

Food for the gods: animal consumption and ritual activities in the early Bronze Age Sicily

by

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Abstract:

The aim of this paper is to investigate the faunal assemblages recorded from ritual deposits in Early Bronze Age Sicily. The recent discovering in the Castelluccian sanctuary at Monte Grande, in south-western coast of island, permits to examine a specific aspect of offering practices in ritual contexts. The faunal remains, which include ovicaprines, pigs and cattle are referred predominantly to adult specimens: the sheep/goats are more numerous, followed from pig and cattle. The same trend is attested in the “sanctuary” at La Muculufa, where a place connected to ceremonial purposes has been identified. In both sanctuaries, the percentage of sheep and goats is heavily high: according to mortality patterns, these animal were slaughtered at two or three year old, probably reflecting specific ritual observances and also a small-scale mixed farming, with specialized herding. The faunal material from these places related to ceremonial activities can be considered “consumption offal”, and may reflect ritual feasting and meat consumption.

A more specific analysis on the selected parts of animal body leads to conclude that some ritual prescriptions played a significant role in defining ritual ceremonies and meat consumption. This evidence also reinforces the interpretation of these open-air sanctuaries as loci of more specialized ritual activities, notably suggested from deposits of terracotta figurines.

This evidence can be compared to the animal offering practice attested in the EBA Southern Italy, where predominance of ovicaprines and selection of species well illustrate an economic model based on meat consumption.

1. Introduction

In recent years significant advances in fieldwork archaeology in Bronze Age Sicily have provided greater opportunities to examine the social and economic dynamics in local communities. The Castelluccio group represents the most widespread and the best-known cultural assemblage of the Sicilian EBA, which it has been formerly dated at first half of second millennium B.C. (2200-1600 BC).¹ During this long period the local settlement system shows a marked diversity in terms of duration of occupation, community size and domestic space organization.² The typical farming settlement is a stable village in the fertile and naturally wooded lowlands of the river valleys, which were also favoured for winter grazing under a regime of extensive cultivation and fallowing. Each village, given its small size (50-100 inhabitants) and close spacing (estimated around 3-5 km

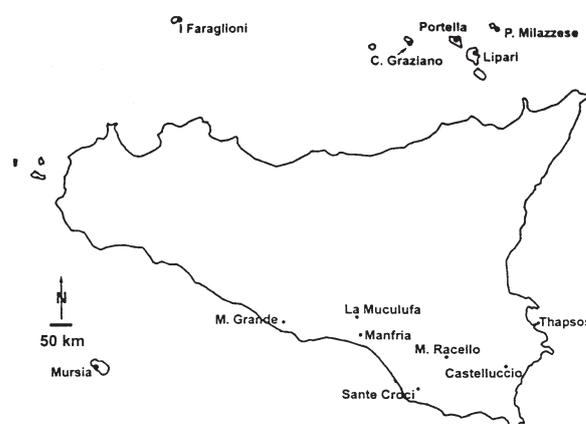


Fig. 1. Map of EBA Sicily with references to sites mentioned.

apart), could have subsisted on small-scale cultivation or large-scale animal husbandry with extensive clearance. The number of these sites distributed around the island is disproportionately high and suggests either a large, mobile or dispersed population of a few families located in short-lived “hamlets”.³

In terms of settlement organisation, the reference point of this dynamic system is represented by the emergence of wide open-air sites related to ritual or ceremonial activities, conventionally named as “sanctuaries”.⁴ For nearly two decades the site at Monte San Giuliano, near Caltanissetta, stood alone as the only known sanctuary in the Early Bronze Age Sicily.⁵ Recently two new sites have been identified as intra-settlement places for ceremonial activities: Monte Grande (Agrigento) and La Muculufa, above the Salso valley (*Fig. 1*). In both sites the material assemblages are quite unusual in composition, including fine quality painted pottery, terracotta figurines and a heavy concentration of animal bones. These sites provide the settings for ritual activities which result in the use and discard of a wide variety of artefacts and ecofacts.

This paper seeks to address the issue of animal sacrifices and their social or political significance in understanding ritual activities in complex societies. In

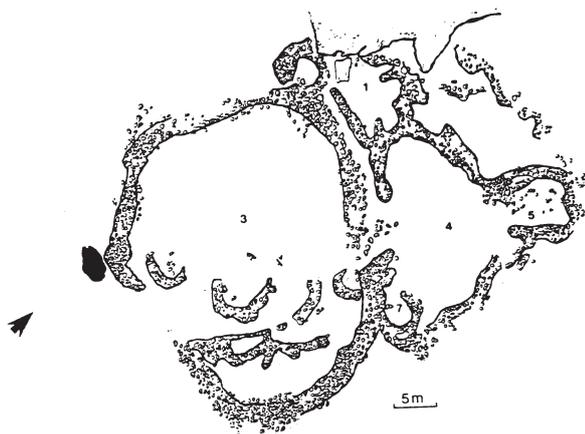


Fig. 2. Monte Grande: plan of the enclosure structures (after Castellana 1998).

particular, the focus is on the temporal, spatial and contextual variation in the relationships between ceremonial feasting and ritualized exploitation of animals, in order to investigate how animal bones recorded from “sacred” places may reflect economic management strategies and specific roles of participants in the sacrificial action.

In keeping in mind some recent approaches in archaeology of cult in the Bronze Age Aegean,⁶ faunal assemblage is an excellent criterion for examination because it quite clearly involves constraints which are economic (herd management, selection, level of nutrition) and cultural, as the relationship between ceremonial meat distribution and the ritualized treatment of selected animals. Two remarks, however, have to be pointed out: firstly, although it is extremely difficult to distinguish elements connected to the religious sphere in prehistoric contexts,⁷ we might recognise some cases in which the attribution appears certain. In this view the Castellucian open-air sanctuaries provide a solid evidential base to explore ritual activities: in fact, spatial dislocation, architectural features and unusual material assemblage (deposits of animal bones, ashes, fine and exotic pottery for ceremonial purposes), lead to explain these sites, with varying degrees of confidence, as places connected to ritual activities.

