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Wine production in the Santa Marina villa (Istria – Croatia)



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The villa in context a) in Istria; b) facing the bay of Santa Marina; c) near the Loron site (the villa is on the north shore, Loron on the south)



Oil production took place in the main room (11 x 11m). The remains of two oil mills (*mola olearia* type) and two large presses have been evidenced. Despite the destruction, significant elements of the machinery can be recognized, such as the rectangular press-beds built with a masonry foundation and one monolithic bloc used as a frame for the wooden uprights (*arbores*) on which the lever was fixed. We suppose that the presses could reach a length of 10/11m with the use of a winch to power the lever.

On the south side of the room, a rectangular basin over 10 m long seems to have been connected to the presses by a pipe. In a later phase, the basin was divided by a small transverse masonry wall which rested on *imbrices* allowing the liquid to be filtered. To the west of the basin, another room located below, which has not been studied yet, could have been used as storage.

These structures are very similar to those observed in the villas of Brioni island (Val Catena / Uvala Verige, Monte Collisi / Kolči and Val Madona / Uvala Dobrika), in which the presence of great cellars, that could host up to 60 /80 dolia, associated with rectangular basins of great dimensions suggest principally a wine production, as disclosed by J. P. Brun (BRUN 2004).

Originally designed to produce wine, the equipment could then have been reused or transformed to process oil, in accordance with the new requirements of the owners of the villas, as the transformations of the basin seems to show in the case of Santa Marina.

To test this hypothesis, four samples were taken from the long basin of the villa of Santa Marina: one from the mortar of the northern wall (under the trace left by the pipe); two from the plaster covering the pavement, made in *opus spicatum*; one directly from the pavement (*spica*).

Biochemical analysis, carried out by N. Garnier (2020), confirm that the long basin of the villa of Santa Marina contained grape juice, with the presence in all the samples of malic and tartaric acid. Two samples from the bottom of the basin reveal very clear traces of grapes and another fruit rich in malic acid (apple, pear or quince). They also contain traces of acids from alcoholic fermentation (malonic, maleic, succinic, fumaric and pyruvic acids), indicating a fermented drink, in this case red wine.

Only the sample from the north wall of the basin bears traces of a strong impregnation with fatty acids, suggesting that it was in contact with vegetable oil. During the survey, we also noticed traces caused by oleic acid on the mortar.

