

## The plant offerings from the necropolis of *Medma* between the 5th and 4th centuries B.C.: the archaeobotany and the *Magna Graecia* funerary cults.

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### Abstract

*The grave offerings and the traces of ritual actions should prove a valuable source for speculation about views on death in antiquity. In the Classical necropolis of Medma the main features of grave's goods reflect socio-religious beliefs about death and after death not completely explained yet. In this research suggestions could derive from the analysis of the vegetal charred offers discovered in some burials; they're figs, olive stones, grapes, almond and, pheraphs, nuts laid inside the tombs, in most cases primary cremations, or in isolated cases above them. Their presence also in religious contexts like sanctuaries suggests ritual and votive actions more than luxury demonstrating, conclusion drawn from the analysis of the terracotta offers too. In Greek tradition the fruits considered are related to the meanings of civilisation, prosperity, wealth and nature renovation and for this holy to nether deities associated to burial rituals.*

### Introduction

In the past, the ancient necropoleis represented an important source of information especially for the social aspects and the analysis of the economical, ethnic and, sometimes, even biological differences which could arise from the study of a certain number of human burials. In fact, the materials and the shape of the tomb, the grave goods and also the body's treatment, in the double version of inhumation and cremation, are interpreted as social manifestations and ethnic and cultural belonging to certain human groups.<sup>1</sup>

From this point of view, in the framework of the current research, the organic vegetable remains which can be found in the funeral contexts have generally little importance and, where present<sup>2</sup>, are often interpreted according to the parameters just mentioned<sup>3</sup> or, rather, not considered in the overall analysis of the burials. In fact, it is often underestimated that the necropoleis preserve above all the traces of the ritual and the cultural actions, desired by the community that the deceased people belonged to and expression of shared spiritual values through which the community desired to represent itself and leave a memory of what it was.<sup>4</sup> In Greek antiquity, then, death was not only an event, but a process that required time and dedicated actions by the living in order

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1 ORTALLI 2011, pp. 199-200.

2 The difficulty of research and the fragility of the archaeobotanical remains are factors that alone explain their lack of consideration, but also the need for a meticulous and careful analysis of the burial ground, as well as the presence in many cases of a team of specialists who orient the field research and archeometrical analysis or micro-excavation actions at a later stage. On the rarity of such studies in the Classical Age context: MÉGALOUDI, PAPADOPULOS, SGOUROU 2007, p. 940. On research methods: VAN DER VEEN 2018, p. 72, ZECH-MATTERNE 2008, pp. 273-274. On the difficulty of reconstructing funerary practices: FRISONE 2008, pp. 113-114.

3 In the case of dried figs, for example, this interpretation contrasts with the ancient literary evidence for which they were a symbol of misery or cheapness, NAVA, OSANNA, DE FAVERI 2007, pp. 113-114.

4 KURTZ, BOARDMAN 1971, pp. 203-217.

to be fully accomplished.<sup>5</sup> From this point of view, the elements in contrast or not in line with the meanings connected to the sex, the class and the age of the buried people, acquire a specific meaning concerning the ancient ideas of the death and the underworld.

The remarkable presence in the burials of *Petto di Nòlio* of *Medma* of some organic carpological offers perfectly preserved and of some grave goods which, in the majority, are homogeneous and not luxurious, offered a privileged and unusual point of view on the theme, allowing to re-evaluate the sphere of rituality in the Magna Graecia funerary archeology.

The method has given particular emphasis to the study of the carpological remains, hitherto unpublished<sup>6</sup>; the archaeobotany, in fact, offered an important contribution, as it will be later demonstrated, to the re-construction of the ritual and cultural gestures/beliefs which are only slightly testified by the funerary context. It was possible to determine the burial procedure and the original condition of the plant remains through the evaluation of the chemical-physical conditions of the context and the processes of transformation of the organic matter. Secondly, it was possible to provide information about the treatment of the body, of the grave offerings and, finally, to specify the value of these remains according with the class, sex, symbolic, but, above all, worship and ritual meanings. The real purpose of archaeobotany, in fact, is to contribute to the knowledge of mutual human-plant interactions and to understand the role of those in the past in the construction of cultural, ethnic and religious identities. The selection of food used for funeral offerings, therefore, provides further suggestions in the reconstruction of cultural and cultural choices, as well as funeral rituals.<sup>7</sup>

The results achieved are difficult to be compared to the studies conducted on the main necropolis of Magna Graecia and Sicily because of the lack of hypothesis and because of the different methodology implemented.<sup>8</sup> However, they allowed to evaluate the efficiency of some analytical parameters, different from the ones which have been considered until now.

### The necropolis and the burials

The area of the ancient *Medma*, a Locrian colony since the last decades of the 6th century B.C.<sup>9</sup>, is in the current "*Piana di Rosarno*", a wide and fertile flat land

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5 In Attica the period of "transition" lasted thirty days, in accordance with the biological processes of decomposition, and was marked by temporally defined rites: GARLAND 1985, pp. 13, 38-41, 118, KURTZ, BOARDMAN 1971, p. 330. Proof of the existence of codified rituals, are the fragments of laws and regulations of the Classical Age regarding funeral ceremonies and rites at the tomb: KURTZ, BOARDMAN 1971, pp. 200-202.

6 A special thanks to Archaeological Territorial Office of Reggio Calabria for the data provided and for the analysis of the findings at the Archaeological Museum of *Medma-Rosarno*. Moreover, I want to thank for her suggestions and bibliography advice Dr. Claudia Speciale. This research was carried out in the framework of one of her courses. I want to also thank Prof. Oliva Menozzi of the University G. d'Annunzio of Chieti-Pescara for the opportunity to publish this research. On method: ZECH-MATTERNE 2008, p. 270.

7 VAN DER VEEN 2018, pp. 53-69. 73-74.

8 On the difficulties of constructing a single method of investigation: *eadem*, p.70-72.

9 The dating is connected to the most ancient known epigraphic record about *Medma*, which is the inscription on the so-called "Olympian Shield", a spoil of war taken from Crotona and then laid as a votive offer at the Olympian Sanctuary by *Hipponion*, *Medma* and Locrian people at the end of the 6th century B.C.; the episode is connected to a war led by *Locri* probably some years before and supported by the towns of *Hipponion* e *Medma*, which so existed at that time and were under the influence of *Locri*.

characterized by the presence of the river *Mèsima* and by several terraces sloping down the coast, among which the hill of *Rosarno*, the ancient greek settlement, stands out.<sup>10</sup>

More or less one kilometer Southern from the *Medma* slope, still stand some low sandy hills (Picture 1), separated from the slope by a depression of more or less 800 meters, called “*Collettore Vena*”.<sup>11</sup> Here there are several water springs which were probably already known in the ancient times (*Contrade Zippone, Testa dell’Acqua, Fonte Pomàro* and *Ceramidio*).<sup>12</sup> On the slopes and on these hills, for the first time since *Paolo Orsi*’s excavations in 1914 on the Northside of the *Petto di Nòlio* Hill, it was identified a big necropolis of Classic age dating back from the end of the 6th to the half of the 4th century B.C.<sup>13</sup>; the surveys carried out, from the excavation by Paolo Enrico Arias in 1939 in *Nòlio-Carrozzo* (*Contrade Zippone, Cardito e Carditello*)<sup>14</sup> to the ones progressively carried out by the Calabria Superintendence of Cultural Heritage in the years 1988-2007 (*Contrade Carrozzo, Zippone, Làccari, Testa dell’Acqua, Petto di Nòlio*)<sup>15</sup>, identified about 700 burials dating back from the end of the 6<sup>th</sup> to the half

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About this topic: MADDOLI 1996, pp. 193-202, PAOLETTI 1996, p.91, LOMBARDO 1989, p.429, MAGGIANI-SETTIS 1972, p. 65, SETTIS 1965, p.119. The dating, then, is coherent with the archaeological remains concerning the end (in the 6th Century B.C.) of the indigenous necropolis of *Torre Galli* and with the discovery in the foundations of a worship building in *Medma* (“*Pian delle Vigne*”) of pottery dating back to the beginning of the 6th century B.C. (“*a filetti*” cups, Ionic cups and Corinthian potteries). About these topics: LATTANZI 2003, p. 725, LOMBARDO 1989, p. 424 nota 30, PAOLETTI 1981b, p.147. For the reconstruction of *Medma*’s history cfr. PAOLETTI 2011, pp. 1-51, PAOLETTI 1996, pp.91-92, LOMBARDO 1989, pp. 419-462, PAOLETTI 1981b, pp.145-150, SOLANO 1973, pp. 101-109, MAGGIANI-SETTIS 1972, pp.29-81, MOLTRASIO 1973, pp. 175-189, SETTIS 1965, pp.111-141.

10 For the geo-topographical aspects concerning the land and the ancient town: FRANCESCONI 2018, pp. 66-77, PAOLETTI 2011, pp. 1-51, PAOLETTI 1996, pp.91-92, SCHMIEDT 1981, pp. 23-46, SABBIONE 1981, pp. 93-119, PAOLETTI 1981b, pp. 145-150, CYGELMAN 1981, pp. 121-144, CANTARELLI 1975, pp. 31-54, VERZÌ BORGESE 1971, pp. 406-420, SETTIS 1965, pp.111-141, ORSI 1928, pp.31-61.

11 CASTRONUOVO, FRANCESCONI 2018, p. 40.

12 Some ancient literary sources like Hecataeus of Miletus (Hecat. FGrHist. 1 F 81 = F90 Nenci, apd. Steph. Byz.) and Strabo (STRAB. VI 256 C.= 1,5) associate the name of the town to a homonymous spring and to a nymph. The importance attributed to this element by the ancient sources let us suppose the existence of a characteristic and dominating element of the ancient landscape: we can imagine it was fertile, rich in woods and water. SETTIS 1965, pp. 112-114, 127-128. Till the half of the last century, it was sure the presence of several “fountain” springs, at the bottom of *Rosarno* hill, on “*Pian delle Vigne*” and in the marshland called, till the 19th Century, “*Testa dell’ Acqua*” at the bottom of *Petto di Nòlio* Hill. VERZÌ BORGESE 1971, pp. 411-414. For the reconstruction of the ancient landscape: SCHMIEDT 1981, pp.23-36, PAOLETTI 1981 b, p. 145 e nota 7, CANTARELLI 1975, pp.31-42, ORSI 1928, p.53, ORSI 1913 a, pp.55-56.

13 The presence of several springs and the existence of a marshland characterized the landscape which had very specific geographical aspects and which was very different from the actual one, wilder and more in line with the presence of the most important town’s burial area. In fact, the Orphic doctrines, spread since the 5th century B.C. also in the close *Hipponion* and testified by the presence of several carved funerary foils in bronze, describe the soul’s afterlife journey, starting from its drinking at a source of holy water which implicitly suggests a connection with the ancient geomorphological characteristics of the *Petto di Nòlio* necropolis area. About the links with the Orphic doctrines: PUGLIESE CARRATELLI 2001, VERZÌ BORGESE 1971, pp. 411-414, 419-420. Concerning, instead, the discovery of 86 burials on the North side of *Petto di Nòlio* hill by *Paolo Orsi*: ORSI 1917 a, pp. 37-67.

14 About the 30 discovered tombs dating back to the 4th century B.C., see ZANOTTI-BIANCO 1955, pp. 270-271, ARIAS 1946, pp. 133-138. In the same years, a series of reports by the Archaeological Office, kept today in its Archive, informs us about some illegal discoveries of archaeological findings from the necropolis area which were only partially saved. PAOLETTI 1981 a, p. 92.

15 They are both inhumation and cremation burials dating back to the second half of the 5th and the 4th century B.C. in which there are some Italic and Attic pottery and local miniature shapes. LATTANZI

of 4<sup>th</sup> century B.C. This demonstrates that the ancient necropolis was quite big and that we can only make a hypothesis about its borders and the internal and external road network.<sup>16</sup>

In this area, the last and most important discovery was made by the *Calabria* Superintendence of Cultural Heritage in the years 2006 and 2007 on the South-East side of the *Petto di Nòlio* Hill (Picture 1), during the renovation works of a wide area destined to some logistic infrastructures (“*Cantiere ASI III lotto, 2006-2007*”).<sup>17</sup> The approximately three hundred burials found, of various types, orientations and chronology, were divided into two lots separated by a distance of about 80 meters and a difference in altitude of 12 meters above sea level. They were called “bottom” and “top”, according to their position; the two areas are not connected one with the other and only the complete analysis of all the burials will establish the possible chronological and/or social difference.<sup>18</sup> In fact, the burials of the “bottom” area were studied and the results of these surveys were published<sup>19</sup>, while those of the “top” area (more or less 210) are still unknown, apart from the few considered in this report.

On the other side, the survey on the “bottom” side of the *Petto di Nòlio*<sup>20</sup> hill, included an area of more or less 900 square meters containing 100 burials dating back from the end of the 6<sup>th</sup> and the first half of the 4<sup>th</sup> century B.C. The burials are apparently not organized in *plots* and not connected by a coherent road network, even if the topographic organization follows a chronological order from the most ancient (West) to the newest (East) ones. Most of the burials (the 64%) belongs to the period included from the final decades of the 5<sup>th</sup> to the first half of the 4<sup>th</sup> century B.C. The remaining part is divided between the final decades of the 6<sup>th</sup> Century B.C. and the first decades of the following century (8%) and between the second quarter and the second half of the 5<sup>th</sup> Century B.C. (29%).

Concerning its stratigraphy, the geological pattern of the hills located in the South *Rosano*'s area, which include the hill *Petto di Nòlio*, is made up of some Pleistocenic sediments consisting in some highly permeable<sup>21</sup> and not highly erosion-

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1990, pp. 591-592, LATTANZI 1991, pp.595-596, LATTANZI 1996, pp.681-682, LATTANZI 1997, p.506, LATTANZI 2001, p.998, LATTANZI 2002, p.787, SABBIONE 2007, pp.483-484.

16 From a first analysis of the topographic data concerning the localization of the necropoleis, their distance from the residential area and its road network, we must take into consideration some important elements: coming down towards the bottom of the *Medma* Hill in the South direction, through the modern and unchanged roads, in the ancient times, we could reach a path in the plain called “*Collettore Vena*” crossing the area called “*Zippone*” and “*Laccari*”, till the bottom of *Petto di Nòlio* and then, in the East direction, towards the area called “*Testa dell'Acqua*”. The internal road network is still unknown, because of the lack of specific data. About this topic see also FRANCESCONI 2018, pp.71-72, CASTRONUOVO, FRANCESCONI 2018, p. 40.

17 SABBIONE 2007, pp.483-484.

18 To them are connected the burials discovered in 1914 by *Paolo Orsi* on the North side of the same hill. ORSI 1917 a, pp. 37-67.

19 Apart from the report in SABBIONE 2007, pp.483-484 the digging carried out in 2006-2007 in *Petto di Nòlio* were for the first time, only partially, published in CASTRONUOVO, FRANCESCONI 2018, pp. 37-62. In this publication is contained only 1/3 of the more than 300 tombs discovered. More specifically, those belonging to the Northern area (or “top” area) are still unknown, apart from the few here considered because of the plant remains. The excavation's data concerning these ones were seen at the *SABAP* archive, like the archaeological findings, kept in the warehouses of the Archaeological Museum in *Medma, Rosarno* (RC).

20 CASTRONUOVO, FRANCESCONI 2018, pp. 37-62.

21 Geological map of *Calabria*, F.246 III NO, SABBIONE 1981, p.28 e fig. 1. The soil composition is very important in the analysis of the causes which provoked the disappearance of the greatest part of the burials' organized material, included the osteological remains.

resistant sands which represent the original level where the analyzed burials were identified.

