

# Handicraft, diet and cult practices in the Late Antique *villa rustica* of Brega (Rosà, Vicenza, NE Italy)

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(Received 15 January 2003; accepted 19 May 2003)



**ABSTRACT:** The faunal assemblage from the Late Antique *villa rustica* of Brega (Rosà, Vicenza, NE Italy) includes mainly domestic animals, but few wild species are also present. Taphonomic analysis suggests that only domestic livestock was surely part of the human diet while the other animal remains were mostly the result of handicraft activities, as exemplified by a large number of deer antlers, or of natural accumulation. A complete skeleton of a horse was recovered at the bottom of a pit. The animal was laid down on its left side. The dimensions and the slenderness of this animal are comparable with those of other Late Roman horses in Central and Northern Italy, some of them also recovered from burials.

**KEY WORDS:** DIET, HANDICRAFT, HORSE BURIAL, LATE ANTIQUE AGE, NORTH-EAST ITALY

**RESUMEN:** El conjunto faunístico de la Villa Rustica tardoimperial de Brega (Rosà, Vicenza, NE de Italia) incluye principalmente animales domésticos, si bien están representadas también algunas especies silvestres. El análisis tafonómico sugiere que sólo el ganado formaba, seguramente, parte de la dieta humana mientras que la presencia de otros animales, era principalmente el resultado de manufacturas, caso del gran número de astas de ciervo recuperadas, o de procesos de acumulación natural. El esqueleto completo de un caballo fue hallado en el fondo de una fosa. El animal yacía de costado sobre el lado izquierdo. El tamaño y la esbeltez del ejemplar son comparables con las de otros caballos de la misma época en el norte y centro de Italia, algunos de los cuales han sido encontrados en sepulcros.

**PALABRAS CLAVE:** DIETA, MANUFACTURAS, SEPULTURAS DE CABALLOS, EPOCA TARDOIMPERIAL, NORESTE DE ITALIA

## INTRODUCTION

The site of Brega (Rosà, Vicenza) (Figure 1) was excavated between 1998 and 2001. The faunal remains analyzed in this paper have been collected during the last excavation season carried out under the direction of Dr. E. Pettenò (Soprintendenza

Archeologica del Veneto) and coordinated by Dr. S. Tuzzato (Studio di Archeologia, Padua).

All the archaeological structures, three buildings and a cistern, are oriented along the axes of the roman *centuriatio* and located around an open space where domestic and handicraft activities probably took place, as suggested by the presence

of pits of different dimensions. The archaeological material spans the period from the 1<sup>st</sup> to the 5<sup>th</sup> century A.D., but the preliminary archaeological analyses allow to place the faunal finds within a generic Late Antique Roman period; some Lom-

bard materials have also been recovered. The main osteological sample comes from the fill of the cistern, while a complete skeleton of a horse was found in a pit located close to the southern side of a rectangular building.



FIGURE 1

Brega (Rosà, Vicenza): Location of the site.

## MATERIALS AND METHODS

The osteological sample of the cistern (Table 1) consists of 730 fragments, of which 494 (67.7%) are identifiable and 236 (32.3%) have been divided on the basis of size: large (such as cattle and horse), medium (such as pig), and small mammal (such as sheep/goat). Most of the specimens (636 fragments) were found in a single stratigraphic unit (US 341), and consist of remains attributable to both human diet and handicraft activities (Table 2). The remaining 94 specimens were collected in other stratigraphic units labeled US 206, US 288, US 292, US 316, US 338, US 341 A, US 347, US 427, and US 518 (see Table 1), but these contexts yielded only very small numbers of finds, representing the main mammals known from US 341 and therefore the paper focuses on the latter sample, considered as representative for the whole assemblage.

The other part of the faunal sample consists of a complete horse skeleton found at the bottom of a pit (US 26).

In order to analyze the frequency of anatomical elements in the US 341 assemblage, the skeleton has been divided into five main anatomical portions: cranial (neurocranium, splanchnocranium, mandibula), axial (vertebrae, ribs, and sternum), forelimb (scapula, humerus, radius, ulna, carpus, and metacarpus), hindlimb (pelvis, femur, tibia, tarsus, metatarsus), distal elements (phalanges) (Table 3).

Ages at death were calculated following Silver (1969), supplemented by Grigson (1982) for cattle, Payne (1973) for sheep and goat, Bull & Payne (1982) for pig, Barone (1980) for horse. Measurements are in millimeters and were taken following Driesch (1976). Heights at the withers were calculated according to Matolcsi (1970) for cattle, Driesch & Boessneck (1974) for pig, and Kiese-walter (1888) and May (1985) for horse.

## RESULTS AND DISCUSSION

As mentioned before, only the sample from US 341 will be analyzed and discussed in detail, because it is considered to be representative for the whole assemblage from the cistern.

Among the mammals (Table 2) domestic species, such as cattle (*Bos taurus*), pig (*Sus scrofa*

*domesticus*), ovicaprines (*Ovis* or *Capra*), sheep (*Ovis aries*), goat (*Capra hircus*), and horse (*Equus caballus*), are dominant. Wild mammals are represented only by few remains of fox (*Vulpes vulpes*), a metatarsal fragment and 230 portions of red deer antler (*Cervus elaphus*), and one shed antler of roe deer (*Capreolus capreolus*). Since all the deer antler fragments are probably the result of handicraft activities, these 231 specimens were not taken into account for the reconstruction of the paleo-diet. Bird remains (Table 2) are relatively abundant: mainly domestic fowl (*Gallus gallus*), but also goose (*Anser anser*). In the case of the latter species, the paucity of the finds does not allow to ascertain its domestic or wild status; the raven (*Corvus corax*) is also present.

