The two sites, Dassargues and Lunel-Viel, located in the Vidourle valley (areas of Nîmes and Montpellier), are 5 km distant from each other. In the north, their territories are limited by the low terrace hills of the lunetas (10-150 m high). In the south, they are in contact with the coastal plain of Lunel and the lagoon of Mauguio; the ancient shore of the lagoon is still visible, ten km away from Dassargues.

Through history the river Vidourle and the stream Danailhun had a significant impact on the landscape and on the pattern of land occupation related to farming.

MATERIAL AND METHODS

Only one pit at Dassargues and six pits at Lunel-Viel provided carbonized seeds. The major part of the pits was filled with secondary deposits. The samples from Dassargues were sieved by flotation (0.5 mm meshes) and sorted under a stereomicroscope. Those of Lunel-Viel were only sorted by hand after a coarse sieving by the excavator. All Dassargues, 20 653 seeds remains were identified, at Lunel only 572. The taxa frequencies were calculated for the number of minimal entire seeds (nms).

STORAGE

At Dassargues a large concentration of semi-cleaned grain of barley (see above pg. 6) and naked wheat were intentionally cremated in a bulk storage then later thrown into the pit: no primary storage was found and the two cereals were not a mixture. At Lunel-Viel, the less important volume of seed remains can not be used to illustrate storage in pit: it is nonetheless interesting to note the importance of pulses and mixed storage of horse beans and check peas.

The synthesis of the archaeological data suggests the simultaneous use of two different storage procedures: in pits and in buildings. The storage of daily staples might have been done directly in the house while the silos were used for long time storage. So far, the function of these large storage areas is still a matter of debate.

ACKNOWLEDGEMENTS: Claude Reynaud (CNRS, Montpellier) helped us with historical information and archaeological data. Isabella Figura (IFRAP, Montpellier) reviewed the english version of the text.

PRODUCTION AND STORAGE OF FOOD PLANTS IN EASTERN LANGUEDOC 10th-11th CENTURY A.D.

THE SITES

The medieval occupation of the two rural sites is dated from 10th to 11th c. AD. The study of the plant remains from different fillings of several storage pits offers the opportunity to re-examine the question of the agrarian areas, and of the crops cultivated in the low Languedoc at this time. The results obtained are compared with written sources. During the 10th c. AD, the territory of Dassargues knows an important phase of settlement and exploitation: digging of more than 200 silos and construction of two threshing areas. At the same time the 83 sites of Lunel-Viel constitute the ultimate phase of occupation of the village. During these two centuries, the territories of these two sites witness an important development and dynamism, proper to their political extension. The large storage areas allow us to discuss the pattern of production management and the storage.

The actual medieval vegetation comprises remains of a deciduous oak forest associated with scrubland on the hill, while mixed oak (Quercus ilex and Q. pubescens) stands and the minerall forest (Fusinus, Salix, Ulmus) grow in the plain. Here, vineyards and orchards are intesively exploited.

CULTURES AND PRACTICES

The deposits of seeds and fruit testify to the major economic role of two cereals (Vendome vulgare, and naked Tritium), and the importance of two pulses (Vicia faba and Cicer arietinum). Few seeds of Pisum, Lens, Lathyrus austriacus and cicer are recorded. Wood charcoal and pits of Vitis and charcoal fragments of Olea and Pirus pireus complete the cultural spectrum. Wild trees used for wood could also provide fruits as hawthor (Crataegus, Malus, Prunus, pyrus), Cranegra and Arbutus.

A few remains of wild herbaceus plants have been found within the high concentration of cereals of Dassargues. Most of them are considered as winter crops seeds (Agrostemma githago, Galium aparine, Lactuca temulentum, (Sherardia arvensis), The Chenopodacea class is represented by Chenopodium album, Eclipta altemifolia, Lamium amplexicaule and Stilbium matutinum. The ecological requirements of these species indicate that the annual crops were sown principally on dry calcareous soils. Charcoal recorded in the domestic fire and palynological results suggest that local conditions allowed the persistence of mesophilous taxa (Fagus, Abies, Corylus, Alnus) in the overwiew forest of the low Mediterranean plain until the high Middle Age.

Some contemporary documents from the region of Montpellier (11th, 12th c.) listed cereals used as food taxes: cisselle (oat), mesclou (mixed, aminoa, Rumenes (*hehoulas*), orl (barley), hall (rolled wheay), carpent (7) and Rumenes de ortos (7). We note that neither pulses nor fruits are pointed. But a donation by Eldesires (year 786) mentioned *lerna el uileas*. According to this source and the archaeological results, the cereals production played a secondary role in the local farming economy and the vineyards were located on the hill slope in the hinterland. Moreover, vines were not cultivated in association with the cultivation in the same parcel (so-called “cultures mixtes” in some medieval texts from the Mediterranean area). Concerning the cultivation of olive trees, eco-analytical analysis of charcoal identified as Olea suggest that they were probably cultivated under irrigation maybe on the moist soils of the low plain rivetsareas.

REFERENCES


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Jérôme ROS - Master student, University of Montpellier 3 - ros.jerome@gmail.com

Marie-Pierre RUJAS - CRHS UMR 7209, Paris - rujas@free.fr

Archaeological sites - Plan C. Raynaud CNRS, 1992

Dassargues, excavation - Plan C. Raynaud CNRS, 1992

LUNEL - VIEL

Taxonomic spectrum of the carbonized seeds and fruit remains

NMS = 655; volume of 2 samples = unknown

DASSARGUES

Taxonomic spectrum of the carbonized seeds and fruit remains

NMS = 9875; volume of 23 sample = 13-16 liters

The ratio of halved grain, chaff and weed seeds suggest that the assemblage contained primary grain products: 1.5% of grains with fragment of lemma, 3% chaff of total remains of barley: 1% weed seeds. One fragment of an ear and rare appugnate of barley spiklet are noted (photos 7-9).

STORAGE

At Dassargues a large concentration of semi-cleaned grain of barley (see above pg. 6) and naked wheat were intentionally cremated in a bulk storage then later thrown into the pit: no primary storage was found and the two cereals were not a mixture. At Lunel-Viel, the less important volume of seed remains can not be used to illustrate storage in pit. It is nonetheless interesting to note the importance of pulses and mixed storage of horse beans and check peas.

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