In fact, even if they are different one from the others, these burials are always made up of a pit located at a different depth and with sharp edges, on which were often inserted a tomb structure in bricks (mainly “Corinthian” flat roof tiles<sup>22</sup>) or in which was built the wooden scaffolding for the cremation rituals (Picture 2).<sup>23</sup> In all cases, the burials were found covered with an additional sandy layer of about two meters height, dating back to the same period of their construction and which obliterated them completely. Although they have not been found *in situ*, it is possible that architectural elements, tombstones in perishable material or large ceramic containers stood on the tombs as funerary *semata*, as we know from literary sources, vases’ paintings and from the comparisons with other Magna Graecia necropolises.<sup>24</sup>

This hypothesis is supported by the discovery of many scattered fragments of Red-figure pottery and by some architectonic decorated elements’ fragments (*arule* made in terra-cotta, *naskoi*), which are generally used as *semata*<sup>25</sup>. Moreover, it is testified the presence of long-lasting votive offers<sup>26</sup>, which let us assume that it was possible to recognize immediately the burial from outside. The tomb, in fact, in ancient times was considered as a place of communication and exchange between the world of the living and the dead.<sup>27</sup>

Most of the burials are N/NE-S/SW oriented and they present an inhumation ritual (73% of the analyzed cases)<sup>28</sup>. They are accompanied, already from the second quarter of the 5th century B.C., by the primary cremations (*busta*) which present the same orientation and represent the 27% of the total amount (Picture 2).<sup>29</sup>

The inhumations, instead, are declined in various types: the majority of them (49% of the total) are double pitched roof tombs called “*a cappuccina*”, attested already in the second quarter of the 5th century B.C. and characterized by a cover in local clay, with two or three couples of flat roof tiles and bent tiles<sup>30</sup>; the majority of them have

22 COLEMAN CARTER 1998, p. 91.

23 CASTRONUOVO, FRANCESCONI 2018, p.42.

24 About the funerary rituals in the Greek area: KURTZ, BOARDMAN 1971, pp. 142-148. For the comparisons with the Greek area’s necropoleis, among others: VASSALLO, VALENTINO 2012, pp.49-53, ELIA 2010, pp.335, 349-352, ARSLAN 1986, p. 1038.

25 The most famous example are the Geometric age craters and amphora discovered in the necropolis of *Dipylon* (KURTZ, BOARDMAN 1971, p. 57); pictures of big vases placed out of tomb are known also both on the Attic *lekythoi* with a white background (KURTZ 1975) and on the red-figure Italic pottery (PONTRADOLFO, PRISCO, MUGIONE, LAFAGE 1988, pp. 181-202). About the use of big vases (craters, amphora or *pelikai*) as tomb signs in the necropolis in *Pantanello* in *Metaponto*: CARTER 1998, pp. 115-142, for *Metaponto*: ROCCHIETTI 2002, p. 86-87).

26 In the Classic age Attic world, the offers for the deceased people were laid during the private burying rituals (*ta trita*) and during the ceremonies in the days immediately after (*ta enata*, *ta nomizomena*) but also periodically, when some important moments for the community were celebrated (among the others, the feasts named *Genesia*, *Nemesia*, *Nekysia*, *Epithapia*, *Anthesteria*...). About the description of the funerary rituals and the literary sources: KURTZ, BOARDMAN 1971, pp. 143-148.

27 KURTZ, BOARDMAN 1971, p. 331.

28 Among them, the most ancient burials of the 6th-beginning of the 5th century B.C. The datum is coherent with the one identified until now in the necropoleis of the other colonies of the Magna Graecia area. PALOMBA 2004, p.27, ELIA 2010, p. 47, LIPPOLIS 1994, p.131, D’ANDREA 1989, p. 769.

29 The dating derived from the joint analysis of the tomb types in the Greek area, from the production and spread of the ceramic types used as grave goods in the burial and from the comparison with the other necropoleis of the Magna Graecia area. Some burials, like T 68, present on their sides, some supports in raw clay or structures made in clay to contain and define the tomb’s shape. About the analysis of the burials: CASTRONUOVO, FRANCESCONI 2018, pp. 42-47.

30 The roof tiles are all flat or slightly bent and they belong to the so-call “Corinthian type”; the sizes are standard (57x 92 x 2 cm) and they correspond to the so-called “*piede locrese*”. In fact, they are the

the bottom and the sides in roof tiles, while the others cover a simple pit. The burials in simple pit, testified since the most ancient period, are the 15 % of the total amount, while the square roof-tiles chests represent the 5% of the total, they date back to the end of the 5th and the beginning of the 4th century B.C. and they are characterized by four or five couples of flat clay roof tiles placed in an upright position to make a chest (whose bottom is generally made in ground and only in one case is covered with roof tiles) closed by the same number of roof tiles' couples placed horizontally. And then, only in one case a clay bathtub burial is attested<sup>31</sup>; the type characterizes the childhood burials of wealthy social classes and is dated to the last decades of the 5 century B.C.

In the burials analyzed, rarely were found traces of osteological remains, this due to the high acidity of the soil (enhanced by the long-lasting use of the area for an agricultural purpose<sup>32</sup>) and the high permeability of the sandy substratum. These factors caused the total disintegration of all the organic elements in the burial, apart from those interested by the charring processes. For this reason, the identification of the deceased's sex is possible only in the case that the grave goods still preserve some specific elements connected to this aspect. On the contrary, the primary cremation present a higher number of osteological remains, even if they are extremely fragmented and often not in anatomic connection<sup>33</sup>, and organic elements, like the wood used in the funerary pyre and the vegetable offers which were preserved thanks to the charring process they went through.<sup>34</sup> However, because of the highly fragmented aspect of the bone remains, also in this case, the sex of the deceased can be defined only through the analysis of the grave goods.

Despite the type, most of the burials (more or less the 70%), are characterized by the presence of some grave goods placed in the burial together with the deceased and composed, on average, by three or four unbroken objects in ceramic, like drinking, eating or banquet pottery, both of local production and imported and typical of the Greek colonial world. Metal golden, silver and bronze objects or objects in glass paste

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same of those of the flat roof tiles used in the necropolis of *Contrada Lucifero* in *Locri*. ELIA 2010, p.57, SABBIONE 1987, p.34, ORSI 1917 b, pp.101-167.

31 The burial was made of two oval-shaped clay bathtub with two holes on the ends, included in a rectangular edge, one overlapping the other and fixed by some lead clamps. They are common in the burials of sub-adults in the necropolis of *Contrada Lucifero* in *Locri* and, less, in *Hipponion*. ARSLAN 1986, p.1035, ORSI 1913 b, pp. 7-8.

32 As it was deduced from the graphic and photographic records, the entire area was covered by a citrus grove which was explanted to allow the digging activities.

33 Apart from T 53, where the anatomical connection seems to reveal a supine deposition of the deceased with a possible bending of the lower limbs for unknown reasons.

34 From the analysis of the digging records, we can deduce that all the primary cremation, have a rectangular shape and medium sizes (more than one meter and a half per each side). They partially maintain the original structure, even if it is burnt, made up of a pyre or a funerary bed built overlapping perpendicularly some wooden trunks (probably several floors). Considering the level of calcination and destruction of the bones, the heat of the pyre must have been very high and maintained for a very long period, but not enough to eliminate totally the original wooden structure. The result of the cremation and burning of the skeleton (in ashes or fragments), let us suppose the desire to burn completely the dead body, to respect some specific ritual practices which aimed at reducing almost totally the body of the deceased. VASSALLO, VALENTINO, CHIOVARO 2018, p. 492.

Once concluded the burning process, the area, containing the bone remains and the plant and fictile offers, still hot, was sealed by a layer of sand and ground, or, rarely, from a couple of fictile flat roof tiles. CASTRONUOVO, FRANCESCONI 2018, pp. 46-47. The primary cremations are not so popular in the Magna Graecia and Sicily area, in this sense the necropolis of *Medma* represents an exception because of the high number of this kind of items: VASSALLO, VALENTINO 2012, pp.53-57, D'ANDREA 1989, pp. 776-777, SABBIONE 1987, p. 225, ARSLAN 1986, pp. 1032, 1048, ORSI 1917 b, pp.101-167.

with precious stones are rare and they are very important for the identification of the sex and of the social class of the deceased.<sup>35</sup> In addition, starting from the last decades of the 5th century B.C., the grave offerings become increasingly standard, mainly concerning pottery of local production, while a greater variety of objects is found in the late 6 and early 4 centuries B.C. burials.<sup>36</sup> Noteworthy is the existence of burials without the grave goods, especially double pitched roof tombs, simple pit graves and only one primary cremation; the meaning of this practice is not clear, as it involves different kinds of tombs and different areas of the necropolis. However, this phenomenon is known, with similar characteristics, in other necropoleis of the Magna Graecia's area.<sup>37</sup>

The most common funerary set concerns pottery of local production and, to a lesser extent, also imported<sup>38</sup>, both relating to the symposium (*poteria* and pouring vases), except for the oil lamps and of the vases to prepare (*chytrai*) or contain (*patere* and little cups) the food.<sup>39</sup> The majority of them are miniature vases and they have been destined, since their production, to a specific use, different from their models, generally for funerary and ritual purposes.<sup>40</sup> From the beginning of the half of the 5th century B.C., the most recurrent shapes (combined in various ways) are the miniature *oinochoe* and *kotyle* in local clay. They were used to pour and drink wine, and for this reason, they were usually found one with the other. Then, there were the *monochrome* Black-glazed lamp in forms and types known in the Greek and Magna Graecia area for the Classical age<sup>41</sup>, the Black-glazed *bolsal* cup, imported from the Attic area from the third quarter of the fifth century B.C. and strongly widespread and imitated at regional level<sup>42</sup>, finally, to a much lesser extent, the miniaturistic *olpe* and *chytra* in local clay.<sup>43</sup> The preponderance of miniature vases in local clay and the lack of containers for ointments like the *aryballoi*, *lekythoi* e *askoi* can be considered a distinctive feature of the examined burials.<sup>44</sup> Because of the absence, in most of the burials, of bone remains it is only possible to figure the original arrangement of such objects in the tomb.<sup>45</sup> In the inhumation, the oil lamp was probably kept in one of the deceased's hand with the

35 As examples, the infant burial T 45 contain two earrings in golden sheets (second half of the 5th century B.C.), the male cremations TT 65 e 67 contain strigils in bronze (second half of the 5th century B.C.), the female cremations T 75 contain a silver ring (end of the 5th-beginning of the 4th century B.C.), the female tomb T 273 contain a bead of necklace and a small head of ram in coloured glass paste and a leech-shaped earring in silver (first decades of the 4th century B.C.) and, finally, the female tomb T 63 contain a silver ring (first half of the 4th century B.C.). CASTRONUOVO, FRANCESCONI 2018, pp. 47-54.

36 It's unclear if this phenomenon is due to the restrictions imposed by the sumptuary laws of the 5th century B.C. CASTRONUOVO, FRANCESCONI 2018, p. 48. As regards the ceremonials and grave goods during the 5th century B.C. in Greek area: SALIBRA 2013, pp. 171- 174, VALENZA MELE 1991, pp. 163-173, GARLAND 1985, p. 22.

37 ELIA 2010, p. 345-347, D'ANDREA 1989, p. 768, CERCHIAI 1982, pp. 289-290.

38 Starting from the half of the 5th cent. B.C. mainly Attic pottery.

39 It does not seem to exist a relationship between the internal grave goods and the type of the tomb in which they were found. CASTRONUOVO, FRANCESCONI 2018, p. 55.

40 The pottery is a local re-elaboration of some not functional miniaturistic vases used specifically for worship purposes and discovered in some necropoleis and sanctuaries of the Magna Graecia area from the 5th century B.C. For example: SABBIONE 2014, p. 66, DE JULIIS 1997, p. 141, ADAMESTEANU, MERTENS, D'ANDRIA 1980, p. 102 fig. 95 a/f, p. 223, p. 231 d.

41 HOWLAND 1958, type 21 B and 23 A/B. The presence of the lamp is, perhaps, due to the Greek image of the Underworld, always represented as a dark place. As regards: GARLAND 1985, p. 51.

42 Number 44122 C 1 in MOREL 1981, p. 228, tav. 117.

43 About the possibility to use the *chytra* in some sacrifices and cruel rituals as a tool to cook and eat the meat, see: CALÍ 2002, p. 154, DETIENNE VERNANT 1982.

44 CASTRONUOVO, FRANCESCONI 2018, p. 53.

45 For the inhumation burials in *Petto di Nòlio* it was supposed a supine position with the upper limbs stretched along the hips. CASTRONUOVO, FRANCESCONI 2018, p.44

*oinochoe*, *kotyle* and *bolsal* next to the pelvis. The other objects, instead, were generally placed next to the head and the feet. All these hypothesis derive from the analysis of the excavation's data and they can be compared to the other burials of the Magna Graecia area.<sup>46</sup> In the case of primary cremations, in addition to the problems previously described, the probable fall of the scaffolding of the pyre, the re-deposition of the offerings once the funeral pyre is extinguished<sup>47</sup> and a little hermetic cover of the burial, made it quite difficult to re-construct the original location of the grave goods.

About 34% of burials also have external gifts, mainly pottery, placed in a homogeneous and coherent way above or near the coverage of the burial structure. They are extremely frequent (73%) in the tombs which present also some internal grave goods, and they can be considered the remains of ritual actions, connected to funerary cults and beliefs performed at the end of the burial rite or at a subsequent time in the space outside the tomb, but conceived as an integral part of the same.<sup>48</sup> The objects partially resemble the already known types of the internal gifts belonging to the symposium sphere, but in some aspect they are totally different, being used for more specifically for chthonic rituals such as libations; in the majority of the cases there is still the combination of the Black-glazed *bolsal* cup (26% of the objects found) with the miniature *oinochoe* in local clay (16%), the *monolicne* Black-glazed lamp (16%), the Attic Black-glazed *skyphos* (16%), the Attic Black-glazed *lekythos* (11%) and the local clay two-handled casserole (11%) for the deposition of food offerings. The finding of some iron clamps and nails, then, can be a clue of the presence of small wooden containers or in other perishable material of which no trace has remained. Exactly as we do not have any tracks of any cruel rituals.

The Greek literary and iconographic sources are stingy with references and descriptions about the last phase of the funeral ceremony; it is difficult to think, however, that it wasn't regulated like the previous stages of *prothesis* (exposure of the body) and *ekphora* (carriage of the body to the burial place). Literary sources and archaeological evidence, in fact, agree that in the burial phase fixed ritual elements were libations and the deposition of burned offerings, in order to facilitate the transaction to the afterlife and to establish a parting with the living. The liquid offerings (*choai*) and the solid, but burnt, (*enagismata*, *holokautòmata*) consecrated foods to the deceased could have been placed on the same day and up to three days after the burial (*ta trita*), but also in the rites of the ninth day (*ta enata*) and in the thirtieth (*ta triakostia*), when the process ended.<sup>49</sup>

Finally, the pottery spread in the layers immediately near or above the tomb are the surest clues of a frequentation of the burial's place also after its definitive closure and after the end of the funerary ceremony (Picture 4).

The 38% of the burials are characterized by this phenomenon, but this is only an estimation because of the difficulty of reconstructing the original context in the superficial layers. Unlike the internal and external grave goods, the pottery outside the

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46 About the comparisons, mainly: ELIA 2010, COLEMAN CARTER 1998, D'ANDREA 1989, p. 771, TORELLI 1982, p. 174.

