A possible Palaeolithic hand axe from Cyprus

Thomas F. Strasser, Curtis Runnels & Claudio Vita-Finzi

Forty-three years ago, artefacts of apparent Lower or Middle Palaeolithic type were reported in red beds overlying a fossil beach—arguably last Interglacial in age—at Zygi on the south-central coast of Cyprus (Vita-Finzi 1973). There has been speculation ever since about the possibility of Palaeolithic activity on Cyprus, although due scepticism has prevailed because unequivocal evidence has been elusive (Knapp 2010, 2013: 43–48). New finds from the Greek islands of Crete, Gavdos, Melos and Naxos (Chelidonio 2001; Mortensen 2008; Strasser *et al.* 2010, 2011; Carter *et al.* 2014; Runnels 2014; Runnels *et al.* 2014a & b) suggest that it is time for a research strategy, targeting Middle and early Late Pleistocene geological deposits on Cyprus, to settle the question.

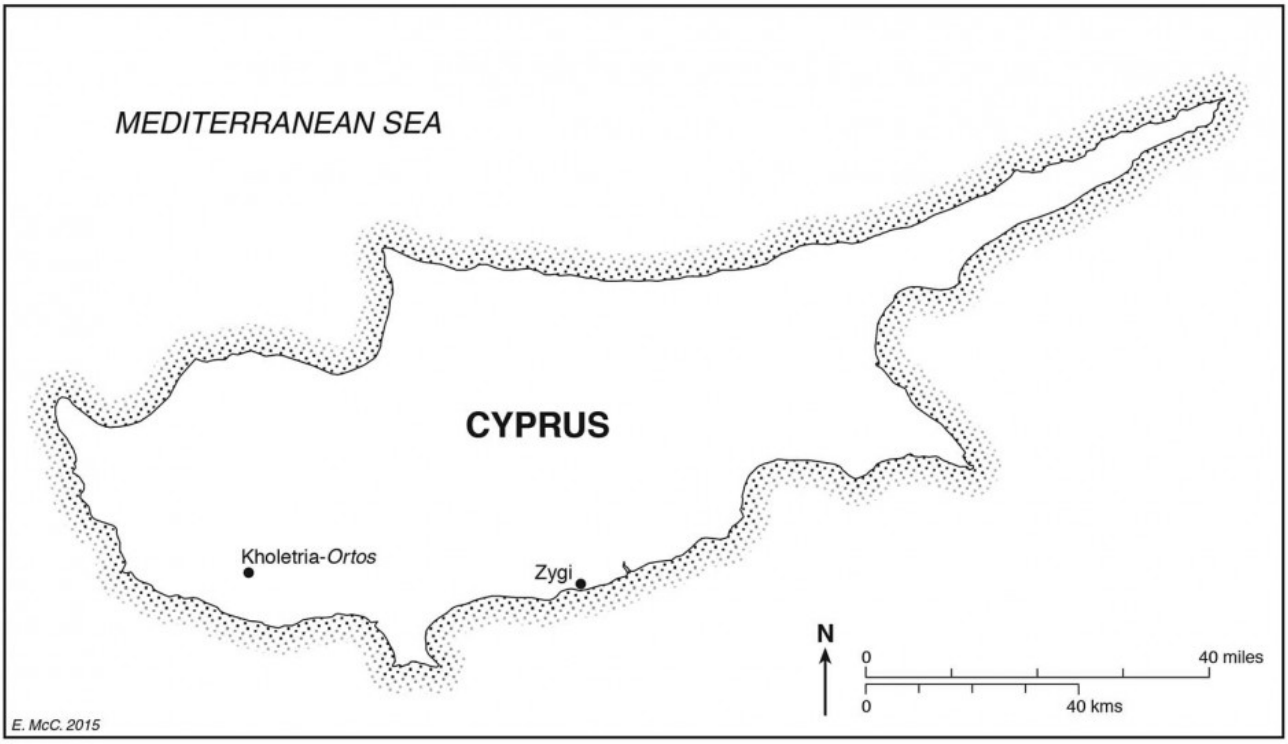


Figure 1. Map of Cyprus showing the locations of sites discussed in the text (by E. McClennen).

New evidence from Cyprus is a hand axe (biface) from the site of Kholetria-*Ortos*. The Canadian Palaipaphos Survey Project discovered the site in 1983 (Fox 1987: 19) and, subsequently, S. Swiny, then director of the Cyprus-American Archaeological Research Institute (CAARI), collected the hand axe in 1992 from the surface near the site. In the CAARI catalogue, the artefact is described as being of 'Palaeolithic hand axe type' (Figure 1). Our description is based on the first-hand inspection *and* examination of a three-dimensional printed replica, which is in turn based on photorealistic three-dimensional digital images by Brandon Olson (see Olson *et al.* 2014). The hand axe is made of Lefkara chert, a commonly exploited lithic resource on Cyprus. It is an amygdaloid, or sub-triangular, hand axe with a converging tip. It is 140mm in length, 85mm in width and 55mm in thickness (Figures 2–4). The dihedral butt and sinuous edges are typical of Acheulean bifaces in south-west Asia (e.g. Shea 2013: 70–79), as is the deep, invasive flaking covering both faces. The piece has a thick patina, clearly visible where recent accidental flakes cut through it, suggesting a considerable age for the artefact.