The second point deals with the nature of animal bones collected in these sanctuaries. The largest published faunal assemblages vary in size, quality of retrieval, analytical methods of presentation, with profound implications for the types of information which can be gleaned from them. As it is known, the factors that influence the body distributions in an archaeological fauna are numerous and intriguing: pre-depositional activities (butchering, cooking) can break, destroy, or weaken bones, and - in almost every case - the pattern of skeletal element representation in an archaeological faunal sample cannot be assumed to simply reflect the behaviour of the collector.⁸ The fauna assemblage of EBA Castellucian sites was retrieved without systematic sieving and so it is a reasonable assumption that much bone will have been lost, particularly from small body parts, small species and young animals.⁹ Biased retrieval is evident and, although quality of recovery in the trench can vary

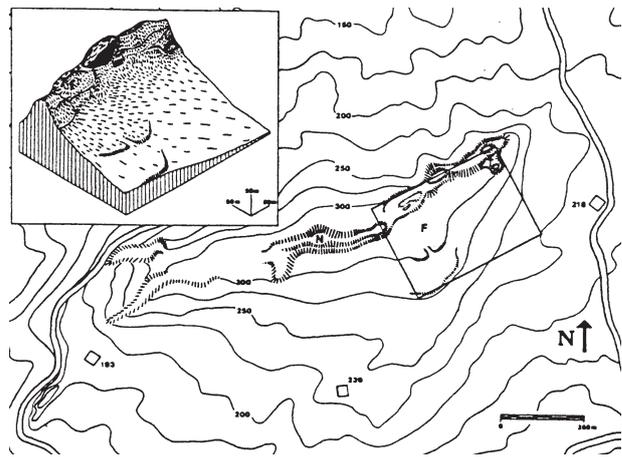


Fig. 3. La Muculufa: plan of the site with village area (zone F) and sanctuary (zone T), (after Holloway *et al.* 1990).

from very good to very poor, S. Payne's experiments on faunal assemblage from prehistoric Greece provide the order of magnitude of the correction factors.¹⁰ In the case of EBA Sicilian context, an effective correction factor to compensate some losses could be the comparison of a specific animal bone record with other assemblages from sites and related it to the same cultural, as well chronological, wider context.

These considerations have some considerable bearing upon this present study. The issue is to examine the relationships, and their different levels, between animal consumption and ritual activities: in other words, if any particular set of ritual activities might be reflected in the bone animal assemblage. As C. Renfrew has stressed out,¹¹ the ritual is conducted in a special, distinctive manner of action, often repetitive, and thus recoverable through quantitative and qualitative analysis of debris found in archaeological contexts. Therefore, special archaeological indicators, such as animal bones, appear very important in order to reconstruct the ritual action: as I shall clarify further, their distribution does not reflect only ritual prescriptions, but the more wide relationship between animal consumption and herd management strategies.

2. Sacred places and faunal assemblages

Since human activities often are defined by architectural “settings”,¹² we start the analysis with defining the archaeological and structural context where faunal assemblages were found.

Monte Grande is a limestone hilltop on the southern coast of island, near Licata (Agrigento), at the border of an mountain range rich of sedimentary deposits bearing sulphur (*Fig. 1*).¹³ The most significant remains uncovered consist of a series of monumental enclosure walls, and a related group of poorly preserved structures (*Fig. 2*).¹⁴ These clusters of circular buildings surround a central open space: each building contains traces of floor-levels and of several clay circular hearths flanking the open air space: inside each enclosure area a concentration of terracotta figurines, clay horns and decorated fine-ware is found, leading the excavator to postulate a

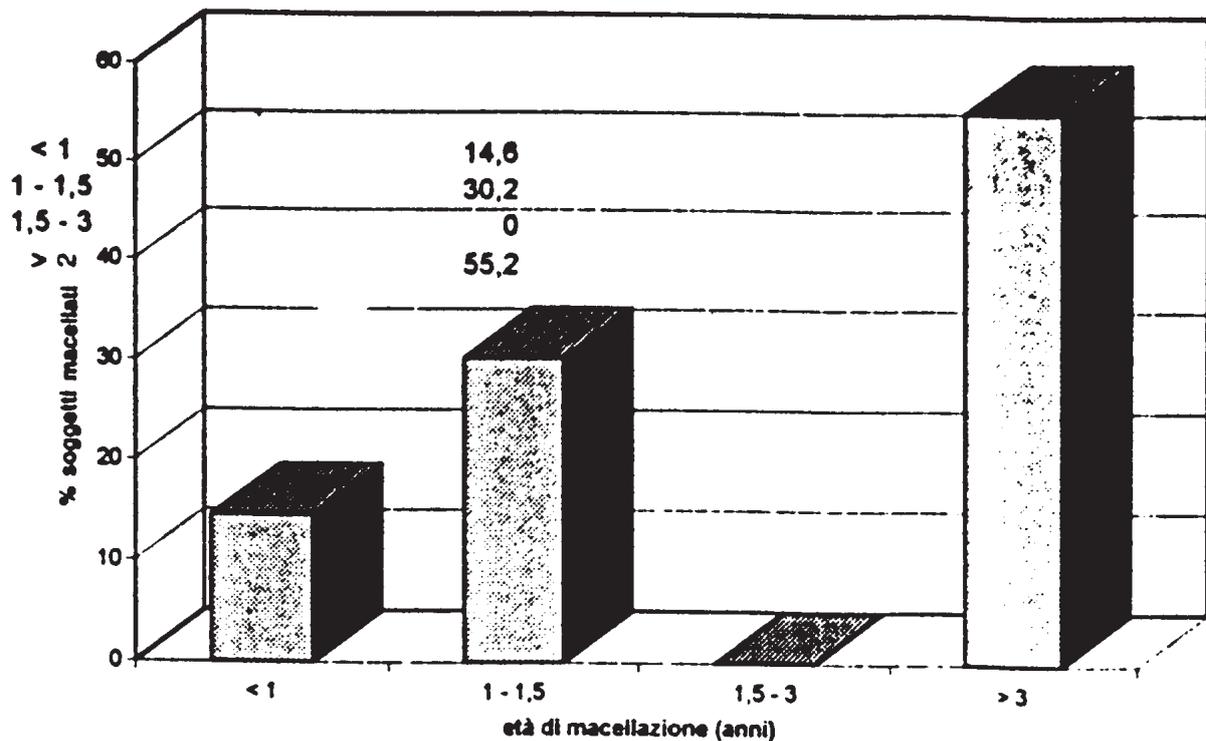


Table 1. Mortality profile of Caprines from Monte Grande (after Bedini 1998).