47 The analysis of the burning traces on the pottery led to the consideration that the objects weren't exposed to the living flame, but, rather, subjected to a strong heat only in the point in contact with the hot embers. This element can be explained only with the deposition of the objects just after the end of the fire. The same can be said about the plant offers which will be analysed later. About similar phenomena: D'ANDREA 1989, p. 769.

48 A rare scene of libation at the funeral pyre is represented on a Red-figure vase of the early 5th century B.C. where King *Croesus* of Lydia is depicted in front of a funeral pyre in the act of pouring liquids on it, while an attendant is busy whitewashing its trunks. GARLAND 1985, p. 144.

49 GARLAND 1985, pp. 34- 41, 110-115, 122, KURTZ, BOARDMAN, pp. 203, 330.



tomb has a greater degree of fragmentation, not only because of their surface position, but also because of their intentional break, probably connected to ritual actions.<sup>50</sup> Among the pottery interested by these phenomena, there are both the banquet and the symposium ceramics: the *olla* in local clay with distinct hem (12%) for the deposition of votive offerings, the Attic Black-glazed *stemless* cup (10%), the Attic Black-glazed *skyphos* (9%), the Attic Black-glazed cup (8%) and *bolsal* cup (7%) and the Red-figure *lekane* (7%) in types known for the Magna Graecia area.<sup>51</sup> It is interesting to notice the absence of the miniature pottery and the presence of vases used for daily life. Also, the Attic Red-figure craters of the 5 century B.C. are part of the superficial objects' category. They were found in fragments, and they were probably used as tomb *semata*.

The comparison with other necropoleis of the classic age known in the Magna Graecia and Sicily<sup>52</sup> area, highlighted the extremely sober aspect of the burial types and the grave offerings of this section of the *Medma* necropolis, both for the materials used (always clay elements) and for the number of the grave goods. This tendency could be related both to the presence of sumptuary limitations, characterizing many Greek *poleis* in the fifth century B.C., and, in parallel, with the birth of new religious beliefs related to the soul in the afterlife, in opposite with the only preservation of deceased's memory in earthly space.<sup>53</sup>

Without big differences in the analyzed chronological *range*, of about three generations, it's clear that the pottery is related more to the rituals, worship and funerary beliefs, than to the framework of personal objects in order to exhibit the richness and social status of the deceased's families. This hypothesis was confirmed by the lack of precious materials referred to the sex and social class, from the presence of miniature vases shapes not useful for the daily use and, for this reason, specifically produced for the sacred environment<sup>54</sup> and from the presence among the grave goods of votive local

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50 In the *Medma* necropolis, like in several other necropoleis and sanctuaries in the Magna Graecia area, were found some fictile objects intentionally pierced on the bottom and then fragmented; they are cups, *aryballoi* or ointments' containers used during the ritual libations and then destroyed. About the comparisons: ELIA 2010, p. 53, KUSTERMAN GRAF 2002, pp. 53-85, COLEMAN CARTER 1998, pp. 116, 121-123, D'ANDREA 1989, pp. 770-771. About the funerary traditions and rituals in the Greek age see: FRISONE 2008, pp.116-117, KURTZ, BOARDMAN 1971, pp. 142-161, 201-218.

51 The Attic model with a flower and drawn decoration and the one in the geometrical style with an ovules' decoration under the edge, was re-elaborated in the Italic area before the first half of the 4<sup>th</sup> Century B.C. About the comparisons: COLEMAN CARTER 1998, pp. 114 fig. 4.1, 252, 614, ELIA 2010, pp. 161-168 tav. 1/6, DE MIRO 1989, p. 72 fig. 54.

52 Mainly the necropolis of *Contrada Lucifero* in *Locri* (ELIA 2010, CERCHIAI 1982, pp.289-298, ORSI 1917 b, pp. 101-167), in *Hipponion* (D'ANDREA 1989, pp. 127-130, ARSLAN 1986, pp. 1029-1058), in *Kaulonia* (PALOMBA 2004, pp.333-351), in *Taranto* (LIPPOLIS 1994, pp. 130-147), the necropolis of *Pantanello* in *Metaponto* (COLEMAN CARTER 1998), in *Metaponto* (ROCCHIETTI 2002), in *Himera* (VASSALLO, VALENTINO 2012, pp. 49-59), in the necropolis of *Pezzino* in *Agrigento* (DE MIRO 1989) and in that of *Manicalunga* in *Selinunte* (KUSTERMAN GRAF 2002).

53 SALIBRA 2013, pp. 171- 174, DE CESARE 2007, pp. 21-23, VALENZA MELE 1991, pp. 163-173.

54 The meaning of the miniaturistic vases in the funerary context is not clear yet, while in the framework of the votive offers in the chthonic sanctuaries, where they are mainly used, it is evident that they represent some propitiatory offers for the Deities, used mainly in the case of worship and passage rituals connected to the chthonic female deities, ROCCHIETTI 2002, pp.138-140. About the miniaturistic vases in some religious contexts and the link with the early fruits and vegetables: OSANNA 2001, p. 115. The similarity between the miniaturistic vases found in the votive warehouses of the holy areas (*Locri*) and those of the necropoleis is impressing: MILANESIO 1996, pp. 49-50, BARRA BAGNASCO, ELIA 1996, pp. 83, 92-93.

terracotta figures (Pictures 3-4) connected to some chthonic deities and to the funerary worship (hypothetically Persephone, Dionysus and *Hermes*).<sup>55</sup>

Concerning the meaning of the grave goods, it's too soon to provide exhaustive explanation, due to the absence of direct comparisons and to the small number of burials analyzed, compared to the the total amount. It is sure that the symposium practice, especially characterized by the *graeco more* drinking habit, and testified by the pottery analyzed in grave goods, is a distinctive feature and it becomes a precise sign of cultural belonging. On the other hand, the meanings related to funerary rituals and eschatological beliefs are not very clear, such as the presence of *chytra*, a ceramic kitchen type used during the Athenian *Anthesteria* festival to contain burnt food offered as a gift to the dead.<sup>56</sup> The custom of offering at the deceased table-pottery and food, should not be confused with the conventional relative's banquet after the funeral ceremony; the two spheres seem to be clearly separated, but if the relative's feast had a social purpose, the dead's offerings are not clear, oscillating between their use in the afterlife and propitiatory goods for deities.<sup>57</sup>

From this point of view, the meaning of the oil lamp, instead, is quite clear especially if it is connected to the idea of the dark underworld and to the necessity of the light, as well as clear are the religious references of the votive figures, representing in most cases deities or bidders. It is more difficult, instead, to include all these elements in a unique worship and ritual reconstruction.<sup>58</sup>

It is very important, for this reason, the analysis of the carpological remains which were found, in the majority of the cases, burnt inside the primary cremations; they are rare and seldom findings in the other necropoleis of the Magna Graecia area, but they could acquire, in the case of the *Medma* necropolis, a not casual meaning, supporting the results deriving from the analysis of the grave goods and confirming the hypothesis of the prevalence in the *Medma*'s burials of some elements, mainly chthonic, necessary for the rituals and the worship.

### **The carpological offers: context, conservation state, taxonomy**

In the analyzed section (South area) of the necropolis in *Petto di Nòlio*, one minor part of the votive offers is made up of burnt vegetable remains found in the areas of primary

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55 In T 66 (primary cremation, first half of the 4th century B.C) it was discovered a local clay sculpture of "*Locri-Medma*" type of a female figure on a throne holding in the right hand a pomegranate (Persephone?), while from the upper levels of the South area a fragment of votive fictile sculpture representing a man with a Phrygian hat (Dionysus?). From the upper levels of T69 and T46, instead, (both double pitched roof tombs, end of the 5th -beginning of the 4th century B.C.) are three local clay sculpture in fragments representing a generic female figure and a male figure with a decorated *polos* (*Hermes Kriophorus*?) and a female figure with a hat on her head and two earrings ("*Locri-Medma*" type). We only have the head of all of them. Near T59 (double pitched roof tombs without grave goods) is, instead, a fragment of votive local clay sculpture representing the feet and the gown of a female figure on a throne (Persephone?) and near T60 the fragment of a chest, a shoulder and a neck of a votive local clay sculpture representing a female figure.

56 The festival is dedicated mainly to Dionysus, but the *chytra* is generally used in a specific phase of the ritual, dedicated to the food solid offers and after the one dedicated to *Hermes* psychopomp, characterized instead by liquid offers (*Choai*). In the *chytra*, according to the known tradition, it was contained a beverage, the *panspermia*, made of wheat and honey dedicated to the God, used also in the funerary rituals and symbol of the return to a renovated order after the chaos represented by the Great Dyonisia. Further information: SPINETO 2004, pp.141-146.

57 GARLAND 1985, pp. 110, 114, 152, KURTZ, BOARDMAN 1971, pp. 206, 215.

58 ORTALLI 2011, p. 211.

cremation. The burials interested by these offers are very few (5 primary cremations and one inhumation out of more or less 108 burials) especially if they are compared with the total number of those with the grave goods. They are very few also if they are combined with some contexts of the North area (7 primary cremations and 2 inhumations out of 213 burials). The scarcity of vegetable offers in the burials of *Petto di Nòlio* depends probably on the lying conditions and on the chemical-physical transformation processes which affect all the organic substances and perishable artifacts if not preserved in particular physical and environmental conditions.<sup>59</sup> The high rate of acidity of the sedimentary sands which represent the substratum of the *Petto di Nòlio* hill and the long-lasting use of some chemical products for agricultural purposes have probably fostered these processes<sup>60</sup>. For this reason, only some burials interested by the cremation ritual could preserve some tracks of the vegetable organic elements.<sup>61</sup> In the analyzed inhumation burials, in fact, are not present any of those mineralization processes which, in the Italic contexts<sup>62</sup>, allowed to preserve some organic remains which otherwise could not have been detected. For this reason, it is still difficult to carry out any topographical evaluations and any social-cultural comparisons between the tombs with vegetable offers and those which do not have them, because the datum is not complete and the current situation quite certainly does not correspond to the original one.

An interesting datum, instead, could be the fact that not all the primary cremations still preserve the plant offerings (only 12 out of 92 total burials); but also in this case, this may be due to some adverse lying conditions and preservations, but also by some differences in the funerary and worship rituals. In fact, it is unlikely that the discrimination is due to chronological differences, since most of the plant remains belong to burials of the same chronological range (second quarter of the 5th early 4th century B.C.)<sup>63</sup>, while only two are dated to the first half of the 4th century B.C.<sup>64</sup> Also from the topographical point of view, if it is true that the majority (9 out of 12) of the cremation burials with some preserved vegetable remains belong to the North area, it is also true that in this area the total burials are the double of those in the South area and that here it is concentrated the majority of the cremation burials of the entire necropolis. So, it is highly possible that the current differences from the conservation point of view are due to the different treatment reserved to the votive offerings during the rituals performed at the end of the burial ceremony; in fact, if the vegetable offers and, especially, the small carpological one, were laid in the pyre and, then, exposed to a high

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59 In general, we can affirm that the wet and well-ventilated soils involve more marked forms of alteration and degradation, together with microbiological action, while the dry soils with constant humidity around 100% and lack of oxygen create positive conditions for the preservation, ANGELINI, BANDINI, COLACICCHI et alii 2008, p. 327.

60 These factors influenced deeply also the preservation of the bone remains, so that only few inhumation burials preserve the skeleton's remains of the deceased.

61 Some burnt plant remains were found also in 3 inhumation tombs (T 42, 119 e 54), but they are organic elements which underwent a previous or simultaneous (with the deposition) carbonization process; there is, in these cases the doubt that they are residual and that they come from the upper levels, considering their small number and incoherent aspect.

62 They are mainly the votive warehouses of some sanctuaries like the one of the acropolis in *Volterra* and of the monumental complex in *Tarquinia*, BAGNASCO GIANNI 2005, pp. 91-100, CHIESA 2005, pp. 103-109, BONAMICI 2005, pp.1-10.

63 For the unpublished burials of the North area, the chronological data was deduced from the comparison of the grave good described and portrayed in the excavation's documents with those which were deeply analysed before in the burials of the South area.

64 Besides, the dating of these burials corresponds to the moment in which the cremation ritual was extremely spread in the necropolis of *Petto di Nòlio*.

temperature, they would have been through a complete burning process, which is not compatible with the exceptional state of preservation of remains.<sup>65</sup> The charred status of the offerings, on the other hand, is more compatible with the exposure to a high, but not excessive, heat. This condition was possible only after the extinguishing of the funerary pyre and before the final closure of the burial and, therefore, in a limited time span, compliant with the rituals performed on the same day or the day after the deposition (*ta trita*).<sup>66</sup> This can partially explain in a convincing way the presence or the lack in the primary cremation of some organic remains; the timing of the ritual and worship actions, in fact, is in these cases, an essential element for the long-lasting survival of these remains.

Another hypothesis concerns the fact that the carpological offerings were placed in the pyre, but inside containers, not in contact with the living flames, but only with the heat released. Such an assumption, however, clashes with the apparent absence around the carpological remains of fragments of possible clay, as well as organic, vessels.

The comparison of the vegetable offers, in particular the carpological ones, with the other inorganic grave goods, confirmed that these offers were probably laid independently from the deceased's richness or social status and without any special associations with certain clay objects. In fact, the pottery found in the primary cremations with carpological offers commonly refers to the symposium sphere (*kotyle*, *oinochoe*, *olpe*, *bolsal cup*, *skyphos*) and table-vessels (pan, *chytra*, *patera* ...) often in local clay and miniature vases (Picture 5). There is also the Black-glazed lamp and, in one case, some fragments of bronze laminate sheet (T 91), votive terracotta's figures representing a female figure sitting on the throne with a pomegranate in one hand and fragments of terracotta's votive statues (T66). In some cases, the objects of the grave goods are very few (T203) or they are completely absent (T39 e T154).

The only exceptions to the cases mentioned here above, are the vegetable offers belonging to some inhumations (TT 42, 119 e 154), all found out of the graves, in the sandy layer above them. They are composed of few wooden charred fragments and olive pits (*Olea Europaea L.*), found together with some fragments of table and kitchen-pottery (*paterae*, pans with lid, *ollae*, cups, jugs in local clay)<sup>67</sup> whose state of fragmentation and partial burnt status indicate possible ritual actions performed during the burial closure. It was found also a fragment of votive terracotta's figures in local clay probably referred to a female figure sitting on a throne and similar in the iconography to the one found in T66 (Persephone on the throne?). It is not excluded a residual presence of these remains, as they are extremely superficial and the area went through some stratigraphic changes, so that this interpretation is still uncertain. In these cases, moreover, the digging's documentation does not allow to establish the exact position of the vegetable remains in the tomb.

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65 The extremely fragmented, calcined and destroyed state of the skeleton's remains found in these burials is the proof that the entire area dedicated to the cremation underwent the action of high burning temperatures, not compatible with the survival of the organic elements. From the ivory colour of the bone remains, we can understand that the burning temperatures were probably higher than the 750 ° necessary for the calcination (or third burning stage). VASSALLO, VALENTINO, CHIOVARO 2018, p. 492; WALKER, MILLER, RICHMAN 2008, p.132.

66 KURTZ, BOARDMAN 1971, pp. 204-205. It could be also probable that the plant offers were, at the beginning, far from the central area of the fire but then, the post depositional processes, transported them in the central position, where they were found. However, their tied and punctual positioning let us presume an intentional and not a casual positioning, rather than a random placement supposed before.

67 That grave good has a containing function, but it is not possible, now, to make any hypothesis about the kind of food and offers it contained.

