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Elite Food Between the Late Middle Ages and Renaissance: Some Case Studies from Latium

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ABSTRACT

The study of plant and animal remains from archaeological sites provides important evidence about past human diets and habits: this includes species selection, food preparation, consumption and disposal practices. Furthermore, such information may also provide inferences about social status. Data from refuse disposal features identified in some elite contexts in central Italy – a high-status residence in Celleno Vecchio (Viterbo) and the Baglioni-Santacroce castle in Graffignano (Viterbo), both in northern Latium, as well as the Santi Quattro Coronati ecclesiastical complex in Rome – allow to explore, using archaeobotanical, archaeozoological and genetic data, some of the different ways in which people expressed wealth by means of food during a period between the late Middle Ages and Renaissance.

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Introduction

The study of ancient food remains to investigate differences in social status is a topic that has received increasing attention over the last few decades and has been applied to different time periods and geographic regions (for an overview see, for example, Twiss 2012, 2019; Veen van der 2003a). The emerging pattern is that there are differences between cultures in what can be considered as evidence for elite consumption, but also that, within a culture, the same food item may change its status through time. In general, when expressing status there seems to be an emphasis on quantity in more egalitarian groups, while food quality (in addition to quantity, in some cases) becomes more important in complex, more stratified societies. However, although food quality may, in most cases, be indicated by archaeological data, the identification of 'quantity' is usually more difficult and therefore such evidence may be 'invisible'.

Certainly, food and foodways may be a reflection not only of social status, but also of ethnicity, gender, religion, etc. as well as the interplay between them. Furthermore, although the research focus is often only on specific aspects of food, all the steps from production/acquisition to refuse disposal should be considered for a meaningful interpretation of archaeological data. However, biological and ecological factors should also be considered as a baseline (Twiss 2012), as well as all other contextual information.

Several authors (e.g. Curet and Pestle 2010; deFrance 2009; Ervynck et al. 2003; Twiss 2012; Veen van der 2003b) have suggested criteria for identifying elite and luxury food in archaeological contexts (e.g. rarity, quality, quantity, diversity, animal age, size, body elements, preparation techniques, restrictive rights), but it is also necessary to evaluate such criteria within the contextual framework of each period and region using ethnographic data and, when available, historical written sources. In fact, what may be considered as tasty and desirable, and therefore a luxury item, is culture dependent and may sometimes contradict modern common sense.

To complicate the interpretation of the data further, there may be biases intrinsic to the archaeological assemblages: for example, plant remains are often not preserved and recovery methods may negatively affect smaller species. Furthermore, servants living with their employers and using the same refuse disposal features may mask the 'elite signature' in the samples. Moreover, the garbage pits may be used not only for food debris, but also for disposing of pests and pets, or weeds, together with other materials. This creates the need to reliably assess, with an open mind as to what is edible or not, which species, or parts of them, were actually used as food. For animal

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remains, taphonomic data (e.g. presence of butchery marks, completeness of the skeleton) may, in many cases, be a useful diagnostic criterion.

The evidence regarding the diet of lower classes, generally richer in vegetables, may be less visible archaeologically and therefore be under-represented for comparative purposes. Moreover, the refuse disposal places used by lower classes are probably less well defined than in wealthy contexts and, not being rich in terms of the evidence they offer, surely less likely to be investigated. In a broader anthropological perspective, food should be considered not only as a mere physiological need, but as an active mean to underline and maintain social differences. Such differences were sometimes even reinforced in medical treaties (e.g. Pisanelli 1583), which reported strict relationships between certain kinds of food and social status. Luxury foods may also include elements that do not follow an optimal foraging rule and, as compensation for the expenditure, allow the maintenance of the social status (Ervynck et al. 2003). The first step in the analysis and subsequent interpretation of food should be the milieu of the findings, although it may be difficult to identify *a priori* elite contexts, especially in prehistoric and early historical sites.

Materials and methods

In this paper we shall consider published (Alhaique, Piermartini, and Romagnoli 2018; Gabbianelli et al. 2020; Moricca et al. 2018; Romagnoli et al. 2019) and unpublished data on faunal and plant assemblages from high-status residences in central Italy dated to the late Middle Ages and Renaissance with the aim of investigating, by means of several proxies, how food has been used in these contexts to express social status. The social background in these cases is quite clear and contemporary recipe books and medical treaties (e.g. Maestro Martino, in Bemporat 2001; Platina 1475; Savonarola 1515; Romoli 1560; Scappi 1570; Pisanelli 1583; Messisbugo 1549) are available to help to place the findings within the tastes of the period. Each analysed context was accumulated within a relatively short time span and then closed, providing no or minimal evidence for later intrusive materials.

Archaeological Contexts and Materials

The faunal assemblages from northern Latium were collected from refuse pits in high-status residences in towns located along the Tiber valley in the Viterbo province. The earliest context is in Celleno Vecchio (Romagnoli 2019) and was originally an underground cistern reused during the Middle Ages for dumping refuse, a common practice for the period (e.g. De Minicis 2003). Ceramic material is dated to a period between the fourteenth and mid-fifteenth centuries and includes tin-glazed pottery and common ware. The richness in the number of shapes and decorations reflects the affluence of the inhabitants of the palace and indicates the provenance of the pottery from workshops in Viterbo and Orvieto (Umbria).

Two other underground refuse dumps, previously used as cisterns or silos, also containing animal remains have been discovered within the Baglioni-Santacroce castle in Graffignano (Alhaique, Piermartini, and Romagnoli 2018; Romagnoli et al. 2019). The typology and decoration of the ceramic content (tin-glazed and lead-glazed pottery, common ware) date a first pit (Pit 1) to the first half of the fifteenth century, while the rich pottery assemblage (i.e. complete serving sets as well as cooking pots, containers for preparing or preserving food and for other domestic uses) from a second pit (Pit 2) may be dated to a period between the second half of the fifteenth and the beginning of the sixteenth century. These ceramics were produced in workshops not only in Viterbo and Orvieto, but also in the renowned centre of Deruta (Umbria). The pottery from Pit 1, although originally of high quality, shows wear and signs of repairs, possibly evidence for reuse by the servants in the castle, and therefore the faunal remains may also reflect a lower status. In contrast, the well-preserved complete sets of fine decorated tableware, as well as other domestic containers, from Pit 2 indicate an 'elite dump'.

The faunal materials from all these northern Latium contexts were hand-picked, but the collection was fairly careful as evidenced by the high frequencies of elements of small animals and the presence of bones of very young individuals of larger taxa. The whole faunal assemblage from these dumps was analysed.

The Santi Quattro Coronati ecclesiastical complex (Barelli 2009; Barelli and Pugliese 2012), located in Rome on the Caelian Hill, provided two other assemblages, dated to a period between the end of the fifteenth and the beginning of the seventeenth century. The complex was built from the fourth century AD on top of pre-existing Roman structures and part of it became a large palace that hosted the cardinal titular of the basilica during the thirteenth century. In 1564, the complex was assigned to the Augustinian nuns who still live in the monastery. The first context of the Santi Quattro Coronati is a dump at the bottom of the staircase of the façade-tower that was used to discard refuse from the end of the fifteenth century until the mid-sixteenth century, when the stairway was no longer in use. The peculiar micro-environmental conditions allowed for the preservation of many botanical remains by desiccation, even very fragile parts such as lemmas and paleae of spikelets, as well as the mummified carcasses of two rats and a cat, besides bones, teeth and shells of different taxa. Plant and animal remains from selected stratigraphic units in the 'tower dump' were separated by dry

sieving 28 litres of materials, using a series of three sieves with 5-, 2- and 1-mm meshes and then hand-picked (for details on the sampling strategy see Moricca et al. 2018).

