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The cremation structures of the Roman Empire: anthracological data *versus* historical sources

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Summary: *During the excavation of the Roman necropolis site Richeaume (Bouches-du-Rhone, Provence, France), cremation primary structures have been identified. A specific protocol consisting in collecting the entire sediment for sampling charred funeral remains on a grid of 20 to 40 cm, was systematically experimented and put into practice. The first anthracological results offer a reading of both qualitative and quantitative spatial residues of the cremation (including the discovery of the ignition lock, and technical aspects revealing a specific choice adapted to the practice of cremation). This reading led to interpret anthracological results in a technical and social prospect. These results led also to a systematic re-reading of written Roman sources, collecting exhaustive historical documents and comparing them to previous and new data. The terms used by ancient writers to describe the structures studied by anthracologists, far from being general, relate to facts and precise gestures.*

Key words: *anthracology, cremation, Roman Empire, iconography, written sources.*

INTRODUCTION

The research focuses on the gestures and burial practices associated with ancient cremation structures in Provence and intends to approximate and compare archaeological and historical data to charcoal analyses results. Furthermore, this new approach led to new perspectives. The Richeaume site (Puyloubier, Bouches-du-Rhone) falls within the Massif de la Sainte-Victoire, in the upper valley of the Arc, about thirty miles from Aix-en-Provence. The immediate environment of the necropolis has some biological richness, as it is bordered to the south by a vast agricultural plain and the edge of forest and scrubland. The site is logically placed in the meso-Mediterranean bioclimatic vegetation where series of Aleppo pine and green oak characterize the actual vegetation.

DATA AND RESULTS

The development of an appropriate sampling methodology (Cenzon-Salvayre, Durand, Mocci submitted) for this type of structures during the archaeological excavations, according to the methodology of anthropological collection (Bel, 1996) analyzes of the charcoal remains guided us toward a specific supply of certain species on morphological and ecological criteria. An image of the setting up of the funeral pyre and of the course of cremation has been proposed based on the first results obtained. It allowed speculating a strict conduct of fire (identification of the wick ignition, data on the morphology). Thus, the construction of the funeral pyre appears as a specific *know-how* concluding the hypothesis about the presence of a crematist: the *ustor* mentioned in the Roman texts, i.e. Lucain, (La Pharsale, VIII, 736), Martial (Epigrammes, III, 93, 23), Catulle (49, 4), Cicéron (Pro Milone, 90, 7).

These results led to a systematic re-reading of written sources, collecting exhaustive historical documents and comparing them to previous and new data. This new reading angle can also be applied to the iconography. All forms of Roman historical data are essential to recognizing the steps of the cremation orchestrated by a society of living people, taking into account the social and religious aspects around the deceased. The terms used by Roman writers to describe the structures studied by anthracologists, far from being general, relate to facts and precise gestures.

Our archaeological and anthracological studies demonstrate a real construction of funerary structures and a real fire management. Knowledge of fire behavior have guided most of the people responsible for this task: the intersection of the logs forming thermal conduits (empty space between the logs) is used for supplying air to the fire which rises; cremations lead to technical moves that respond to specific burial structures to allow the removal of flesh, as shown by various ethnoarchaeological studies conducted by Gilles Grevin in India (Grévin, 2009).

All funeral pits analyzed reveal the predominant presence of *Pinus halepensis*, (a total of 1631 fragments was analysed) (Table 1). The Aleppo pine is preferentially used as body burning fuel. The criterion of the chemical properties of wood itself seems insufficient to explain this predominant presence of Aleppo pine in the primary cremation structures. However, the morphology of the fuel must answer both to the requirements of a construction and to funeral stable pyrolysis adapted to the cremation of a body which is variable although more prevalent. The determination of the majority of Aleppo pine responds perfectly. Thus, the analysis of charcoal burial shows that human beings interact with their environment and adapt to it according to needs related to use and precise

construction. In the environment of Richeaume, the Aleppo pine is one of the available species of tree layer that meet morphologically and is necessitated by the construction of a funeral structure and controls the fire of the pyre.

