

The elephant remains from the Agro Pontino, Latina, Central Italy

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SUMMARY: Numerous gathering spots of Middle to Late Pleistocene fossil vertebrate remains and stone implements are known in the northern Agro Pontino. One of the most productive has been Campoverde, located between Latina and Aprilia, which has yielded remains of several mammals, among which a relatively primitive representative of *Mammuthus primigenius*, with traits recalling somewhat those of *M. trogontherii*, and *Equus hydruntinus*, which altogether suggest a correlation with the isotopic stage 7. In association with vertebrate bones a rich flint industry was collected at the surface. All the artifacts have been made from small flint pebbles and a preliminary examination of the technological and typological characteristics suggest a Lower Palaeolithic age for the lithic industry of Campoverde.

1. INTRODUCTION

The northern part of the Agro Pontino coastal plain (Latina) has contributed rich amounts of vertebrate remains and stone implements, all spanning the Middle to Late Pleistocene. The Middle Pleistocene finds were contained in volcanoclastic deposits mostly referable to the Vulcano Laziale cycle. Numerous significant gathering spots are known; the most outstanding one is that known as Campoverde, located between Latina and Aprilia.

2. SPECIMENS

2.1 Fauna

The wealthy collections of fossil bones from Campoverde were recovered from two gathering spots, respectively CV1 and CV2, exposed by mechanical works for a ditch in an area indicated locally as Campoverde (Mazza *et al.* 1992; Vianello *et al.* 1995). The material had been removed from its original setting by the mechanical works and was found concentrated on the surface; it was therefore not recovered in

situ, but very close to its bed of provenance. The CV1 material outnumbered by far that from CV2; the latter in turn provided a deciduous right upper premolar of *Homo* sp. The faunal list includes altogether *Elephas antiquus*, *Mammuthus primigenius*, *Stephanorhinus* spp., *Equus ferus*, *E. hydruntinus*, *Hippopotamus* sp., *Bos primigenius*, *Caprinae* ind., *Cervus elaphus*, *Dama dama*, *Capreolus capreolus*, ?*Megaloceros* sp., *Ursus* sp., *Canis* sp. (cf. *C. mosbachensis*), *Aves* ind., *Chelonia* ind. (Mazza *et al.* 1992; Vianello *et al.* 1995). Another significant recovery was also the human tooth which exceeds the dimensions of the correspondent deciduous premolars of present-day boys (mesio-distal diameter: 9,4 mm; bucco-lingual diameter: 10,2 ? mm).

E. antiquus remains were also found at another gathering spot, Valloncello, near Cisterna di Latina (Vianello *et al.* 1995). Compared with Campoverde, Valloncello yielded a poorly diversified and poorly represented fauna. Besides the elephant, the faunal list from this locality includes *E. ferus*, *Hippopotamus* sp., *C. elaphus*, *B. primigenius* and *U. gr. deningeri-spelaesus*.

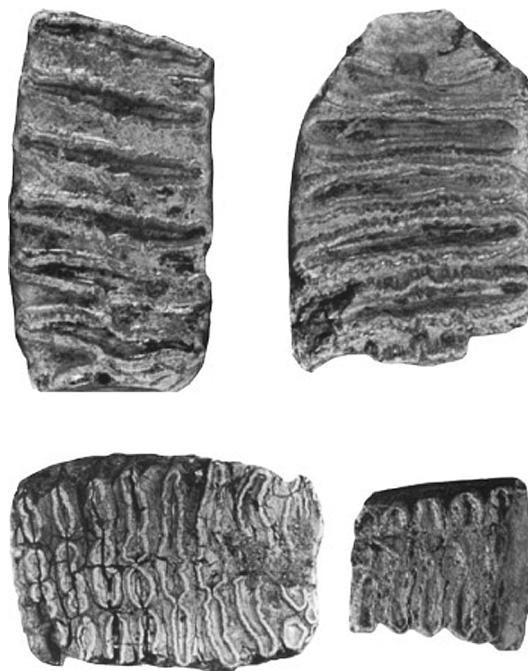


Fig.1 - Top – *Elephas (Palaeoloxodon) antiquus* from Campoverde: two right second upper molars, occlusal view.

Bottom – *Mammuthus primigenius* from Campoverde: left, right third lower molar, occlusal view; right, right (?) lower (?) molar.