place used for gatherings and ceremonial activities.¹⁵ The faunal assemblage was found into the enclosures and in many cases it was spatially related to the clay hearths and shallow ash lenses.¹⁶ This context includes most “primary” refuse deposited in original use areas, and *de facto* refuse is left behind when a structure is abandoned. The bone material is dominated by domesticated taxa.¹⁷ Approximately 95% of the identifiable animal bones represent domesticated sheep (*Ovis aries/Capra hircus*), goat (*Capra hircus*), pig (*Sus scrofa*) and cattle (*Bos taurus*). Bones of sheep and goats (mostly undifferentiated)¹⁸ are most abundant (41,4%), while cattle is more common (32,6%) and also pig (22,1%). Extremely rare is the presence of wild animals which include some bones of red deer and some bird.¹⁹

The ovicaprines represent the much wide group: the ratio between sheep and goat is 12:1. According to the mortality patterns calculated on dental data (Table 1),²⁰ a large number of sheep/goats seem to have been killed over the first three years (55,2%), followed by a middle percentage of specimens killed between 12 and 18 months (30,2%).²¹ Finally, few animals (14,6%) include younger specimens slaughtered in the period from the first months to the 12 month (14,6%).

Many of the sheep/goat bones found at Monte Grande show some differences in size, which are probably to be ascribed to sexual dimorphism: in the case of caprines sex ratio suggests the presence of a large number of female specimens, while male animals for reproduction, like rams, are totally absent.

The category of cattle includes a large group of specimens which were killed around three years old (40%), while the percentage of animals over the third year is medium (25%) and the cattle in the 12-to-18 month is very low (6%) (Table 2).²²

The last group consists of pigs, of which bones it is very difficult to distinguish the wild variety of boar. Mortality patterns show 40% per cent of specimens slaughtered over the third year, while individuals killed at the first months are a small number (15%) (Table 3).²³

The data from Monte Grande could be compared with the fauna assemblage recorded in the sanctuary of La Muculufa (Fig.3). The site, loomed above the Salso valley in southern Sicily, includes a village, a cemetery and what may be interpreted as open-air sanctuary, located on a limestone terrace between vertical rocks.²⁴ A terrace wall delimited an area consisting of a filling of earth, where a thick deposit of animal bones and ash lenses were found together with a large quantity of fine pottery and lithic artefacts.²⁵ A human jaw bone recorded from the same deposit could be an intrusive element and therefore not necessarily related to the ritual occurred in the area.²⁶ Within this stone terrace, traces of hearths are also found, and such evidence, if related to the abundance of animal bones and millstones, suggests that special meals were prepared and consumed in the area.

The faunal assemblage recorded at La Muculufa, either in the village and in the sanctuary,²⁷ provides a good opportunity in order to reconstruct the stock economy of a Castellucian village and also to compare the evidence with the Monte Grande’s faunal remains.

The table shows the relative frequencies of domestic animals at La Muculufa (Table 4). It is worth noting that the distribution and mortality patterns are similar in both the sanctuary and the village: in terms of absolute quantification (minimum numbers of individuals), caprines appear significantly more common in the sanctuary (84,7%) than in the settlement (68,6%). Conversely, in the village the faunal assemblage shows a higher

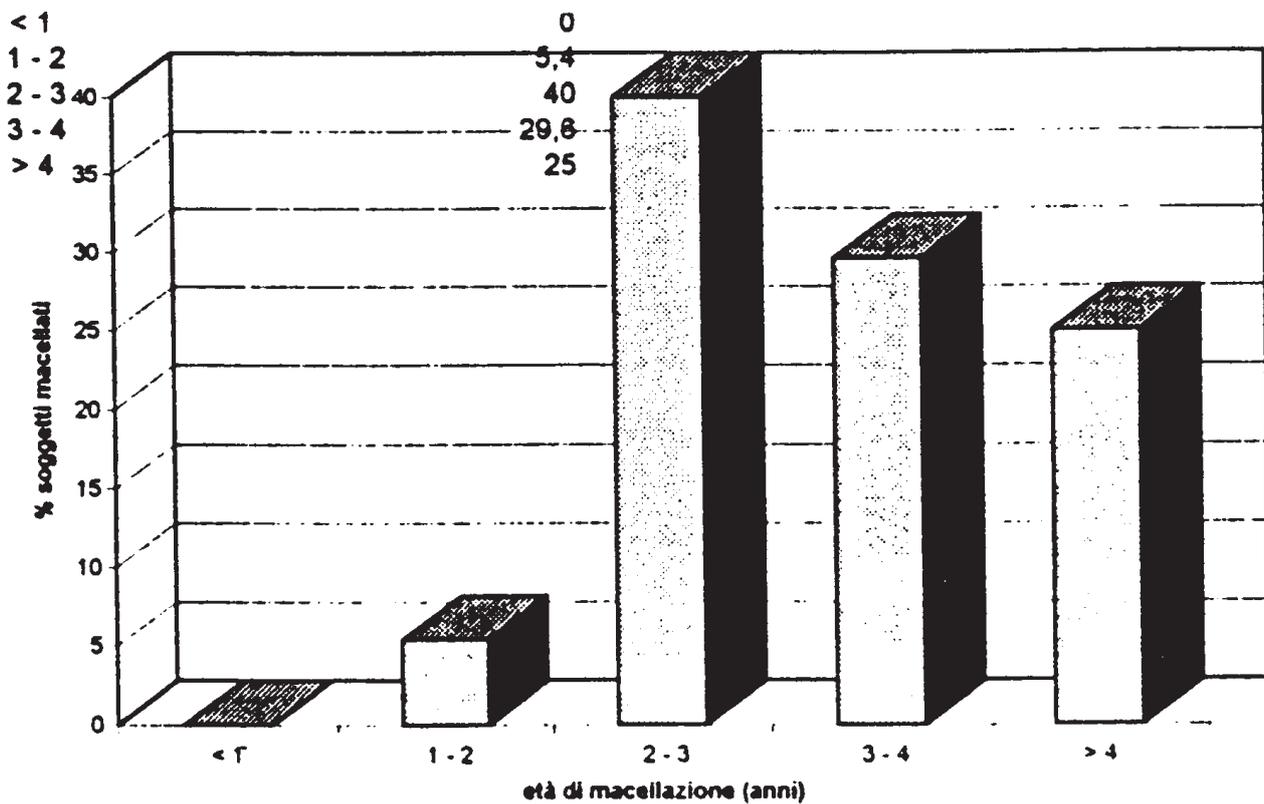


Table 2. Mortality profile of Cattle from Monte Grande (after Bedini 1998).

proportion of cattle and pig than in the sacred area. This discrepancy may be related to the functional differences between the two spaces and to the specific ceremonial activities occurred in the sanctuary.

