

SYNOPSIS OF THE PALEOLITHIC EAST ASIA (China, Korea, Japan)

Period	Sites	Tools/Hominids/ Symbolic Behavior	Fauna
‘Oldowan’ (‘Lower’ or ‘Early Paleolithic’)	General: pebble core-flake tools		
	Renzidong, Anhui, China (faunal) 2.0-2.5 MYA (Jin et al 2000) (CR2000) (ESR) ‘underestimate’ at [ave. EU =1.2 Ma and ave. LU = 1.7 Ma] (CQ2003)	59 artifacts, mostly on iron ore, single and double platform cores, scrapers, flakes and 3 bones (one rhino mandible) flaked to make tools (SS2000, CR2000) but most assert not hominid tools (CR personal com. 2006)	<i>EquusSinomastodon</i> , an ancient tapir, and monkey <i>Procynocephalus</i> , <i>Meganterion</i> (dagger-toothed cat) (CR2000) <i>rhino</i> (SS2000)
	Longgupo, Chongqing, China Levels 7, 8 hominid (paleomag. Olduvai Event) 1.78-1.96 Ma (supported by ESR on cervid tooth L4) (HW1995) and by ESR and U-Series on 4 animal teeth L2-5 (CT2001)	1 hammerstone, 1 flake; andesite-porphyrine not local, curated // Oldowan (HW1995) Mandible and tooth, <i>Homo sp. indet.</i> // <i>H. habilis</i> or <i>ergaster</i> (HW1995) but (Wu 2000) not homo but <i>Lufengpithecus</i> ape (ED1997, HM2002)	<i>Ailuropoda microta</i> , <i>Equus yinnimiensis</i> , <i>Sinomastodon Gigantopithecus blacki</i> <i>Pachyyrocuta</i> or <i>Homotherium</i> (HW1995)
	Majuangou, Nihewan Basin, no. China (paleomag.) 4 artefact layers from (MJG-III) ~ 1.66 Ma to highest (Banshan) at ~ 1.32 Ma correlates with Xiaochangliang (ZR2004)	Percussion marks on animal bones for marrow extraction; hard hammer, cores (choppers, scrapers, polyhedrons), flakes, flake tools: scrapers, notches (ZR2004)	Mostly <i>Elaphus sp.</i> at MJG-III, <i>Equus sanmeniensis</i> , <i>Coelodonta antiquitatis</i> , <i>Pachyrocuta sp.</i> (hyena), <i>Cervus sp.</i> <i>Gazella sp.</i> , <i>Struthio sp.</i> (ZR2004)
	Xiaochangliang, Nihewan Basin, northern China (paleomag. between Olduvai and Jaramillo) ~ 1.36 Ma (ZR2001)	Flint, quartz, volcanic rock, quartz, 86% flake scrapers, including side scrapers, notches, a few end scrapers, burins, disc cores (ZR2001)	<i>Palaeoloxodon sp.</i> , <i>Hipparion sp.</i> , <i>Equus sanmeniensis</i> , <i>Coelodonta antiquitatis</i> , <i>Cervus sp.</i> <i>Gazella sp.</i> , <i>Hyaena licenti</i> (ZR2001)
	Xihoudu, Ruicheng, Shanxi, China (paleomag.) 1.27 Ma (ZR2003)	32 quartzite, gangue, lava implements, choppers, scrapers, points (WQ2000)	Early Pleistocene fauna: <i>Trogontherium</i> , <i>Stegodon</i> , <i>Archidiskodon planifrons</i> , <i>Hipparion sinense</i> , <i>Coelodonta antiquitatis</i> , <i>Hyanea sp.</i> , <i>Gazella</i> , <i>Bison palaeosinensis</i> , <i>Equus sanmeniensis</i> , <i>Sus</i> (WQ2000)

Early Acheulian	EA General: core tools, including handaxe, chopper, polyhedron, spheroid; low number of cleavers and flake tools; hard hammer; absent Levallois (Misra 1987)		
	Gongwangling, Lantian, China (palaeomag.) 1.15 Ma depending how sequence is interpreted (An et al., 1990; An and Ho, 1989; Wu et al., 1989) (BP2006) but 1.2 Ma (Hyodo et al 2002)	cores (11), five flakes and four scrapers (Dai, 1966; Tai and Hsu, 1973) (BP2006); calotte, <i>Homo erectus</i> ; quartzite, quartz, sandstone (LJ1998) 'early Acheulian biface'	
	Donggutuo, Nihewan Basin, no. China (paleomag.) 1.1 Ma (WH2005) but if variable sedimentation rate: 1.0963-1.1329 Ma, 1.1090-1.1733 Ma, or 1.1285-1.2098 Ma (WQ2006)	Chert, etc.; flakes and flake tools: side scrapers, end scrapers, notches, points, awls, burins, hammer percussion, some bipolar (WH2005)	<i>Canis sp.</i> , <i>Palaeoloxodon sp.</i> , <i>Equus sanmeniensis</i> , <i>Coelodonta antiquitatis</i> , <i>Bison sp.</i> , <i>Gazella sp.</i> (WH2005)