### *The consumption remains*

The meat diet was based on cattle, ovicaprines and pig (Table 2, Figure 3). The number of cattle and ovicaprine remains is comparable, with a slight prevalence of the first, while pig remains are clearly much less abundant. When estimating the minimum number of individuals, the ovicaprines become the preferred group followed by cattle and pig.

Table 3 and Figure 2 show the frequency of the anatomical portions of the three main domestic taxa. The proportions among the different parts are quite comparable in the three groups, with two exceptions: the total absence of axial bones for pig and of distal limbs for the ovicaprines.

Several cut and chop marks were identified, mainly on cattle remains, as well as carnivore gnaw-marks.

**CATTLE** (*Bos taurus*). About half of the 88 cattle remains are cranial portions (NISP 40), mainly fragments of horn cores (NISP 29), which can be related to handicraft activities rather than consumption. In fact several of these fragments present clear traces of a transverse cut for the removal of the keratinous sheath. These cuts were made with a saw with fine teeth, operated from one direction, without turning the specimen. Of the remaining 48 specimens a small portion is attributable to the axial skeleton (NISP 12), mainly fragments of vertebrae. More abundant are the parts of the hindlimb (NISP 20) followed by parts of the forelimb (NISP 15). Distal elements are represen-

Table 1	US 206		US 288		US 292		US 316		US 338		US 341		US 341 A		US 347		US 427		US 518	
Species	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%
<i>Bos taurus</i>	1	100.0	1	14.3			1	25.0	2	40.0	88	49.2	2	33.3	2	66.7	1	100.0		
<i>Sus scrofa domesticus</i>			3	42.9	1	100.0	2	50.0	2	40.0	12	6.7	1	16.7	1	33.3				
<i>Ovis aries</i>											6	3.4								
<i>Capra hircus</i>			1	14.3							4	2.2								
<i>Ovis</i> or <i>Capra</i>			2	28.6			1	25.0	1	20.0	68	38.0	3	50.0					2	100.0
<i>Equus caballus</i>											1	0.6								
<b>Total domestic mammals</b>	1	100.0	7	100.0	1	100.0	4	100.0	5	100.0	179	100.0	6	100.0	3	100.0	1	100.0	2	100.0
<i>Vulpes vulpes</i>											5	83.3								
<i>Cervus elaphus</i>											1 + (230)	16.7			1	100.0				
<i>Capreolus capreolus</i>											(1)									
<b>Total wild mammals</b>											6 + (231)	100.0			1	100.0				
<b>Domestic mammals</b>	1	100.0	7	100.0	1	100.0	4	100.0	5	100.0	179	96.8	6	100.0	3	75.0	1	100.0	2	100.0
<b>Wild mammals</b>											6 + (231)	3.2			1	25.0				
<b>Total identified mammals</b>	1	100.0	7	100.0	1	100.0	4	100.0	5	100.0	185 + (231)	100.0	6	100.0	4	100.0	1	100.0	2	100.0
Unidentified large mammal	2										15	8.9	3							
Unidentified medium mammal			2						3		7	4.2								
Unidentified small mammal	1		18		1		6		9		21	12.5	11		2		4			
Unidentifiable	1										125	74.4								
<b>Total unidentified</b>	4		20		1		6		12		168	100.0	14		2		4			
<b>Identified mammals</b>	1	20.0	7	25.9	1	50.0	4	40.0	5	29.4	185 + (231)	52.4	6	30.0	4	66.7	1	20.0	2	100.0
<b>Unidentified mammals</b>	4	80.0	20	74.1	1	50.0	6	60.0	12	70.6	168	47.6	14	70.0	2	33.3	4	80.0		
<b>Total mammal</b>	5	100.0	27	100.0	2	100.0	10	100.0	17	100	353 + (231)	100.0	20	100.0	6	100.0	5	100.0	2	100.0
cf. <i>Gallus gallus</i>											2	4.3								
<i>Gallus gallus</i>											38	80.9								
<i>Anser anser</i>											3	6.4								
<i>Anser</i> sp.											2	4.3								
<i>Corvus corax</i>											2	4.3								
<b>Total identified birds</b>											47	100.0								
<b>Unidentified birds</b>											5									
<b>Total birds</b>											52									
<b>Total identified animals</b>	1	20.0	7	25.9	1	50.0	4	40.0	5	29.4	232 + (231)	57.3	6	30.0	4	66.7	1	20.0	2	100.0
<b>Total unidentified animals</b>	4	80.0	20	74.1	1	50.0	6	60.0	12	70.6	173	42.7	14	70.0	2	33.3	4	80.0		
<b>General total</b>	5	100.0	27	100.0	2	100.0	10	100.0	17	100.0	405 + (231)	100.0	20	100.0	6	100.0	5	100.0	2	100.0

(...) between parentheses the deer antler fragments not included in the percentages calculated for the consumption remains (see text)

TABLE 1  
Brega (Rosà, Vicenza). The faunal sample (NISP) from the cistern.

