Palaeoecological and palaeoethnological analysis of botanical macrofossils found at the Neolithic site of Rivaltella ca'Romensini, northern Italy

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Abstract. The botanical macrofossils (charcoals, seeds and fruits) found during the archaeological excavation of the middle Neolithic site of Rivaltella Ca'Romensini near Reggio Emilia, northern Italy, have been analyzed. Among the charcoal fragments 11 different taxa have been identified, with a clear predominance of oaks. The relative frequencies of the different taxa probably do not reflect the real frequencies in the forest, but suggest that firewood had been gathered selectively. Among the seeds and fruits, four different Gramineae, a small wild apple and some hazelnut shells have been identified. These results indicate that the food economy of the Neolithic Rivaltella inhabitants was partially based on agriculture and on fruit gathering.

Key words: Botanical macrofossils – Charcoal analysis – Neolithic – Northern Italy

Introduction

The analysis of botanical macrofossils (charcoal, seeds and fruits) found during archaeological excavations may give information of different kinds. The identification of seeds and fruits offers some indication of the food economy of ancient populations (Behre et al. 1978), while charcoal analysis may give additional palaeoecological and palaeoethnological information. Charcoal may be associated with archaeological structures or scattered around the archaeological layers, and among waste collected in dry pits. In all cases the analysis provides palaeoethnological information, and it can also allow palaeoecological interpretation. When charcoal fragments are the results of the emptying and cleaning of fireplaces they provide successive images of tree and shrub vegetation around a site during a particular cultural period or cultural sequence (Badal and Heinz 1991). Recent results obtained from charcoal analysis have contributed greatly to our knowledge of prehistoric environments (Vernet 1980, 1991; Vernet et al. 1983, 1987; Heinz 1990, 1991; Longo Marziani et al. 1989; Marziani et al. 1991; Marziani Longo et al. 1992; Badal et al. 1994).

In this study we have analysed the botanical macrofossils gathered during the archaeological campaign conducted by James Tirabassi on the middle Neolithic settlement of Rivaltella Ca'Romensini, near Reggio Emilia in northern Italy.

The archaeological site

Rivaltella is situated in the Po plain between Reggio Emilia and the foothills of the northern slopes of the Apennines. The Neolithic settlement was located on the bank of the Torrente Crostolo (Crostolo river) on the rim of a Wurmian alluvial terrace that falls off towards the river (Tirabassi 1987). The archaeological excavations of the settlement of Ca'Romensini have brought to light three contemporary sites of the initial period of the middle Neolithic (radiocarbon dated 6120±120 uncal. B.P.). This period belongs to the Impressed Ware cultural group, characterized by a typical pot with a square mouth (vaso a bocca quadrata). The charcoals analysed were scattered on the ground (site 1 and 2) or found in small pits: two at Site 2, one of which was near a kiln for baking pottery, and two at Site 3. The pits of Site 2 are listed as A/B/7 and kiln pit, those of Site 3 as 1 and 2. Seeds and fruits were scattered among charcoals at sites 1 and 2.

Methods

Charcoal analysis

Charcoal fragments have been analysed following a method previously described (Longo Marziani and Iannone 1986). A first inspection and preliminary classification were done under a stereo microscope and repre-