A Heritage Most Ancient: Discovering the Palaeolithic of the United Arab Emirates

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Out of Africa

'Northern route'

'Southern route'
The Palaeolithic
Bathymetry of the Red Sea Basin and the region of the Farasan Islands.

Paleolithic Surface Site in Sharjah Emirate (ESF07S14)

Jebel Faya Site (FAY-NE1)

Jebel Faya: Dating

- **Assemblage A:** overlain by ~ 40cm of sterile sand.
  Dates: Two single – grain optically simulated luminescence (OSL) samples from within assemblage A yielded ages of $38 \pm 3.1$- and $40.2 \pm 3.0$ kya, and two samples from the overlying sterile layer yielded ages of $38.6 \pm 3.2$ and $34.1 \pm 2.8$ kya.

- **Assemblage B:**
  No dates given.

Assemblages A and B are considered by the excavators to have been local developments as they bear no affinities with the: Middle Stone Age and Late Stone Age from East Africa, Upper Palaeolithic from the Levant or the Zagros.

- **Assemblage C:**
  Dates: Three, (OSL) dating samples yielded ages of $127 \pm 16$ (1SE uncertainties), $123 \pm 10$, and $95 \pm 13$ kya.
Palaeolithic Surface sites in Sharjah and Ras Al Khaimah Emirates (UAE)

Palaeolithic Surface sites in Sharjah and Ras Al Khaimah Emirates (UAE)
ESF06A

Area of ESF06A

Photograph from west of site

Aerial photograph (from tethered dirigible)

Chert debitage
ESF06A and ESF06D before Pipeline works (from South East)
ESF06A and ESF06D before Pipeline works (from South East)

ESF06A and ESF06D after Pipeline works (from South West)
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- Dr Mark Beech and Dr Walid Jassim of ADACH for the invitation to investigate Al Barakah and related areas.
ESF06A
Photogrammetric Analysis of artefact distribution and orientations

Plan View

Width of site

Profile (length of site)

Orientation of A-Axis
HOMININ COOKBOOK
Evolution of our diets and food preparation techniques.

- Estimated cranial capacity
  (range: 385 — 1350 cm³)
A - Australopithecus
H - Homo

H. sapiens (200,000 yr—)
H. neanderthalensis (250,000–28,000 yr)
H. heidelbergensis (0.6–0.1 Myr)
H. ergaster/erectus (1.9 Myr–30,000 yr)
H. habilis (2.4–1.4 Myr)
A. africans (4–3 Myr)
A. afarensis (3–2.4 Myr)

Time scale (Myr)
4.0 3.8 3.6 3.4 3.2 3.0 2.8 2.6

Early tool use for meat consumption — oldest such evidence to date
(Afar, Ethiopia).

Tool use for meat consumption (Middle Awash Valley, Ethiopia).

Stone tool-facilitated consumption of turtle, fish and crocodile
(Kenya).

Earliest widely accepted evidence for controlled fire (Gesher Benot
Ya'aqov, Israel).

Strong evidence of controlled fire (numerous sites in Europe).

Consumption of aquatic animals, mainly catfish (South Africa).

Burnt remains at Swartkrans cave (South Africa) and charred sediment at other African sites suggest an ancient hearth, but whether these fires represent routine, controlled use remains uncertain.

Evidence of starch consumption, including granules of sorghum and African potato (Mozambique).

Michael Eisenstein  Evolution: The first supper  Nature 468, S8–S9 (23 December 2010)
The location of Jebel Faya, United Arab Emirates. The dashed line indicates the maximum exposure of land during marine lowstands. Ewen Callaway *Early human migration written in stone tools* Published online 27 January 2011 | Nature News
Relative Sea levels in the past 550,000 years (based on Red Sea Data)

Composite Red Sea relative sea-level reconstruction (RSL). (Rohling et al 2009)

Relative Sea Levels during MIS 11 (Rohling et al 2010:99)
MIS 4, 5a, 5c and 5e: Stable isotope and derived sea-level records for central Red Sea cores KL11 and KL09. (Rohling 2007:39)
HOPE ENV sum probability curve depicting wet/dry signals throughout Arabia during the Upper Pleistocene. Parker & Rose 2008:31
Out of Africa

Location of Palaeolithic manufacturing sites and proposed ‘southern route’: