

Archaeobotanical analysis in Cittanova necropolis (Modena)

Federica Riso
Institut Català d'Arqueologia Clàssica (ICAC), Tarragona, Spain

Abstract. The archaeological site of Cittanova had a key role during the romanization process of *Mutina* (now Modena, northern Italy). Preliminary archaeobotanical analysis (seeds/fruits) have been carried out on the necropolis dated from the II century BC to the II century AD, in order to find food remains involved in the ritual ceremonies. A total of 211 seeds/fruits and 5 taxa have been identified, among which Cereals, Legumes and wild species.

Key words: archaeobotany, roman, necropolis, Mutina, Sambucus ebulus

Introduction

Preliminary archaeobotanical analysis on the roman necropolis of Cittanova, in Modena (northern Italy), dating from the II century BC to the II century AD, have been carried out in order to detect foodstuffs offered during the funerary rituals.

Cittanova, located about 10 km west of Modena, in the direction of Reggio Emilia, was already known in the archaeological literature for several discoveries and, in particular, is cited by the sources as the episcopal seat of *Civitas Nova* or *Civitas Geminiana*. Cittanova site is sealed by alluvial deposits formed between the Middle Imperial Age and the Early Middle Ages. The traces of paleochannels surrounding the city of Modena indicate the existence of a hydrography significantly different from the current one. The main rivers of the area, Secchia and Panaro, which today converge north of the city, followed very distant paths from it in Roman and Medieval times. In particular, upstream from Rubiera a paleochannel runs further east than the previous ones and passes near Cittanova, downstream of which it develops along a northern route, coinciding with other paleochannels.

The deviation of the canal in the Cittanova area involved excavation works in 1993 (the excavation data are still unpublished). The new path of the canal ran for a large stretch parallel to the Via Emilia, near the roman consular road. During archaeological excavations, deposits from the Republican period emerged, such as black-painted ceramics dating back to between the II- middle I century BC. The necropolis was parallel to the current Via Emilia which matched with the roman consular road, as attested by the discovery of a road pavement linked to the funerary context. The necropolis had been widely attended, as seen from the tombs arranged on overlapping levels. Overall, 144 tombs were excavated, 84 cremations and 60 inhumations, on an area of approximately 250 meters.

Material and methods

Soil samples taken from 18 tombs have been examined at the Laboratory of Palynology and Palaeobotany in Modena. Here the soil-sieving operation was carried out using piled sieves of differing mesh sizes (10 mm – 0.5 mm – 0.2 mm), as well as screening and microscopic identification of the surfaced materials by a stereomicroscope Leica Wild M10 at various magnifications (between 6 x and 80 x). Once the

remaining material had dried out it was collected in sealed bags/containers and labeled (site, grave/structure number, layer).

Seed/fruit identification was based on the Laboratory reference collection, atlas/keys, and miscellanea (Anderberg 1994; Berggren 1981; Cappers *et al.* 2006, 2009; Neef *et al.* 2012). In the case of fragments of carpological remains, for each recognised taxon, the number of fragments found according to the type of finding was returned to the unit.

Results

A total of 211 seeds/fruits in 7 cremation tombs have been identified, for a total of 50 liters sieved (see Table 1). The remains preservation is not good due to the composition of the soil.

The cereals were found only in a single grave, but it was not possible to better determine the species; only one grain is attributed to *Triticum sp*.

There is also evidence of legumes in 2 graves, including 1 cotyledon of *Vicia faba* var. *minor* and another cotyledon of *Vicia sp.*

Several seeds of *Sambucus ebulus* were found for a total of 202 remains.

All the seeds were charred apart from the *Sambucus* ones.

Discussion

The poor preservation conditions of the carpological remains made the analysis difficult, especially the identification of the species level. Less than half of the tombs produced carpological remains, and unfortunately, it couldn't be noticed a good variety of food plants. The few charred remains found are attributable to legumes and cereals as evidence of food offerings during the cremation ritual.

In addition to these categories, there is a high number of seeds of *Sambucus ebulus*. *Sambucus* has been used a lot by ancient folk medicine the roots for their laxative, diuretic and anti-edematous properties; the bark and leaves as an antirheumatic; the dried flowers as diaphoretics, expectorants and in bronchial diseases. The berries were used to prepare repellents, inks and dyes.

Table 1. Carpological data.

Cittanova (Modena)								
grave (7 CR – 2nd cent. BC-2nd cent. AD)		**7**	**11**	**36**	**52**	**61**	**108**	**122**
layer		47	37	148	202	218	361	391
volume (total liters – 17,5)		*2*	*1,5*	*2,5*	*5*	*2*	*1,5*	*3*
Cereals	caryopsis						1	
Sambucus ebulus	endocarp	52	48	31	12	40	18	1
Triticum sp.	caryopsis						1	
Vicia fab a var. *minor*	seed		1					
Vicia sp.	seed						1	
indeterminate			1			3	1	
SUM (total – 211 sf)		**52**	**50**	**31**	**12**	**43**	**22**	**1**
sf/liter		26	33	12	2	22	15	<1
nr.taxa (total – 6)		1	3	1	1	1	5	1
c								
nc								
c/nc								

The abundance of *Sambucus ebulus* seeds should not be considered a voluntary act but is due to the presence of uncultivated areas. In this context, it is better to consider it as a wild species, also because the seeds are all uncharred.

Conclusions

Cittanova necropolis produced evidence of ritual plant offerings, even if not several seeds have been found because of the sequence of floods in the area, which have compromised the conservation of the plant remains.

The presence of several uncharred seeds of *Sambucus ebulus* could indicate the settlement of uncultivated lands, perhaps due to the abandonment of the burials, which were no longer attended by relatives and therefore, were dominated by the surrounding vegetation.

References

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Correspondence:
Federica Riso
Institut Català d'Arqueologia Clàssica (ICAC), Tarragona, Spain
E-mail: friso@icac.cat