The second context of the Santi Quattro complex, relevant in this paper for its faunal content, is a layer (SU 521) excavated within a former arched porch (Barelli and Pugliese 2012; Masi, Sadori, and Pugliese 2012; Asciutti 2012). This layer is a mortar surface stratigraphically dated to the beginning of the seventeenth century and containing ceramic materials that date to the end of the sixteenth century. A small faunal assemblage from this level was hand-picked during the excavations and analysed. The 'tower dump' and its content are related to the palace of the cardinal and therefore may reflect more clearly luxury foodways; while the second context (SU 521) is within the Benedictine monastery where the monks followed strict alimentary rules more in conformity with the poverty vows. Nevertheless, contamination between the two adjacent institutions is possible.

Methods

The preservation conditions of all the faunal assemblages considered in this paper are fairly good, and human, animal and other natural modifications were identified on bone surfaces. All fragments, including unidentifiable ones, were inspected for such modifications and recorded. Microscopic observations were carried out using a stereo-microscope (Nikon SMZ 1000). The age of domestic species was assessed on the basis of archaeozoological literature (Silver 1969; Payne 1973; Barone 1981; Bull and Payne 1982; Grigson 1982; Barone 1995). Measurements of the specimens were taken following Driesch von den (1976) and, in the few possible cases, withers height was calculated using indexes published by May (1985) for equids, Teichert (1969) for pigs, Matolcsi (1970) for cattle, Teichert (1975) for sheep. Meat yield of the main taxa was based on Flannery (1969). Plant macro-remains from the 'tower dump' were counted, identified under a stereo-microscope (LeicaM205C; magnification up to 100×) and photographed using a Leica IC80 HD camera. Combined pictures and 3D models were obtained using Helicon Focus (version 6.6.1 Pro). Morphological identification was based on several atlases (Cappers, Neef, and Bekker 2009; Neef et al. 2012; Cappers and Bekker 2013) as well as on modern reference samples.

Results

Northern Latium Sites

The size of the faunal samples from the earliest and the latest northern Latium pits is comparable (Celleno N = 1538; Graffignano Pit 2 N = 1502), while Graffignano Pit 1 yielded only 54 specimens, therefore comparisons with the latter assemblage should be considered with caution (Figure 1 and Table 1).

As expected, the species range is wider in the larger samples, which also display some general similarities in composition: prevalence of sheep/goat (*Ovis vel Capra*) over pig (*Sus domesticus*), with cattle (*Bos taurus*) in third place among the mammals, and a relatively high frequency of birds, especially chicken (*Gallus gallus*). However, in Celleno there are also several tortoises (*Testudo hermanni*) and cervids (*Cervus elaphus* and *Capreolus capreolus*), while such taxa are absent in Graffignano Pit 2, except for two roe deer antler fragments. In contrast, in Graffignano Pit 1 cattle are the most abundant mammal, while pigs and sheep/goats follow in similar proportions, a tortoise plastron portion, an eggshell fragment, and a freshwater mollusk are also present. The two larger assemblages indicate that the diet was supplemented by minor species such as pine marten (*Martes martes*), as documented by the position of the cut marks identified on the shaft of the femur and the tibia (Figure 2) which are not compatible with the 'simple' recovery of the pelt, as well as lagomorphs (*Lepus* sp., *Oryctolagus cuniculus*), fish, crustaceans, and mollusks. The latter also includes tusk-shell (*Dentalium* sp.), a non-edible species, which may have been used as decoration, or even for medical purposes and/or as an amulet (e.g. Bellucci 1881). These same pits yielded also remains of pets (dogs, *Canis familiaris*, cats *Felis catus*) and pests (rats, *Rattus rattus*), as well as other species (horse, *Equus caballus*) or body parts (antler) that were probably not part of the diet. Unexpectedly, at Celleno a dog ulna shows butchery marks (Figure 3) possibly related to consumption, and similarly fox (*Vulpes vulpes*) remains (chopped vertebrae, Figure 4, disarticulation marks on a distal humerus) from the same site indicate the occasional exploitation of this species as food. Nevertheless, the positive association

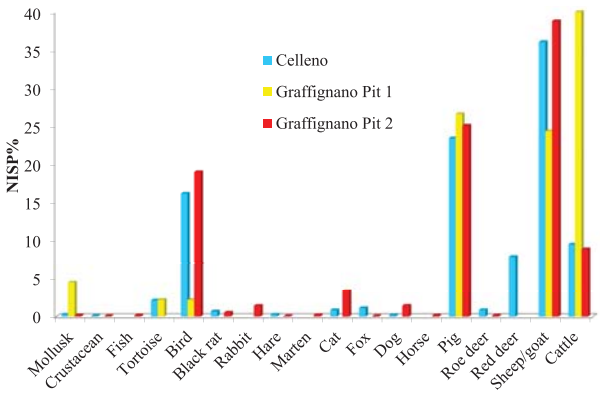

Figure 1. Northern Latium faunal assemblages. Proportions among the identified taxa (NISP = Number of Identified Specimens).

Table 1. The faunal assemblages from northern Latium (N = Number of remains; MNI = Minimum Number of Individuals).

	Celleno				Graffignano Pit 1				Graffignano Pit 2			
Species	N	N%	MNI	MNI%	N	N%	MNI	MNI%	N	N%	MNI	MNI%
Cerastoderma edule/glaucus									1	0.1	1	0.8
Dentalium sp.	3	0.2	3	3.7					1	0.1	1	0.8
Unio sp.					2	3.7	1	9.1				
Crustacea	1	0.1	1	1.2					1	0.1	1	0.8
Pisces									2	0.1	1	0.8
Testudo hermanni	25	1.6	4	4.9	1	1.9	1	9.1				
Anseriformes									2	0.1	1	0.8
Columba livia/oenas	2	0.1	1	1.2								
Columba palumbus	5	0.3	1	1.2								
Columbiformes									1	0.1	1	0.8
Gallus gallus	153	9.9	19	23.5					233	15.5	40	30.5
Perdix perdix	2	0.1	1	1.2								
Passeriformes									3	0.2	1	0.8
Aves	27	1.8							13	0.9		
Aves (egg)					1	1.9	1	9.1				
Microfauna					1	1.9	1	9.1				
Rattus rattus	8	0.5	3	3.7					7	0.5	2	1.5
Oryctolagus cuniculus									19	1.3	3	2.3
Lepus sp.	3	0.2	1	1.2					1	0.1	1	0.8
Martes martes									3	0.2	1	0.8
Felis catus	10	0.7	2	2.5					45	3.0	1	0.8
Vulpes vulpes	13	0.8	3	3.7					1	0.1	1	0.8
Canis familiaris	2	0.1	1	1.2					19	1.3	2	1.5
Equus caballus									2	0.1	1	0.8
Sus domesticus	273	17.8	15	18.5	12	22.2	3	27.3	332	22.1	28	21.4
Capreolus capreolus	10	0.7	2	2.5					2	0.1	1	0.8
Cervus elaphus	93	6.0	3	3.7								
Capra hircus	1	0.1	13	16.0					5	0.3	34	26.0
Ovis aries	29	1.9							20	1.3		
Ovis vel Capra	389	25.3			11	20.4	2	18.2	487	32.4		
Bos taurus	112	7.3	8	9.9	18	33.3	2	18.2	119	7.9	9	6.9
Small mammal	6	0.4							2	0.1		
Medium mammal	301	19.6			5	9.3			117	7.8		
Large mammal	58	3.8			3	5.6			47	3.1		
Unidentifiable	12	0.8							17	1.1		
TOTAL	**1538**	**100**	**81**	**100**	**54**	**100**	**11**	**100**	**1502**	**100**	**131**	**100**