The mortality pattern of caprines in the settlement and in the sanctuary shows that more than half of the individuals were killed at 24 months or younger, while only 10,2 % of the population was older than 42 months, according to the dental data. The age distributions of pig (together with the cattle is the most important animal in the village) show a high number of individuals slaughtered at the second or third year. As regarding the cattle, which is numerically the least important in the La Muculufa animal stock, none appear to have been killed in the first two years and a large number includes individuals older than 48 months.

3. Animal consumption and ritual activity

The analysis of the archaeozoological assemblages from Monte Grande and La Muculufa suggests some remarks about the exploitation of domestic animals in ritual activities. First, at an analytical level, ovicaprines, pigs and cattle are often more evenly represented, although this may reflect poorer retrieval of the smaller species in assemblages too late to shed light on the farming activities.²⁸

The analysis on species composition shows that in both sanctuaries the percentage of sheep and goats is heavily high. This proportion does not depend on the assemblage of bones available for retrieval. The comparison with domestic fauna recorded in the settlements,

as in the case of La Muculufa (Table 4), confirms the predominance of caprines in the subsistence strategies of EBA local groups. This interpretation is also supported by the comparison with bone animal assemblage from some Castellucian settlements and cemeteries recently investigated.²⁹ The high percentage of ovicaprines dominates the faunal evidence of numerous small sites set in proximity with fertile soils at higher elevations, probably reflecting a mixed regime of arable farming and pastoralism.

More information on patterns of animal exploitation can be gleaned from mortality data and sex ratio at death. Because archaeozoological distinction between sheep and goats is particularly difficult in young animal, mortality data are not shown separately, even though two species have been managed quite differently. The age structure from La Muculufa and Monte Grande indicates the predominance of subadult deaths which are very high in sheep/goats killed over the third year. However, in both sites the mortality pattern appears quite different, showing a higher proportion of younger individuals at La Muculufa than in the enclosures of Monte Grande, where the presence of sheep/goat killed at young age (under 24 months) includes only 30,2% of the total percentage. In any way, at Monte Grande this proportion is very high and the last 55,2% generically involves both individuals killed around the second year and other slaughtered during the first three years.

We can conclude, therefore, that Sicilian EBA sanctuaries displays some difference in the exploitation of caprines: despite at Monte Grande sheep/goats were killed in maturity, the case at La Muculufa could be

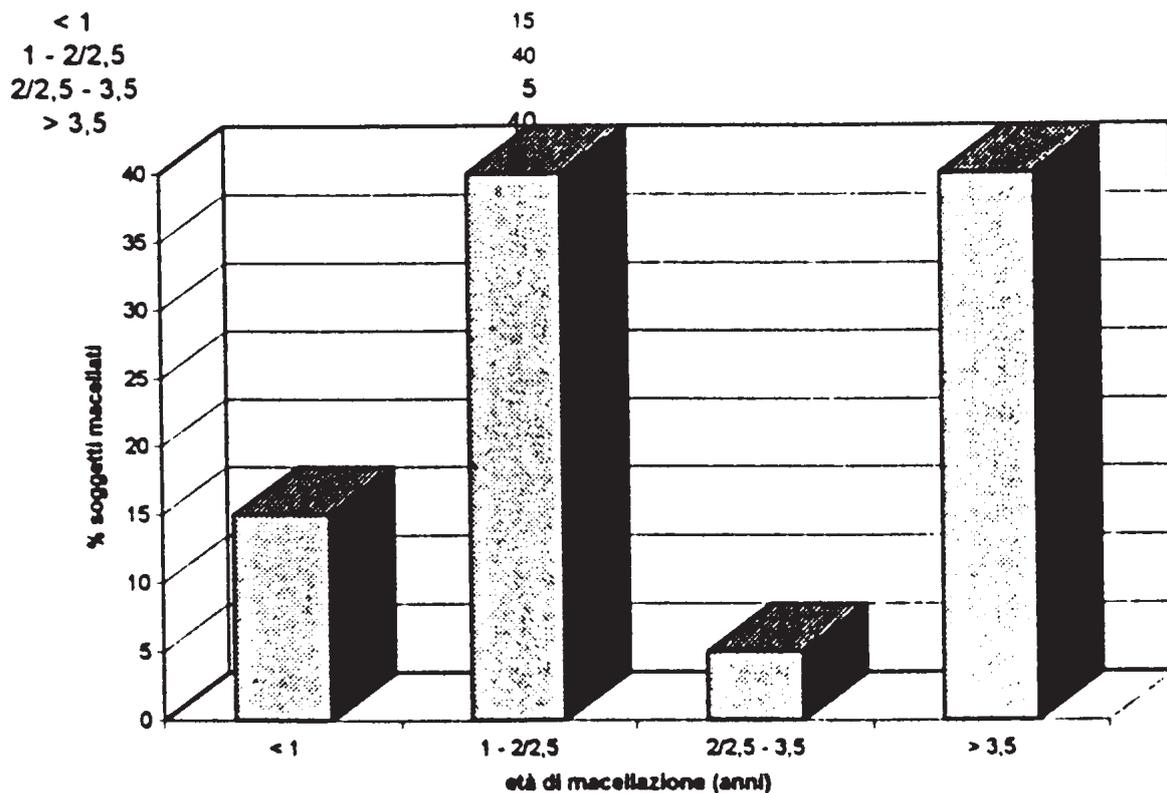


Table 3. Mortality profile of Pigs from Monte Grande (after Bedini 1998).

quite different, showing a high proportion of individuals slaughtered under the two first years.