Middle Acheulian	MA General: bifaces (handaxes, cleavers, trihedral picks); scrapers; Levallois; and non-Lev. Flake and flake tools; and pebble chopping tools; few polyhedrons and spheroids; hard hammer		
	Bose, China (AR/AR associated tektites) 803±3 ka (HY2000)	Bifaces (handaxe, pick) on flakes and cobbles fits all Mode II criteria; scar counts // MA Olorgesailie and Olduvai Gorge Beds III-IV (HY2000); also quartz flakes (LJ1998)	
	Yuanmou Basin, China, (Paleomag.) Olduvai 1.8-2.0 (and ESR on associated animal teeth) 670-1,670 ka (HP1998) (paleomag.) just above M-B Boundary 780-790 ka or ca. 700 ka (HM2002) thus (ZR2003) no consensus	2 incisors, <i>Homo erectus</i> but questions of association (BP2006)	Early Pleistocene: <i>Megantereon</i> , <i>Panthera tigris</i> , <i>pardus</i> , <i>Stegodon</i> , <i>Rhinoceros sinensis</i> , <i>Sus</i> , <i>Cervus</i> , <i>Bos sp.</i> , etc. (ZR2003)
	Zhoukoudian Cave, China Locality 1, Layers 5-10 min. 600 and possibly >800 ka (SG2001) or 600-800 ka (BN2004)	Layer 7: <i>Homo erectus</i> ; Layer 8, 9, 10: <i>Homo erectus</i> Upper 8 = Quartz Horizon 2: quartz tools and flakes; ~20 quartz crystals, 1 perfect fully faceted, probably from 7 km away (Pei 1931) and spheroids (BL1985; BR1991); tools and unworked non-indigenous stone Layers 9, 10 occasional quartzite tools: choppers, scrapers, some bipolar flakes (BL1985) associated with non-indigenously burned bones (WSXQ1998). Evidence of stone cracking bones for marrow (BL1985); hominid cutmarks on horse, and less of <i>Bubalus</i> and cervid bones (BL1986). Equids are from Loci N and O= Layers 8, 9 and 10 and contra BL are associated with hominid remains (Aigner, Comment in BL1986)	Layer 5: <i>Hyaena</i> , etc. Layer 7: <i>Sus</i> , <i>Bubalus</i> , Sitka deer, etc. Layer 8: two types rhino, giant horse, elephants, flat-antlered deer, hyena; Layer 10: Hyena, horse (BL1985) <i>Pachycrocuta brevirostris</i> , largest extinct hyaena, and erectus bones show hyaena damage (BN2002),