<b>Table 2</b>				
<b>Species</b>	<b>NISP</b>	<b>%</b>	<b>MNI</b>	<b>%</b>
<i>Bos taurus</i>	88	49.2	6	24.0
<i>Sus scrofa domesticus</i>	12	6.7	3	12.0
<i>Ovis aries</i>	6	3.4	2	8.0
<i>Capra hircus</i>	4	2.2	2	8.0
<i>Ovis</i> or <i>Capra</i>	68	38.0	11	44.0
<i>Equus caballus</i>	1	0.6	1	4.0
<b>Total domestic mammals</b>	179	100.0	25	100.0
<i>Vulpes vulpes</i>	5	83.3	1	50.0
<i>Cervus elaphus</i>	1 + (230)	16.7	1 + (?)	50.0
<i>Capreolus capreolus</i>	(1)			
<b>Total wild mammals</b>	6 + (231)	100.0	2	100.0
<b>Domestic mammals</b>	179	96.8	25	92.6
<b>Wild mammals</b>	6 + (231)	3.2	2	7.4
<b>Total identified mammals</b>	185 + (231)	100.0	27	100.0
Unidentified large mammal	15	8.9		
Unidentified medium mammal	7	4.2		
Unidentified small mammal	21	12.5		
Unidentifiable	125	74.4		
<b>Total unidentified</b>	168	100.0		
<b>Identified mammals</b>	185 + (231)	52.4		
<b>Unidentified mammals</b>	168	47.6		
<b>Total mammal</b>	353 + (231)	100.0		
cf. <i>Gallus gallus</i>	2	4.3	1	6.7
<i>Gallus gallus</i>	38	80.9	10	66.7
<i>Anser anser</i>	3	6.4	2	13.3
<i>Anser</i> sp.	2	4.3	1	6.7
<i>Corvus corax</i>	2	4.3	1	6.7
<b>Total identified birds</b>	47	100.0	15	100.0
<b>Unidentified birds</b>	5		1	
<b>Total birds</b>	52		16	
<b>Total identified animals</b>	232 + (231)	57.3		
<b>Total unidentified animals</b>	173	42.7		
<b>General total</b>	405 + (231)	100.0		
(...) between parentheses the deer antler fragments not included in the percentages calculated for the consumption remains (see text)				

TABLE 2  
Brega (Rosà, Vicenza). The faunal sample of US 341.



	<i>Bos taurus</i>		<i>Sus scrofa dom.</i>		<i>Ovis aries</i>		<i>Capra hircus</i>		<i>Ovis or Capra</i>		total ovicaprines	
Anatomical portion	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%	NISP	%
cranial	40	45.5	7	58.3	3	50.1	4	100.0	33	48.5	40	51.3
axial	12	13.6							13	19.1	13	16.7
forelimb	15	17.1	2	16.7	1	16.7			11	16.2	12	15.4
hindlimb	20	22.7	2	16.7	2	33.3			11	16.2	13	16.7
distal limb	1	1.1	1	8.3								
Total	88	100.0	12	100.0	6	100.0	4	100.0	68	100.0	78	100.0

TABLE 3

Brega (Rosà, Vicenza; US 341): Distribution of anatomical portions from the main domestic stocks.