In a wider context, such range reported in the settlements of EBA Sicily is similar to mortality patterns estimated in some sites of EBA Italian peninsula, where most of the caprines were well over 18/24 months at death and many were killed as two or three year old animals.³⁰ According to G. Barker,³¹ most of the animals in these flocks died as mature animals, and it is unlikely that animals would be raised to such maturity in a purely meat economy, since the optimum age for killing caprines for meat production is 18-30 months. Barker also interprets the mainland Italian caprine age distribution as reflections of a mixed economy, similar to that today, in which sheep/goats were raised primarily for the products of the live animal (cheese, whey, wool), rather than meat.

The same mortality patterns have been recorded in funerary contexts of mainland Italy, where from Neolithic period until early Iron Age the deposition of young animals is attested: however, in this case the context is connected to the burial rituals and animal bones have been interpreted as food offering deposited together with the grave offerings.³² Combined sheep/goat mortality from open settlement and cemeteries scheduled in Neolithic/Eneolithic Mainland Italy largely conforms to a meat model, with high levels of juvenile and subadult deaths and widespread evidence for selective slaughter of young males; for example, in the early-Eneolithic cemetery at Piano Vento, near the sanctuary at Monte Grande, sheep and goat were killed in the first or second year of life.³³

If we accept that the caprines offered in EBA Sicilian sanctuaries were killed at ages too old for rational herd

management and economic strategies, this may indicate that the younger age distribution reflects a greater emphasis on meat.

The evidence from La Muculufa sanctuary apparently seems to contrast with the faunal assemblage recorded at Monte Grande. The La Muculufa's picture clearly suggests that the slaughtering of young animals is a more complex issue than simple expropriation of resources. These mortality patterns, therefore, have to be explained into a management strategies perspective. During the EBA, the wide area along the Salso river, dominated by limestone hills, seems to have been virtually suffered from a depopulation phenomenon.³⁴ Perhaps many centuries of grazing, clearance and cultivation, starting in the Neolithic period, had contributed to the landscape degradation to the point that this district, during the EBA, was better suited to an increasingly mixed economy, including herding strategies and hunting. The large number of young animals slaughtered at La Muculufa clearly reflects the abundance of large stocks of ovicaprids and, at the same time, it also means specific social and cultural behaviours. In terms of animal exploitation, the slaughtering of male sheep/goat at an early stage is likely to be the prevailing practice in ancient pastoral societies:³⁵ in fact, the removal of young animals may be interpreted in terms of expropriation of surplus and also as a practice to "regulate" the increasing number of male individuals. In absence of castration (an assumption which needs to be carefully proven in the case of faunal assemblages from EBA Sicilian sites), most male ovicaprids need to be slaughtered before reaching maturity.³⁶ Furthermore, in terms of social relations and cultural

| Species | Sanctuary | | Village | |
|--|------------------|-----------------|-----------------|----------------|
| | NISP | MNI | NISP | MNI |
| Caprine (<i>Ovis/Capra</i>) | 4496 (84.0 %) | 144 (80.9 %) | 456 (62.0 %) | 24 (61.5 %) |
| Cattle (<i>Bos taurus</i>) | 305 (5.7 %) | 7 (3.9 %) | 138 (19.0 %) | 4 (10.3 %) |
| Pig (<i>Sus domesticus</i>) | 505 (9.4 %) | 19 (10.7 %) | 100 (13.6 %) | 7 (17.9 %) |
| Cervid (<i>Cervus/Dama</i>) | 22 (< 1 %) | 2 (1.1 %) | 27 (3.7 %) | 2 (5.1 %) |
| Dog (<i>Canis familiaris</i>) | 4 (< 1 %) | 1 (< 1 %) | 15 (2.0 %) | 2 (5.1 %) |
| Indeterminate small carnivore (? <i>Vulpes</i>) | 16 (< 1 %) | 3 (1.7 %) | 0 | 0 |
| Man (<i>Homo sapiens</i>) | 2 (< 1 %) | 2 (1.1 %) | 0 | 0 |
| Total | 5350 | 178 | 736 | 39 |

| Species | Sanctuary | Village |
|----------------|--------------|-------------|
| Caprine | 144 (84.7 %) | 24 (68.6 %) |
| Cattle and pig | 26 (15.3 %) | 11 (31.4 %) |

Table 4. La Muculufa: The number of Identified Specimens (NISP) and Minimum Number of Individuals (MNI), and relative frequencies (in MIN's) from the Village and Sanctuary (after Holloway *et al.* 1990).

meanings, in a pastoral society the killing of a younger animal can become as a form of signification of power by the sheep-keepers, who offer the slaughtered animal in order to establish and to maintain specific relations of power. As has well been recognized in many ethnographic studies,³⁷ this emphasis on younger animals encompasses the socio-political role of the ritualized slaughtering in specific ceremonial actions: among the pastoral communities, dominated often by competition and fighting for the maintenance of herding areas, the offering of an animal to deity in a sacred communal place represents an indication of political integration and sophistication in the control of surplus resources. Regarding the analysis of pigs recorded from Monte Grande and La Muculufa, both the dental and epiphyseal fusion data indicate that most individuals were killed in the second or third year of life. The mortality patterns in both sanctuaries may reflect specific ritual prescriptions, but more notably, this range indicates that pigs were bred for their meat, as suggested by the high percentage of young males. In the faunal assemblage from Monte Grande,³⁸ the slaughter of the majority of male piglets is related to an optimal age for maintaining a steady herd growth; the same pattern is also attested in other settlements of EBA in Sicily,³⁹ as well as in many prehistoric and historic Mainland Italy sites.⁴⁰

Parallel trends also appear in the cattle bone assemblages: since cattle were numerically the least important of the faunal deposits in the Castelluccian sanctuaries, the number of animals which could be aged is very small. The general pattern that emerges in sanctuaries and villages is one in which mature adults dominate. Of the ageable specimens, none appear to have been killed in the first two years of life, and many are older

than 48 months. The obvious conclusion is that cattle were raised primarily as traction animal, rather than for meat or milk, and this is confirmed by low percentage of cattle at the site and the mature death.⁴¹ The data from Chiusazza Cave, near Syracuse, record the frequencies decline of *Bos Taurus* from late Eneolithic to the Middle Bronze Age:⁴² this drop follows naturally from increased sheep husbandry,⁴³ but, more in general, the decline is also part of a wider emphasis on household animal management that is reflected most notably in increased consumption of sheep/goat and swine.

