

Backed pieces and their variability in the Later Stone Age of the Horn of Africa

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Supplementary Material 1. List of variables recorded and their definitions

	Name of attribute	Coding	Data type	Values	Definition attribute and values
Contextual data	ID	ID	integer		unique ID
	Site	SITE	categorical	B1s1, DW2s2, Dw2s3, GB, MB	GB= Goda Buticha; MB=Mochena Borago
	Stratigraphy	STRAT	categorical	text	
	Site area	SITE AREA	categorical	text	excavation square, if available
	Artefact number	ARTEFACT_NO	integer		artefact number
Assemblage	GROUPING	categorical	B1s1_Lower, B1s1_Upper, Dw2s2, Dw2s3, GB_IIC, GB_I, MB_3010, MB_7	Site + layer	
Chronology	CHRONO	categorical	Late Glacial, Early Holocene, Mid-Holocene, Late Holocene		
Basic attributes	Completeness	COMPLETENES S	boolean	COMPLETE, SUB	Sub refers to sub-complete, and corresponds to micro-fragmented backed pieces (estimated break <1/10th of total length)
	Raw material	RM	categorical	OBS, CHERT, CHAL, BAS	Obsidian, Chert, Chalcedony, Basalt
Morphometrical variables	Weight	WEIGHT	decimal		taken with 1 decimal, using the same scales (in g)
	Length	LENGTH	decimal		Maximal dimension, recorded with 2 decimals (in mm)
	Width	WIDTH	decimal		Maximal width, perpendicular to the maximal dimension, recorded with 2 decimals (in mm)
	Thickness	TMAX	decimal		Maximal thickness recorded with 2 decimals (in mm)
	Thickness at Maximal Width	TWL	decimal		Maximal thickness, perpendicular to maximal width, recorded with 2 decimals (in mm)
	Elongation index	LW	decimal		Ratio length / width
Flatteness index	WT	decimal		Ratio width / thickness	

	Name of attribute	Coding	Data type	Values	Definition attribute and values
	Transversal symmetry	SYMM (TRANSV_SYM in raw data)	boolean	YES, NO	Symmetry observed when considering an axis perpendicular to the longest morphological axis of the piece
Blank selection	Curvature	CURVATURE	categorical	CURVED, FLAT, SIN, SLIGHT	Curvature of the longitudinal profile: Curved, Flat, Sinuous, slightly curved
	Twisting	TWISTING	boolean	YES, NO	Twisting (lateral profile): Twisted (Yes) / Flat (No)
	Angle of opposed edge	OPPEDGE (OE_ANGLE in raw data)	boolean	SHARP, STEEP	Sharp <45 degrees, Steep >45 degrees
Blank transformation	Proximal back thickness	BK_T_PROX	decimal		Thickness of the back at 25% of the max dimension, recorded with 2 decimals (in mm)
	Mesial back thickness	BK_T_MES	decimal		Thickness of the back at 50% of the max dimension, recorded with 2 decimals (in mm)
	Distal back thickness	BK_T_DIST	decimal		Thickness of the back at 75% of the max dimension, recorded with 2 decimals (in mm)
	Mean back thickness	BKMean	decimal		$(BK_T_PROX + BK_T_MES + BK_T_DIST)/3$
	Relative back thickness	BKTrel	decimal		Ratio BKMean / TMAX
	Butt	BUTT	categorical	PART REM (PRES RET), PRES, REM (ABS RET, ABS)	Partially removed (Retouched but present), Present, Removed (Absent because retouched, Absent)
	Bulb	BULB	categorical	YES, NO	Present, Removed
	Back location	LOC BK (LOCATION in raw data)	categorical	TOT, PARTIAL, ALMOST	Back affects the whole edge, proximal or distal part only, almost the whole edge
Back retouch type	RET TYPE	categorical	ALT, CROSS, DIR	Alternate, Crossed, Direct	

	Name of attribute	Coding	Data type	Values	Definition attribute and values
Other	Edge transformation / damage	OE TRANSF	categorical	CONT, DISCONT, NONE	Continuous, Discontinuous, none