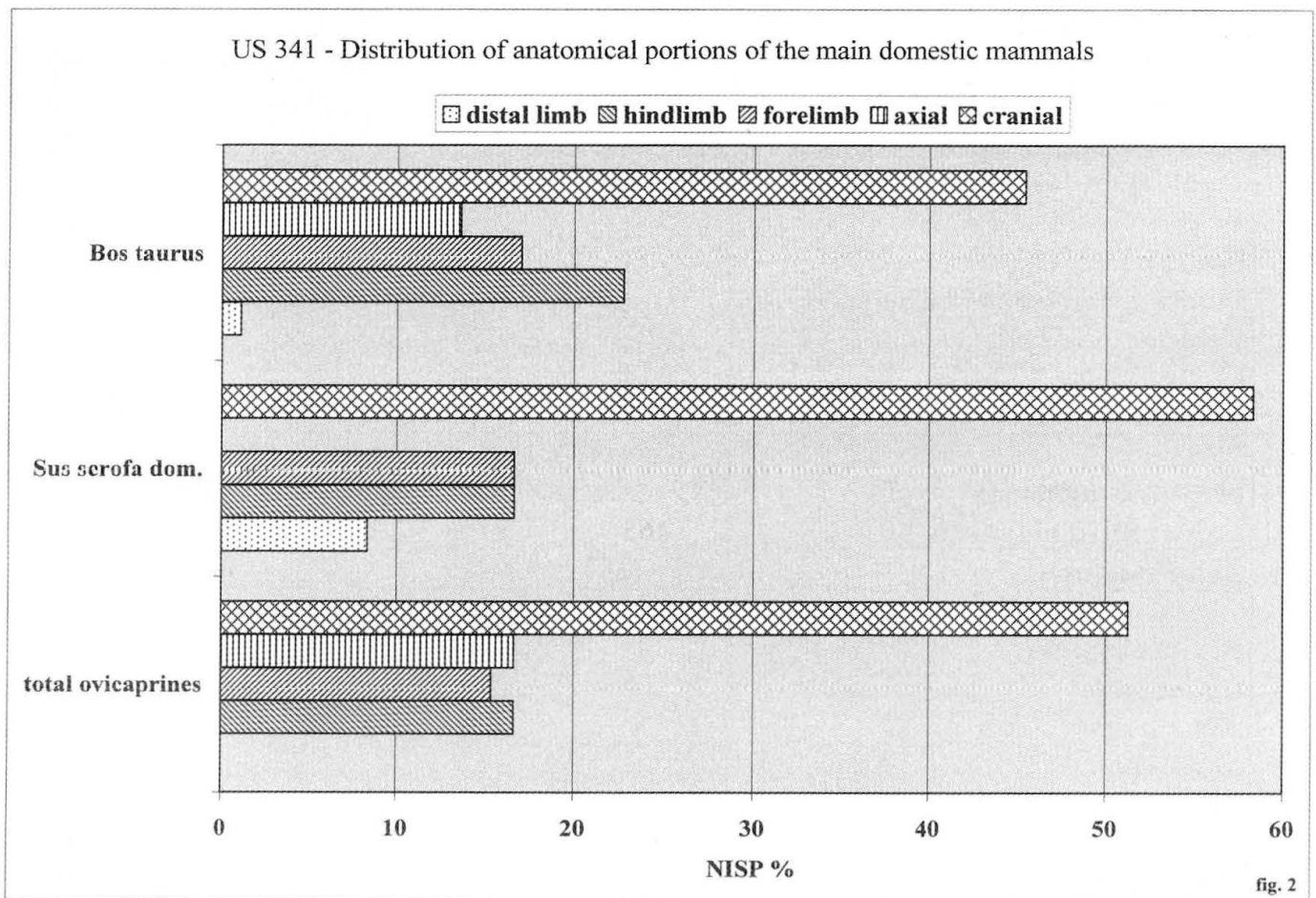


FIGURE 2

Brega (Rosà, Vicenza; US 341): Distribution of anatomical portions of the main domestic mammals.

ted only by one phalanx. Complete elements are rare, and epiphyseal and diaphyseal fragments prevail. Of the six cattle individuals, two are prime adults (36-42 months), two are older adults (>42-48 months), and two are of indeterminate age

(Table 4; Figure 4). The fragments of horn core indicate cattle with not very large horns; the long bones suggest the presence of animals of different size: small and slender individuals, probably females, and large and robust ones, very likely bulls or