<p>‘Later Acheulian’ (Africa: 300-650 ka)</p>	<p>General (Africa defined): Bifaces more symmetrical and refined, cordiform, amygdaloid, ovate handaxes; some assemblages ovate dominates; greater use of soft hammer; increase use of Levallois technique, but some sites no Levallois; disappearance of core-choppers; often length of handaxes decreases; denticulates, notches, scrapers continue; few blades late contemporaneous with Final Acheulian</p>		
	<p>Nanjing, Tangshan Cave, China (Useries speleothem deposit overlying fossils) >580 and probably ~620 ka (ZJ2001)</p>	<p>fragment cranium, <i>Homo erectus</i>, N1 shares typical traits of African and European <i>erectus</i>, but differences from Zhoukoudian suggest regional variations (LW2004)</p>	
	<p>Yunxian, Hubei, China (ESR on mammal tooth) 455±58 to 800±164, mean 581±93 ka (CT1996)</p>	<p><i>Homo erectus</i> with features of <i>Homo sapiens archaicus</i> (TL1992)</p>	
	<p>Chenjiayao, Lantian, Shaanxi China (palaeomag.) ~500-650 ka (Wu et al. 1989; An et al. 1990) (PB2)</p>	<p>Mandible, probably female <i>Homo erectus</i> (PB2)</p>	
	<p>Zhoukoudian Cave, Locality 1, China Layers 2-4, (TIMS U-series) 400-500 ka (SG2001)(BN2004) (GR1997) (ESR on associated teeth) 300-550 ka</p>	<p>2 skulls, 1 tooth <i>Homo erectus</i>; Cores, flakes, retouched hammers, scrapers, points burins, chopper (Chiu et al 1966) (BL1985) Quartz, greenstone, chert: pebble choppers; cleavers, modified flakes mostly points and scrapers; block on block technique early and later more bipolar technique with improved retouching (LJ1998) hominid roasting of horseheads (BL1986). Artifacts associated with non-indigenously burned bones (WSXQ1998)</p>	<p><i>Hyaena sinensis, Crocuta ultima, Felis tigris, Ursus arctos, Canis lupus, Cervus grayi, Megaceros pachyosteus, Cervus elaphus, Gazella sp., bovidae, Sus l., Equus sp. Dicerorhinus mercki, Macaca robustus</i> (Chiu et al 1966) (BL1985)</p>
	<p>Kommonmoru, North Korea (geobiostratig.) 400-600 ka (BK1992)</p>	<p>Pick, handaxe-like, core scrapers on limestone; modified (?) quartz cobbles with animal bone (BK1992)</p>	<p><i>Equus sangwontensis, Megaloceros, Macaca, Dicerorhinus, Bubalus</i> // Zhoukoudian Loc. 1. (BK1992)</p>

	<p>Chongokni, Imjin-Hantan Basin, South Korea Layer XI basalt bedrock = (K/AR + fission track) 400±100 ka; 290±30 ka (BK1992) or ~500 ka (NC2006) Layer IX lowest tools with handaxes (est. if steady sedimentation rate) = 300-350 ka Layer IV tephra = (K-Tz) 90-95 ka Layer II tephra = (AT) 22-25 ka (NC2006)</p>	<p>Open air site, 5000 quartz, quartzite mostly cores choppers, polyhedrals, small flake tools: scrapers and points and, 'heavy duty' tools (< or =5%) Acheulian-like handaxes, cleavers, picks (BK) by hard hammer mostly on cobbles, 'primarily Mode 1 toolkits' and overall bifaces 'thicker', smaller % of toolkit, and lower proportion of sites (NC2006, NC2000)</p>	
	<p>Longyadong Cave, Nanhua River, South Luohe River, Luonan Basin, Shaanxi, China Layer 5 (TL) 210.5±10.5 Upper Layer 4 (TL) 273.9±13.7 ka Middle Layer 4 (TL) 356.6±17.8 ka (WS2005) Layer 2 (geostratigraphy) ~500 ka; hence sequence range 250-500 ka Layer 4 // Zhoukoudian Layer 3-5 Layer 3 // Zhoukoudian Layer 8-9, and Layer 2 // Zhoukoudian Layer 10 (WS2005)</p>	<p>Layer 4: 'living floors', ash (hearth?), artifacts, fossils; Layer 3: artifacts, charcoal, animal fossils; Layer 2: artifacts, fossils. Strong evidence for fire: 70 cm ash localized, with burnt bones, artifacts and rocks; fractured and cutmarked bones, esp. <i>Cervus sp.</i>, 75% burnt bones, 100% cutmarks, and largest MNI (WS2005)</p>	<p>Middle and late Middle Pleistocene <i>Ailuropoda-Stegodon</i> fauna: <i>Macaca</i>; <i>Hystrix</i> (porcupine); <i>Trogontherium</i>; <i>Arctonyx</i> (badger); <i>Megatapirus</i>; <i>Rhinoceros sinensis</i>; <i>Ursus sp.</i>; <i>Sus sp.</i> (pig); <i>Cervus sp.</i> (deer); <i>Bison sp.</i> (WS2005)</p>
	<p>Longtandong Cave, Hexian, China (ESR and U-Series on associated teeth) 412±25 ka = OIS 12-11 (GR1998) (Users) 150-190 ka; (TL) 195±16 (Wu et al. 1989) (BP2006)</p>	<p><i>Homo erectus</i> more advanced than at Zhoukoudian Loc. 1 though similar time (GR1998)</p>	