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Figure 2. Side A of the Kholetria-Ortos biface (photograph by T. Strasser).

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Figure 3. Side B of the Kholetria-Ortos biface (photograph by T. Strasser).

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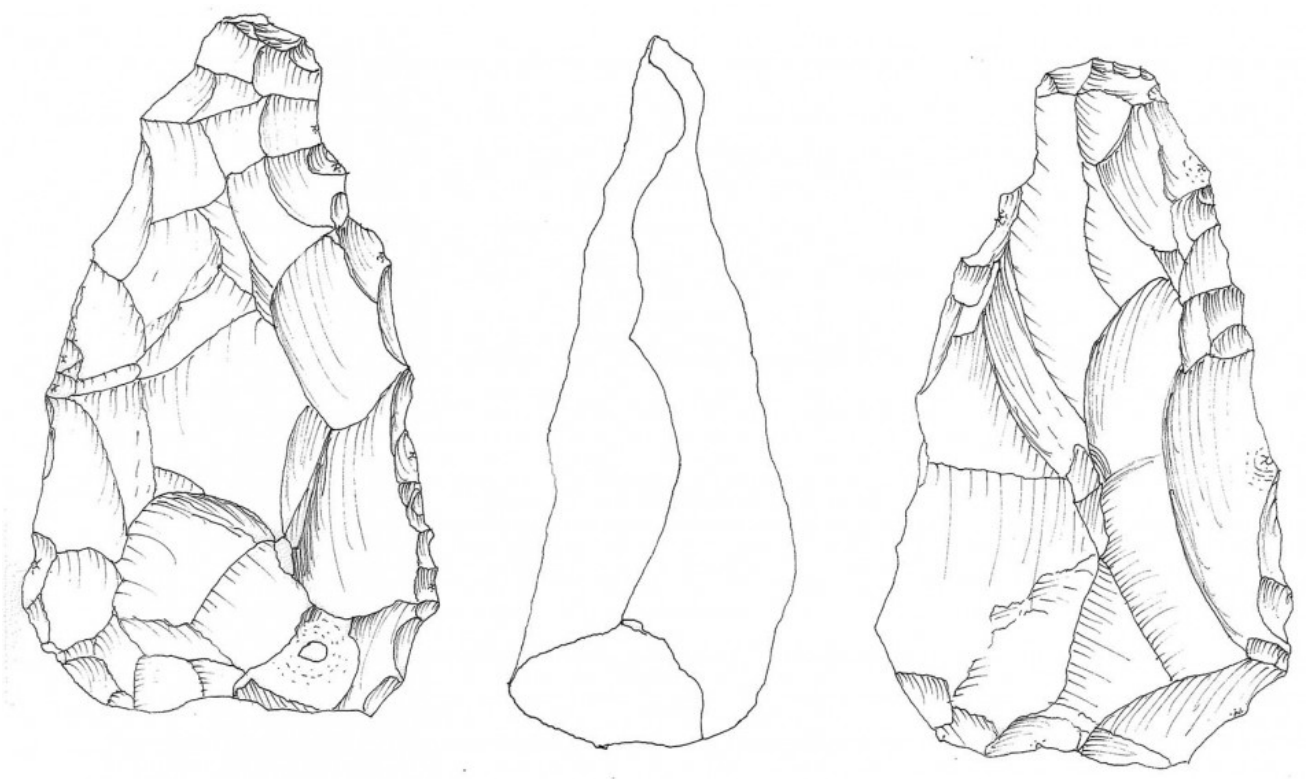


Figure 4. Drawing of Kholetria-Ortos biface based on a three-dimensional printed replica (by C. Runnels & P. Murray).



Figure 5. Butt of Kholetria-Ortos biface showing cross-section (photograph by T. Strasser).

Simmons excavated at Kholetria-*Ortos* where he found Cypro-PPNB (Pre Pottery Neolithic B) remains. He argues that this context counters our interpretation (Simmons 2014: 160–61), but we note that prehistoric sites on Cyprus can be multi-component, and surface finds may be part of a palimpsest of materials from different periods. Hunter-gatherers leave less conspicuous remains than Neolithic farmers, and so may be overlooked. There is a Lefkara chert outcrop near the site that could have been a source of raw materials over long periods of time (Fox 1987: 23; Simmons 1996: 35). The Aceramic site of Kholetria-*Ortos* has no architecture, so it is not certain that this was a settlement (Simmons 1996: 33–34), and, as McCartney notes, "these 'non-settlement' sites may be at least partly defined as chert-extraction and -knapping localities" (McCartney 2007: 312). Simmons suggests that Neolithic picks resemble earlier Palaeolithic bifaces, but Neolithic picks and axes have triangular (trihedral) or trapezoidal cross-sections and distal ends, with an oblique tranchet flake creating an axe-like edge (Shea 2013: figs 7.6–7.7), while the Kholetria-*Ortos* biface has the amygdaloidal/triangular shape and double lenticular section (Figure 5) that is typical of Palaeolithic

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handaxes.