It is not even possible to establish, in the case of the cremation, the link with the actions carried out during the ritual, but only a general evaluation of the vegetable element in the tomb's context.

The carpological remains found within the primary cremations, on the other hand, come from the original combustion level of the burial, sealed by the following coverage in sand (Picture 6). Only in two cases (TT126 e 128) they come also from the surface levels outside the cover and they are, like in the cases described here above, burnt olive pits, accompanied by some banquet and kitchen pottery partially fragmented and burnt, to be referred to some possible rituals carried out when the burial was closed. However, the most interesting elements both for the finding context and for the exceptional state of preservation, are those preserved in the charred layers of the cremation area (TT 39, 53, 91, 66, 68, 100, 126, 128=150, 155, 203, 215, 228) in contact with the grave goods and the bone remains of the deceased, but often found also in a more peripheral position on the remains of the burnt wooden structures which made up the funeral pyre.<sup>68</sup>

They are burnt remains of fig tree fruit (*Ficus carica L.*), grapes (*Vitis vinifera L.*), almonds (*Amygdalus communis L.*) and, again, very few olive pits (*Olea europaea L.*). As it was said before, the extraordinary characteristic of these vegetable offers consists in the fact that they were found in an exceptional state of preservation because of some lying conditions, which were not checked in all the analyzed cases of primary cremation burial. In fact, the carpological remains considered, still preserve untouched in the shape and dimension their external structure, like in the case of the fig tree fruit and of the grapes, and their endo-carpal structure, in the case of the olives and of the almonds; these conditions were possible only taking for granted the deposition of those offers after the end of the funerary fire and the closure of the grave, when the heat of the embers was still very high but it could not irreparably damage the remains. It supports this hypothesis also the analysis of some grave goods in local clay with signs of burned only in circumscribed points, namely those in contact with the embers at the end of cremation process (Picture 7).<sup>69</sup> This means that were carried out some deposition actions of part of the grave goods after the burning process of the body and probably this must also have concerned part of the plant offerings.<sup>70</sup> Finally, it should be noted that in all the rests analyzed there's no trace of consumption, even partial and that's because they were probably laid undamaged, as an offer, and not as livings' ritual meals remain. There's no trace, however, of any containers or vessels; the pottery which was found fragmented in the nearby area cannot be reconstructed completely and, in any cases, it cannot be related with the remains, while the possible supports in organic material did not leave any tracks.<sup>71</sup>

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68 It was supposed that the pyre was made up of trunks with a similar diameter and a variable length, placed on different levels and with different orientation, to make a strong structure to welcome the deceased's corpse. See: VASSALLO, VALENTINO, CHIOVARO 2018, pp. 490- 491. We do not have data about the essences used because, even if we have several samples, it was not carried out any archaeobotanic survey; the comparison with the other necropoleis can provide information about the use of cork oaks (*Quercus suber L.*), like in the case of *Himera*, or olive wood (*Olea europaea L.*), holm oak (*Quercus ilex L.*) or kermes oak (*Quercus coccifera L.*), like in the case of the necropolis in *Solunto*. Probably also the use of different species to start the fire. About *Himera* see: VASSALLO 2019, p. 371, about *Solunto*: NOT, VALENTI 2019, pp. 184-185.

69 As regards the grave goods on charred soils: SALIBRA 2013, pp. 158-159.

70 About the cases of the necropolis in *Solunto*: CALASCIBETTA 2019, p. 170

71 The burned soil was not sifted and the samples collected haven't been precisely located; this caused some problems about the pollen analysis and the identification of the micro-remains of other perishable offers, like doughs and mixtures, which could have survived only in tracks because of the total burning during the funerary rite or because of the consequent bio-chemical transformation.

The fruits, altered in composition and color,<sup>72</sup> but preserved untouched in the shape, except for the olives, all belong to some edible species easily available and widespread the Mediterranean also in antiquity. They were known and used for their nutritional but also holy and ritual function.<sup>73</sup> For some fruits, like the fig tree fruits, there's an evident shape deformation occurred before the combustion, compatible with the drying process useful for the conservation and use even in periods different from their ripening season. This is obvious if we consider their volume's reduction and the partial change in the external carpal structure (Picture 8).<sup>74</sup> In the case analyzed in T 53 and T 68 (Picture 8 b-c), we can assume a drying process with the folding of the fig fruit peduncle and the slight compression from top to bottom. The fig tree fruits have a max. width of 2,5 and 3 cm, and a height of 2 and 3 cm (including in all the cases the peduncle), while the thickness goes from 1,5 to 2,5 cm ca. in the case of the not-dried fig tree fruits and from 1,5 to 2 cm in the case of the ones dried, with some little compression. The volume of the grapes, instead, did not seem to be altered, as well as the epi-carpal structure and the internal porous mass (Picture 11), so that for this fruit drying processes are not supposed.<sup>75</sup> In both the analyzed cases, those of T 53 and those more uncertain of T91, the grapes have a round shape, with a diameter of 1 cm and a height between 1 and 5 cm, with an untouched pedicel of 0,3 cm only in the case of the grapes of T 53. It is not possible to carry out a similar analysis on the olives, because we only have the endocarp and not the epidermis and the fleshy pulp, lost because of combustion or probably after the biochemical transformation processes (Picture 10). This may suggest, in contrast with the other fruit which present charred soft tissue, a minor action of the heat or a different reaction of the vegetable tissues which, because of their oiliness could have burnt in an easier way.<sup>76</sup> The preserved endocarps, of oblong shape, are long between 1 and 1,5 cm and have a diameter of 0.5 to 0.7 cm. The almonds (Picture 12), instead, preserve only their endocarpal structure, which is evident also at the first look. The only preserved almond, from T 100, presents an oblong endocarp with a rutted surface and some slight holes, which is 2 cm high, 1 cm wide and 0,7 cm thick. Other two fruits from T 91 (Picture 13) are difficult to be identified; they present a slightly oval shape (1 cm diameter and height) and, moreover, only in one is possible to recognize drying processes due to the altered state of the external tissue. The current identification as hazelnuts' remains (*Corylus avellana L.*) seems uncertain and it is not based on specific morphological confirmation. And then, from T 215 to T 228, come some burnt remains of organic material which cannot be identified from the macroscopic point of view.

Concerning the quantity, the most frequent carpological remains are the fig fruits, followed by the olive's remains, the grapes and the almonds (Table 1). In the quantity evaluation it is necessary to underline that from the digging's documentation

72 From matt black (Munsell 7.5 YR 2.5/1) to vitreous in the case of the surface of grape berries.

73 For example, the fig is present in the most ancient literary Greek records, like in the Odyssey description of *Alcinoo's* palace and in some cooking essays of the 4th cent. B.C. Some fig's seeds appear also among the paleo-botanic records of the rural sanctuary of *Pizzica Pantanello*, in the *Metaponto's chora*, in some layers dating back to the end of the 4th and the beginning of the 3rd century B.C. NAVA, OSANNA, DE FAVERI 2007, p.114. Some fig plants, moreover, were discovered, together with the olive and the grapevine in the lists of the *Eraclea* tables (4th century B.C.) in the framework of the description of some lands cultivated of the sanctuaries of Dionysus and Athena. CARTER 1987, pp. 173-184.

74 This can be also caused by the action of the heat, but it does not happen, for example for the other preserved fruits. Moreover, it is well-known that the dried fig tree fruits (*ischades*) were given as gifts during the Attic Spring Festivals dedicated to Apollo (*Targelie*). NAVA, OSANNA, DE FAVERI 2007, pp. 111-119.

75 MARGARITIS, JONES 2006, pp. 798-800.

76 MATTERNE, DERREUMAUX 2008, p. 109; MARGARITIS, JONES 2008, pp. 382-392.

it is not possible to determine whether the rests have been subject to sampling or all collecting at the time of discovery. Moreover, this downward calculation, is influenced by the fact that some carpological remains are cited, without any information about the quantity, in the excavation's document, but they are not concretely present among the preserved remains. Among these, it is possible to count 8 remains of olive-in T 53, 3 in T 100, 4 in T 154, 21 in the offers above T 119, 5 in the offers beyond T 126. They are totally 41 remains, the most numerous ones. Concerning the fig tree fruits, we count 2 in T 53, 3 in T 68, 2 in T 91 and 2 in T 203: totally 9 remains; we must consider that some remains in T155 were not concretely found, but they can be seen in the excavation's pictures (Picture 6). This increases the total number of the fig tree fruits. Concerning the grapes, instead, they're 4 in T 53 and 2 in T 91, even if from an excavation's picture about the findings in T 53 we can count at least 12 of them (Picture 6). Finally, there is only one almond in T 100.

Generally, there are no frequent associations between these remains, except in T 39 where there are fig and olive tree fruits, in T 53 where there are grapes, fig and olive tree dried fruits, in T 91 where there are fig tree fruits, grapes and other remains, probably hazelnuts and in T155 where there are fig tree fruits and grapes. The most frequent combination is the one between the fig tree fruits and the grapes. It is not possible to assume that the found carpological remains were laid also with other kinds of organic offers (like other vegetable offers and, especially, animals), because of the absence of microscopic and pollen analysis on the taken ground samples and because of the absence of some archaeo-zoological surveys which can ascertain the possible presence of faunal remains.

	<i>Ficus carica</i> L.	<i>Olea europaea</i> L.	<i>Vitis vinifera</i> L.	<i>Amygdalus</i> <i>communis</i> L.	<i>Corylus</i> <i>avellana</i> L.?
T 39	X		X		
T 42		X			
T 53	X		X		
T 66	X				
T 68	X				
T 91	X		X		X
T 100		X		X	
T 119		X			
T 126		X			
T 128=150		X			
T 154		X			
T 155	X		X		
T 203	X				

Table 1. Summary chart of the carpological offers identified within the burials.

### Comparisons and meanings in the Greek cultural environment

The carpological rests from the burials of *Petto di Nòlio* are part of a limited set of cases but, despite this, their interpretation is complex. The funerary rituals represent a symbolic universe where every offering acquires several meanings and different values; the primary functions of the found materials must be analyzed separately from the new function that the object acquires in the ritual context and in the system of relationships

in which it is included (necropolis, kind of burial, ritual...).<sup>77</sup> For this reason, concerning the botanic offers, their overall meaning can be understood only starting from the detailed analysis of all the meanings that they could have.

Thinking about the value of the found carpological remains, means, first, focusing on the fact that there are not rare or allochthonous species<sup>78</sup> and that it does not seem to exist a precise correspondence between the burials' richness and the presence of these offers in them. For these reasons, it is sensible the idea of a deposition for ritual purposes, as a gift for the Deities or as part of the symbolic representation of the deceased or his accompanying equipment to face existence beyond the death, as has been hypothesized for most of the grave good objects.<sup>79</sup>

If the comparisons with other necropolises are poor, since the carpological offerings seem not to be frequent in the necropolis of Magna Graecia and Sicily<sup>80</sup>, these fruits, however, are often present as votive offers in the sanctuaries of the Greek area, dedicated to some chthonic Deities.<sup>81</sup> This is another element which let us think about a votive and ritual meaning for the fruit's offers found. This hypothesis is, then, supported by the meaning and by the role played by these fruits and their plants in the mythology and in the set of the Greek religious beliefs, often in connection with the chthonic and funerary framework.

In fact, in the Classic world, the fig tree fruits appear frequently as funerary offerings, as it is demonstrated by the numerous clay *ex voto* in the 5<sup>th</sup> century B.C. necropolis of *Rhodes*<sup>82</sup>, but also by the fictile miniature fig fruits in the *Contrada Vecchia* necropolis of *Agropoli* and in the female tombs of the necropolis in *Eraclea* (4<sup>th</sup> cent. B.C.).<sup>83</sup>

However, until now, it has not been possible to find the organic remains of that fruit in any Greek necropolis and, for this reason, the case of *Medma* becomes a total new case in the funerary framework of the Magna Graecia area.

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77 VALENZA MELE 1991, p. 151.

78 The dates, for example, exotic fruits from the date palms, species not cultivated in the ancient times in the Italic peninsula and in Greece (*Varrone*, Rust., II, 1, 27), are present in several burials starting from the Roman age, both as a symbol of an elevated social status, and as the symbol of victory and immortality. Instead, the fruit of the palm (not its tree and leaves) does not appear in the pictures of the Greek age, and it has never been discovered as a botanic offer. NAVA, OSANNA, DE FAVERI 2007, pp. 228-229, 232.

79 VON THEY 2005, p. 31.

80 It is not clear if this lack of information is caused by the methods of the archaeological research or if it is a factor of cultural or local religious differentiation; certainly, the biggest part of the original datum was lost in the inhumations (which are in the necropolis the most testified rite in comparison with the cremations) because of the perishable characteristic of the remains in case of lack of carbonization or mineralization processes, especially in the sour soils. No vegetable offer seems, in fact, present in the necropolis of *Contrada Parapezza* in *Locri* (ELIA 2010), as well as in the rich Hellenistic necropolis in *Taranto* (D'AMICIS 1994, pp. 149-173), in the Western necropolis in *Himera* -7<sup>th</sup> - 5<sup>th</sup> cent. B.C.- where, however, were carried out some analysis on the burnt wood of the pyre -probably cork (VASSALLO 2019, pp. 361-372; VASSALLO, VALENTINO, CHIOVARO 2018, pp. 489- 498; VASSALLO, VALENTINO 2012, pp. 49-59) and in the archaic necropolis of *Campofranco* in *Santa Flavia* near *Solunto*, where in a inhumation burial it was found a pine nut and where the analysis of the funerary pyre's wood testified the presence of olive tree and oak wood (NOT, VALENTI 2019, pp. 183-188). On the contrary, in the necropolis of *Medma* the vegetable offers seem to be more preserved, probably because of the presence of several primary cremations with conservation *in situ* of the carbonized remains.

81 VAN DER VEEN 2018, p. 70.

82 MUTHMANN 1982, p.81, fig. 66.

83 In the tomb of *Agropoli* were discovered some fig tree fruits, grapes, pomegranates and fictile cakes, BOTTINI, GRECO 1975, pp. 231-274.



Fig fruits are an ordinary culinary component in the ancient Mediterranean regions, since they are wild plants, and is also possible to preserve them through drying processes.<sup>84</sup>

They are often depicted in vase's painting, in the pictures of offers or sacrifice to the Deities, in particular Dionysus, as, for example, in the bidders' images on the Apulian craters of the 5th and 4th centuries B.C.<sup>85</sup> They often appear both as fictile *ex voto*, and, more rarely, as votive perishable offerings in cult areas, such as at the sanctuary of *Mefite*, a deity linked to water's worship, in *Rossano di Vaglio* (4<sup>th</sup> century B.C.), near the worship area of *Contrada Perulla* in *Eraclea* and at the *Timmari* Sanctuary (4<sup>th</sup> century B.C.).<sup>86</sup>

The fig, in fact, has a very high symbolic value connected to the idea of fertility, prosperity and natural cycles; already in the Egyptian world it reminds about the fertility and the resurrection and, together with the palm, it is considered the tree of life and it is connected to Osiris.<sup>87</sup> In the Greek area, as it is testified in Pausanias (I, 37, 2), it is a gift by Demeter, the deity of agriculture and prosperity, to the Attic hero *Phitalo*, representing the entire community, to thank for the hospitality received during her wandering searching Persephone. However, according to an ancient tradition told by Athenus (III, 78 c) it would have been Dionysus, on the Naxos island, the one who gave the humankind the fig plant to eat and cultivate it.<sup>88</sup> According to these written records this fruit is, for this reason, a holy fruit, because it is a gift by the Deities and an element which promotes civilization and prosperity, like the wheat; in fact, together are the typical offers of the Eleusinian worship, where it acquires some mysterious meanings in the framework of the palingenic and renovation nature's processes.<sup>89</sup>

The importance attributed, in the funerary rituals, to the fig and to the wheat, both gifts by Demeter, is reaffirmed by the finding, in a cremation tomb of the Western necropolis of *Himera*, of Red-figure craters (second quarter of the 5<sup>th</sup> century B.C) decorated with the theme, important for the Attic tradition, of the departure of *Triptolemus* (Picture 9). The king of *Eleusi*, who, according to the tradition, welcomed Demeter when she was searching for her daughter Persephone, is represented receiving from the Deity the winged cart and the ear of wheat, offered to the humankind together with the mysteries of the Deity. We can suppose, according to the Pausanias' tale, the existence of some connections between this mythical tradition and the other fig's gift, that to the Attic hero *Phitalo* by the same Deity. Moreover, it's not casual the fact that the scene was represented on a crater, a container to pour the wine and a symbolic

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84 MATTERNE, DERREUMAUX 2008, p. 108.