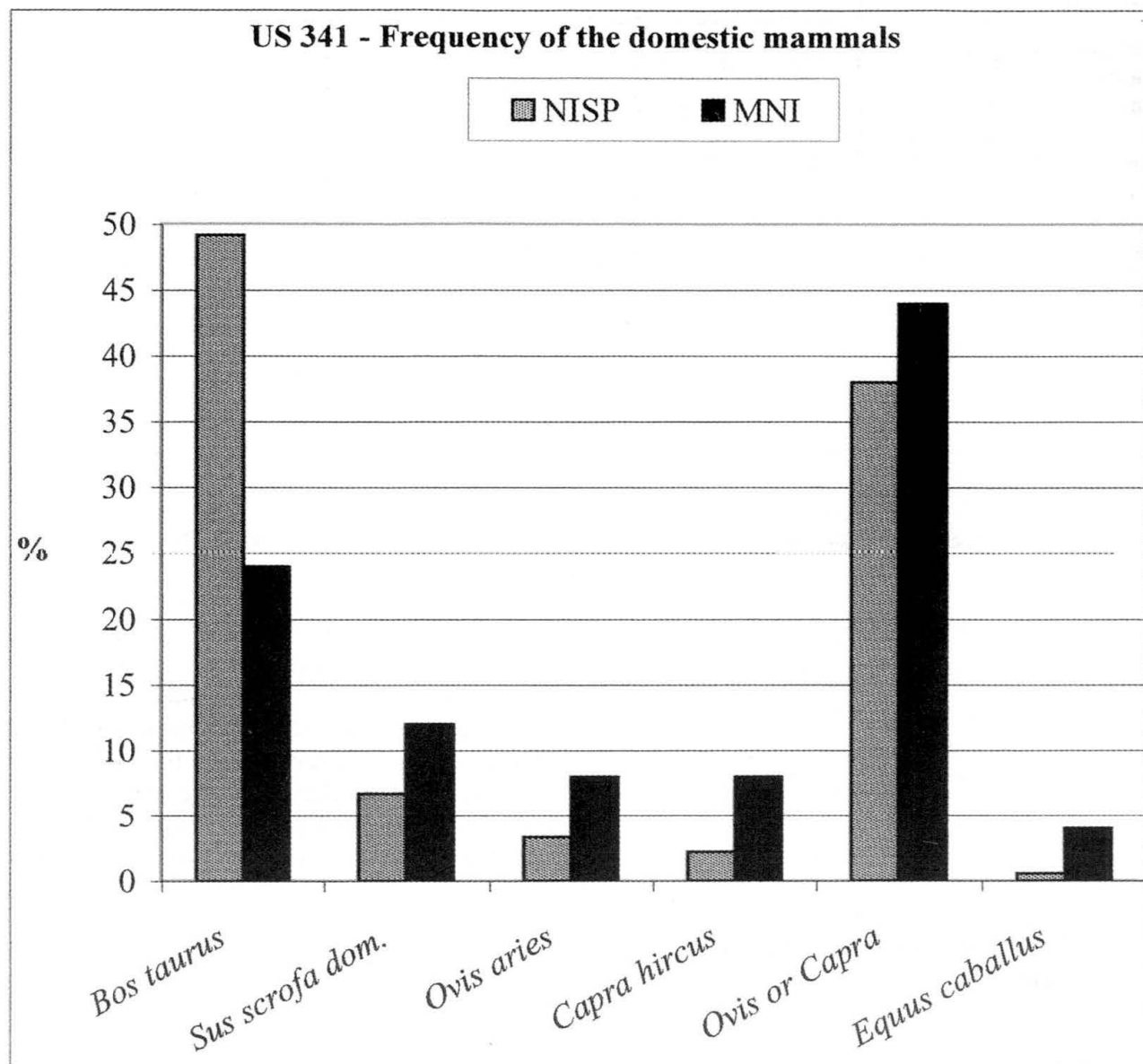


FIGURE 3

Brega (Rosà, Vicenza; US 341): Frequencies of the domestic mammals.

oxen. A single complete metacarpus attributed to a male, a robust individual according to the slenderness index ( $SD \cdot 100 / GL = 16.77$ ), allowed to calculate a withers height of about 147 cm ( $GL \cdot 6.25$ ). It is possible that this large individual has been used as draught animal before being butchered. Short and fine cuts were detected on a humerus, a metacarpus, on three portions of pelvis, and on two femur fragments; wide and deep traces produced by strong blows were identified on a pelvis fragment. Carnivore gnaw-marks were found only on a few bone elements.

Regarding to the possible place of cattle of butchering and consumption, it is possible to observe that there are 52 specimens belonging to the cranium or to the axial skeleton, while those of appendicular skeleton are 36. However, among the 40 cranial elements, 29 are fragments of horn core, some of which surely represent the waste of handicraft activities, the other 11 elements are neurocranial fragments (NISP 8), teeth (NISP 1), and mandible fragments (NISP 2), which can be related to a single individual; the axial skeleton is represented by 12 vertebral fragments. On the

basis of species representation, the elements of the unidentified large mammal may be probably added to these: one cranial fragment, one rib fragment, and five vertebral fragments. There are also four fragments of flat bones (scapula or pelvis) and four long bone shaft fragments. Therefore, the prevalence of axial portions may be considered only apparent, and this may suggest that the primary butchery of cattle probably occurred somewhere else in the site, and then the body parts were further sectioned in the final consumption place.

**PIG** (*Sus scrofa domesticus*). Pig exploitation (NISP 12, MNI 3) played a minor role compared to the ovicaprines and the cattle. Both young and adult individuals were consumed (Table 4; Figure 4). The animals were not of large size: on the basis of a single complete third metatarsal it was possible to calculate a withers height of about 75 cm ( $GL \cdot 9.34$ ); this specimen shows repeated and fine striae on the posterior face near the proximal epiphysis.

**OVICAPRINES** (*Ovis aries*, *Capra hircus*, *Ovis* or *Capra*). Of the 78 ovicaprine remains, only a few of the 40 fragments of the neurocranium could be assigned to sheep or goat. Three specimens indicate the presence of at least two rams, while four were identified as representing two goats with slender and rectilinear horns. Other portions of the skeleton are well represented, except carpals, tarsals, metapodials, and phalanges that are almost completely absent. Butchering marks are very scarce and consist of short and fine cuts on a metacarpus and a tibia fragment. A ram horn core exhibits an oblique cut, probably for the removal of the horn sheath. The 15 individuals, according to the minimum number estimate, represent almost all age classes, calculated on the basis of eruption and wear stages (Table 4; Figure 4): one very young individual (2-6 months), two young (6-12 months), one young-adult (1-2 years),

six adults, of which four with an age between 4 and 6 years and two between 6 and 8 years, one individual is senile; the remaining four are of undeterminable age. The distribution of the age at death, although with caution for the small size of the sample, may suggest the use of ovicaprines both as a source of meat and of live products for the presence of very young as well as older and senile individuals.

Regarding the possible location where ovicaprine butchering and consumption occurred, it is possible to observe that there are 53 cranium and axial portions while those of the appendicular skeleton are 25. Among the 40 cranial elements, one is a horn core fragment, six are neurocranial fragments, 12 are teeth, and 21 are mandibles; the axial skeleton is represented by 13 vertebral fragments. Considering also the elements of belonging to the unidentified large small mammal (most of them probably ovicaprines), there are seven rib fragments, three vertebral fragments, while only one is a fragment of flat bone (scapula or pelvis) and ten are the long bone shaft fragments. In this case, unlike cattle, the prevalence of the axial specimens is real, also considering the presence of 21 mandible specimens, and this may suggest that the ovicaprines were probably butchered and consumed in the same place.

**WILD MAMMALS.** The few remains of wild mammals (Table 2) are mainly referable to fox (*Vulpes vulpes*) represented by at least three individuals, one of which was very young. The low number of bones and the absence of human modifications do not allow to assess if the remains represent exploited animals. Apart from the numerous antler fragments which will be described separately, only one other element, a metatarsal fragment, represents the red deer (*Cervus elaphus*). The roe deer (*Capreolus capreolus*) is attested by a single antler. Such antler is shed and therefore it is not related to consumption activities.