of these canids with elite consumption is not confirmed, and we should consider that foxes are still eaten in some rural areas in Italy.

Human modifications related to butchery are also present on all the main species in high frequencies (ranging from 49% in Graffignano Pit 1 to almost 30% in Graffignano Pit 2). Most of the marks were produced by heavy implements rather than by small blades and all stages of carcass processing, from skinning to meat removal, are represented. In some cases, the cranium was opened to obtain the brain. The proportions of traces appear to be strictly related to the size of the animals, with larger taxa presenting a higher number of marks. Burning is less common in all of the assemblages (between 1.7% in Graffignano Pit 2 and 9% in Graffignano Pit 1), and it was usually not very intense, suggesting that roasting was not a widely used cooking method.

The skeletal element representation of the main domestic taxa (Table 2) indicates that completeness is influenced by the size of the animals, with smaller taxa usually being acquired as whole carcasses. This is more visible in the two largest assemblages, while the size of the Graffignano Pit 1 sample is too small to be informative.

Given the general fragmentation of the northern Latium assemblages, it was only possible to calculate withers height on a few specimens. The adult pigs from Pit 2 in Graffignano are relatively large in size (80–82 cm at the shoulder), but the skeletal elements from Pit 1 and Celleno also indicate large individuals. This, coupled with cranial morphologies similar to wild boar, suggests possible crossbreeding with local wild boar, confirmed by aDNA results in the case of Graffignano Pit 2 (Gabbianelli et al. 2020), and most likely also indicates free-range herding. The occurrence of domestic pig together with crossbreeds with wild boar complicates the identification of suid remains. Furthermore, the presence of 'pure' wild boar remains cannot be completely ruled out, especially in the case of Celleno, where the contribution of hunted wild taxa to the diet is more relevant. The sheep from Celleno and Graffignano Pit 2 have a similar size, 66 and 68 cm respectively, while the one from Graffignano Pit 1 is smaller (59 cm at the shoulder). A cow from Celleno is smaller (ca. 120 cm) than the one from Graffignano Pit 2 (127 cm).

An assessment of the age at death of the animals from the three pits indicates that there is a high frequency of young and very young individuals for sheep/goat, pig (Figure 5) and even chicken in Graffignano Pit 2, while at Celleno (Figure 6) older adult and senile individualsof the main domestic mammals were also relatively abundant and adult chickens are

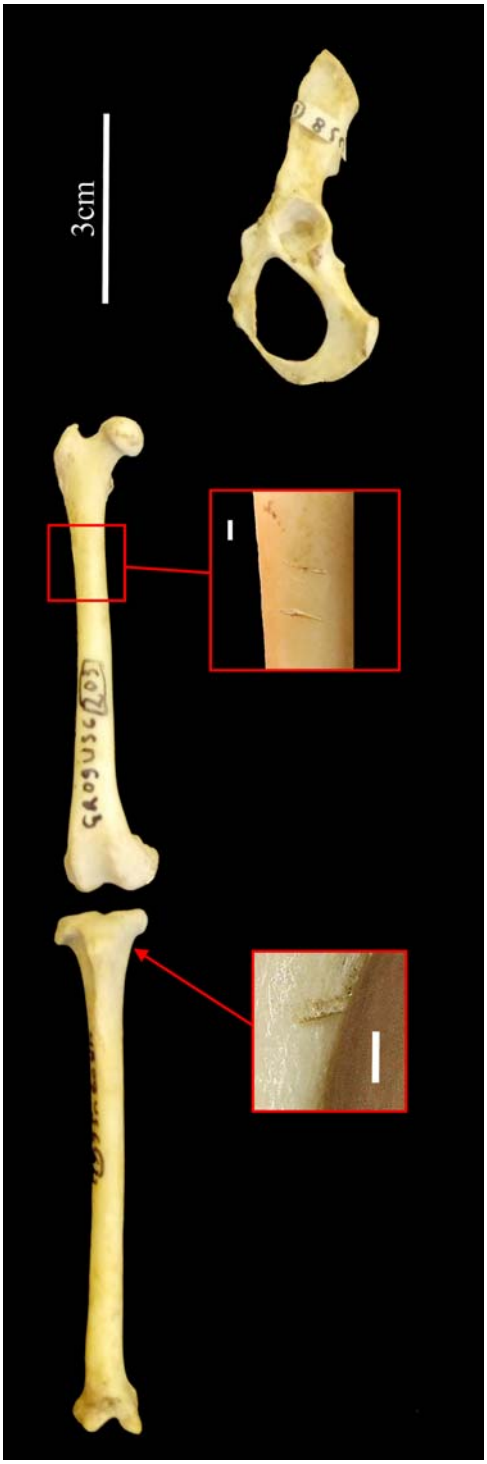

Figure 2. Graffignano Pit 2: pine marten remains with location of cut marks and details (the bar in the detail pictures is 1 mm).

prevalent (Figure 7). The few individuals from Graffignano Pit 1 are generally older than those from the other pit of the same site.

Unexpectedly, genetic analyses (Gabbianelli et al. 2020) evidence that most of the pigs from Pit 2, including young and very young ones, were females. The marked prevalence of hens over cocks and capons in all contexts is instead more in line with expectations and may simply indicate local poultry rearing.

Figure 3. Celleno: dog ulna with location of cut marks and detail.

The data on meat yield for the main food species from the northern Latium pits (Figure 8) indicates that cattle were the main source of meat followed by pigs, while sheep/goats fall in third place in the two Graffignano pits, but are fourth in Celleno where cervids (roe and red deer) provided slightly higher amounts of food. Even when represented by high numbers of individuals, chickens contributed little to the diet; however, these figures should be read with caution since they do not take into account the age of the animals and the actual body portions recovered.