This mortality pattern is close to the trend reconstructed for the bovine fauna recorded in the Early-Middle Bronze Age Central-Southern Italy: for example, two adult cattle were deposited in the Middle Bronze Age burial R'12 at Toppo Daguzzo (Basilicata),⁴⁴ while in the faunal assemblages recorded from settlements at Cavallino, Diga di Rendina and Punta Le Terrane (Apulia), cattle was often slaughtered at old age.⁴⁵

The most obvious, and general most informative pattern in these data, from Castelluccian sites and from the concurrent EBA Southern Italy villages, is that faunal assemblages strongly indicate the intimate ties between household economies and communal ritual behaviour in these specialized sacred places.

4. Burnt animal sacrifice or cooked meat ?

The largest faunal assemblage reported from Monte Grande provides the existence of some burnt bones from restricted parts of the animal skeleton.⁴⁶ The same evidence has been also reported from the votive deposit at Ciavolaro (Ribera), dated to the late Castelluccian period.⁴⁷ In both cases the percentage is relatively scarce in terms of number of identified bone fragments: 1,8 % at Monte Grande and 0,8 % at Ciavolaro. According to the analysis by E. Bedini, the colour and the surface of the burnt material are included in the Vigne's category "brûlures totales";⁴⁸ the intensity of burning ranges from very light (clearly apparent only in the colour and in the fracture pattern of fresh breaks) to very heavy (calcined and distorted). The group is very small, but the bones are largely enough to the identification of anatomical features. Each of two groups recorded from Ciavolaro and Monte Grande is derived primarily from red deer (*Cervus Elaphus*), secondarily from pig (part of at least two individuals from Monte Grande) and sheep/goat (one individual from Monte Grande). It is also interesting to note that the large part of specimens is represented wild animals; in each assemblage the group contains the same highly selective range of meaty body parts, like humerus and femur, the combination of the which is not obviously explicable in terms of either taphonomic processes or the practicalities of carcass processing.

Whereas the few bones of sheep/goat and pig can be related to post-depositional processes, the selected group of red deer clearly indicates a practice of wild animal consumption which entailed burning of selected parts of the carcass, previously stripped of meat.

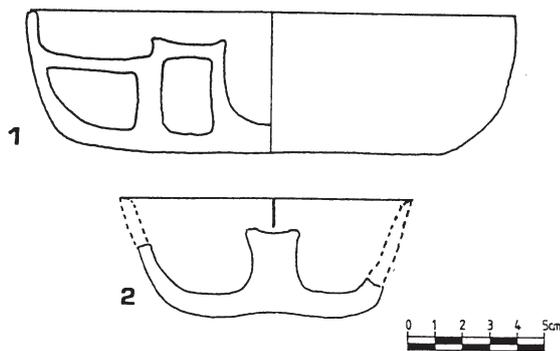


Fig. 4. Large cooking vessels with flat-bottomed inner support from EBA Castelluccian sites

The features of surface and the fracture pattern suggest that the bones had been burnt, after being stripped of meat, but apparently without the removal of marrow.⁴⁹ However, burnt animal bones in EBA Sicilian contexts appear isolated in the local ritual system that involved mainly no-burnt sacrifices. It's worth noting that burnt bones from La Muculufa and Monte Grande included predominantly wild deer and it might relate to a specific feasting activities than burnt sacrifices.

We can conclude, therefore, that burnt animal sacrifice does not seem to have been practised in the Castelluccian sanctuaries. In an archaeological perspective, blood sacrifice requires two kinds of evidence: bones with burnt tracks and specific installations for burnt animal sacrifice.⁵⁰ In both sanctuaries at Monte Grande and La Muculufa no structures suitable for burnt animal sacrifice have not been found. Secondly, the majority of the bones from EBA sanctuaries are not burnt. It can be assumed that the slaughtered animal was ritually consumed in a different way. In fact, the clay hearths found into the stone enclosures at Monte Grande indicate the use of fire in the ritual and also in cooking meat. In this perspective it's very significant the absence of cooking vessels among the pottery assemblage found at Monte Grande, except of a group of clay fire-dogs:⁵¹ it clearly does mean that meat was cooked on the clay hearths and, in some cases, using pot supports. Moreover, the rise in fine table pottery frequency scheduled at Monte Grande⁵² may suggest an increase in the frequency or amount of foodstuffs being prepared for ceremonial activities and ritual meals, possibly resulting from specific ritual prescription. This evidence agrees with the scarce tracks of burying in the most part of bones, suggesting that the meat was cooked, but not roasted, except of wild animals. It is possible that a specific category of domestic pottery can be employed for cooking of meat: some fragmented coarse clay open vessels, scheduled from Monte Grande, can be reconstructed as a large cooking pot with flat-bottomed inner support, largely attested in other Castelluccian sites (Fig. 4).⁵³ The top could be used as "double boiler" in which the upper pot rested on the inner pedestal. It is possible that these unusual coarse ware vessels were probably used for stewing meat, in according to a similar group of cooking pots found in

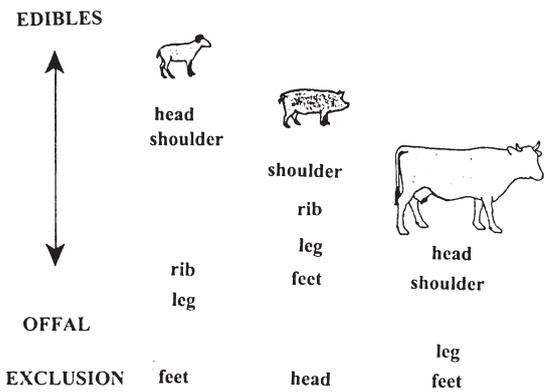


Fig. 5. Pattern of body part profiles and animal selection from EBA Castelluccian sanctuaries.

many EBA settlements of Italian peninsula,⁵⁴ but it is wiser to suspend any speculation and wait for more data.

