

Age	P/M	Unit	m above base	Tuffs	Hominins	Archaeology
0.01*		(erosion)				
		NAISIUSIU	>10m thick		OH 1 burial	LSA
		-----	110			
>0.03*		Upper				MSA
		NDUTU	99			
		Lower			OH 11, DK	MSA
		-----	94			
~0.37+	r	Norkilili Member			OH 23 <i>FLK</i>	Acheulean <i>FLK</i>
		MASEK	90		(in channel)	
[0.99]	N	Beds				
	N	Lower unit				
	N	-----	80			Acheulean <i>WK</i>
[1.07]	r	Bed IV	77	IVB		
	r		75	Tuff 4	OH 12? <i>VEK</i>	Acheulean <i>HEB</i>
	r				OH 28 <i>WK</i>	
~1.2	r					
	r	Bed III	70	Tuff 2		Dev. Oldowan? <i>JK</i>
	r	-----	68	Tuff 1		
1.33	r	Upper Bed II			OH 9 <i>LLK</i>	Acheulean, Dev. Oldowan <i>LLK</i>
	r		66	II-D		
1.48	r			II-C		
~1.52	r			upper		
	r			<i>up augitic ss</i>		Acheulean <i>EF-HR</i>
	r	Middle Bed II		II-B	OH 13 <i>MNK</i>	Oldowan <i>MNK</i>
	r	-----		<i>lo augitic ss</i>		
~1.65	r	lower...				
1.66	r	Lemuta Mb.	57	II-A		
~1.73	r		55		OH 16 <i>FLK-N</i>	Oldowan <i>FLK-N</i>
[1.78]	N	Lower Bed II				
	N	-----	52			
~1.8	N		51	I-F		
1.75	N		47	I-E		
1.75	N	Upper Bed I	38	I-D		
1.76	N					
	N		30	I-C		
1.76	N				OH 62, OH 5	Oldowan <i>FLK</i>
	N				OH 7, 8 <i>FLK</i>	
1.80	N		21	I-B		Oldowan
	N		19		OH 24 <i>DK-E</i>	Oldowan <i>DK-E</i>
1.87	NLava flow.....				
1.98	N	Lower Bed I	13	I-A		
[1.95]						
2.03	r	basal unit		Basal tuff		

Composite stratigraphic chart of Olduvai Gorge, compiled from several sources, especially Hay (1976, 1990), Tamrat et al. (1995) and Walter et al. (1991), with several dates from W. Kimbel (1997) in E.S. Vrba et al., eds. Paleoclimate and Evolution, with Emphasis on Human Origins, Yale University Press. The age column includes radiocarbon (*) and argon dates, as well as paleomagnetic correlations (in []) derived from the paleomagnetism (P/M) column (N = normal, R = reversed polarity). Amino-acid racemization "dates" on bone between 60 and 30 Ka were reported for the upper unit of the Ndutu Beds, and ca. 20 Ka for the Naisiusiu, but such dates are now questioned (see AMINO ACID DATING). An argon date of 370 Ka has been obtained from nearby Kerimasi, probable source of the Masek Beds. An alternative interpretation of the normal polarity zone within the Masek Beds correlates this region to the lower Brunhes below the rarely observed Emperor reversed subchron dated ca. 0.49 Ma (which would thus be represented by the single reversed sample within the Norkilili member). This interpretation fits better with the Kerimasi date but depends on recognition of the questionable Emperor subchron and results in the extension of Beds III-IV to about the end of the Matuyama at 0.78 Ma. Geologic units column includes major formations (mostly "beds") and members, with approximate thickness as meters above base of idealized section; major tuffs are in separate column. Human fossils (OH = Olduvai hominid numbers) and archaeological residues (Old = Oldowan; Ach, Acheul = Acheulean) listed with abbreviated sites (FLK, EF-HR) in italics. Chart by E. Delson and J.A. Van Couvering.

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