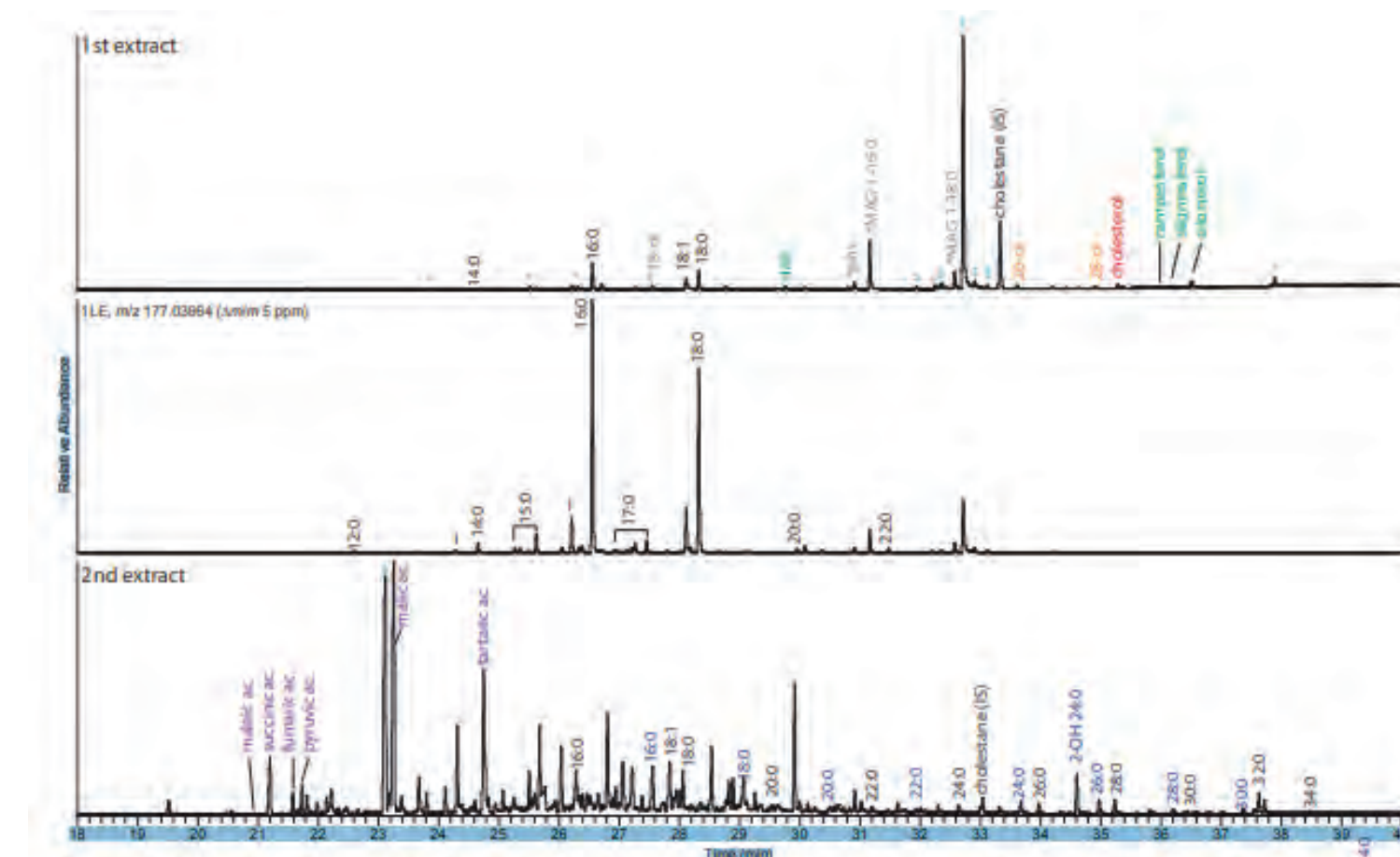
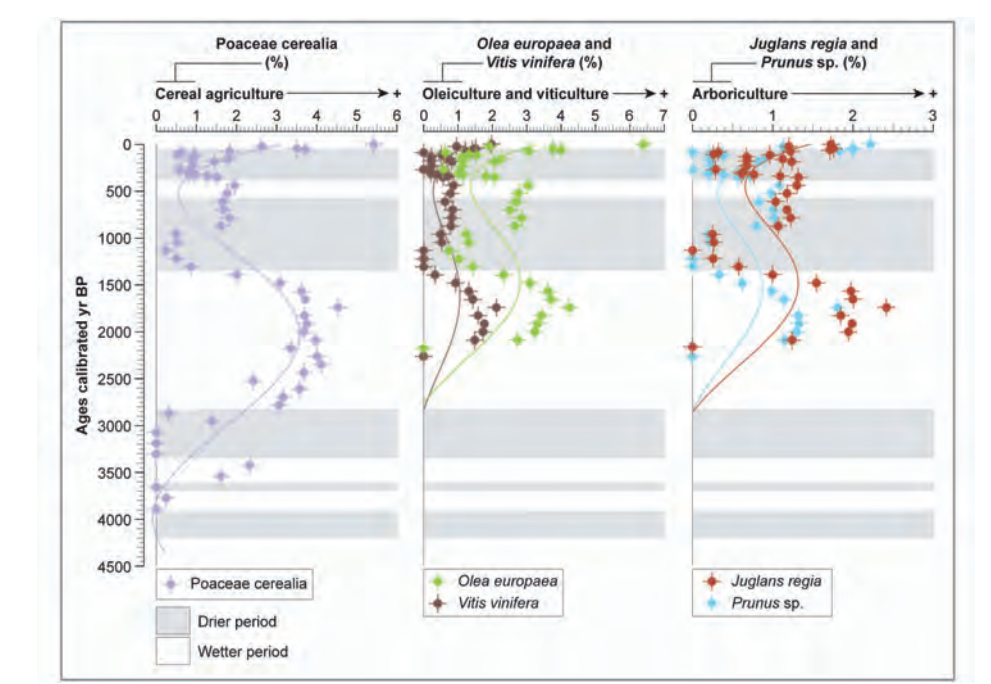


Figure 7. Chromatogrammes du premier et du second extraits lipidiques obtenus à partir des imprégnations de l'enduit 5200, triméthylsilylés (colonne ZB5-MSI, détecteur Exactive mode EI 70 eV résolution 60 000)