The Santi Quattro Coronati Ecclesiastical Complex

Luckily, the refuse pit of the tower staircase at the Santi Quattro Coronati complex in Rome provided data from both plant and animal remains. As far the

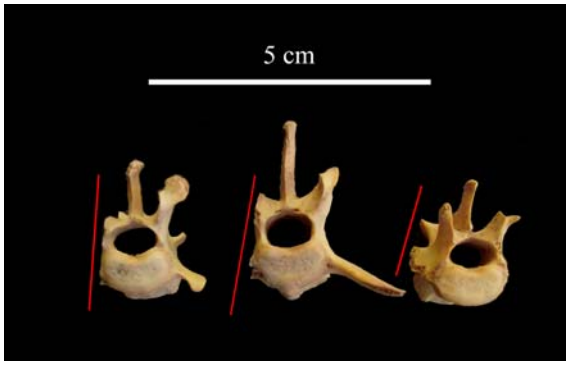

Figure 4. Celleno: chopped fox vertebrae.

Table 2. Skeletal element representation for the main domestic taxa of the northern Latium assemblages (NISP = Number of Identified Specimens; MNE = Minimum Number of Elements; MAU = Minimum Animal Units).

	Celleno									Graffignano Pit 1									Graffignano Pit 2								
	Sus domesticus			*Ovis vel Capra*			*Bos taurus*			*Sus domesticus*			*Ovis vel Capra*			*Bos taurus*			*Sus domesticus*			*Ovis vel Capra*			*Bos taurus*		
Element	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU
Horn				4	2	1.0																3	3	1.5	2	2	1.0
Cranium 1/2	13	5	2.5	23	6	3.0	9	5	2.5							2	2	1.0	50	9	4.5	16	5	2.5	13	3	1.5
Maxilla 1/2	8	8	4.0	8	7	3.5										2	1	0.5	11	11	5.5	9	9	4.5	2	2	1.0
Mandible 1/2	22	11	5.5	33	17	8.5	9	4	2.0	2	1	0.5	1	1	0.5	1	1	0.5	25	15	7.5	34	27	13.5			
Upper teeth	5	5	0.2	8	8	0.7	2	2	0.2							2	2	0.2	1	1	0.05	1	1	0.1			
Lower teeth	11	11	0.5	8	8	0.4	2	2	0.1										6	6	0.3						
Teeth				1	1	0.03	1	1	0.03										1	1		1	1	0.03			
Hyoid				2	1	0.5	4	2	1.0																1	1	0.5
Atlas	3	2	2.0	4	2	2.0	1	1	1.0										2	2	2.0	2	2	2.0			
Axis	2	2	2.0				1	1	1.0										1	1	1.0	3	3	3.0			
Cervical Vert.	5	4	0.8	17	9	1.8	7	4	0.8				1	1	0.2							11	9	1.8	7	4	0.8
Thoracic Vert.	14	8	0.6	24	11	0.8	5	4	0.3	2	2	0.1							8	7	0.5	22	11	0.8	13	9	0.7
Lumbar Vert.	7	4	0.6	22	8	1.1	6	2	0.3										2	2	0.3	13	6	0.9	7	4	0.6
Sacral Vert.	1	1	0.3	2	2	0.5													1	1	0.3	1	1	0.3	2	2	0.5
Caudal Vert.				3	3	0.2																					
Vertebrae				4	1	0.03	1	1	0.03							1	1	0.03							1	1	0.03
Ribs	79	35	1.2	72	35	1.3	20	5	0.2	2	2	0.1							72	32	1.1	214	92	3.5	20	5	0.2
Sternum				5	2	0.3	1	1	0.2													1	1	0.2			
Scapula	7	5	2.5	18	8	4.0	3	2	1.0	1	1	0.5				2	1	0.5	13	10	5.0	18	7	3.5	1	1	0.5
Humerus	14	9	4.5	16	9	4.5	4	3	1.5	1	1	0.5				2	1	0.5	15	11	5.5	16	12	6.0	3	2	1.0
Radius	11	6	3.0	19	11	5.5	3	3	1.5				2	2	1.0	3	2	1.0	7	6	3.0	22	11	5.5	1	1	0.5
Ulna	4	4	2.0	9	7	3.5	4	3	1.5	1	1	0.5				3	2	1.0	8	8	4.0	12	6	3.0	1	1	0.5
Pelvis	7	5	2.5	17	11	5.5	4	2	1.0										8	7	3.5	20	12	6.0	6	3	1.5
Femur	11	6	3.0	22	10	5.0													22	16	8.0	22	12	6.0	5	2	1.0
Patella							1	1	0.5																		
Tibia	14	8	4.0	25	13	6.5	1	1	0.5	1	1	0.5							17	13	6.5	32	15	7.5	9	3	1.5
Malleolus/Fibula	3	1	0.5				1	1	0.5										12	9	4.5				1	1	0.5
Carpals	1	1	0.1	2	2	0.2	3	3	0.3				1	1	0.1	1	1	0.1	1	1	0.1	1	1	0.1			
Astragalus	3	3	1.5	3	3	1.5	2	2	1.0										2	2	1.0				1	1	0.5
Calcaneus	2	2	1.0	6	5	2.5	2	2	1.0										4	3	1.5	2	2	1.0	3	3	1.5
Other Tarsals	2	2	0.2	1	1	0.2	2	2	0.3										2	2	0.2						
Metacarpus	8	8	1.0	8	6	3.0	3	3	1.5				4	4	2.0				13	13	1.6	16	13	6.5	2	2	1.0
Metatarsus	3	3	0.4	22	15	7.5	2	2	1.0	1	1	0.1	2	2	1.0				13	12	1.5	12	9	4.5	2	2	1.0
Metapodial	4	4	0.4	1	1	0.3	4	3	0.8										6	6	0.6	2	1	0.3	2	1	0.3
Sesamoid																									2	2	
Phalanx 1	6	6	0.4	9	9	1.1	3	3	0.4										8	7	0.4	4	4	0.5	5	5	0.6
Phalanx 2	1	1	0.1	1	1	0.1	1	1	0.1										1	1	0.1	2	2	0.3	3	3	0.4
Phalanx 3	2	2	0.1																						4	4	0.5
Total	**273**	**172**		**419**	**235**		**112**	**72**		**11**	**10**		**11**	**11**		**19**	**14**		**332**	**215**		**512**	**278**		**119**	**70**	

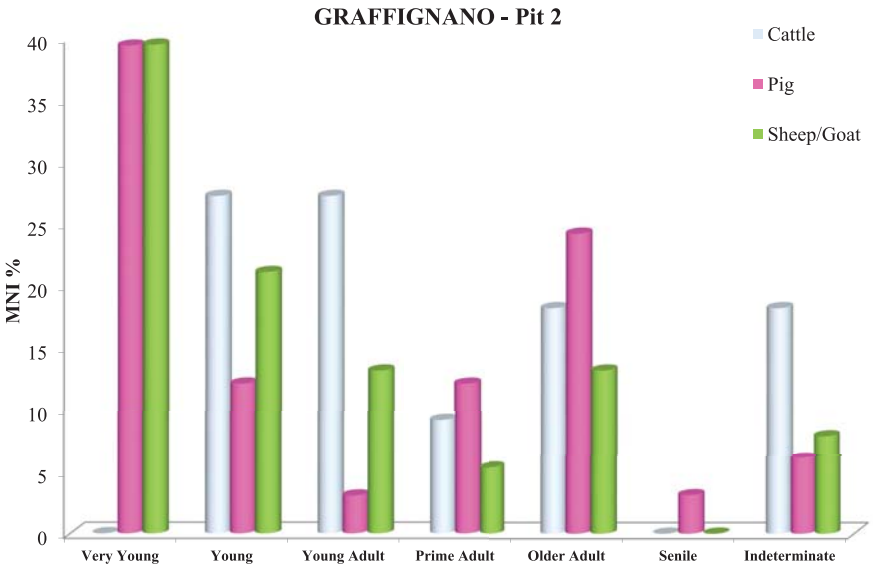

Figure 5. Graffignano – Pit 2: proportion among age classes for the main domestic mammals (MNI = Minimum Number of Individuals).

