

Notes and Discussions on the paper: Marra A.C. & Bellomo E. (2008). *Equus hydruntinus* from the Upper Pleistocene (MIS 4) of Calabria, Southern Italy.  
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1) This paper deals with three herbivorous fossil teeth stored in the Prehistoric and Protohistoric Service of Crotone of the Antiquities Office of Calabria: detailed informations lack about the precise site, the stratigraphic level and circumstances of the finding, which in the palaeontological and geological literature are all requisite data to certify the place of origin of the finds. The height of 10 m above sea level is not a significant character, as the elevations are highly influenced by the intense neotectonics which affected the Crotone peninsula in the Late Pleistocene and by the consequent dislocations of sedimentary deposits (Gliozzi, 1987).

2) According to the Authors, the three fossil teeth should have been collected from the terraced calcarenites of the Le Castella terrace. Gliozzi (1987) described in detail the terraced deposits of Le Castella-Capo Rizzuto terrace and illustrated the stratigraphic sequences from some sites. The molluscs taxa of the terraced calcarenites and their palaeoenvironmental and chronological significance have been also presented by Gliozzi. In the paper the Authors do not refer to the molluscs studied by Gliozzi. Are the fossil teeth coming from the same calcarenites which have been described by Gliozzi?

3) On the right side of Fig. 2 the Isotopic Curve is presented, but the peak representing the Stage 4 is not correlated with the stratigraphic level containing the fossil teeth, which in this paper are attributed to MIS 4. What is the significance of the Curve presentation in Fig. 2?

4) By  $^{230}\text{Th}/^{234}\text{U}$  method dating Voltaggio & Gliozzi obtained ages of 62 Ky and 67 Ky from molluscs collected at different sites of the terraced calcarenites of the Le Castella-Capo Rizzuto terrace (*vide* Gliozzi, 1987). An age of  $87 \pm 10$  Ky was obtained also by  $^{230}\text{Th}/^{234}\text{U}$  method dating by Voltaggio (Belluomini et al., 1988) from specimens of *Cladocora coespitosa* coming from the calcarenites of Le Castella. Gliozzi (1987) underlined the lesser reliability of radiometric ages obtained from molluscs in comparison with radiometric ages obtained from *Cladocora coespitosa*. Has the age of 62 Ky, which the Authors attribute to the studied teeth, been chosen among those obtained by Voltaggio & Gliozzi? What is the reason why they have chosen the age of 62 Ky?

5) According to Belluomini et al. (1988), the average values of 0,31-0,36 were obtained for alle/ile ratio of fossil molluscs from Le Castella-Capo Rizzuto terraced deposits and an age of 110 Ky is to be attributed to them. Gliozzi (1987) attributed the fossil

molluscs from Le Castella-Capo Rizzuto terrace to the amminozone C (Hearty et al., 1986.). In fact, the marine terraced deposits are correlated by Gliozzi (1987, Fig. 43), even if dubitatively, with the stage 5 c of the Isotopic Curve by Parisi & Cita (1982).

The average value of 0,24 for alle/ile ratio, which is attributed in this paper to the fossil molluscs from Le Castella, was obtained from samples coming from the younger Capo Colonne terraced deposits to which an age of 70 Ky was attributed by Belluomini et al. (1988). What is the true average value for alle/ile ratio of the samples studied in this paper?

6) In the literature dealing with marine terraces the peaks with even numbers of the Isotopic Curve are correlated with low stand stages i.e. with erosive phases and/or the deposit of sediments of continental environment, while the abrasion platforms and the overlying littoral deposits characterize the high stand stages, which are correlated with the peaks with odd numbers. For this reason also the attribution of the calcarenites containing the studied fossils to the MIS 4 seems at least careless.

7) A discussion about the chronological correlations between the deposits of Le Castella and terraced deposits of Archi and Iannì of S. Calogero lacks. As a matter of fact, chronological data on terraced deposits of Archi are conflicting and the researchers also who studied those deposits have so far many doubts.

A greater rigour and a greater care in the diffusion of chronological data is also required to avoid that wrong datings can be used in the subsequent literature.

In the list of references two quotations lack: Ascenzi & Segre (1971) e Burke et al. (2003).

#### REFERENCES

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