Table 4	yy		y		y-ad		ad1		ad2		sen		unid		total	
	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%
<i>Bos taurus</i>							2	33.3	2	33.3			2	33.3	6	100.0
<i>Sus scrofa dom.</i>			1	33.3					1	33.3			1	33.3	3	100.0
<i>Ovis</i> or <i>Capra</i>	1	6.7	2	13.3	1	6.7	0	0	6	40.0	1	6.7	4	26.7	15	100.0
<b>Total individuals</b>	1	6.7	3	12.5	1	4.2	2	8.3	9	37.5	1	4.2	7	29.2	24	100.0

TABLE 4

Brega (Rosà, Vicenza; US 341): Age estimations of the main domestic stocks. Key to symbols: yy: very young; y: young; y ad: young-adult; ad: adult; ad1: prime adult; ad2: older adult; sen: senile; unid: unidentified age.



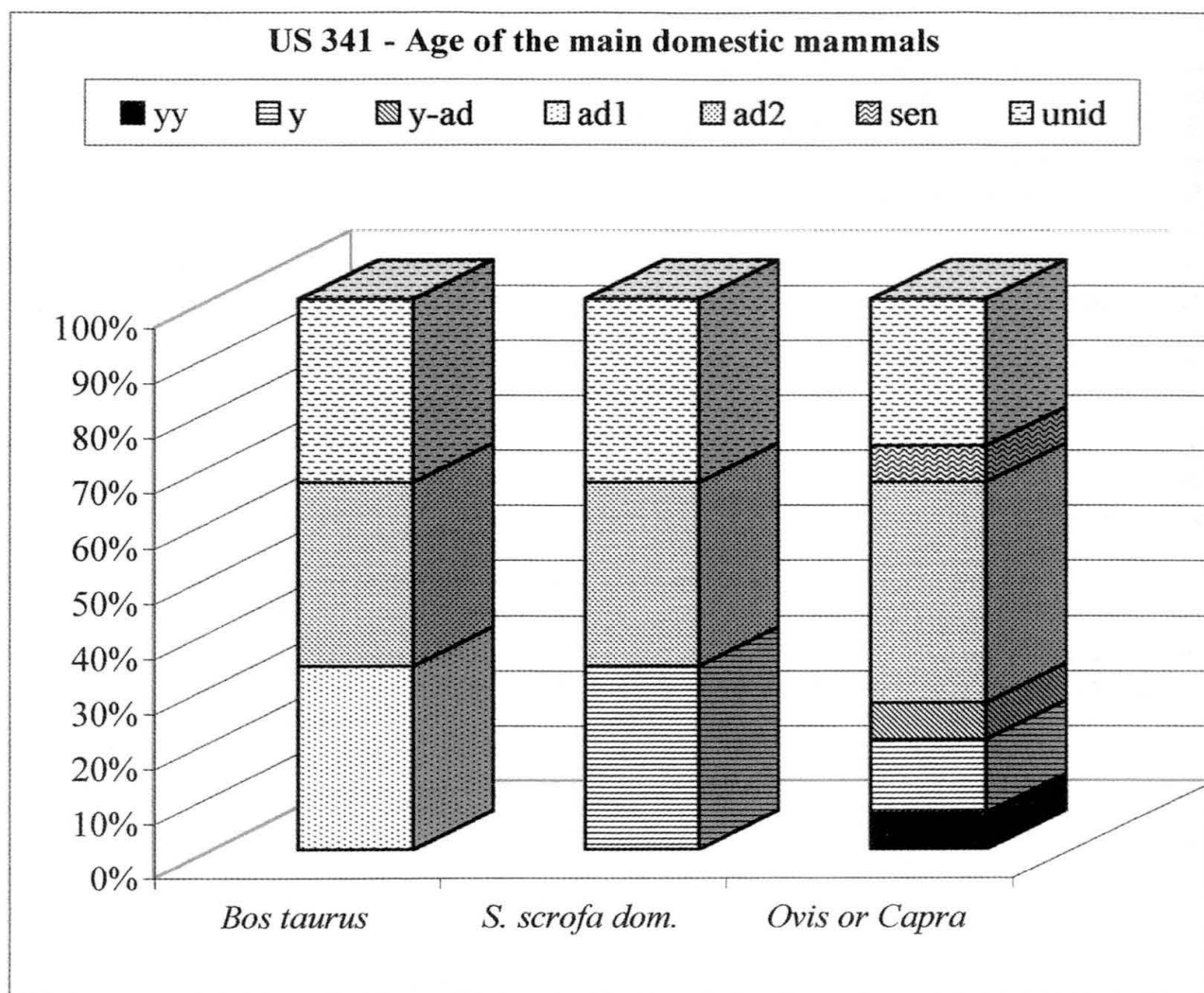


FIGURE 4

Brega (Rosà, Vicenza; US 341): Age estimations of the main domestic mammals. Key to symbols: yy: very young; y: young; y ad: young-adult; ad: adult; ad1: prime adult; ad2: older adult; sen: senile; unid: unidentified age.

BIRDS (Tables 2 and 5). Another source of meat was the domestic fowl (*Gallus gallus*) (NISP 38, MNI 10), well represented by one very young, four young, one male young-adult and four adult individuals. No cut-marks were found on chicken bones. The goose (*Anser anser*) (NISP 3) is represented only by two adult individuals; repeated and fine cut-marks on a coracoid indicate the exploitation of this species as food. Two other specimens could be attributed only generically to Anseriformes (*Anser* sp.). The low number of geese remains does not allow to establish whether the remains derive from domestic animals or feathered game. Two bones of a raven (*Corvus corax*) complete the avian sample.