plants are concerned, besides hay, which represents most of the plant matter, the assemblage includes almost 6,000 remains of seeds and fruits, belonging to 35 plant taxa, referable to 18 families (Figure 9). Most of the specimens belong to fruit plants, mainly grapes (*Vitis vinifera*), but also olives (*Olea europaea*), cherries (*Prunus avium/cerasus*), plums (*Prunus domestica*), peaches (*Prunus persica*), blackberries (*Rubus fruticosus*), citrus fruits (*Citrus* sp.), melon (*Cucumis melo*), calabash (*Lagenaria siceraria*), apples (*Malus* sp.), figs (*Ficus carica*), hazelnuts (*Corylus avellana*), chestnuts (*Castanea sativa*), and walnuts (*Juglans regia*). Particularly interesting in this group is the presence of pomegranates (*Punica granatum*) and pumpkins (*Cucurbita maxima/moschata* and *C. pepo*), the latter native to the New World. Cereals are the second most abundant group, dominated by wheat (*Triticum aestivum/durum*) and millet (*Panicum* sp.). Faba beans (*Vicia faba* major) and peas (*Pisum sativum*) are the most frequent pulses. Other food herbs and spices are also present in the assemblage: mainly parsnip (*Pastinaca sativa*), but also garlic (*Allium sativum*), onion (*Allium cepa*), coriander (*Coriandrum sativum*), fennel (*Foeniculum vulgare*), black pepper (*Piper nigrum*), and hemp (*Cannabis sativa*). Among the weeds, alfalfa (*Medicago* sp.) is the most frequent, while ornamental plants are indicated by the cypress (*Cupressus sempervirens*).

The faunal assemblage from the 'tower dump' is much smaller (582 specimens) than the plant one (Figure 10 and Table 3). Pigs (*Sus domesticus*) are the most frequent mammal species, represented by a minimum number of 10 individuals, more than half of them less than 18 months old. Sheep/goats (*Ovis*

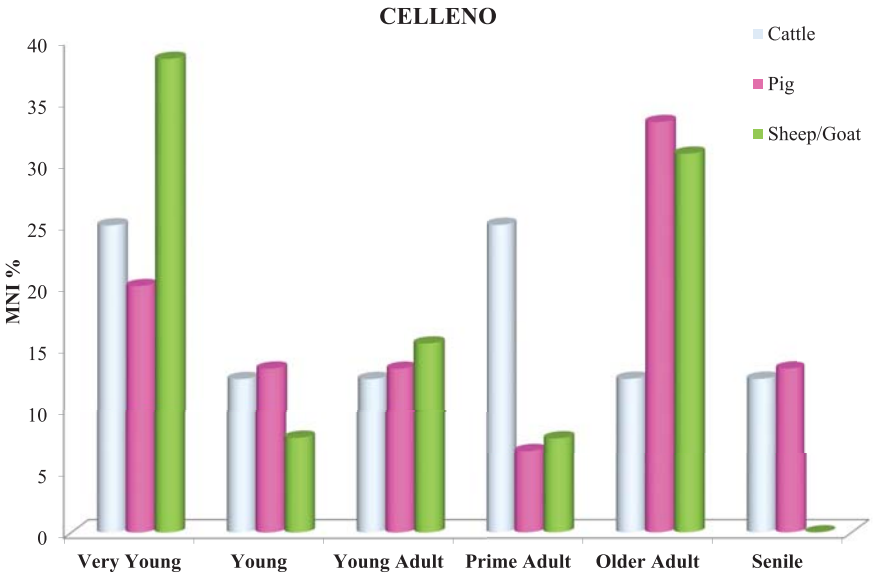

Figure 6. Celleno: proportion among age classes for the main domestic mammals (MNI = Minimum Number of Individuals).

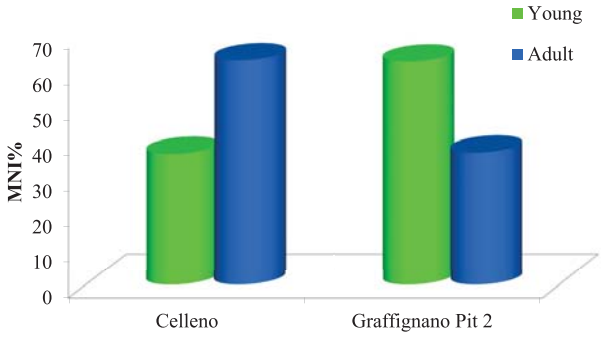

Figure 7. Comparison in the proportion of young and adult chicken individuals at Celleno and Graffignano Pit 2 (MNI = Minimum Number of Individuals).

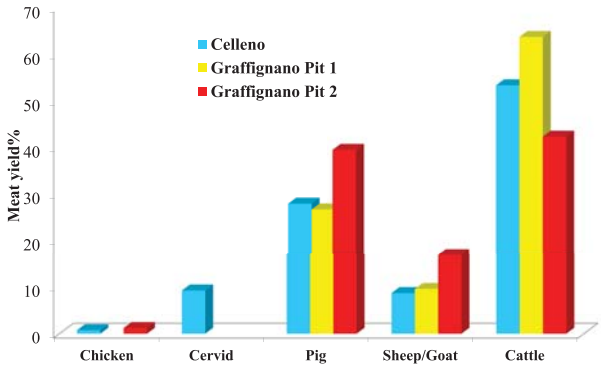

Figure 8. Northern Latium faunal assemblages. Proportions as meat yield among the main taxa.

vel Capra) are the second taxon in terms of the number of remains and are referable to a minimum of 9 individuals; in this case, most of the animals are adult, even senile. Cattle (*Bos taurus*) are rare and represented by three individuals, one of them young. The diet was supplemented by lagomorphs, birds, mainly chicken (*Gallus gallus*), but also pigeon (*Columba livia/oenas*), and eggs, as well as by aquatic resources such as fish, crustaceans and marine mollusks (*Donax trunculus, Cerastoderma edule*). Some of the land gastropods, belonging to edible species (chocolate-band snail *Eobania vermiculata* and garden snail *Cornu aspersum*), may have also been part of the diet. Finally, the sample includes intrusive microfauna (rats and small reptiles) and animals probably not used as food, such as a complete left metatarsal belonging to a horse (*Equus caballus*) about 149 cm tall at the shoulder and the complete mummy of a cat.