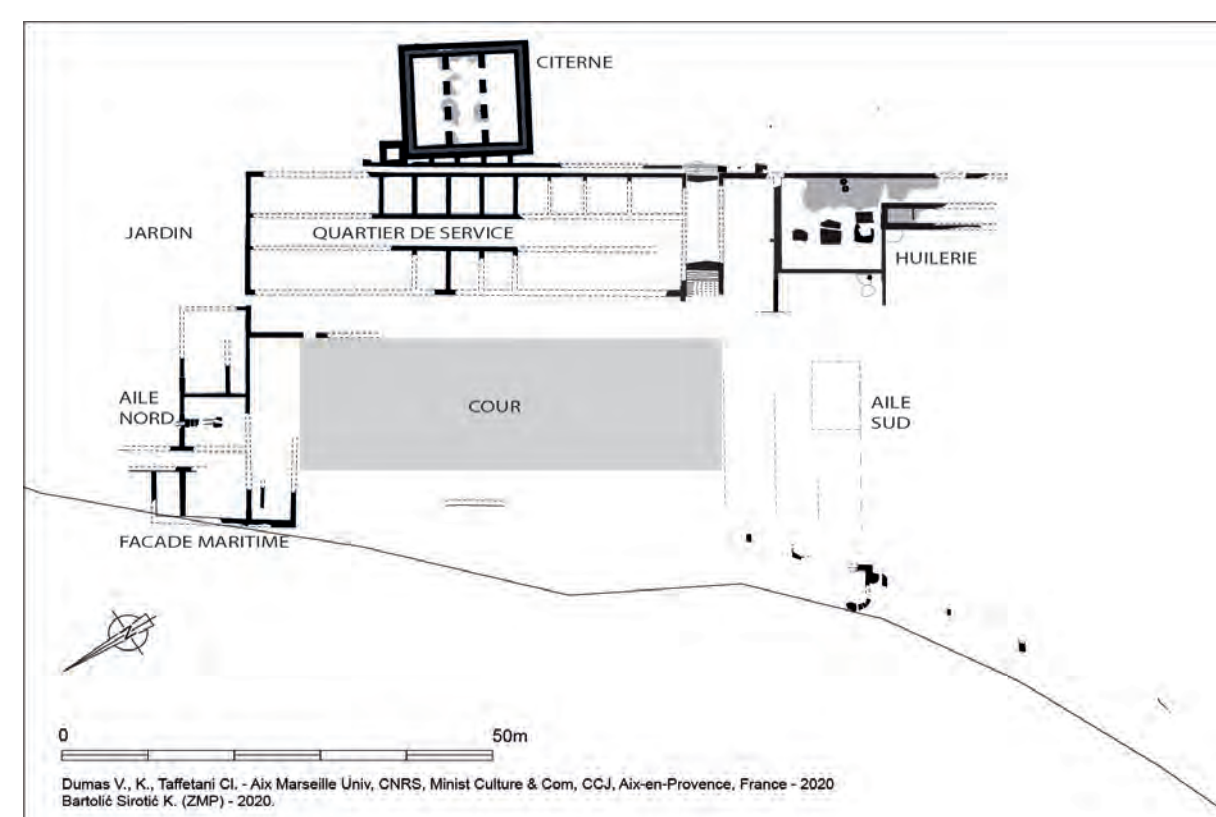
D. Kaniwowski & al. 2019 : Reconstruction of the agropastoral activities from the Mirna region, next to Santa Marina and Loron

Garnier 2020 (left). Biochemical analysis of the pavement of Santa Marina basin.

Since 2014, researches carried out by the Museum of the territory of Poreč (ZMP) and the Centre Camille Jullian have focused on a large roman villa facing the bay of Santa Marina, about 10 km north to the colony of *Parentium* (Istria, Croatia).

The residence was part of an aristocratic estate that also included a big *figlina*, on the site of Loron, connected to the villa and mainly dedicated to the production of oil amphoras. The stamps give the name of famous owners, beginning with T. Statilius Taurus Sisenna (cos 16 A.D.) who built the complex around 10.A.D. Then, the villa became an imperial property, from the time of Domitian (81A.D.) to Hadrian at least.

During the IVth c. A.D., the buildings are spoliated and reused, before being completely abandoned in the Vth c. A.D.



The villa is more than 100 m long and 50 m wide. It is built on a sloping ground, with two overlaying terraces facing the sea. The residential rooms seem to be situated mainly on the low terrace, around a large courtyard.

Service buildings are identified on the upper terrace, including a set of rooms for oil - and probably wine - processing, corresponding to the *pars fructuaria* of the villa.



These results confirm the existence of a wine production in the villa of Santa Marina undoubtedly intended for local consumption, together with the production of oil, well known in Istria. They substantiate the palynological, iconographic and archaeological data already identified (including the production of wine amphoras in the Loron workshop).

The wine presses and the cellar are perhaps to be found in other rooms of the villa, not yet excavated. It also seems that the basin was then reused to decant the oil in the last phases of production of the villa.

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