The Kholetria-*Ortos* hand axe in context

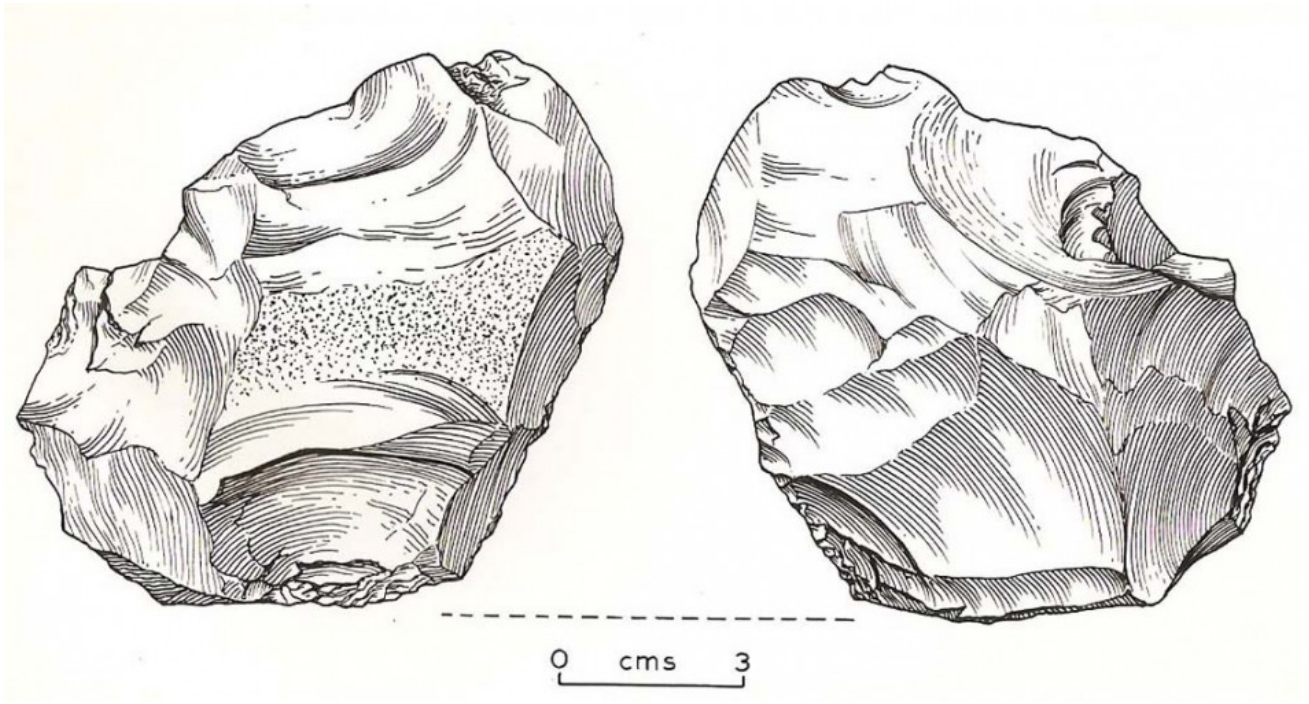


Figure 6. Zygi biface (drawing by L. Copeland).

The Kholetria-*Ortos* hand axe can be compared with similar finds from Cyprus and the Greek islands. The original pieces from Zygi are unavailable, but the artefacts can be described from the drawings in Vita-Finzi (1973: fig. 1). One piece is an ovate hand axe (the oblique orientation may reflect the origin of the blank as a side-struck flake) around 105mm in length and 85mm in width (Figure 6). The Zygi hand axe resembles the example from Kholetria-*Ortos*. It is also similar to recently discovered hand axes from Crete that have been associated with marine terraces and palaeosols, with ages greater than 100 000 years (Runnels *et al.* 2014a). Now that Palaeolithic artefacts are reported from the Greek islands (Runnels 2014), the possibility of early Palaeolithic activity on Cyprus takes on particular significance. The suggestion that the Greek island's Palaeolithic period resulted from sea-going by archaic humans (Runnels 2014; Simmons 2014) has been met with scepticism (Broodbank 2014; Leppard 2014), but the presence of early Palaeolithic hominins on Cyprus, which was manifestly an oceanic island in the Pleistocene, would support the Palaeolithic sea-going hypothesis.

The dominant paradigm for research on the Mediterranean islands has been that they were not colonised until the Neolithic or later (Cherry 1981, 1990). It has been thought that the islands had resources too limited for Palaeolithic or Epipalaeolithic/Mesolithic foragers to survive (Cherry 1992). This has sometimes resulted in circular reasoning: if it is assumed there was no pre-Neolithic occupation on the islands then specialists seldom work on them, thereby contributing to the impression that there is no pre-Neolithic evidence. The picture may now be changing and it is time for a re-evaluation of the Palaeolithic question for Cyprus.

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