The very small faunal assemblage (N = 109; Figure 10 and Table 3) from SU 521, in the former arched porch, contains mainly intrusive small gastropods (*Pomatias elegans*, *Rumina decollata*) and a few remains of Helicidae, whose presence, considering the association with the other more abundant land mollusks, is probably also accidental. Among the main domestic mammals, pig and sheep/goat have been identified, each one represented by a single prime-aged individual, while larger taxa are documented only by fragments not attributable to species. The cat was recognised from a single calcaneum. The most

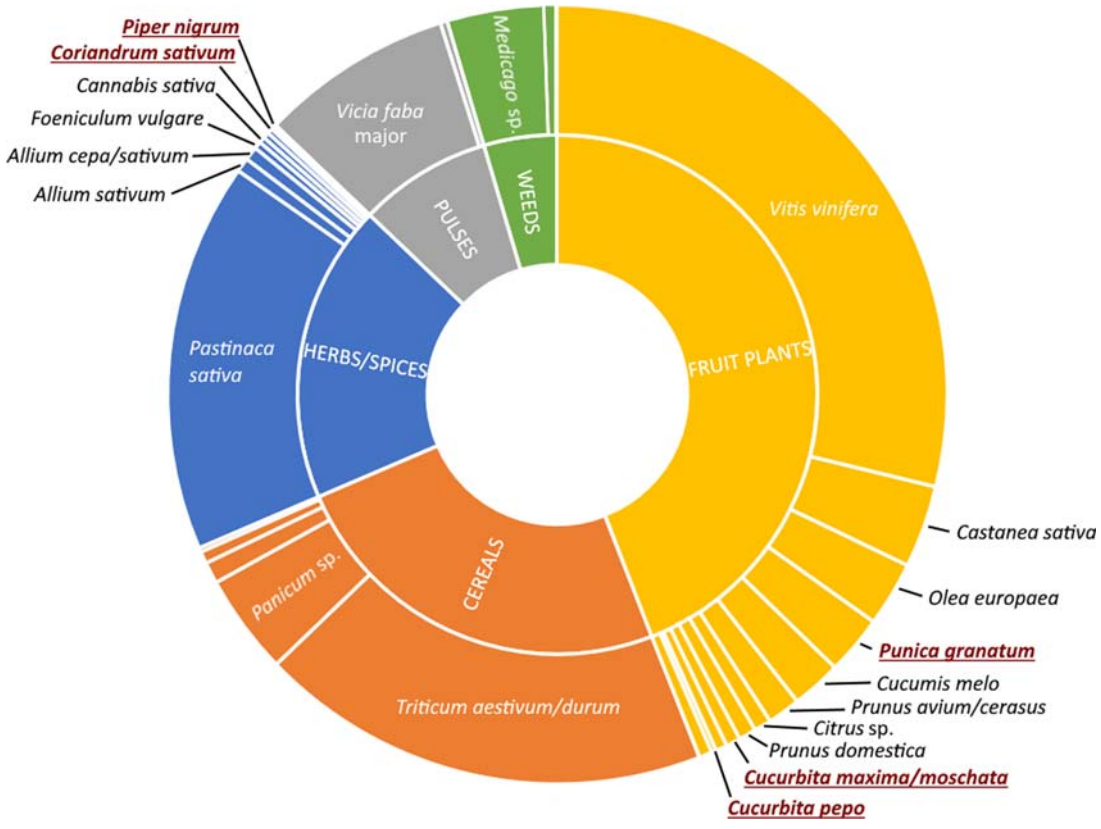

Figure 9 Santi Quattro Coronati (Rome). Proportions among plant taxa (luxury species are underlined).

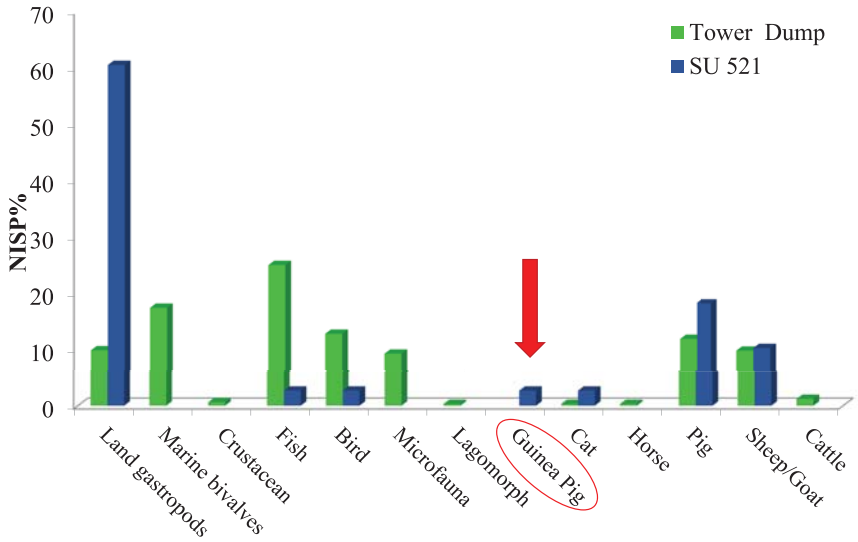

Figure 10. Santi Quattro Coronati (Rome). Proportions among the identified taxa (NISP = Number of Identified Specimens).

interesting find of this sample, which is otherwise quite 'normal', is a pelvis of guinea pig (*Cavia porcellus*). Butchery marks have been identified on the main food species, although in lower percentages compared to the northern Latium assemblages (almost 20% in the 'tower dump' and 9% in SU 521). Combustion appears much more frequent in SU 521 (9%) than in the 'tower dump' (0.03%) suggesting that the two faunal samples were influenced by different cooking methods and/or disposal practices. The small size of the faunal assemblages from the Santi Quattro does not allow a meaningful analysis of the body part representation for the main domestic taxa (Table 4); however, the general expected pattern of a more complete carcass for the smaller species seems to be supported by the available data.

Discussion

The analysis of these late medieval to early modern assemblages provides interesting data for discussing how people used food as a way to display wealth (Table 5). In our case, the location of the contexts is the first indicator of status, but the support of the ceramic information allowed to interpret the faunal and botanical data with greater confidence.

Table 3. The faunal assemblages from Santi Quattro Coronati (N = Number of remains; MNI = Minimum Number of Individuals).

	Santi Quattro Tower Dump				Santi Quattro SU 521			
Species	N	N%	MNI	MNI%	N	N%	MNI	MNI%
Cerastoderma edule	2	0.3	1	1.3				
Donax trunuculus	57	9.8	25	31.6				
Rumina decollata					9	8.3	9	32.1
Pomatias elegans					8	7.3	8	28.6
Eobania vermiculata	2	0.3	2	2.5				
Cornu aspersum	1	0.2	1	1.3				
Helicidae	30	5.2	20	25.3	3	2.8	2	7.1
Small Gastropoda	1	0.2	1	1.3	3	2.8	3	10.7
Crustacea	2	0.3	1	1.3				
Pisces	85	14.6			1	0.9	1	3.6
Columba livia/oenas	1	0.2	1	1.3				
Gallus gallus	8	1.4	1	1.3				
Aves	33	5.7			1	0.9	1	3.6
Aves (egg)	2	0.3						
Microfauna	31	5.3						
Rattus rattus	1	0.2	1	1.3				
Cavia porcellus					1	0.9	1	3.6
Lagomorpha	1	0.2	1	1.3				
Felis catus	1	0.2	1	1.3	1	0.9	1	3.6
Equus caballus	1	0.2	1	1.3				
Sus domesticus	41	7.0	10	12.7	7	6.4	1	3.6
Ovis vel Capra	34	5.8	9	11.4	4	3.7	1	3.6
Bos taurus	4	0.7	3	3.8				
Small mammal	1	0.2						
Medium mammal	65	11.2			19	17.4		
Large mammal	12	2.1			3	2.8		
Unidentifiable	166	28.5			49	45.0		
TOTAL	**582**	**100**	**79**	**100**	**109**	**100**	**28**	**100**

Table 4. Skeletal element representation for the main domestic taxa of the Santi Quattro assemblages (NISP = Number of Identified Specimens; MNE = Minimum Number of Elements; MAU = Minimum Animal Units).