	Kumpari, Imjin-Hantan Basin, South Korea (OSL, IRSL) 30-270 (NC2000) but may actually // Chongokni (NC2006)	Open air site, 3000 quartzite and quart tools, similar to Chongokni (NC2006, NC2000)	
	Chuwoli and Kawoli, Imjin-Hantan Basin, South Korea (OSL, IRSL) 30-270 (NC2000) but may actually // Chongokni (NC2006)	Open air site, 600 artifacts, mostly flakes and debitage, some handaxes, cleavers, picks, similar to Chongokni (NC2006, NC2000)	
	Kungul, South Korea Layer VIII 600-700 ka (Sohn 1987) but fauna suggests Late Middle Pleistocene (BK1992) [= 128-300 ka]	Stone industries: Layer VIII: choppers, bifaces, unifaces, polyhedrals; VII: limited retouch, unifacial choppers and unifaces: IV, extensive retouch, bifaces	

<p>Final Acheulian (Africa ~150-300 ka)</p>	<p>General (Africa defined): multiple reduction strategies, Acheulian bifaces, sometimes made on Levallois flakes, Levallois and disc cores; variable presence of handaxes, cleavers as well as points, blades; in Africa termed 'Final Acheulian' or 'Intermediate' with regional variants (<i>CJ1965</i>); blades in African Kapthurin and Fauresmith and Levantine Mugharan Tradition (<i>AS2002</i>)</p>		
	<p>Luonan Basin, China 268 open air sites (<i>WS1998</i>) Zhoupo Second Terrace L15 (TL) 182.8±9.1 ka Second Terrace L12 (TL) 251.05±12.5 ka (<i>WS2005</i>)</p>	<p>In 50 open-air sites: quartzite, quartz; direct hard hammer, single and double platform cores, 5% discoid, bipolar rare; flakes, retouched tools: scrapers, pick (including triangular), cleaver, handaxe and chopper, spheroid; few points, and burins; Longya Cave: similar cores and flakes as open- air sites, more 'anvil- chipping' technique, but tools: scrapers, points, burins only;' this dichotomy is not explained by any current theory of hominid behavior' (<i>WS1998</i>, <i>WS2006</i>)</p>	<p>(see above)</p>

Early Middle Paleolithic	General (African /Southwest Asia definition): elongated or large, relatively thick, blades and point blanks flaked from radial, single or opposed platform cores, recurrent and some or no Levallois, with minimal preparation of striking platform; elongated blanks, retouched points, prismatic blades, endscrapers, burins; no backed microliths; evidence of hafting points and blades (tang, grooves, mastic); use of color pigments ; <i>archaic Homo sapiens</i>		
	Zhoukoudian, China Locality 4 = New Cave (Users capping flowstone) 120 ka; (second flowstone, possibly min. age hominid) 248-269 ka (lowest cultural strata) ca. 300 ka (SG2003)	Tools; teeth <i>Homo archaic</i> ; ash, seeds, mammal bones	
	Zhoukoudian, China Locality 15 (10 m. from Locality 4) age comparable to Loc. 4	Direct percussion, multi-directional and alternating flaking, disc cores, flakes, no Levallois points, 1 'accidental' flake point (GX2000)	33 species, deer, Gray's sika, rhino, sheep
	Jinniushan, Liaoning, China Layer 7: (ESR on associated animal teeth) (EU) 187 ka, (LU) 281 ka (Users mean) 237 ka 'suggests an age of about 200 kyr or older ' (CT1994); but ~ 260 ka based on (CT1994) (RK2006) is misread?	Female, mean of estimates 1330 cc and body size/EQ typical of world hominids ca. 200-300 ka (RK2006); <i>archaic Homo sapiens</i> , similar to Dali (CT1994, BP2006)	<i>Macaca robustus</i> , <i>Trogontherium sp.</i> , <i>Megaloceros pachyossteus</i> , <i>Dicerorhinus mercki</i> (CT1994)
	Dali, Shaanxi, China (Users on ox teeth) 209±23 ka (Chen et al 1994) (but association uncertain BP2006)	<i>Homo sapiens archaicus</i> – cores, flakes, scrapers (Wu 1981, 1989) (KS1996) (BP2006)	
	Maba, Guandong, China (Users) 129-139 ka (Yuan et al., 1986) (SG2002)	<i>Homo sapiens archaicus</i> - associated with <i>Ailuropoda-Stegodon</i> (BP1992)	