Published faunal assemblages suggest some remarks on the selection of meat in Castelluccian sanctuaries: relative frequencies of head, foot, limb and trunk bones reveal same body part profiles for sanctuaries compounds and domestic areas. In fact, the spatial distribution of ovicaprines, pig and cattle bone elements suggests further similarities between ritual and household animal consumption. The Monte Grande faunal assemblage generally features higher frequencies of limb and trunk bones, which may be considered "consumption offal" (Fig. 5). In part because of their low fat content, ovicaprines feet recorded in sanctuaries, as well as in domestic areas, may be considered elements of ritual feasting, and thus remains of butchering refuse. More in general, in both Castelluccian sanctuaries, there is the same pattern in the consumption of lower limbs and feet: moreover, in Monte Grande context, the high percentage of sheep/goats and cattle heads may reflect specific ritual prescriptions for certain body parts, as the donation of animal skull to the sacred place.⁵⁵

5. Conclusion

To recapitulate, the faunal assemblage from Monte Grande and La Muculufa sanctuaries shows close affinities with the animal assemblages recorded from EBA settlements. Species composition, percentages and mortality patterns lead to conclude that the stock economy during the Castelluccian period was in many respects similar to those of sites in peninsular Italy. Swine were an important meat resource, but sheep and goats probably supplied a variety of products for the local communities, especially wool and cheese: cattle, moreover, were maintained for plough teams and also have been bred for dairy products as well.

The increased importance of ovicaprids in the stock economy of Castelluccian communities, throughout the long occupation of the settlements, can probably ascribed to their suitability for a system of mobile economy, which might be the solution to the problem of seasonal desiccation on the lowlands of Sicily.⁵⁶ There is no indication that such mobile-*cum*-sedentary economy

model was facilitated by specialisation in one of the four principal domesticates, despite it seems probable that ovicaprids were the most favoured. Although some faunal assemblages from EBA Sicily are dominated by sheep or goats like the flocks of recent large-scale herders, most display a mixture of livestock species more reminiscent of small-scale, mixed farmers.

Although strongly connected to the grain crops production in nutritional terms, household herding in EBA Sicily has been likely of considerable significance. Economically, the domesticated animals will have been an important source of manure, protein, hides and fibres, reflecting emphasis on meat exploitation. In a social perspective, the difficulties faced by the members of local communities in maintaining viable breeding herds and in consuming the larger animals, as cattle (well illustrated by the faunal assemblage from the settlement at La Muculufa), may have ensured a major role for exchanges of both livestock and meat in cementing relationships between neighbours.⁵⁷ Even if large-scale transhumance did not take place in Sicily during the Castelluccian period, it is highly probable that periodic exploitation of seasonal pastures, like rocky slopes in spring and marshy areas in late summer, to fatten breeding animals, will have favoured interaction between individual from different communities. As the only foodstuff easily transported in quantity over any distance, livestock may also have played a part in maintaining the more far-flung social relationships, well implied by large-scale transmission of ceramic shapes and decorative motives of Castelluccian matt-painted pottery.⁵⁸

Moreover, as vehicle of social interchanges, livestock may have enjoyed a cultural significance far in excess of their calorific value:⁵⁹ this range may be also supported by the abundance of animal figurines of domesticated species in the Castelluccian settlements, as well as in some places related to ritual activities.⁶⁰

In this context, the emergence of inter-settlement sanctuaries, as Monte Grande and La Muculufa, played an important role in sustaining the social and economic cohesion of disparate communities dispersed in large territories. Both sanctuaries are primarily characterized for strategic position and visibility, and also they represent a significant reference point around which the settlement nucleation symbolically rotates. Moreover, the great amount of Late Helladic fine pottery at Monte Grande documents a high, hitherto unknown, degree of social interaction expressed through communal feasting rituals and offering deposits.⁶¹ The site, therefore, appears to be a special-purpose architectural complex dedicated to ceremonial activities, distribution of communal meals, gift exchanges, market-place, and occasional sulphur exploitation. It also seems clear that these extra-settlement sanctuaries played a role as place of interactions between members of residential community and outsiders, like pastoral groups who lived in marginal areas, reflecting the close relationship of subsistence strategies and ritual activities.

In conclusion, the faunal assemblages from EBA sanctuaries in Sicily represent the splintered remnants of

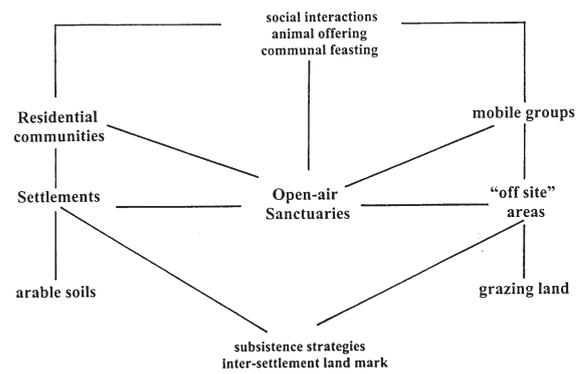


Fig. 6. Proposal to defining the “Ritually Regulated Ecosystem” model in EBA Sicily.

ritual feasts rather than burnt offerings placed into specific religious areas. In a society suffering from limited and infrequent access to meat supply, the redistribution of a desired but unavailable food, such as meat, at public ceremonies plays an important role in defining social relationships and extending obligations. At the same time, the degree of integration with the community economy is apparent in the parallel pattern of species selection of sheep/goat over cattle and pigs, and the use of identical vessels types both for offering in the sanctuaries and meal consumption in the domestic quarters.⁶² No trace exists here of elite manipulation of symbols, restricted access to ritual space, or imposition of onerous offering requirements. This evidence dominated by ritual activities “embedded” into management strategies - we suggest - implies an identification of the community, or likely more communities, with the deity housed in the sanctuary. It can be described as a “ritually regulated ecosystem”, where social and ritual values become part of the same management strategies (Fig. 6). In such context, animal slaughtering often has been believed as a violent act setting up the natural order of things: hence animals can be killed only when specific cult practices take place and their slaughtering reflects a regenerating cycle of nature. Therefore, the sacrifice entails that selected body parts are firstly offered to the gods, and the remains of the slaughtering can be distributed and consumed among the inner circle of participant worshippers, transforming the cultural action into a wonderful “window” opened to the social-cultural dynamics of the people involved.