	Santi Quattro – Tower Pit									Santi Quattro – SU 521					
	Sus domesticus			*Ovis vel Capra*			*Bos taurus*			*Sus domesticus*			*Ovis vel Capra*		
Element	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU	NISP	MNE	MAU
Horn															
Cranium 1/2	2	1	0.5	5	1	0.5				1	1	0.5			
Maxilla 1/2	8	4	2.0	1	1	0.5				1	1	0.5			
Mandible 1/2	5	3	1.5	1	1	0.5									
Upper teeth	5	5	0.2	2	2	0.2									
Lower teeth	6	6	0.3	3	3	0.2	1	1	0.1	2	2	0.1			
Teeth				1	1	0.03									
Hyoid															
Atlas															
Axis															
Cervical Vert.	1	1	0.2	3	2	0.4									
Thoracic Vert.	1	1	0.1	3	3	0.2				1	1	0.1			
Lumbar Vert.	2	1	0.1	2	1	0.1	1	1	0.1						
Sacral Vert.															
Caudal Vert.				1	1	0.1									
Vertebrae															
Ribs				3	1	0.04									
Sternum															
Scapula	3	2	1												
Humerus				1	1	0.5									
Radius				2	2	1.0				1	1	0.5			
Ulna				1	1	0.5									
Pelvis	1	1	0.5										1	1	0.5
Femur				1	1	0.5	1	1	0.5						
Patella															
Tibia															
Malleolus/Fibula	1	1	0.5												
Carpals													1	1	0.1
Astragalus				2	2	1.0									
Calcaneus	2	2	1.0	2	2	1.0				1	1	0.5	1	1	0.5
Other Tarsals															
Metacarpus															
Metatarsus	1	1	0.1												
Metapodial	1	1	0.1				1	1	0.3						
Sesamoid															
Phalanx 1	1	1	0.1										1	1	0.1
Phalanx 2	1	1	0.1												
Phalanx 3															
Total	**41**	**32**		**34**	**26**		**4**	**4**		**7**	**7**		**4**	**4**	

At Celleno, the affluence of the palace inhabitants is indicated by the relatively high percentage of wild taxa (roe and red deer) and the abundance of very young individuals of the main mammal species. It is not clear whether the occasional use of fox and dog as a source of meat, as indicated by butchery marks, is part of the high-status diet or if they had been eaten only by the servants working in the residence.

In Graffignano Pit 1, the small faunal assemblage suggests a lower status for those who used the dump, as indicated by the older age of the animals and possibly the smaller size of the sheep compared to the other northern Latium contexts. This hypothesis is also supported by ceramic material that appears worn and with signs of repair.

The food refuse from Graffignano Pit 2 reflects more clearly the wealth of the Baglioni family, not so much in the range and type of species exploited, but in the young and very young age of pigs and sheep/goats, which suggests the selection of more tender meat. Furthermore, the prevalence of female pigs among the young individuals contrasts the economic expectations: in fact, medieval agronomists (e.g. Crescientio 1519) and classical sources (e.g. Columella, Varro and Palladio) recommended people to keep reproductive females alive until they reached full adult age, while culling surplus young males. Therefore, this evidence may be a further indicator of prosperity since the lords of the castle could afford to contradict this advice, foregoing an optimal return strategy and spoiling a source of future economic gain. The prevalence of young animals is also evident for chickens and is a supplementary indication of affluence, as inferable from contemporary sources: '*I pulcinelli quando saran grossi come quaglie o lì presso … son molto nobili & al proposito per ghiotti*' (When the chicks are the size of a quail, or close to it … they are very noble and good for gourmands – Romoli 1560, book 2, ch. 22).

In the 'tower dump' of the Santi Quattro Coronati, only the plant remains (Figure 11) show clear evidence of wealth: there is a wide range of food species, proof of a rich diet, presence of taxa considered as luxury items such as pomegranate (Figure 11(a); Bandini Mazzanti et al. 2005; Bruni et al. 2011), prestigious spices like coriander (Figure 11(b); Bosi et al. 2009)

Table 5. Summary data for the analysed contexts.

Site	Type	Chronology	Pottery	Plant evidence	Animal evidence	Peculiarities	Status
Celleno	High status Residence	fourteenth–mid-fifteenth century	High quality	N/A	• Cervids ca. 10% meat yield • Many young individuals for the main domestic mammals	Fox and dog also used as food (not necessarily high status)	High
Graffinano Pit 1	Castle	first half fifteenth century	High quality, but signs of repair and wear	N/A	• Mainly adult and old animals • Small sized sheep (?)		Low
Graffinano Pit 2	Castle	second half fifteenth –beginning sixteenth century	High quality	N/A	• Many young individuals for pig, sheep/goat and chicken • Prevalence of females also among young pigs	Marten used as food	High
Santi Quattro Coronati – ' Tower Dump'	High status ecclesiastic residence	end fifteenth–mid-sixteenth century	High quality	• Wide variety of food plants • New World species • 'Luxury' taxa	• 'Normal' meat consumption pattern		High
Santi Quattro Coronati – SU 521	Ecclesiastic residence	end sixteenth–beginning seventeenth century	High quality	N/A	• New World species		Low + High?

and possibly black pepper (Figure 11(e); Hallavant and Ruas 2014), and, more importantly, two species of pumpkin from the New World (Figure 11(c,d)). In contrast, the faunal assemblage shows a relatively 'normal' pattern, with a restricted range of species, mostly adult sheep/goats, young and adult pigs, and a relatively high frequency of aquatic resources (fish, mollusks, crustaceans) consistent with the dietary rules of a religious context. The small faunal sample from SU 521 is not particularly significant, except for the presence of the guinea pig, the first one documented so far in Italy, which accords with the occurrence of the New World plants in the 'tower dump'. The use of this small animal as food at the Santi Quattro Coronati cannot be positively ascertained because of the lack of butchery marks on the specimen, and therefore this animal may represent 'only' a luxury pet since it was common for wealthy people to own exotic animals. In fact, the first couple of turkeys that we know about from written sources (Oliva 1993) in Italy was sent as a gift, together with some parrots and other items, to the Cardinal Lorenzo Pucci, titular of the Santi Quattro Basilica (1513–1524) and supervisor for the Church of the Indies in the Consistory, by Alessandro Geraldini, first resident bishop in Hispaniola, as reported in a letter he wrote in 1519–20. However, within a few decades both these exotic animals were included in the diet and started to appear in recipe books (Romoli 1560 for the turkey and Scappi 1570 for the guinea pig). Of course, at the beginning the consumption of such exotic species was the prerogative of the elite, but they then became more common and even in the sixteenth century, Scappi (1570) stated that guinea pigs were available all year round in the main Italian towns. Although the use of guinea pigs as food declined in Italy, they were still eaten in Sicily in the 1960s (Mineo, pers. communication).