#### *The handicraft remains*

The other component of the assemblage from US 341 consists of a large quantity of cervid antlers, almost all belonging to red deer, except for one shed antler of roe deer. The prevalence of shed antlers and the presence of a single red deer bone suggest that the procurement of this raw material was done mainly by collecting antlers after they were shed at the end of the rut. Only in two cases antlers attached to the pedicles were chopped off the skull and brought to the site (Figure 5).

All parts of the antler are present (Table 6), both worked (Table 7) and without evidence of wor-

Table 5	yy		y		y-ad		ad		total	
	MNI	%	MNI	%	MNI	%	MNI	%	MNI	%
<i>cf. Gallus gallus</i>			1	100.0					1	100.0
<i>Gallus gallus</i>	1	10.0	4	40.0	1	10.0	4	40.0	10	100.0
<i>Anser anser</i>							2	100.0	2	100.0
<i>Anser sp.</i>					1	100.0			1	100.0
<i>Corvus corax</i>							1	100.0	1	100.0
<i>Aves sp.</i>							1	100.0	1	100.0
<b>Total individuals</b>	1	6.3	5	31.2	2	12.5	8	50.0	16	100.0

TABLE 5

Brega (Rosà, Vicenza; US 341): Age estimations of the birds. Key to symbols: yy: very young; y: young; y-ad: young-adult; ad: adult; ad1: prime adult; ad2: older adult; sen: senile; unid: unidentified age.

king. Different kind of traces have been noted on the antler portions analyzed, representing one or more actions carried out on a same specimen (Table 8). In the manufacturing process a metal saw with fine teeth (Figure 6) was mostly used to cut the beam into smaller portions (Figure 7) and to separate it from the tines. In several cases the last part of the cut was snapped off instead of being completed by the saw ("final break", Table 8). Sometimes the surfaces of the sawed cuts have been also polished. In many instances saw-marks are seen outside the main cut ("off-marks", Table 8) indicating initial attempts at sawing which was then moved to another position. In a few cases sectioning was done by heavy blows with a metal tool; this method was of course less precise. A relatively high number of marks was produced with a cutting metal tool to peel off the surface portion of the deer antlers (Figure 8). The modifications found on the antlers represent only the first stages of the manufacturing process and the absence of traces due later phases does not allow to identify the whole reduction sequence nor the types of the finished objects. As known, antler has been used to make buttons, combs, decorative clasps, needles and awls, as well as hafts for implements and weapons (Mac Gregor, 1985).

The presence of some fragments of cattle horn core and one belonging to a ram which had been cut to facilitate the removal of the keratinous sheath, underscores the importance of handicraft activities at this site.

#### *The horse burial*

A complete horse skeleton was found at the bottom of a pit (US 26) located close to the sout-

hern side of a rectangular building. The animal was laid down on its left side with the anterior limbs extended and the posterior ones slightly flexed, in a position similar to that of a living animal. The analysis of the wear on teeth indicates an individual of about eight years and the possible use of a bit. The height at the withers of the animal was about 133 cm (Table 9, Figure 9), suggesting a relatively small individual, within the range of Late Roman horses such as those of Cotilia, Meta

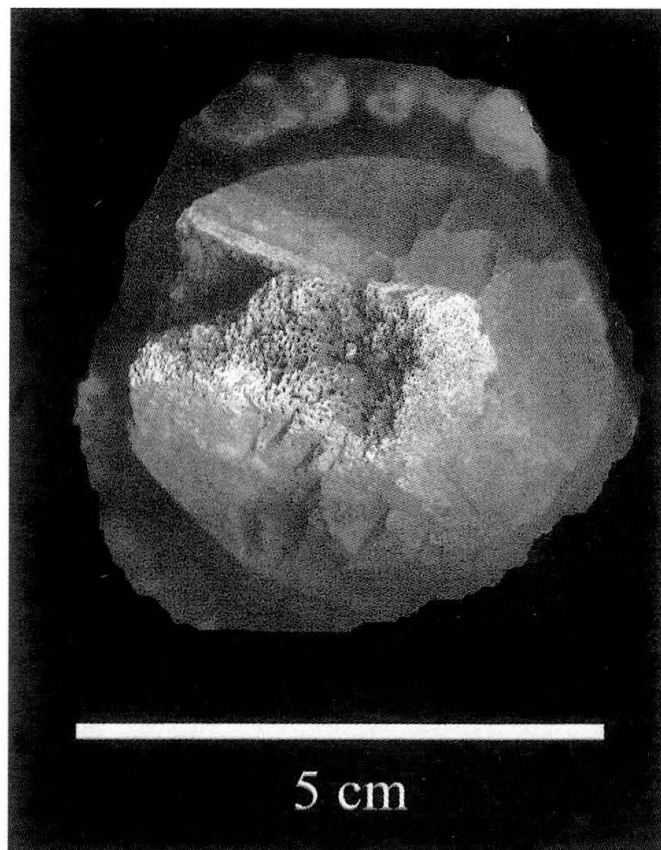


FIGURE 5

Brega (Rosà, Vicenza; US 341): Chopped antler pedicle of red deer (ventral view).