	<p>Dingcun sites, Fen River Valley, Shanxi, China</p> <p>(Useries, ESR, litho- and biostratigraphy) 75-210 ka with most chronometric dates at Middle-Late Pleistocene transition (NC2006) [= 128 ka]</p>	<p>Over 2000 implements by direct and bipolar percussion: cores, flakes, choppers, scrapers, heavy trihedral 'point tools' or picks // Sangoan, spheroids, protobifaces, rare cleavers, retouch like EA (CJ1994; NC2006) 3 teeth and partial parietal at Locality 54:100 <i>Homo sapiens archaic</i> (NC2006)</p>	
	<p>Xujiayao, Shanxi, China (Useries on rhino teeth) 104-125 ka (Chen et al., 1984; Chen et al., 1982) (SG2002) (but association questions BP2006)</p>	<p><i>Homo sapiens archaicus</i> (Wu and Poirier 1995); large tools rare, scrapers common, bone and antler tools (Jia et al 1979; Wu et al 1989) (BP2006)</p>	

Middle to Late MP (beginning ~100 ka)	General: more blade based tools; flake blades and blade cores; retouched blades, and/or points, and scrapers; <i>Homo sapiens sapiens</i>		
	Tongtianyan Cave, Guangxi, south China, (Useries on flowstone) 61±1 to 68±1 ‘ more likely ~111-139 ka or if from clay level ~153 ka (SG2002)	Liujiang hominid, <i>H. sapiens sapiens</i> , but exact depth ambiguous (SG2002)	<i>Ailuropoda melanoleuca</i> , <i>Rhinoceros sinensis</i> , <i>Stegodon orientalis</i> , <i>Pongo sp.</i> , <i>Sus sp.</i> , <i>Megatapirus augustus</i> but this is overlying unit? (SG2002)
	Bailiandong Cave, China (U-series on capping flowstone) ~ 160 ka (Shen 2001) (SG2002)	2 teeth, <i>H. sapiens sapiens</i>	
	Huanglong Cave, Yunxi, Hubei, China (U-series stalagmite and ESR associated animal teeth) either 103±1.6 ka or 44±12.5 ka (fauna) most likely 100 ka	Stone tools typical of south and north China; 5 teeth, <i>H. sapiens sapiens</i> (WX2006)	<i>Ailuropoda-Stegodon</i> fauna
	Ganquian Caves, China (U-series on capping flowstone) ~ 94 ka (Shen 2001) (SG2002)	17 teeth, <i>H. sapiens sapiens</i>	<i>Ailuropoda-Stegodon</i> fauna
	Ryonggok Cave, North Korea (Useries) 46-48 ka (NC2000) (TL) 500 ka (BK1992)	5 <i>Homo sapiens archaic</i> (Jun et al 1986) (NC2000); but 1450 to 1650cc so not <i>H. erectus</i> as thought (BK1992); [but 1550cc is comparable to Skhul-Qafzeh and modern <i>H. sapiens sapiens</i> – JBH]	
	Myoungo-ri, Nam Han River, South Korea (est.) ~40-50 ka (Choi 1986) (BK1992)	‘Late MP’, slate, quartz, some quartzite, bifaces, choppers, picks, scrapers, points, denticulates, knives, notches (BK1992)	
	Hongsu Cave, South Korea ~40 ka (NC2000)	child, <i>H. sapiens sapiens</i> (NC2000)	Upper Pleistocene fauna (NC2000) [post 128 ka]

