WATERLOGGED GRAPE REMAINS (*VITIS VINIFERA* SSP. *VINIFERA* L.) FROM A BYZANTINE WELL OF SUPERSANO (SOUTH-EAST ITALY): A DISCARD OF WINE PRODUCTION?

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INTRODUCTION

The cultivation of the grapevine and the production of wine are a pattern for the entire Middle Ages. Its fruit, in fact, could easily supplement the diet of the people and consumption of wine was highly recommended because of hygienic properties. Furthermore, the use of the wine in the Christian liturgy has expanded its production in correlation to the sacred dimension. So the rulers and the clerics have often defended, or boosted, its cultivation and production.

Wine production is ample attested by written sources in Italy for the entire Middle Ages, but the archaeological evidences of this process turn out sporadic because of their difficult reading and few researches.

We report here the indirect evidences of wine producing in Byzantine Southern Italy: the site of Supersano (LE) (Fig.1).

**Fig.1**

When investigating the rural settlement of Supersano, we have identified waterlogged and charred plant materials at the bottom of a 6 m-deep well (Fig.2-3). Associated artifacts and radiocarbon dating suggest that the well was backfilled between the seventh and eighth centuries A.D. (Arthur et al. 2008). It's investigated the lower part of the well (US 204). The composition of the collected samples has shown high densities of *Vitis vinifera* remains as pips (often fragmented), grape skins and pedicels (Tab.1).

MATERIALS and METHODS

*Vitis* remains were quantified and their taphonomical features were pointed out.

After that ten undistorted and well preserved pips were analysed: we have undertaken their total length, total breadth and the stalk length (Fig. 4).

The same measures were taken on the seeds of the modern reference material that contains three varieties of wine grape (*Tsaoussi*, *Asprinio* and *Malvasia*) and three of table grape (*Zimavacca*, *Corniola* and *Olivella*)

In order to determine the type of grape (wine or table grape) employed at Supersano, cluster analysis are performed.

**RESULTS**

The analysis have recognized 1704 well preserved grape pips and 277 fragmented, 1763 pips and !16 pressed skins, so the presence of these *Vitis* residues is considered to be direct evidence of grape pressing (Ch. Margaritis & Jones 2006 informal et al. in press). Probably this process has included also the use of a press, because pips are significantly more fragmented than the other seeds/fruits recovered in the well and the sudden by underfoot usually avoids over fragmentation.

The occurrence of residues of calcium tetrates in an amphora (preserved in the same context) improve the hypothesis that these grape remains are a discard of wine production.

The cluster analysis has clearly distinguished modern wine grape cultivars from the modern table grape cultivars (Fig 6). Instead the archaeological sample not belong closely to neither of the two groups, but however shows a 'grape wine' tendency.

Finally, the resolution of these assemblage with wood fragments of *Vitis vinifera* L. attest the growing in loco (Fig.7), but the aDNA analysis suggest that there is a relationship between the cultivar identified at Supersano and eastern Mediterranean varieties (Capelli et al. 2010).

**Tab.1**

**Fig.4**

**Fig.5**

**Fig.6**

**Fig.7**