Middle Stone Age Ochre Processing and Behavioural Complexity in the Horn of Africa: Evidence from Porc-Epic Cave, Dire Dawa, Ethiopia

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S2 Figures. Results of analyses conducted on ochre processing tools 12–14; 16–23 and ochre-stained artefact 15.
Photos of the artefacts, modification marks and residues, SEM-EDS images and XRD diffractograms. The objects’ identification number is the same as presented in Figs 4–11, Tables 1–5, S1 Figs, S1 Tables, S1 Texts.

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Fig A. Results of analyses conducted on ochre processing tool 12 (lower grindstone).

a: Photo of the object. Squares indicate the location of macro photos b and c; b, c: macro photos of smoothed areas associated with red residues; d: photo of the sampled ochre residue (sample AT11); SEM images in BSE (e) and SE (f) modes of sample AT12; g: X-ray diffractogram of sample T12.

Qtz: quartz
Gth: goethite
Hem: hematite
(*): unidentified peaks
Fig B. Results of analyses conducted on ochre processing tool 13 (lower grindstone).

a: Photo of the object. Squares indicate the position of macro photos b and c; b, c: macro photos of smoothed areas associated with microstriations and red residues; d: photo of the sampled ochre residue (sample AT13); SEM images in BSE (e) and SE (f) modes of sample AT13.
Fig C. Results of analyses conducted on ochre processing tool 14 (lower grindstone). a: Photo of the object. Squares indicate the position of macro photos b–d; b–d: macro photos of smoothed areas associated with microstria tions and red residues; f: photo of the sampled ochre residue (sample AT14).
Fig D. Results of analyses conducted on ochre-stained artefact 15.
a: Photo of the object. Square indicates the position of macro photo b; b: macro photo of linear impressions associated with striations and red residues; c: photo of the sampled ochre residue (sample AT15); d: SEM image in BSE mode of sample AT15; SEM images in BSE (e) and SE (f) modes of sample AT15 zone 1; SEM images in BSE (g) and SE (h) modes of sample AT15 zone 2.
Fig E. Results of analyses conducted on ochre processing tool 16 (lower grindstone).
a: Photo of the object. Squares indicate the location of macro photos b and c; b, c: macro photos of red residues; d: photo of the sampled ochre residue (sample AT16).
Fig F. Results of analyses conducted on ochre processing tool 17 (lower grindstone).
a: Photo of the object. Square indicates the position of macro photo b; b: macro photo of red residues; c: photo of the sampled ochre residue (sample AT17); d: X-ray diffractogram of sample T17.

Kln: kaolinite
Or: orthoclase
Qtz: quartz
Cal: calcite
Hem: hematite
Fig G. Results of analyses conducted on ochre processing tool 18 (lower grindstone).

a: Photo of the object. Square indicates the position of macro photo b; b: macro photo of red residues; c: photo of the sampled ochre residue (sample AT18); d: X-ray diffractogram of sample T18.
Fig H. Results of analyses conducted on ochre processing tool 19 (upper grindstone).
a: Photo of the object. Square indicates the position of macro photo b; b: macro photo of pits associated with red residues; c: photo of the sampled ochre residue (sample AT19).
Fig I. Results of analyses conducted on ochre processing tool 20 (upper grindstone). a: Photo of the object. Squares indicate the location of macro photos (b–d); macro photos of pits associated to smoothed areas (b, c), flake scar (c), and deep grooves (d).
Fig J. Results of analyses conducted on ochre processing tool 21 (upper grindstone).
a: Photo of the object. Squares indicate the location of photos b and c; photos of pits (b, c)
and flake scars (c).
Fig K. Results of analyses conducted on ochre processing tool 22 (upper grindstone).
a: Photo of the object. Square indicates the location of macro photo b; b: macro photo of pits; c: photo of the sampled ochre residue (sample AT22); SEM images in BSE (d) and SE (e) modes of sample AT22 (zone 1 indicates the area represented in c); SEM image in SE mode of sample AT22 zone 1.
Fig L. Results of analyses conducted on ochre processing tool 23 (upper grindstone). a: Photo of the object. Squares indicate the position of macro photos b and c; b, c: macro photos of pits.