85 Sometimes it is a Silenus who offers to Dionysus a *phiàle* full of fruits, among which the fig tree fruits, but it is not rare that the same Deity holds the containers full of offers of the same type (LIMC III, p. 455, nn. 345-346). About the burials in *Eraclea*: NAVA, OSANNA, DE FAVERI 2007, p. 113.

86 About the *Mefite* sanctuary: ADAMESTEANU, HELMTRAUT 1992, p. 60, tav. XXI. About the sanctuary in *Contrada Perulla*: SICILIANO 1993, p. 135, tav. 57. About *Timmari*: NAVA, OSANNA, DE FAVERI 2007, p. 133.

87 *Erodoto* writes that in the sacrifices to Isis, the Egyptians and the Arabs used to fill the victims with the dried fig tree fruits, while in the Temple of *Ptha* in Menfi it is represented a sycamore tree, place, according to the tradition, of the Goddess *Hator*, painted on a throne while she is feeding the deceased people with the fig fruits. NAVA, OSANNA, DE FAVERI 2007, pp. 114-115.

88 On the island, baskets of fig tree fruits were carried in a procession during the celebrations for Dionysus, while his mask and the apotropaic phallus were made in fig's wood. *Eadem*, p.116.

89 In the traditions, from India to the Mediterranean see, it is the symbol of the saving knowledge, an initiatory tool to the mysteries and symbol of resurrection. *Eadem*, pp. 111-116. According to an Athenian decree of *Cholargòs demos* (334-333 B.C.) the last day of the Thesmophoria, after the unearthing of the holy little pigs, some barley and wheat grains and dried fig tree fruits, together with other sweets and cereals, were offered to Demeter. DETIENNE, VERNANT 1982, p. 135.

element of the symposium and Dionysus, layed as grave good of a rich person.<sup>90</sup> However, it is still not clear why this theme was included in a funerary context as well as the social role of the deceased who probably belonged to the upper class, according to the rarity of this iconography. These kinds of picture, in fact, are not so popular: the scene, which can have a mysterious and saving interpretation, is present on other Attic vases, whose distribution seems oriented according to some precise market requests. It is rare in the Sicily and Magna Graecia area, even if here the Demeter's worship was, in any cases, extremely popular.<sup>91</sup>

For this report's goal, it is useful to underline that this finding, in a funerary context, reinforces the connection between the *Triptolemus* and the *Phitalo*'s myths with the Demeter and Dionysus mysteries, which are both connected to a saving and underworld dimension. This link can also be the key to interpret the deposition of some votive vegetable offers in the funerary context like, for example, the associations between the fig tree fruits and the grapes, like in the case of the TT 39, 53, 91 and 155 burials of the necropolis in *Petto di Nòlio*.

If the comparison with the necropoleis of the Magna Graecia and Sicily did not offer any important results about the presence of organic remains of fig tree fruits, a quick glance to the vegetable offers found in some Greek sanctuaries allows, instead, to establish important links to understand the ritual and the worship funerary dynamics.

Some dried fig tree fruits, in fact, were found burnt in the ceramic containers and among some fire's hearth remains at the Messapian sanctuary in *Oria-Monte Papalucio* (4<sup>th</sup> – 3<sup>rd</sup> centuries B.C.), together with several other seeds (3.000 totally), fruits and floury doughs, all burnt. Among the findings, barley (*Hordeum*) for the archaic phases and, for the following phases, some legumes (like the field bean -*Vicia faba ssp. minor*), dried grape, pomegranate (*Punica granatum*), dried dates (*Phoenix dactylifera*), olive tree and apple tree (*Malus*). Among the tree species, the domestic olive tree, the holm oak (*Quercus ilex*), the mastic tree (*Pistacia*), the heather (*Erica*) and the myrtle (*Myrtus*). The cults at the Messapian sanctuary in *Oria-Monte Papalucio* have a chthonic and thesmophoric characteristic, as it is testified also by the offers of pomegranate, grapes and broad beans and by the use of the fire, a purifying element and the symbol of the change of *status* and transformation of the material elements; they were correctly attributed to the joint cult of Demeter and Persephone.<sup>92</sup>

In the more strictly *Magna Graecia* area, some important indications come from the *Heroon* of the *Contrada Petrulla* in *Policoro-Eraclea* (4th century B.C.), where the

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90 Found fragmented on the bottom of the cremation burial W6753 it dates to the second quarter of the 5th century B.C., like all the other grave goods, for example a votive fictile statue, a black-glazed *lekythos*, four small jugs, a Corinthian *skyphos*, an apodal local clay little cup, a globular *lekythos* and a decorative element in bone. VASSALLO, VALENTINO, CHIOVARO 2018, pp. 495-496.

91 It was supposed that the drawn ashes' craters found in Sicily belong to a ritualism connected to an educated Dyonisism and to some saving beliefs. The theme of the gifts to *Triptolemus* is presented also on some other few craters coming from the Sicily's necropoleis, while it is mainly widespread in the Etrurian-Campanian market of the 5th century B.C.; the most important one is the ashes' crater of the tomb 842 of the necropolis of *Contrada Pezzino* in *Agrigento* (second quarter of the 5th century B.C.) where the Demeter subject of the A side is deeply connected to the one of the B side representing the myth of Achilles and Memnon and, in particular, the request to Zeus of immortality for the two heroes by the mothers, interceding figures like Triptolemus with Demeter. On the Attic red-figures *lekythos* of the necropolis of Gela (Painter of *Eucharides*, 490-470 B.C.), instead, the myth of Triptolemus seems connected with the one of Dionysus, perhaps because of the civilizing element transmitted by both. So, the speckled arms of the king's cart are probably a remind of this special bond. We can say the same about the crater of the necropolis of *Passo Marinaro* in *Camarina*, where the figure of the king is combined to dancing satyrs. DE CESARE 2014, pp.64-105.

92 FIORENTINO 2008, pp. 97- 109.

main carpological offers seem to be the fig tree fruits, the pomegranate and the grapes.<sup>93</sup> In a similar way, at the Sanctuary of *Mefitis* in *Macchia di Rossano -Rossano di Vaglio* (4<sup>th</sup> century B.C.), the carpological remains found are the fig tree fruits, the grapes, the pomegranates, the almonds and the apples.<sup>94</sup>

In the Etruscan area, with the increasing *Siracusa*'s presence in the Northern part of the Tyrrhenian Sea (half of the 5th century B.C.), the votive deposits within artificial ducts (clay pipes and *dolii*) stuck in the underground of the sanctuary of *Volterra*'s acropolis dedicated, in this phase, to the chthonic Greek deities Demeter and Persephone have returned a high concentration of mineralized and charred remains of fig fruits, but also grapes, hazelnuts, apples, dogwood seeds and cereals<sup>95</sup>. Similarly, in the area dedicated to the same chthonic deities in the votive deposit of the monumental complex of *Tarquinia* were found in fictile containers mineralized rests of fig fruits, legumes (lentils, pea, field beans), grape seeds and poppy seeds, but also charred remains of cereals (barley, spelt, wheat).<sup>96</sup> Finally, burnt remains of dried fig tree fruits, plums (*Pinus pinea*), dried grapes and olive's pits and, in minor quantity, hazelnuts and walnuts (*Juglans regia*) were found near a fireplace in the *Serapeion C* in Delos, dedicated to the Isis, to whom were dedicated some mysterious and saving rituals.<sup>97</sup>

Linked by the Eleusinian tradition of palingenesis and nature's renewal, the fig tree fruits, seem to be deeply connected to the cults of Demeter and Persephone, but also of Dionysus. This link is difficult to be understood but it is, in any cases, strictly connected to the funerary environment and to the saving and eschatological characteristics attributed to these deities.<sup>98</sup> Combined with the wheat, moreover, the fig tree fruit is typical of the Eleusinian cult in which it appears on the *Palathe*, a sweet made of figs and a holy initiatory food.<sup>99</sup>

The second carpological remains which are statistically more detectable in the burials of the necropolis in *Petto di Nòlio*<sup>100</sup> are the olives. Even if the most common representations of this fruit and of its plant in the Magna Graecia area mainly connected to Athena, there are quite several records about it also in the funerary framework<sup>101</sup> and in the vases' painting: crowns with olive (sometimes, even golden) are not rare in the rich Apulian burials of the 3<sup>rd</sup> century B.C. in the necropolis in *S. Maria del Cedro - CS*.<sup>102</sup> It is rare, instead, to find some olive's endocarps. A specific comparison was possible, in fact, only in a secondary cremation of the *Pantanello* necropolis in

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93 MEIRANO 1996, p. 73.

94 *Eadem*, p. 74.

95 The remains were found in the fenced area of the Temple B, which was re-built at the end of the 5th century B.C.; the fictile ducts were used to convey to the subsoil the liquid offers and the natural products, which were the results of the land's fertility and which could increase even more this fertility. BONAMICI 2005, pp.1-10.

96 BAGNASCO GIANNI 2005, pp. 91-100; CHIESA 2005, pp. 103-109; ROTTOLI 2005, pp. 114-119. In the framework of this research, it was also suggested an important parallelism with the plant remains of the *Fortuna e Mater Matuta* sanctuary in Rome: fig's seeds, grape seeds, olive pits, hazelnuts, barley and spelt seeds.

97 It is very interesting the fact that the same offers were found in the sanctuary dedicated to the Deity in Pompeii. MARINVAL 2008, pp. 133-136.

98 DE CESARE 2008, p. 25.

99 CHIRASSI 1968, p. 61.

100 Even if these estimations could be distorted by some residual elements coming from the upper and adjacent layers.

101 In the Etruscan area, for example, there are the most ancient representation in the Italic area of the olive plant, used as a decorative element (Tomb of the Bulls and Tomb of the Leopards in *Tarquinia* – end of the 6th century B.C.). NAVA, OSANNA, DE FAVERI 2007, p.87.

102 *Eadem*, pp.208-209.

*Metaponto* (beginning of the 5<sup>th</sup> century B.C.) where the remains were found burnt<sup>103</sup> and in a primary cremation of the 4<sup>th</sup> century B.C. of the necropolis of *Thasos* in Greece.<sup>104</sup> Moreover, the analysis on the wooden samples of some primary cremations in the necropolis in *Campofranco a Santa Flavia* near *Solunto* (beginning of the 5<sup>th</sup> century B.C.), confirmed the use of olive wood, as fuel, but without distinction between the wild and the domestic type.<sup>105</sup> The olive tree, in fact, presents some perfect characteristics for these kinds of use because it is resistant, an exceptional fuel and it is easy to find it in the Mediterranean area. All these things considered, other meanings cannot be excluded. The plant has been considered since the beginning of the Greek culture, as the symbol of the civilizing action of the humankind and, for this reason, it was holy to Athena.<sup>106</sup> However, it is also a purifying plant, especially because of its use in the cultual and funerary framework, as a scented essence.<sup>107</sup> With these characteristics, it is present also in the so-called “*lex sacra*” of *Selinunte* (475-450 B.C.), a sheet made in lead containing the rules for a chthonic sacrifice and the instructions for a purifying ritual which used to follow, probably, some mournful events, in which the officiant was obliged to cover his head with a crown made with olive branches.<sup>108</sup> However, in the funerary field, it is not easy the identification of the meanings attributed to the use of this plant; on the basis of the data that we have, it is possible to consider the presence of the olive’s endocarps as the remains of some olive branches put on the burial with a symbolic function, for some purposes connected to the purification of the area or, more rarely, as a picture of compassion and victory. However, the links with the chthonic framework are still not totally clear.<sup>109</sup>

It is in the religious sector that we can find, exactly like for the figs, the most important remains in terms of quantity and meaning; the olives’ endocarps found in the rural sanctuary of *Pantanello* in *Metaponto* (4<sup>th</sup>-3<sup>rd</sup> centuries B.C.) were connected with the deposition’s practices of some little branches of olive plants cultivated on the Sanctuary’s ground.<sup>110</sup> On the contrary, in the votive offers of the sanctuary in *Oriamonte Papalucio* we can find the biggest number of burnt olives’ endocarps, like in those of the *Serapeion C* in Delos, both dedicated to some chthonic deities.<sup>111</sup> Also from the *bothroi* of the Messapian sanctuary in *Vaste -Piazza Dante* (4<sup>th</sup> -3<sup>rd</sup> centuries B.C.) come some burnt remains of olive pits, barley’s kernels (*Hordeum sp.*), spelt (*Triticum dicoccum*), wheal (*Triticum aestivum*), pomegranate and grapes, but also lentil, oat and rye; the analysis of the archaeo-zoological remains (*Sus scrofa* in fetal and neonatal status) from the same offers demonstrates the presence of some chthonic worships, probably those of Demeter and Persephone.<sup>112</sup>

Another important fruit, not especially for the frequency with which it is found (minor in comparison with the first two), but for the importance in terms of symbology and meaning, is the grapes. The grapevine (*àmpelos*) is, in fact, associated to the

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103 COLEMAN CARTER 1998, p. 120.

104 MÉGALOUDI, PAPADOPOULOS, SGOUROU 2007, p. 936.

105 NOT, VALENTI 2019, pp. 183-188.

106 SCHICCHI, SPECIALE, AMATO *et alii* 2021, pp. 1-2.

107 According to Plutarco (Plutarco, *Lyc.*, 27) its leaves were used to wrap the bodies of the deceased, while according to Virgilio (Virgilio, *Georg.*, II, 425) it is a symbol of purification and peace.

108 FRISONE 2008, pp. 118-120.

109 GARLAND 1985, pp. 139-140.

110 CARTER 1987, p. 181, fig. 257.

111 MARINVAL 2008, pp. 133-136.

112 SOLINAS 2008, pp. 235-243.

worship of Dionysus and to its representation since the pre-classical age<sup>113</sup>, as it is testified by the analysis of the vases' painting, but also by the sanctuaries' votive terracotta's figures.<sup>114</sup>

In the funerary framework it is not rare the discovery of some reproductions in terra-cotta or in precious material of grapes, like in the female burials of *Agropoli*, in the Southern necropolis of *Eraclea* and in the burial number 955 in *Lavello*, in connection with the pomegranates, the fig tree fruits and the fictile almonds. These kinds of votive objects, like the leaf of grapevine in bronze and a bunch of grapes in terra-cotta, coming from the sanctuary of *Mefite* in *Rossano di Vaglio*,<sup>115</sup> are present also in the holy areas. It is interesting to highlight that also in the necropolis of *Petto di Nòlio*, in the child burial T 45 (second half of the 5<sup>th</sup> century B.C.) were discovered two golden earrings with precious embossed grapes' and grapevines' decorations (Picture 11).<sup>116</sup>

However, only in cremation burial of the 4<sup>th</sup> century B.C. of the necropolis of *Thasos* in Greece was it possible to find organic grapes or grape seeds, together with the remains of pomegranate, garlic and wheat,<sup>117</sup> and this proves once again the importance and the exceptional characteristic of the necropolis in *Petto di Nòlio*.