Conclusion

In summary, sheep/goat and pig are the main species in terms of the number of remains and individuals in most of the contexts included in this research, while cattle is dominant only in Graffignano Pit 1, where it appears to be associated with lower status. However, in all cases, the highest meat yield was provided by cattle. Chicken is only considered important at some sites and probably both meat and eggs were exploited. Besides the main domestic taxa, the diet was supplemented by aquatic resources, which were particularly relevant in the religious context of the Santi Quattro 'tower dump'. Tortoise was also occasionally exploited, possibly as a non-meat food for abstinence days. The use of the latter species is well documented in contemporary recipe books as well as in other archaeological contexts in the same region (Colonnelli

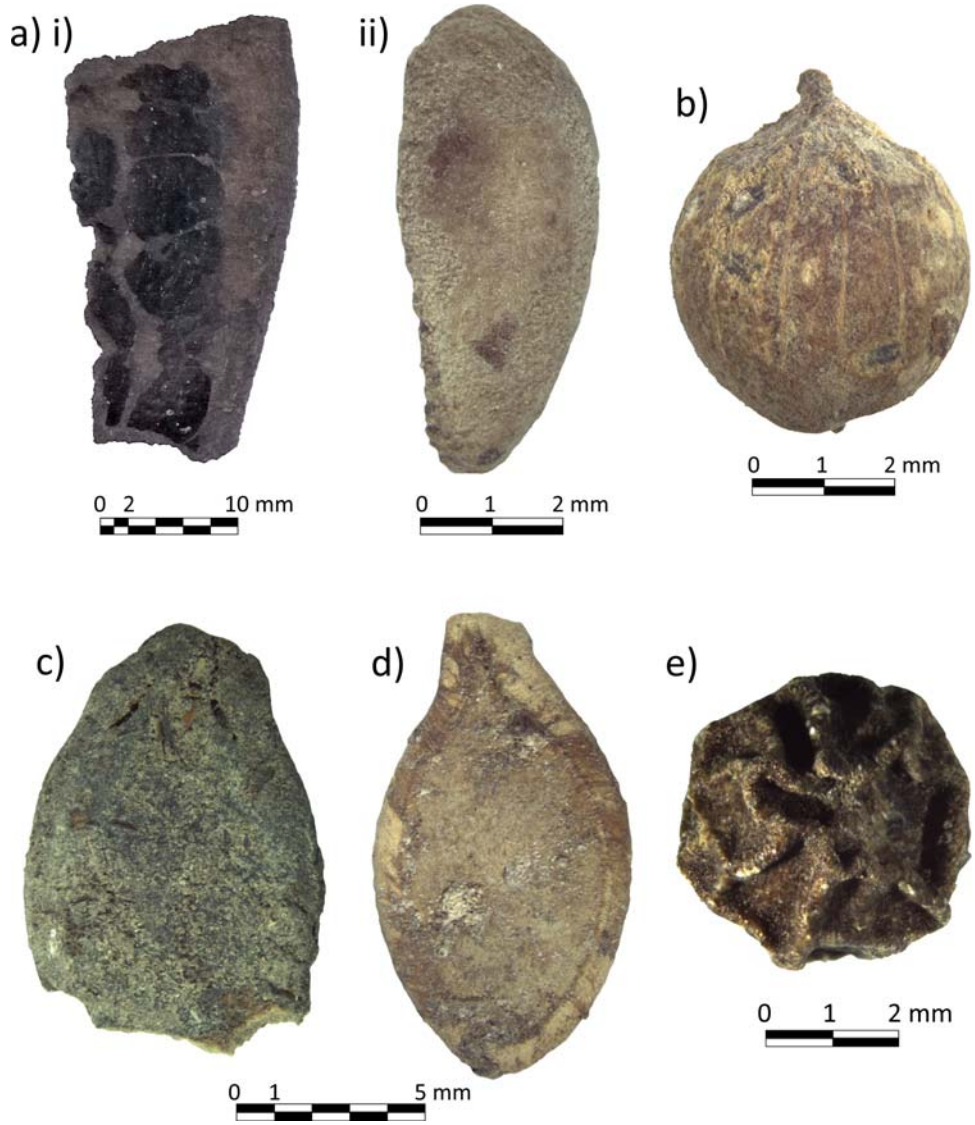

Figure 11. Santi Quattro Coronati (Rome). Luxury food plants at Santi Quattro Coronati: (a) *Punica granatum* (i) exocarp, (ii) seed; (b) *Coriandrum sativum* mericarp (c) *Cucurbita maxima/moschata* seed fragment; (d) *Cucurbita pepo* seed; (e) *Piper nigrum* drupe.

and De Grossi Mazzorin 2000; Romagnoli, Brancazi, and Piermartini 2017; Wilkens 1991).

As already mentioned, it is necessary to consider status within the framework of coeval thinking: for example, animal parts that we now consider mostly of low quality (e.g. offal, ears, eyes, feet, heads) and evidence of low status, were instead considered as delicacies, when properly prepared, during the late Middle Ages and Renaissance, as indicated by recipe books (e.g. Romoli 1560; Scappi 1570). Furthermore, the same cooking manuals also provide indications on how to prepare delicacies with the meat of older animals, therefore in some cases these may also indicate high status. In contrast, food that is now highly valuable, such as the *Cinta senese* pig breed, was considered at Graffignano just as any other pig breed and its 'pureness' was not a priority, as documented, on the basis of genetic analyses (Gabbianelli et al. 2020), by crosses both with other domestic breeds and with wild boar.

The evidence presented here suggests that there is no single way to use food to display status and of course the signatures highlighted are not the only possibilities. Furthermore, this research indicates once again how it is important to use an interdisciplinary approach drawing upon different types of proxies. Besides the more traditional criteria suggested by other authors (e.g. Curet and Pestle 2010; deFrance 2009; Ervynck et al. 2003; Twiss 2012; Veen van der 2003b) to identify elite foodways, the study of the Graffignano assemblages in particular indicates that forthcoming developments to assess what may be considered as elite or luxury food or not, may be provided by genetic analyses (e.g. identification of the sex of young animals, use of particular breeds). Direct isotopic data on plants and animals may in the future give information that would otherwise remain invisible with more traditional approaches (e.g. long distance import of common species).

By adding a further piece of evidence to our knowledge of Latium elite contexts, the data show that people always exploited a wide range of animal and plant resources, but there was variability even within a restricted region and over a time span of few centuries (fourteenth to early seventeenth century) in the way affluence was displayed. Although such variability may be the result of changes through time (e.g. of course New World species were not available before 1492) or local environmental conditions (e.g. presence of woods in the surroundings of the settlement allowed easier access to wild resources), it nonetheless indicates the will to use food as a mean to underline social differences, adapting behaviour according to the situation.

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