2.2 Lithic industry

The collection of stone artifacts from Campoverde (Vianello *et al.* 1995; La Rosa 1998) is the result of an unsystematic survey by local amateurs and totals (present number) 245 specimens (95 cores and core-like elements, 38.8%; two unretouched flakes, 0.8%; 148 tools, 60.4%). They were all obtained from small flint pebbles, rarely more than 5-6 cm. long; this explains the very high frequency of the cortex on the flakes and the small to very small dimension of the tools. Like in several other Lower Palaeolithic sites of Latium, the weathering patinae are not homogeneous: only 9.4 % of the specimens are fresh, while 43.5 % show a brownish polished and shiny patina and have sharp ridges, 42.7 % display the same brownish polished patina but with slightly blunt ridges and 4.4 % have slightly blunt ridges and no patina at all. In spite of their dif-

ferent physical aspect, the tools do not show any technical or typological differences. Their main characteristics are the following: strong incidence of cortex; predominance of cortical and flat butts; complete absence of Levallois technique; presence of bipolar technique and centripetal cores; almost complete absence of unretouched flakes; high amount of carinate elements; particular abundance, among the tools, of the group of the denticulates, often microlithic (42.8%), followed by sidescrapers (21.1%), borers (8.8%), retouched flakes (7.5%), endscrapers (6.8%) and choppers (6.1%). This assemblage shares affinities with various Lower Palaeolithic industries of Latium, such Malagrotta (Cassoli *et al.* 1982) and La Polledrara di Cecanibbio (Anzidei & Arnoldus Huyzendveld 1992), chronologically referred to the second half of the Middle Pleistocene.

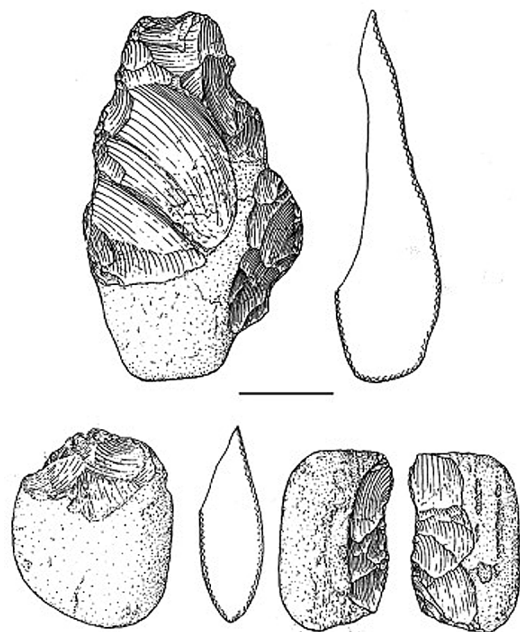


Fig.2 - Campoverde – top: denticulate on residual core; bottom: distal monofacial and lateral bifacial choppers (scale bar: cm).

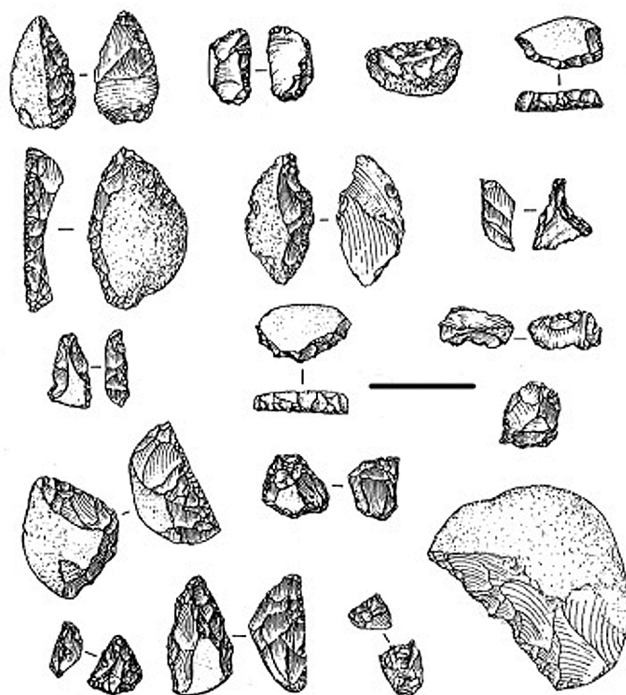


Fig.3 - Campoverde – lithic implements.

3. CONCLUSIONS

The Campoverde *M. primigenius* is a relatively primitive representative, with traits recalling somewhat those of *M. trogontherii*. These transitional forms, called *M. "chosaricus"/M. primigenius* (Palombo 1995), have great stratigraphical importance, since they characterize the Holsteinian (isotopic stage 9) of the Netherlands (Kolfschoten 1981, 1985) and of the British Isles (Sutcliffe 1985). The lack of precise information on the stratigraphical provenance of the material unfortunately prevents to ascertain if the co-occurrence of this proboscidean with *E. antiquus* is effective or rather the result of an artificial mixing of the specimens. Co-existing *M. trogontherii/M. primigenius* and *E. antiquus* elephants are actually reported from central and northern Europe and characterize the Holsteinian and especially its transition to the Saalian Complex (isotopic stage 8÷6). The fauna from Campoverde is altogether coherent from the chronostratigraphical viewpoint. Incidentally, if the dating of the fauna should be confirmed by future research, the presence of *E. hydruntinus* in transitional Holsteinian/Saalian levels (isotopic stage 7) would be the earliest known occurrence of this taxon in Italy.

4. ACKNOWLEDGEMENTS

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