The importance of Palaeolithic surface-scatters to our understanding of hominin dispersal and Neanderthal variability: Key methods for unlocking hidden data

Dr Julie Scott-Jackson
Institute of Archaeology, University of Oxford
Director, PADMAC Unit

Julie.scott-jackson@arch.ox.ac.uk
The Palaeolithic Timeline
European Lower Palaeolithic dated sites

European Middle Palaeolithic dated sites
Palaeolithic surface-scatters along ‘Southern Route’ Out of Africa in Sharjah and Ras Al Khaimah Emirates (UAE)
Palaeolithic surface-scatter on hilltop in Clay-with-flints area of Southern England
Investigating Palaeolithic surface-scatters

- Locating
- Recording
- Analysing

http://users.ox.ac.uk/~padmac/index.html
Locating Palaeolithic surface-scatters

- Palaeolithic hominin dispersal
- Behavioural organization
- Habitats
- Habitat preferences
- Resource provision

http://users.ox.ac.uk/~padmac/index.html
Project Database for DFY03 Hampshire UK (Mapinfo)

- Basic GIS mapping
- Historical mapping (e.g. 1874 hedge-line)
- Previous Investigations & find-spots
- Geology
Google mapping showing DFY03 Palaeolithic surface-scatters (shown as white circles)
Digital Terrain Modeling for DFY03 Palaeolithic surface-scatters (showing ‘draped’ geology)

Data extracted from SRTM90 Satellite Data
Aerial Photograph
for DFY03 Palaeolithic surface-scatters
(showing Iron-Age hill-fort ditch)
Field-investigations: Aims and techniques for recording Palaeolithic surface-scatters.

http://users.ox.ac.uk/~padmac/index.html
Palaeolithic Survey Grid for Qatar
(with unique grid square identifiers)

Allows:
- co-ordination of Palaeolithic field investigations,
- Recording of presence and absence of Palaeolithic evidence
- Retention and access to all information generated
Scott-Jackson, JE, 2001, Avebury World Heritage Site Research Agenda;
Scott-Jackson, JE & Scott-Jackson WB 2010a, Palaeolithic Research Agenda for the State of Qatar
Field Investigations using GPS Tracking
Qatar 2010

Google Earth and MotionX tracking and navigation software
Detailed Digital Terrain Model for Palaeolithic surface-scatters ESF06/7 (United Arab Emirates)
Close Range Aerial Photography using dirigible for Palaeolithic surface-scatter ESF06A (United Arab Emirates)

Area of ESF06A

Aerial photograph (from tethered dirigible)

Photograph from west of site
Photogrammetry of area of Palaeolithic surface-scatter (United Arab Emirates)
Results of deep Resistivity Analysis for Palaeolithic surface-scatter DFY03 UK

Lines 4/3 concatenated

Ditch?
Geophysical Investigations of Palaeolithic surface-scatters (DFY03 UK)

Magnetometry results showing Iron-Age hill-fort ditch

Magnetic susceptibility results showing distinct agricultural regimes across previously split field
Aims and techniques for off-site analysis of data from Palaeolithic surface-scatters

http://users.ox.ac.uk/~padmac/index.html
Inter-Scatter analysis of relationships between Palaeolithic surface-scatters in the locality of DFY03 UK
Intra-scatter analysis using Photogrammetry for Palaeolithic surface-scatter ESF06A (United Arab Emirates)
Intra-site techno-typological analysis for Palaeolithic surface-scatters ESF06A (United Arab Emirates) (Statistical analysis and refits)

Flake #3 refitted onto core #8

Small biface made on a flake with hard hammer retouch. Moderate brown 5YR 4/4. 42x34x15 mm

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Inter-site techno-typological analysis of Palaeolithic surface-scatters ESF06/7 (United Arab Emirates) and the excavated assemblage at Jebel Faya (United Arab Emirates)