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Abbreviations:

EBA = Early Bronze Age

¹For a general picture see: Tusa 1992, 348-422; Cultraro 1996; Leighton 1999: 113-132 (with references).

²Doonan 2001, 164-169.

³Tusa 1992, 405-406, 414.

⁴About Castelluccian "sanctuaries", see Doonan 1995.

⁵Orlandini 1968; Doonan 1995, 131.

⁶Bergquist 1993; Isaakidou *et alii* 2002.

⁷Renfrew 1985, 1-26; Marangou 2001.

⁸On the taphonomic process related to animal bones in archaeological context: O'Connor 2000, 19-27.

⁹Retrieval biases are particularly acute in the case of smaller species, like birds and fish, and so the contribution of faunal assemblage to reconstructing aspects of hunting is assessed only from the bones of larger wild animals, like red deer (see tables of percentages published by Villari 1995, in which the feature is represented only from domesticates).

¹⁰Payne 1972.

¹¹Renfrew 1985, 11-12.

¹²Rapoport 1990, 10-11.

¹³Castellana 1998. It is no clear the relationships between the sacred place and the sulphur exploitation: for the use of sulphur and mineral waters in the ancient pastoral economy see the B. Santillo Frizell's paper in this volume.

¹⁴Castellana 1998, 48-57, figs. 30-31, pl. 10.

¹⁵Castellana 1998, 54, figs. 33-34 (hearthths).

¹⁶Castellana 1998, 54.

¹⁷Bedini 1998.

¹⁸On the morphological distinctions, throughout the mandible, between goat and sheep, see: Halstead *et alii* 2002.

¹⁹These data are reported as numbers of identified specimens (NISP) that are preferable to MNI (minimum number of individuals) for estimating relative abundances of taxa: Grayson 1984, 94-96.

²⁰The age of slaughtered animals can be reconstructed from stages of tooth eruption in mandibles and maxillae, and from long bones with unfused or fused epiphyses: Payne 1973; O'Connor 2000, 80-97.

²¹Bedini 1998, 437-441.

²²Bedini 1998, 446, pls. 9-11.

²³Bedini 1998, 446-448, pls. 12-15.

²⁴Holloway *et al.* 1990.

²⁵Holloway *et al.* 1990, 14-18.

²⁶K. Cruz-Urbe, in Holloway *et al.* 1990, 52, table 1.

²⁷K. Cruz-Urbe, in Holloway *et al.* 1990, 57-64.

²⁸Payne 1985, 7.

²⁹Villari 1995, 194-204 (Valsavoia, open-air site); 205-206 (Grammichele, open-air site); 211-212 (Comiso, S. Croci, open-air site); 112-158 (Grotta Chiusazza, seasonal cave site); 180-184 (Grotta Barriera, funerary deposit); 185-193 (Monte Casale, open-air site).

³⁰Wilkens 1991-92.

³¹Barker 1975, 63-65.

³²Wilkens 1995.

³³M. Di Rosa in Castellana 1995, 215-216.

³⁴Tusa 1992, 402.

³⁵Halstead 1996, 22-24.

³⁶Information on death age from the sanctuaries is insufficient to establish whether the slaughtering took place in summer, when livestock might have been removed to wetland pastures: Halstead 1996, 31.

³⁷Dahl, Hjort 1976; Reid 1996.

³⁸Bedini 1998, 448.

³⁹Bedini 1998, 226-448, with references.

⁴⁰Barker 1975, 63-64, with references; see also the contribute of J. De Grossi Mazzorin in this volume.

⁴¹According to the sources of Roman Period, oxen sold for killing were usually old animals classified as unfit for work, *bestiae inutiles*: Barker 1975, 64.

⁴²Villari 1995, 112-158, figs. 19-24.

⁴³As is known, grazing cattle compete for pasturage more often with sheep, which graze and browse, than they do with goats, which prefer browsing.

⁴⁴Wilkens 1997.

⁴⁵Wilkens 1991-92, 468.

⁴⁶Bedini 1998, 454.

⁴⁷E. Bedini in Castellana 1996, 280.

⁴⁸Bedini 1998, 454.

⁴⁹For similar observation at the Classic and Hellenistic Period sanctuaries: Jameson 1988.

⁵⁰Bergquist 1993, 21.

⁵¹Castellana 1998, 204-205, figs. 114-115.

⁵²Castellana 1998, 138-173, figs 63-91. The pottery assemblage predominantly includes globular cups, small jars and few pedestal-bowls.

⁵³Castellana 1998, 184, nn. 133c-134c, erroneously interpreted as horn clay stands.

⁵⁴Cultraro 1989, 269, pl. II.4 (with references to similar examples from EBA Sicily and Southern Italy).

⁵⁵An interesting case is offered from a *Bos primigenius* clavicle deposited, perhaps as hunting trophy, at EBA Mursia settlement in Pantelleria island: Wilkens 1987, 220.

⁵⁶Similar strategies of animal husbandry have been postulated for EBA Greece: Halstead 1996, 27-32.

⁵⁷Halstead 1992.

⁵⁸Cultraro 1996, 171-172.

⁵⁹G. Dahl and A. Hjort (1976, 220) estimate that a family of two adults, two adolescents and two children could be sustained from the milk and meat of 223 small goats or 131 small sheep. About the caloric value, according to the osteological data recorded from EBA Sicilian sites, a figure of c. 2500 kcal/kg seems more likely, as the caloric value for mutton adopted in Neolithic-Bronze Age Greece (Halstead 1996, 34).

⁶⁰From Ciavolaro ritual deposit: Castellana 1996, 134, n. AGS/5460.

⁶¹Late Helladic pottery from Monte Grande: Castellana 1998, 224-313, figs. 124-161.

⁶²It is worth noting that both in sanctuaries and in settlements the standard serving assemblage consists of one-handled cups, chalice vases and grinding equipment. The same pottery group is also identified by L. Maniscalco (1999) as the standard set of vessels used in burial ritual activities.

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