Chronology: I- mid II AD	Inc6 N.	%	Inc7 N.	%	Inc8 N.	%
Arundo donax-Phragmites communis	2	0,4				
Fagus sp.	11	2,5				
Pinus halepensis	183	40	366	55,2	444	86
Cf. *Pinus*	118	26	209	31,5		
Pinus sp.	41	9			24	4.7
Quercus ilex-Q. coccifera	32	7,4	35	5,5		
Vitis sp.	20	4,4				
Monocotyledon					39	7,7
Indeterminate	38	8,3	32	4,8	6	1,2
Non-identifiable	9	2	20	3	2	0,4
Total	454	100	662	100	515	100

TABLE 1. Results of the analysis in the three pits.

Some texts are very precise about the kind of construction and use specific terms to describe them. Lucain uses the word "compositum" *(...) iam quod compositum uiolat bustum manus hospital, da ueniam: quid if sensus post fata relictum* (...). The translator of the Belles Lettres considers *compositum* as regular logs, which means a high pyre and built to accommodate the body (p. 122 note 3.). Furthermore, anthracological results show that small caliber wood elements could have been used for burning the pyre by multiplying the points of ignition at the bottom of the pit, under the logs forming the structure of the funeral pyre. Insights recorded of this action are found again, especially in the text of Lucain where conventional ignition of this type of structure is described: "(...) *nobile corpus robori premunt nulla, nulla membrane stru recumbunt: admotus Magnum, not subditus, Accipe ignis* (...)" the fire is lit next to Magnus and not below it (Lucain, *De Bello civili, VIII, 763*), as it should be done in normal circumstances.

Iconography shows details which indicate a precise choice on small and large wood material. It can be observed in one painting attributed to Myson (Attic Red-Figure Amphora *ca*. 500-490 BC. – Musée du Louvre). The painter has represented a historical fact related by the authors of Antiquity: Croesus, King of Lydia, who was defeated in 547 BC by Cyrus, mounts his pyre, but a miraculous rain sent by Apollo saves him from the flames.

CONCLUSION

Therefore we wish to emphasize these first results obtained by cross-reading of anthracological, historical and iconographical data. These multidisciplinary analyses demonstrate that re-reading Roman texts and iconography is possible. They illustrate a lighting of charcoal and archaeological data reveals a chain operating cremation and a real technical and social organisation around the act of cremation.

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REFERENCES OF WRITTEN DOCUMENTS

LUCAIN: *De Bello Civile* (La Pharsale), Tome II, Livre VI-X, texte établi et traduit par A. Bourgery et Max Ponchont, Les Belles lettres,1962.

MARTIAL : *Epigrams*, with an english translation by W.C.A. Ker, vol. II, London, The Loeb Classical Library, 1961.

CICERON : *Pro Milone*, texte établi et traduit du latin par A. Boulanger, Les Belles lettres, 1999.

CATULLE: *Poésies*, Texte établi et traduit par G. Lafaye, tirage revu et corrigé par S. Viarre, Les Belles lettres, 1992.

REFERENCES

BEL, V., 1996. Étude spatiale de sept incinérations primaires gallo-romaines de la région lyonnaise. *Bulletins et Mémoires de la Société d'Anthropologie de Paris*, vol.8, 3-4, pp. 207-222.

CENZON-SALVAYRE, C., DURAND, A., MOCCI, F., (submitted). Identifier les pratiques funéraires à travers l'étude des charbons de bois archéologiques : l'exemple des crémations primaires de la nécropole antique de Richeaume XIII (Provence, France), *Journal of Archaeological Science*.

GRÉVIN, G., 2009. Apport archéologique et médico-légal de l'étude de la crémation sur bûcher en Inde et au Népal. *Etudes sur la mort* 2, 23-28.