In the holy framework, instead, the dried grapes and the grape seeds, both burnt and in mineralized status can be considered among the most numerous carpological offers; in fact, some charred grapes are present, together with other vegetable offers, in the votive offers of the sanctuary in *Oria- Monte Papalucio* dedicated to the cults of Demeter and Persephone, like in the *Serapeion C* in Delos, in the Messapian sanctuary in *Vaste-Piazza Dante* dedicated to the chthonic worship, at *Heroon* of *Contrada Perulla* in *Policoro*, near the *Mefite* sanctuary in *Rossano di Vaglio*, at the acropolis of *Volterra* and in the monumental complex at *Tarquinia*, both dedicated to some chthonic deities.<sup>118</sup>

This widespread is probably justified by the fact that in the Mediterranean area, the grapevine is the symbol of civilization and fertility; it is associated to the cyclical renewal of the life, the death, the re-birth and, the immortality, elements which are present also in the mythology connected to Dionysus.<sup>119</sup> In the myth, in fact, he suffers, dies and back to life, like the nature's cycles of which he knows and reveal the mysteries to his adepts. Moreover, the mystery of the fermentation, has always attributed to the

113 In Greece and Italy, the grapevine was present already in the 8th millennium B.C. The grapevine was soon associated as holy plant to the worship of Dionysus and from the end of the 7th century B.C. its representation can be found on several votive objects, among which the fictile masks of the islands of Naxos and Keos. The first representation in the Attic environment dates to the 580 B.C., when on the *deinos* of *Sòfilo* is represented the Deity with long hair and a crown of grapevine's leaves. Since the pre-classic age are well identified both the importance and the venerability of the grapevine, but also the ambivalent power of the wine. NAVA, OSANNA, DE FAVERI 2007, p. 274-278, 287.

114 The representation of the grapevine and of Dionysus in the votive *Pinakes* of the *Mannella* Sanctuary in *Locri* (first half of the 5th century B.C.), acquires a peculiar character for the connection with the worship dedicated to Persephone; in the *Pinax* with Persephone and Dionysus, in fact, the Deity embellished with some vine shoots full of bunches, offers a *kantharos* as a gift to Persephone on the throne. PUGLIESE CARRATELLI 1996, p.700, n. 166, IV.

115 NAVA, OSANNA DE FAVERI 2007, pp. 278, 285.

116 CASTRONUOVO, FRANCESCONI 2018, p.49

117 Pira 11, Chryssogelos Farm, MÉGALOUDI, PAPADOPULOS, SGOUROU 2007, pp. 935-939.

118 BONAMICI 2005, pp. 1-10; BAGNASCO GIANNI 2005, pp. 91-100; CHIESA 2005, pp. 103-109.

119 Born twice, first from the died mother Semele and then, from the thigh of the father Zeus, he descends into the netherworld to set his mother free, so becoming a mediator among the two dimensions (Diodorus Siculus III, 63, 1; Apollodorus III, 5, 1). The myths concerning the introduction of the viticulture are various and numerous in the entire Greece, they often change from one region to the other, but they all attribute its origins to the intervention of Dionysus.

wine a holy character. For this reason, this beverage is central in the libations and in the worship connected to the Deity, but also in funeral libations.<sup>120</sup> In addition, the grapevine's domestication attributes to the Deity a civilizing function similar to the one played by Demeter through the gift of the wheat: the Deity's lessons allow the men to eliminate from their diet some wild elements, like the roots and the fruits, but also the pure wine which was considered detrimental and typical of the barbarian populations. These elements were substituted by healthier products, symbol of a new civilization.<sup>121</sup> From this point of view, the already underlined link between the two deities, Demeter and Dionysus, is reinforced even further.<sup>122</sup>

And then, the almonds, (*amygdale*), which come from some trees extremely common in the Mediterranean area<sup>123</sup>. They represent a basic ingredient of the ancient Greek culinary and bakery tradition and, for this reason, they were used to bake and garnish some sweets which were then presented as religious offers. Even if they are completely absent as carpological organic offers, in the holy framework there are several findings of fictile almonds which can be recognized for their characteristic drop-shape and also for some thin grooves on the surface. Some clay almonds were found, in fact, at the Sanctuary in *Timmari* e at the *Mefite* sanctuary in *Rossano di Vaglio*, but also inside a female chamber tomb of the 4th century B.C. in *Contrada Vecchia (Agropoli - Posidonia)*.<sup>124</sup> The presence of some organic remains of almonds' exocarps in the burials it is not infrequent in the *Magna Graecia* area, even if they are rare and always found in primary cremations; in the Western necropolis of *Hipponion* (6th-4th centuries B.C.), for example, only a cremation female burial preserve the remains of burnt almonds and hazelnuts<sup>125</sup>, while in the necropolis in *Contrada Cardusa di Abaikon-Tindari* (4<sup>th</sup> -3<sup>rd</sup> centuries B.C.) in several burials were found the remains of burnt acorns, pine nuts, almonds and hazelnut among the calcined fire's remains.<sup>126</sup>

According to an interpretation by *Paolo Orsi*, the presence of some burnt almonds in two primary cremation burials in the *Cangemi* property in *Medma*<sup>127</sup> necropolis and in the *Lucifero* necropolis of *Locri*<sup>128</sup>, was exclusively connected to a practical motivation, like feeding with their oil substances the funerary fire. The practice is not excluded also for these burials, but this hypothesis is obstructed by the conservation and the not-structural modification of the fruit's exocarp considering the probable heat's action.

If it is true that it could represent an exception, also considering the small number of the findings, but the presence in other contexts of some fictile reproductions, seem to orient the research towards less practical uses, more connected to the worship framework. From this point of view, in fact, the fruit in the Greek world acquires a very strong symbolic value; the almond tree is connected to one of the several tales of metamorphosis of the Greek literature, like the one of *Demophon* and *Phyllides* and of her transformation in an almond tree after waiting in vain for his return (Ovidio, *Her.*, II,

120 MÉGALOUDI, PAPADOPULOS, SGOUROU 2007, p. 939.

121 NAVA, OSANNA, DE FAVERI 2007, pp. 275-289.

122 On the relationship of Dionysus with the funeral sphere and the cult of Demeter cf. also SALIBRA 2013, p. 175, note 53, DE CESARE 2007, pp. 11-12, 21-23.

123 Unknown in Egypt, the almonds are reported in Crete, in the Aegean Islands and in Mesopotamia. In Knossos the discovered small fictile tablets give an account of important quantities of almond's oil, a basic ingredient for ointments and essences. NAVA, OSANNA, DE FAVERI 2007, pp. 142-143.

124 BOTTINI, GRECO 1975, p. 263, fig. 32.

125 D'ANDREA 1989, pp. 765-786.

126 BACCI, COPPOLINO 2019, pp. 79-96.

127 ORSI 1917 a, pp. 37-58.

128 ORSI 1917 b, pp. 101-167.

98 ss.). It is also connected to the birth of *Attis*, *paredro* of the chthonic Deity Cybele, whose father was an almond's flower (Pausanias, VII, 17, 9-13). This plant is, therefore, associated again to the idea of re-birth and transformation through the reaching of a new status, as in the nature the almonds' trees bloom first and before the other fruit trees.<sup>129</sup> A meaning which is in line with the presence of these carpological remains in the funerary contexts, but which does not provide yet a general reconstruction of the practiced rituals and worship.

Rare are the attestations of organic remains of almonds in the Greek sanctuaries, among these are the charred almonds of the holy 3<sup>rd</sup> century B.C. area of *Messene*, found together with pinecones, pine nuts, chestnuts, olives and grape berries.<sup>130</sup>

In this regard, we must underline that in the Classical age holy areas the hazelnuts' remains are more frequent<sup>131</sup>, even if they do not seem to be present in the sanctuaries of the Magna Graecia and *Italic* area. The hazelnuts are, then, present in the cremation burials in the necropolis of *Contrada Cardusa* of *Abaikon-Tindari*, together with almonds, acorns and pine nuts<sup>132</sup> e and also in the Western necropolis of *Hipponion*.<sup>133</sup> On the contrary, in a cremation burial of the necropolis of *Petto di Nòlio* could be present some burnt nuts, but they could be an isolated and doubtful case.

To conclude this section, it is necessary to highlight that in the framework of the chthonic sanctuaries of the Greek area, the vegetable votive offers included, often combined also to the fruits described previously, also the cereals, the legumes, the pomegranates and the apples.<sup>134</sup>

Moreover, the deposition of some carpological offers, was probably part of the holy rituals and ceremonies and it could also include some other tools. For example, the *kèrnos* could be the container in terra-cotta used to present the vegetable organic offers in the framework of the holy ceremonies for Demeter and Persephone (Picture 14).<sup>135</sup>

Moreover, food offerings were an integral part of funeral rituals, as can be seen from literary sources, and only the suicidal dead were excluded (Artemidoros *Oneirkrotika*, 14 T). However, little is known about what types of foods were prepared.<sup>136</sup> Several depictions of bidders found in the votive warehouses of some sanctuaries of the Greek and Magna Graecia Area, like the votive deposit of the Sanctuary E of *Metaponto* dedicated to the joint worship of Demeter and Dionysus, have in their hands the *kaneon*,

129 NAVA, OSANNA, DE FAVERI 2007, pp. 275-289.

130 MIsGALOU DI 2005, pp. 329- 340.

131 *Serapeion* C of Delos Island and votive warehouses of the chthonic sanctuaries in *Volterra* and *Tarquinia*. See *infra*.

132 BACCI, COPPOLINO 2019, pp. 79-96.

133 D'ANDREA 1989, pp. 765-786.

134 Only these two botanic species are reproduced in several fictile representations coming from the votive warehouses of the sanctuary E of *Metaponto*, from some burials in the necropolis of *Contrada Crucinia* (end of the 5<sup>th</sup>, beginning of the 4<sup>th</sup> cent. B.C.) and by the votive warehouse of *Scrimbia* in *Hipponion* dedicated to the joint worship of Demeter and Dionysus (5<sup>th</sup> century. B.C.). MEIRANO 1996, pp. 67-122, SABBIONE 1996, pp. 155-162. The pomegranate has Eastern origins and it acquires religious meanings connected to the death, rebirth, fertility and natural and season cycles. It is not surprising, therefore, its association to Persephone and the underworld. Among the most important archaeological records, those coming from the sanctuary of *Contrada Mannella* in *Locri Epizefiri*. NAVA, OSANNA, DE FAVERI 2007, pp. 155-167.

135 The container was found for the first time in Eleusis and then, also in *Metaponto* and in the sanctuary of *San Biagio* in *Agrigento*; it is described also by Atheneum (Ath. 11, 52 (4761) = Polem. Hist. Frgt. 88) like a «fictile container on which are applied several little vases» which, offered to the Eleusinian deities Demeter and Persephone, included in every vase the main products of the soil. LO PORTO 1967, p. 186.

136 MÉGALOU DI, PAPANOPULOS, SGOUROU 2007, pp. 940-941.

a small round container with fruits and sweets, in particular the *Pyramis* with a dough of flour and honey, the typical offer of the sanctuaries dedicated to some chthonic Deities.<sup>137</sup> And then, some fragments of *pinakes* with scenes of offers to Persephone and Hades on the throne and some fragments of *black-figured lekythos* with scenes of collection of holy fruits in presence of Persephone by young women, which come from the votive warehouse at *Scrimbia* in *Hipponion* and from the sanctuary of *Contrada Mannella* in *Locri* (Picture 14). They are precious records of this complex mix of rituals and worship of which we only have the material remains.<sup>138</sup> What seems certain is that the living did not use the same foods prepared for the deceased for superstitious reasons.<sup>139</sup>

In conclusion, if until now it has not been possible to connect to a ritual and worship wider context the discovered carpological offers, at least we had the possibility to carry out a serious analysis of the myths and the traditions connected to those fruits and the plants which produced them. In fact, it is quite evident that in the framework of the religious offers, the carpological ones play an important role to connect the offering people with the deities, as they seem to represent a sort of restitution to the Gods of the original gifts connected to the ground, to fertility and to the capacity of the humankind to produce wealth and, therefore, a civilization based on it. The restitution to the Deities of these gifts seems to be almost a sort of gratitude gesture for a wealthy life which would not exist without the divine intervention, and which was necessary also for the underworld. It is not a case that in the Greek tradition, the same Deities connected to the flourishing of the nature and of the life, are also those in charge of organizing the life in the underworld and taking care of the communication with the living world. Also, for this reason, the analyzed offers do not seem to be only interceding gifts in the meanings of prosperity and civilization described here above. They also have saving and mysterious meanings, mainly connected to the cycle of death and re-birth of the vegetable elements and, therefore, of the life and, for these reasons, specific characteristics of Deities like Persephone, Demeter and Dionysus.<sup>140</sup> The carpological offers, therefore, in this sense, represent the human hope to defeat the death and, for this reason, it is totally understandable their presence in the chthonic and funerary contexts, in rituals connected to the life cycles and to the rebirth of the living elements.<sup>141</sup> In this regard, it is necessary to emphasize that the eschatological doctrines related to the funeral sphere spread only from the end of the 6th century B.C., coexisting in part with the previous beliefs that relegated the deceased mainly to the place of burial.<sup>142</sup>

## Conclusions

Even if not comprehensive, the study highlights that the carpological offers are not numerous in the necropolis of the Magna Graecia and Sicily during the Classical age;

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137 MEIRANO 1996, pp. 67-122.

138 SABBIONE 1996, pp. 155-162.

139 MÉGALOUDI, PAPADOPULOS, SGOUROU 2007, pp. 940-941, GARLAND 1985, pp.38- 40.

140 For Dionysus see DE CESARE 2007, p. 22-23. On the connection between the Deities of the Underworld and those responsible for the prosperity of the Earth see: GARLAND 1985, pp. 152, 158.

141 Connected with the regenerative properties of the dead is an ambiguous statement by Hippocrates for what "from the dead comes nourishment, growth and descent"; the same meaning has been attributed to the use of celery as a votive offering. GARLAND 1985, p.4, 116.

142 GARLAND 1985, pp.118-120. On the new meanings assumed by the grave goods from the 5th century B.C., see VALENZA MELE 1991, pp. 163-173.



this is mainly due to the lack of the essential conservation conditions, as these vegetable offers seem to be preserved, in the funerary context, for the majority of the cases, in a carbonaceous status in the primary cremations and only if not in contact with the funeral pyre's fire.

For this reason, the necropolis of *Petto di Nòlio*, which had a high number of primary cremations for the Greek age standards, represents a *unicum* for the analysis of these organic remains, which are preserved in a quite big number and in exceptional conditions.

All the carpological remains, come from some closed and sealed contexts, in direct contact with the remains of the deceased, the carbonized rests and other votive offers. For this reason and for the fact of preserving entirely their structure, they were not considered as remains of ritual meals but, as offers for the deceased or for the intermediate Deities. The exception are the olive endocarps' remains. In fact, their conservation state does not allow to evaluate if the fruits were eaten before the deposition or if the burning processes have eliminated the epi-carpal structure.