	<p>Pyeongchang-ri and Upper Juwol-ri, Imjin-Hantan River Basin, South Korea (geo.) overlies AT tephra dated 29.4±1.9 ka, so OIS3 (SC2004) OIS3 = >32 but <64 ka</p>	<p>'Non-UP' [= Late MP] industries persist contemporaneous with UP. Choppers, handaxes, picks, notches on quartzite cobbles; quartz flaked for denticulates, backed knives, trapezoids, 'pseudo-prismatic cores'; scrapers, points and awls on either quartzite or quartz (SC2004)</p>	
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Upper Paleolithic	Homo sapiens sapiens with UP technologies. General: retouched points, blades, bladelets, small and microlithic tools; bone tools, soft hammer, more art; in Japan, grindstones by 30 ka		
	Shiyu, Huairen, Shanxi, China Upper Occupation (14C) 28.135±0.37 ka Lower Occupation (14C) 32.220±0.625 ka (BR1991)	Upper: 30k, Lower: 40k stone artifacts, combine MP and UP features; perforated stone disc; 600 bone fragments with marks appear not to be intentional (BR1991; BR1994)	
	Suyanggae, Nam Han River, South Korea 5 layers IV: (14C) 16.4 ka to 18 ka (LY2000)	‘Early UP’: shale, porphyry, quartzite; Layer 5b: end- and sidescrapers on blades (Lee Y 1984, 1985, 1992) (BK1992); Layer IV: tanged points, microblades (LY2000)	
	Zhoukoudian, China Upper Cave 101, 102, 103 (AMS on non-human bone range from 13.2±0.16 to 33.2±2 ka (Hedges 1988; Chen 1989) (BP1992) (Wu and Wang 1985) argue older dates are well below areas of human occupation, which they place at around 10 ka, while (Chen et al. 1989; Hedges et al. 1992; Hedges et al. 1988) suggest ~ 24-29 ka for the cultural layers (BP2006) (14C on non-human bone) 10.175±0.360 (upper part of cave) and 18.31±0.11 (basal layers) (Wu & Zhang 1985) (BP2006)	UP tools, mostly chert, quartzite flakes, some scrapers, knives; 1 bone needle, polished antler; ~10 MNI <i>H. sapiens sapiens</i> ; UC101 has affinities to Easter Island and European groups; UC103 tenuously similar to Australo-Melanesian groups (CD2003; WJ1982) hematite lumps; ochre in burials, 1 elderly burial with perforated shell and fox canine; total 141 ornaments, some with traces of red ochre (125 perforated deer, fox teeth, 3 perforated shells, 1 perforated ovoid pebble, 1 perforated fish supra-orbital, 7 perforated stone beads, 4 tubular bone sections with // cut marks) typical of UP Europe and Siberia (BR1991; (UNESCO Peking Man website)	47 species of mammals, and fish, amphibians (UNESCO Peking Man website); cervid hunting (NCz2006) Question of association of fauna dates to hominids, evidence of strata disturbance (BP1992)

	Hinatabayashi B, Nagano, Japan 30 ka (<i>Tokyo National Museum online</i>)	UP tools, earliest ground and polished stone tools in world (<i>Tokyo National Museum online</i>)	
	Sokchang-ni, Kum River, South Korea Layer I.12 (14C charcoal) 30.69±3 ka (below cultural layer), 20.83±1.88 ka (<i>BK1992</i>)	Layer 12: blade cores, end scrapers on blades, side scrapers, burins, becs, points; microcores // Aurignacian (<i>BK1992</i>)	
	Mandal-ni, Sangmaryong River, Hwachon, North Korea (fauna) 20 ka (<i>BK1992</i>)	UP: 7 microblade cores (6 obsidian, 1 quartzite); bone tools, mostly points; <i>H. sapiens sapiens</i> (<i>BK1992</i>)	Upper Pleistocene fauna [post 128 ka], esp. cervids (<i>BK1992</i>)
	Minatogawa, Okinawa (Suzuki and Hanihara 1982) (14C on charcoal) 16.6±0.3 to 18.25±0.65 ka (Kobayashi et al. 1974) (<i>BP2006</i>)	3 skeletons = <i>H. sapiens sapiens</i> (Suzuki and Hanihara 1982; Suzuki 1982; Baba and Nerasaki 1991) (<i>BP2006</i>)	
	Longgu Cave, Xinglong, Hebei, China (AMS on object) 13.065±0.27 ka with matching 14C dates (<i>BR1991</i>)	<i>Cervus elaphas</i> antler engraved with multiple // and wavy lines, figure 8 motif, and zigzag, oblique crosshatch and horizontal // lines; noniconic art = in sophistication to Siberia, Russia, Europe (<i>BR1991</i> ; <i>BR1994</i>)	<i>Cervus elaphus</i>

Paleolithic-Neolithic Transition 'Incipient Jomon' 10-13 ka	General: earliest pottery 13 ka; marine resource exploitation 6 ka; millet agriculture 4 ka		
	Fukui Cave, Japan 12.5±0.35 & 12.5±0.5 ka (Kamaki&Serizawa 1967) <i>(Wikipedia)</i>		
	Kamikuroiwa Cave, Ehime, Japan Layer 9 (14C) 12.165±0.35 ka (Esaka et al 1967; Aikens & Higuchi 1982) <i>(BR2003; Wikipedia)</i>	UP tools, bifacial foliate points, shouldered arrowheads, pressed 'ridge pattern' earthenware; grooved whetstone or grindstone, engraved natural cylindrical pebbles, ~ 4 cm in length, possibly depicting 'breasts, skirts, long hair' (Aikens & Higuchi 1982) <i>(BR2003)</i>	

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