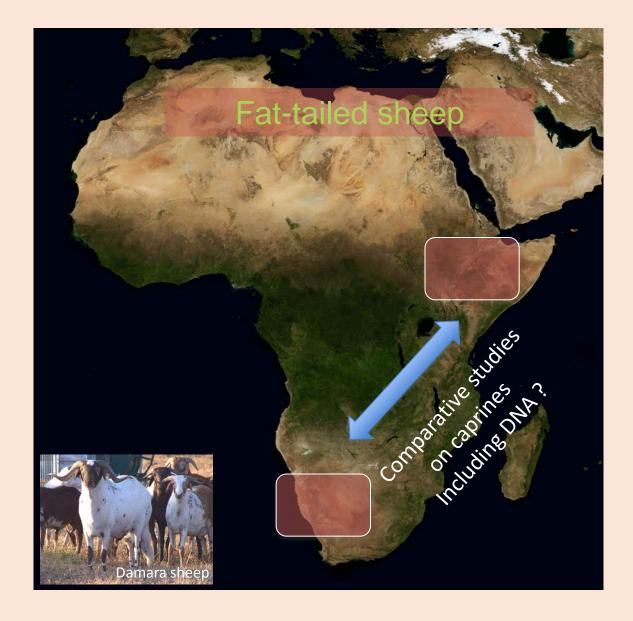
Last developments

and few caprines remains directly dated to ~2200/2300 BP



First herders debate linked to the arrivals of fat-tailed caprines







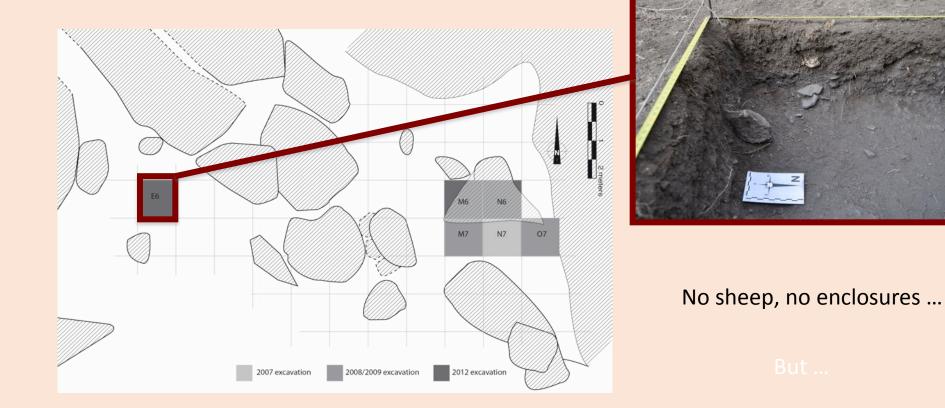
2012 mission : enlarge the excavation in the rockshelter Consolidation of previous data and contextualization





2012 mission : enlarge the excavation in the rockshelter,

including at the entry of the rockshelter in order to find potential enclosures



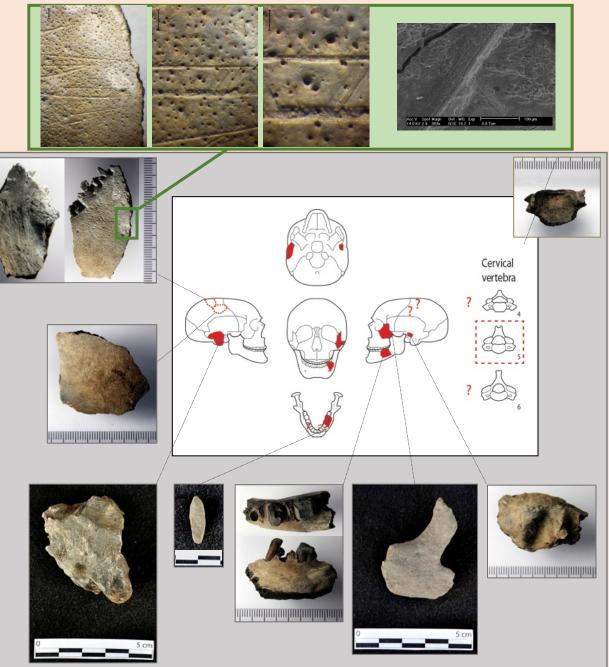
But human remains

Square E6 (SW corner)

8 securely identified (+ 4 other possible human bones)

- \Rightarrow originally covered by coating of calcium carbonate
- \Rightarrow human fragments are burnt
- \Rightarrow several cutmarks





 \rightarrow Peopling dynamics during Holocene \rightarrow actual genetic, linguistic, subsistence... varieties of Southern Africa

 \rightarrow Identitary issues

 \rightarrow Archaeological results \rightarrow Heritage issues



SEECS and HAPPIN

 \rightarrow from « human evolution » to Archaeological Heritage issues



- Notions of Archaeological heritage
- \rightarrow Reglementation / Institution
- \rightarrow The other actors: Local communities and researchers



Safeguarding and development issues



SEECS and HAPPIN

 \rightarrow from « human evolution » to Archaeological Heritage issues



- Notions of Archaeological heritage
- \rightarrow Reglementation / Institution
- \rightarrow The other actors: Local communities and researchers



Safeguarding and development issues

2 different steps :

- Eastern Ethiopia : Urgency of protection in the context of tourism development (and to accompa

- Erongo, Namibia : Identitary issues \rightarrow link of local population and Heritage



SCIENTIFIC VALUE \rightarrow HERITAGE ? \rightarrow Endangered \rightarrow Act II of the project

Application for FSD subsidy – Embassy of France in Ethiopia

Identification of the project

Title:

ENDANGERED CAVE ART IN SOUTHEASTERN ETHIOPIA: CONSERVATION AND VALORISATION THROUGH TOURISM

Beneficiairy organization (or group):

Regional Cultural Offices of the Dire-Dawa, Eastern Hararghe, and Western Hararghe Aministrations

Localization:

Dire-Dawa

<u>Contact representing the beneficiary</u>: Gebeyew Wegayew Mulatu (expert, cultural office, Dire Dawa), Alemayu Teshome

<u>Head of project</u>: Mohamme Taha, head of the Culture Department/office, Dire Dawa administration

Bank reference of beneficiary (bank paper):

Project subsidy application date: September 2012

Requested FSD subsidy:

Project duration: . 18 months.