All the analyzed remains, were preserved, even if altered in color and composition, despite the high acidity of the soil, because they underwent a slow process of carbonization which allowed them to maintain their morphological characteristics.

This made possible the botanic identification of the species simply observing them and, in some cases, it was also possible to find the tracks of some drying processes or some other processes which took place before the deposition. This slow burning is possible only by assuming the contact of the fruits with hot embers, but not burning, compatible, therefore, with the narrow period between the extinguishing of the funeral pyre and the covering of the same. This hypothesis, moreover, enhances even more the theory according to which several clay grave goods were placed in the burial a few moments after the end of the fire, as it is demonstrated by the fact that they are not completely burnt, but only tarnished on the surface in contact with the embers, differently from the pottery which was found fragmented and completely burnt. These potteries were probably used for the libations (*choai*) and the ritual actions which took place during or before the starting of the funeral pyre.

The fruits offered belong to some species which can be found easily in the Mediterranean area (*Ficus carica*, *Vitis vinifera*, *Olea europaea*, *Prunus dulcis*, *Corylus avellana*) and are not allochthonous, expensive or specific. This is in line with the analysis on the grave goods and on the tomb's structure and led to the conclusion that until now it has not existed a strong link between the social position or the richness of the deceased people and the presence of some specific vegetable offers, found both in some tombs with precious grave goods and in tombs without them. The same can be said for the distinction of sex and age, even if this datum is influenced but the lack or total absence of bone remains in the analyzed burials.

It is excluded the hypothesis that these offers could be an expression of richness of some elite groups for their deceased. The most interesting meaning seems to be connected to the religious framework of the Western Greek world which, especially in the Locrian area, develops a strong chthonic characteristic. The presence of these botanical remains also in the votive offers of the sanctuaries, consolidate the hypothesis developed, further reinforced, by the analysis of the grave goods; it, in fact, presents, some characteristics which let us suppose mainly a worship use, because of the strong standardization of the shapes and for the almost exclusive presence of tools for the symposium and the banquet, for the presence of the miniature objects not usable for ordinary activity and for the poor characteristics of the ornamental elements.

All these features are supported also by the finding in the burials of several votive terracotta statues, to be interpreted in some cases as pictures of Persephone for the presence of a female figure on the throne and of the pomegranate held in a hand. Others could be the representations of Demeter and Dionysus, painted as a male figure with a Phrygian hat.

If it is not easy, nor comprehensive, attributing meanings to the vegetable offers considering the actual situation of the research, it is also true that the data collected until now allow to define a first and important series of hypothesis that orient the investigation towards the presence of codified rituals whose strict observance was, probably, to guarantee the validity of the funeral ceremony, as well as the "survival" of the deceased in the afterlife.

Most of the analyzed fruits seem to recall some meanings connected to the idea of the sacred; in fact, the analyzed carpological remains seem to be characteristic elements of the *graeco more* and they are present in the Greek cultural and traditional myths connected to the birth and the spread of the cereal growing and arboriculture by some liminal and strongly chthonic Deities. It is possible to evaluate this religious aspect as a distinctive element which is strongly underlined in the deposition of the grave goods and of the considered votive offers; from this point of view, the presence also in a sacred context of the discovered species, could make shine the will to belong to some traditions and beliefs extremely rooted and largely shared through which everyone could be identified, process some dramatic or tragic events and leave a memory.

The analyzed botanical remains belong to some species which present a strong symbolic value in the myths and which accompany the human events of the main chthonic Deities. They can all be interpreted as gifts with a civilizing and saving meaning, the fig by Demeter, the grapevine by Dionysus, the olive tree by Athena, but they are also the symbol of fertility and prosperity in life and a good omen for the afterlife.<sup>143</sup>

In fact, the comparison with the offers found in the sanctuaries highlighted that these fruits were characteristic and sacred for the liminal Deities who have a connection with the underworld and play an intermediary role with it, ensuring the passage to the *status* of deceased.

The worship and the myths connected to Demeter, Persephone and Dionysus have a strong link with the funerary framework, with the passage rituals (from the life to the underworld, from being a virgin to be a wife) and with the renewal and cyclical characteristic of the life, symbolized by the death and re-birth of the vegetable elements. In general, the fruits contain the idea of renewal and re-birth because they protect and offer nourishment to the seeds and, therefore, to new lives.<sup>144</sup> Besides, the examined fruits are interested by the changes of state, in this case the combustion, which modify their aspect and natural function in order to make them not usable for the everyday life and, therefore, permanently destined to another dimension.

In the Homeric Hymn to Demeter, the most ancient literary source about this Deity and about the ritual of the Eleusinian Mysteries, for example, it is told that the Deity before going back to the Olympus after she found her daughter, went to Eleusis, in the Attic region, making the nature flourish again and teaching to the princes *Triptolemus*, *Diòcle* and *Celeo* her mysteries as a fundamental mean to reach the happiness in the underworld.<sup>145</sup>

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143 VON ELES 2005, p. 33.

144 NAVA, OSANNA, DE FAVERI 2007, p. 157.

145 MILANESIO MACRÍ 2014, p. 316; for the Homeric Hymns: CASSOLA 1991.

It is very interesting, from this point of view, also the connection with the Persephone Locrian religion, reconstructed starting from the findings in the sanctuaries of *Contrada Mannella* and *Parapezza* in *Locri*: Persephone, as an indulgent mother Deity, welcomes the souls of the deceased people who fly towards the underworld and ensures the passage to the Blessed souls' islands only to her adepts. Her adepts avoid, in this way, the reincarnation cycles and the vain wandering of the souls without memory.<sup>146</sup> The joint worship of Demeter and Persephone is present also in *Medma*, a Locrian colony since its foundation, as it is testified by the findings of the votive offering in *Calderazzo*, and it represents a characteristic element of the religiosity of the Greek colony.<sup>147</sup>

It is interesting also highlighting that these beliefs and practices are more common in the Western Greek areas, both in the sanctuaries and in the funerary contexts, mainly starting from the 5th century B.C., when it started the expansion of the Athenian rule in the Mediterranean area<sup>148</sup>. There was then a development in the Italic area during the entire Hellenistic age, till the first Roman age, with the worship of Ceres and Isis. The mythological traditions connected to Demeter and Dionysus have a strong link with the Attic area, but it is certainly too early to presume a direct influence on the religious characteristics of the colonial world for the full Classic age. Moreover, the 5th century B.C., is also the period of the re-start and widespread in the funerary Greek framework of the cremation practice, an alternative to the more common inhumation; it is not possible to say at the moment for the lack of archaeological data and available information sources if this can represent the clue of the introduction of different religious beliefs and mysterious practices specifically thought for a community of adepts, like, for example, the orphic one, common in the near *Hipponion* from the 5th cent. B.C.<sup>149</sup>.

In conclusion, from this analysis, is possible to explain the potential interest of this kind of approach to the issue of the ritual offers and of their meanings in the framework of the funerary archaeology of the Western Greek area. From the necropoleis of the Magna Graecia and Sicily, come few and not-homogeneous details in order to organize a correct comparison with the funerary and worship field, which is extremely difficult to be reconstructed. It is very hard, in this phase of the research, to draft a detailed description of the worships and rituals of the burials in *Petto di Nòlio*, but it is also true that the analysis carried out on the grave goods, on the fictile pictures and, especially, on the possible meanings of the carpological offers, let us believe that the joint worship of Demeter, Persephone and Dionysus in their chthonic and saving aspects, played a not-secondary role in the funerary rituals and beliefs in the necropolis in *Medma*.

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146 COSTABILE 1996, p. 22.

147 PAOLETTI 1996, p.96.

148 VASSALLO, VALENTINO, CHIOVARO 2018, p.496.

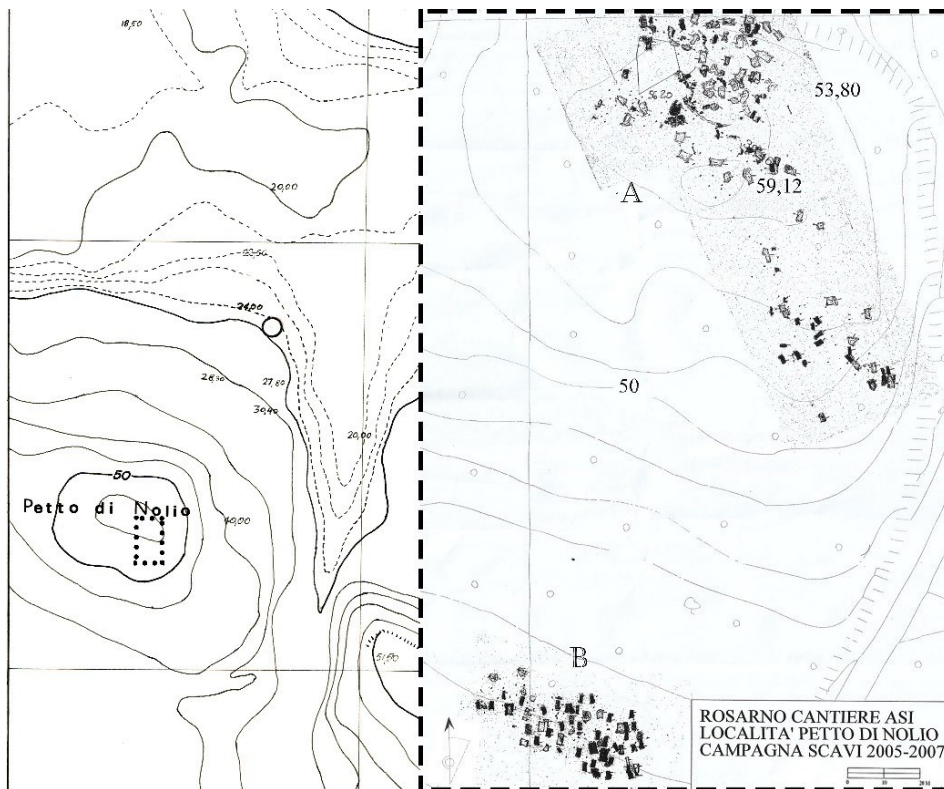
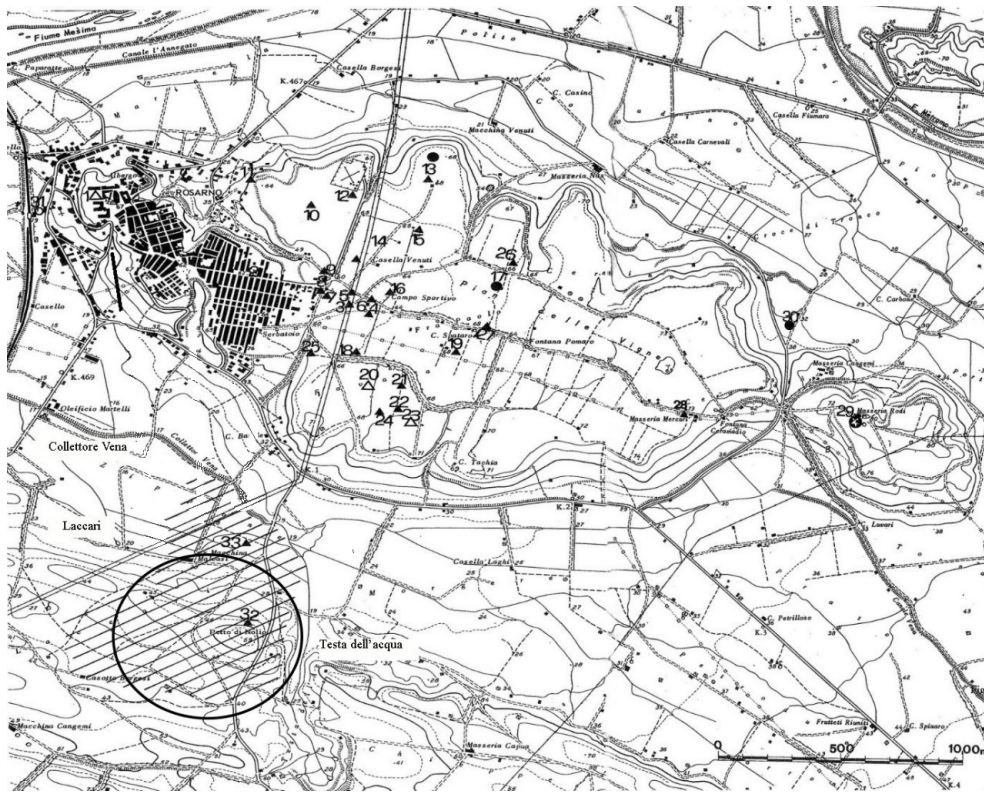
149 Cfr. PUGLIESE CARRATELLI 2001; VERZÌ BORGESE 1971, pp.411-414.

Burials	Grave goods and internal offers	External offers
<b>T39 South area,</b> primary single cremation, second half of the 5th century B.C.	No internal grave goods, remains of <b>fig tree fruits and olives</b>	Fragments of unburnt pot in local clay.
<b>T42 South area,</b> single inhumation in flat-roof tiles chest, second half of the 5th century B.C.	Amphora	Fragmented votive statue on throne, banquet and cooking pottery, fragments of black-glazed oil lamp, <b>olive pits.</b>
<b>T53 South area,</b> primary single cremation, first half of the 4th century B.C.	Cooking pottery in local clay, black-glazed banquet pottery, black-glazed and miniature local clay oil lamp, fragmented <i>amphoriskos</i> in glass paste, fragmented mirror in bronze, fragmented vase in glass near <b>grapes, dried fig tree fruit, olive's pits.</b>	Fragmented banquet pottery unburnt, unburnt <i>askos</i> in local clay, <i>amphoriskos</i> in glass paste, fragmented unburnt little cup in local clay, black-glazed skyphos, iron clamp and nail.
<b>T66 South area,</b> secondary female cremation with possible worship area, first half of the 4th century B.C.	Black-glazed banquet pottery, unburnt and burnt miniature local clay pottery, black-glazed oil lamp, black-glazed banquet pottery pierced and fragmented, black-glazed <i>lekane</i> , <b>fig tree fruits and not recognizable organic material</b>	Banquet and cooking pottery in local clay partially burnt, banquet black-glazed pottery, black-glazed oil lamp, <i>lekane</i> with the lid, female votive statue on the throne with a pomegranate, head of a votive male statue.
<b>T68 South area,</b> primary single cremation with edges in raw clay, first half of the 4th century	Black-glazed banquet pottery, unburnt and burnt miniature local clay pottery, black-glazed oil lamp, <b>dried fig tree fruits.</b>	No external offer
<b>T91 South area,</b> primary single cremation, last decades of the 5th- beginning 4th century B.C.	Black-glazed banquet pottery, unburnt and burnt miniature local clay pottery, fragments of bronze sheet, <b>fig tree fruits, grapes and hazelnuts?</b>	No external offer
<b>T100 North area,</b> <b>primary single cremation,</b> second half of the 5th century B.C.	(Compromised by clandestine excavations) Black-glazed banquet burnt and unburnt pottery, <b>olives and almonds.</b>	Fragments of red-figures pottery, banquet black-glazed pottery fragmented.
<b>T119 North area,</b> <b>inhumation in flat-</b> <b>roof tiles chest,</b> second half of the 5th century B.C.	Black-glazed banquet pottery	Fragment unburnt pottery in local clay, <b>olives.</b>
<b>T126 North area,</b> <b>primary single cremation, second half of the 5th cent. B.C.</b>	Banquet pottery in local clay, black-glazed oil lamp partially burnt, fragment of a bronze sheet.	<b>Olives</b>

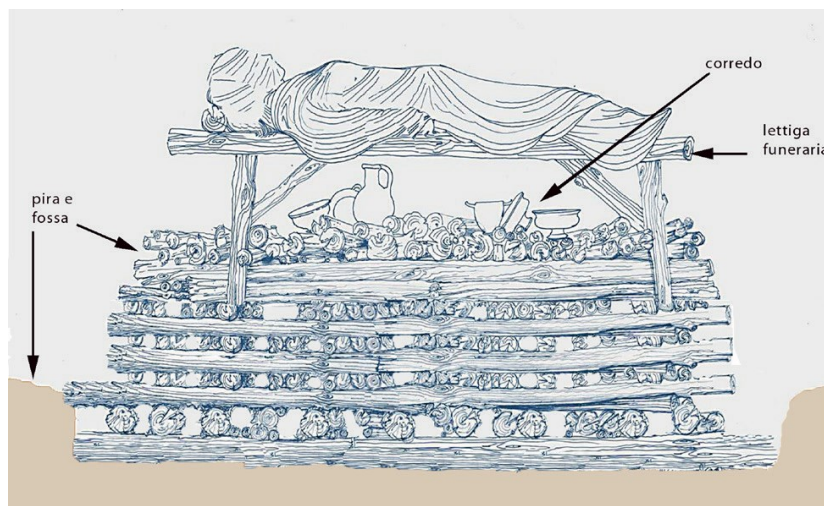
Burials	Grave goods and internal offers	External offers
<b>T128=150 North area, primary single cremation, half of the 5th century B.C.</b>	Banquet pottery in local clay, black-glazed oil lamp partially burnt, black-glazed oil lamp, fragments in bronze sheet.	Fragment of a female fictile statue, fragmented red-figures pottery, banquet black-glazed pottery, banquet pottery in local clay, burnt cooking pottery, <b>olives</b> .
<b>T154 North area, inhumation in flat-roof tiles chest, second half of the 5th century B.C.</b>	No grave goods	<b>Olives</b>
<b>T155 North area, primary single cremation with edges in raw clay, second half of the 5th century B.C.</b>	Banquet pottery in local clay, black-glazed banquet pottery, fragments of amphora, <b>fig tree fruits and grapes</b>	No external offer
<b>T203 North area, primary single cremation, 5th century B.C.</b>	Tool in iron, black-glazed oil lamp, banquet pottery in local clay, <b>fig tree fruits</b>	No external offer
<b>T215 North area, cremation or worship area, half of the 5th century B.C.</b>	Banquet black-glazed pottery, <b>stack of organic not identified material.</b>	No external offer
<b>T228 North area, primary single cremation, second half of the 5th century B.C.</b>	Banquet pottery in local clay partially burnt, banquet black-glazed pottery burnt, black-glazed oil lamp, <b>stack of organic not identified material.</b>	No external offer

*Summary chart of the burials with carpological offers, comparison among location, funerary rite, dating, fictile grave goods in or out of the tomb.*

Pictures



**Picture 1.** Archaeological map of Rosarno and its territory with the indication of the area of Petto di Nòlio and the other necropoleis (base IGM f. 246 NO, «Rosarno», sez. 1959; SCHMIEDT 1981, fig. 8); detailed map of the excavation's area ("Cantiere ASI, III lotto, 2006-2007") and of the "top" (A) and "bottom" (B) area of the identified burials (CASTRONUOVO, FRANCESCONI 2018, p.39, fig. 2).



**Picture 2.** Primary cremations; from the top, burial T 203 primary cremation, second half of the 5th century B.C., T 53 primary cremation, first half 4th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, ©MIC SABAP RC- VV). Reconstructing picture of a funerary pyre (VASSALLO, VALENTINO, CHIOVARO 2018, p. 491, fig. 2. Picture provided by MIC- National Archaeological Museum in Reggio Calabria).



**Picture 3.** Votive Statues of mythical characters or deities; a. fragment of a local clay votive statue representing a male character wearing a hat (*Hermes psychopomp?*) found in the primary cremation T66, first half 4th century B.C., b. fragment of a local clay votive statue representing a male character wearing a “phrygian” hat or of Oriental origin (*Dionysus?*) found in the primary cremation T66, first half of the 4th century B.C., c. local clay votive statue of a female deity on a throne (inv. 2016/RSN/2531) found in the primary cremation T66, first half 4th century B.C., similar to *Persephone* for the representation in the left hand of the pomegranate d. local clay votive statue representing a female figure on a throne (*Persephone?*) finding in the area of the Northern burials (digging records, “*Petto di Nòlio, cantiere ASI III lotto, 2006-2007*”, *Archaeological Museum of Medma-Rosarno*, ©MIC SABAP RC- VV).





**Picture 4.** From the left, local clay votive statues representing a couple of female characters (Demeter and Persephone? bidders?) found in the Northern area of the necropolis (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV). Antigone, Eteocles and a girl who carry to Oedipus’ tomb some material votive offers, a lucanian red-figures amphora (“Pittore di Brooklyn-Budapest”), 380 B.C., Paris, Louvre Museum CA 308 (LIMC 1981, I.2, Antigone 4).



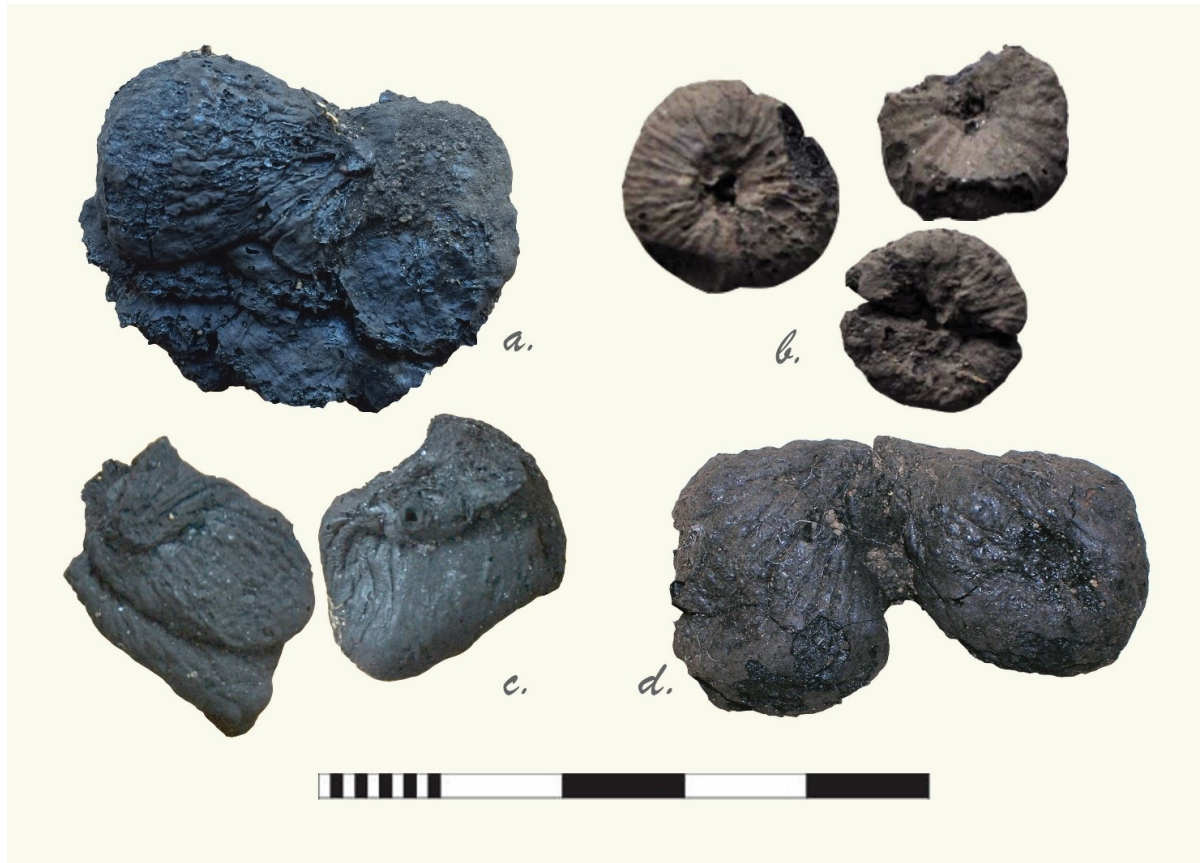
**Picture 5.** The remains of a funerary ritual; from the left, posthumous deposition of black-glazed bolsal cups, both intact and fragmented, on the burnt trunks of the funerary bed of the primary cremation T 215, second half of the 5th century B.C., pottery votive offers, intact and fragmented, in the primary cremation T 66 and in its worship area, first half of the 4th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, ©MIC SABAP RC- VV).



**Picture 6.** Funerary ritual's remains; from the left, remains of burnt fig tree fruits and grapes placed posthumous on the burnt trunk of the funerary bed of the primary cremation T 155, second half of the 5th century B.C., remains of burnt grapes placed posthumous in the primary cremation T 53, first half of the 4th century B.C. (digging records, "Petto di Nòlio, cantiere ASI III lotto, 2006-2007", ©MIC SABAP RC- VV).



**Picture 7.** Funerary ritual's remains; from the left, local clay symposium pottery set (oinochoe and cup) placed posthumous and remains of burnt fig tree fruits in the primary cremation T 68, first half of the 4th century B.C., local clay symposium pottery set (kotyle, oinochoe and jug), partially burnt and placed posthumous in the primary cremation T 228, second half of the 5th century B.C. (digging records, "Petto di Nòlio, cantiere ASI III lotto, 2006-2007", ©MIC SABAP RC- VV).



**Picture 8.** Pictures of burnt fig tree fruits from cremation burials; a. fig tree fruits from T 91, end of the 5th-beginning of the 4th century B.C., b. dried and burnt fig tree fruits from T 68, first half of the 4th century B.C., c. dried and burnt fig tree fruits from T 53, first half of the 4th century B.C., d. fig tree fruits from T 203, second half of the 5th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV).

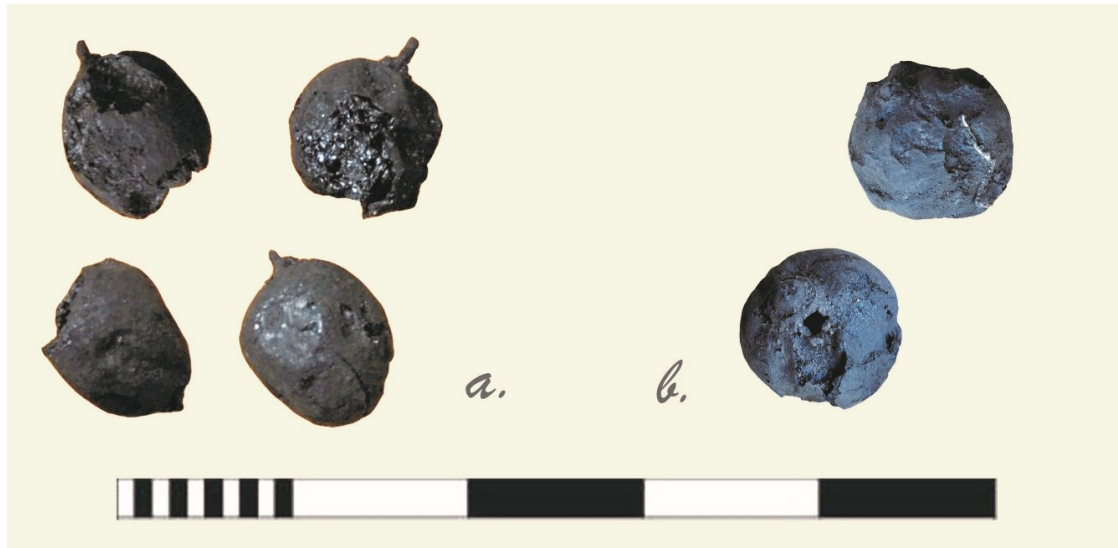


Fig. 6. Tomba W6753. A sinistra l'incinerazione primaria in corso di scavo. A destra il cratere a calice con la raffigurazione della partenza di Triptolemo.

**Picture 9.** Representation of Triptolemus' departure and of the gift by Demeter of the ears of wheat on the chalice-shaped red-figures crater found in the primary cremation W6753 of the Western necropolis in Himera (VASSALLO, VALENTINO, CHIOVARO 2018, p. 495, fig. 6. Picture provided by MIC-National Archaeological Museum in Reggio Calabria).



**Picture 10.** Pictures of burnt olive's endocarps; a. burnt olive's endocarps found in the primary cremation T 119, last decades of the 5th century B.C., b. burnt olive's endocarps found in the primary cremation T 53, first half of the 4th century B.C., c. burnt olive's endocarps found in the primary cremation T 126, second half of the 5th century B.C. (digging records, "Petto di Nòlio, cantiere ASI III lotto, 2006-2007", Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV).

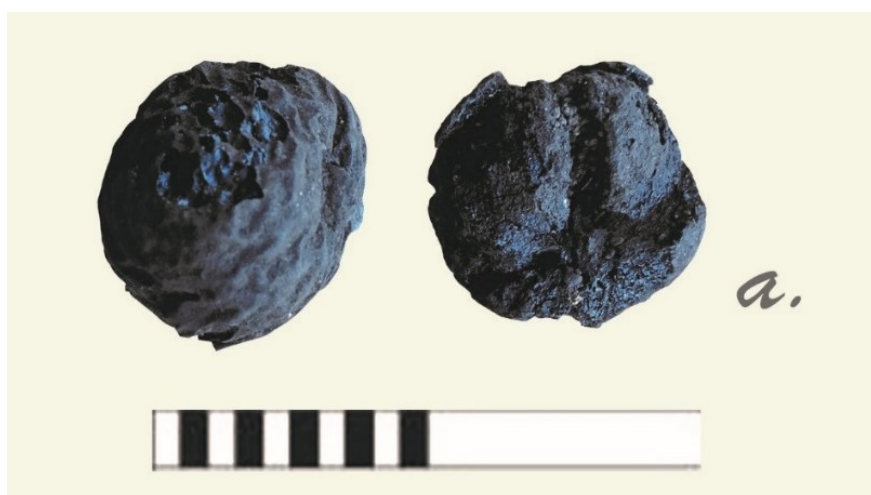


**Picture 11.** Pictures of burnt grapes from cremation burials; a. burnt grapes found in the primary cremation T 53, first half of the 4th century B.C., b. burnt grapes found in the primary cremation T 91, end of the 5th – beginning of the 4th century B.C.

Earrings in golden sheets with bunches of grapes and vine shoots (inv. 2016/RSN/2522 e 2523) from the female children bathtub burial T45, second half of the 5th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV).



**Picture 12.** a. remains of a burnt almond from the primary cremation T 100, second half of the 5th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV).



**Picture 13.** a. not-identified burnt fruits (hazelnuts?) from a cremation burial T 91, end of the 5th – beginning of the 4th century B.C. (digging records, “Petto di Nòlio, cantiere ASI III lotto, 2006-2007”, Archaeological Museum of Medma-Rosarno, ©MIC SABAP RC- VV).



**Picture 14.** On the top, kernos in terra-cotta in Cypriot style, 750- 600 A.C., “Cesnola” collection, Metropolitan Museum of Arts, <https://www.metmuseum.org/>; bottom, details of Pinax with Persephone and Hades on the throne, first half of the 5th century B.C., from the Sanctuary of Contrada Mannella in Locri Epizefiri, National Archaeological Museum in Reggio Calabria, PUGLIESE CARRATELLI 1996, p. 700, n. 166, V.

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