PARTS OF ANTLER	Worked		Not worked		Total	
	NISP	%	NISP	%	NISP	%
Burr with pedicle	2	3.8			2	0.9
Shed antler frg. with burr	6	11.5	1	0.6	7	3.0
Beam with tines	7	13.5			7	3.0
Beam	29	55.8	27	15.2	56	24.3
Top of antler	3	5.8	6	3.4	9	3.9
Tines	5	9.6	14	7.9	19	8.3
Fragments			130	73.0	130	56.5
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>178</b>	<b>100.0</b>	<b>230</b>	<b>100.0</b>

TABLE 6

Brega (Rosà, Vicenza; US 341): *Cervus elaphus*: distribution of antler portions.

PARTS OF ANTLER	Total		Tine represented					
Worked	NISP	%	none	brow tine	bez tine	trez tine	brow and trez	brow and bez
Burr with pedicle	2	3.8	2					
Shed antler frg. with burr	6	11.5		4			1	1
Beam with tines	7	13.5			1	6		
Beam	29	55.8	29					
Top of antler	3	5.8						
Tines	5	9.6						
<b>Total worked</b>	<b>52</b>	<b>100.0</b>						

TABLE 7

Brega (Rosà, Vicenza; US 341): *Cervus elaphus*: distribution of worked antler portions.

Sudans, Pescaccio, S. Giacomo (De Grossi *et al.*, 1997). It is instead slightly smaller than the Lombard horses of Bovolone (135-140 cm; Riedel, 1993), and Povegliano (141 cm; Riedel, 1990). The slenderness index calculated for the metacarpus ( $SD \times 100 / GL$ ) is 15.53 for the left specimen and 15.58 for the right one, with an average of 15.553, at the limit between the category "slightly slender legged" (14.6-15.5) and "medium slender legged" (15.6-16.5); both categories were well represented in the Late Roman period (De Grossi *et al.*, 1997). Summing up, the relatively small dimensions and the slenderness of the animal compare well with these characters in Late Roman horses of Central and Northern Italy.

Intentional horse burials are known in Italy since the Eneolithic (Le Cerquete-Fianello) (Curci & Tagliacozzo, 1997), but become more frequent from the Iron Age on. During the Etruscan period, horses buried with the horseman, with or without a chariot, indicate the high rank of the deceased. In the Late Roman period, burials of complete or partial skeletons, are known both in Central (Meta Sudans, Pescaccio, Cotilia), and Northern Italy (Bovolone, Cividale). In the Veneto region, horse burials occur in numerous Paleovenetian sites (Este, Padua, Altino, Oppiano Veronese, Oderzo, Piovego) (De Grossi *et al.*, 1997). The intentional horse burials recovered in Paleovenetian structures (8<sup>th</sup>-7<sup>th</sup> century B.C.) at Padua

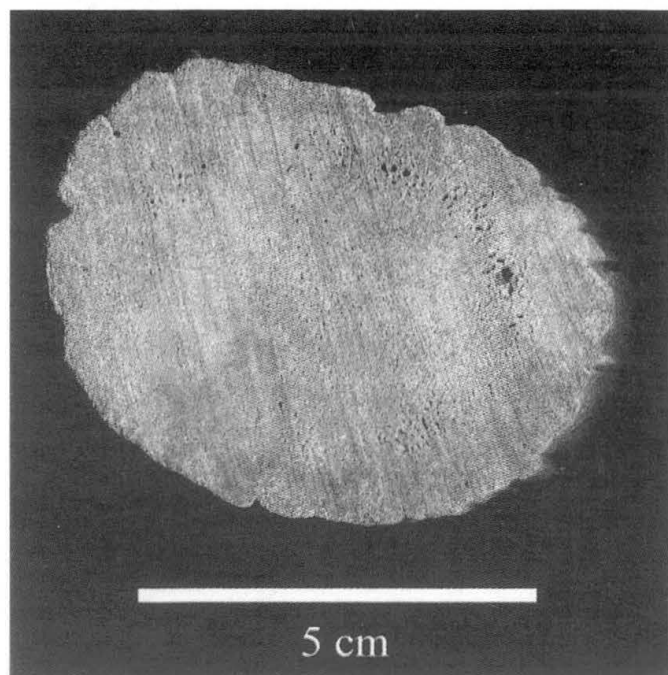


FIGURE 6

Brega (Rosà, Vicenza; US 341): Antler beam of red deer sawed with a fine-teeth saw.

(Via S.Eufemia) (Tagliacozzo & Facciolo, in press) show some depositional characteristics similar to those of the Brega horse. Another Paleovenetian horse is that of Le Brustolade (Altino) (Riedel, 1984); also at Altino (Località Fornace), several intentional depositions of horses have been found in a Paleovenetian sanctuary (Fiore *et al.*, in press). However, the chronologically closest horse burial is that found in the Lombard necropolis of Bovolone (first half of the 7<sup>th</sup> century A.D.) (Riedel, 1993); in this burial the animal lies also on its left side, but in contrast to the Brega individual, it has flexed anterior limbs and extended posterior ones. The find of a horse burial in the Lombard necropolis of Povegliano (Riedel, 1990) should also be mentioned.

The Bovolone horse (Riedel, 1993) has been used for a biometrical comparison (Table 10). As regards the teeth, from the analysis of the two graphs, length vs. length/breadth index (Figure 10) and length vs. breadth (Figure 11), it is possible to observe that the regression lines of the two dental series indicate a strict dimensional relationship between the two individuals (although with caution for the reduced size of the sample), very likely even at the level of morphotype; the slight difference between the two is that the teeth of the Brega

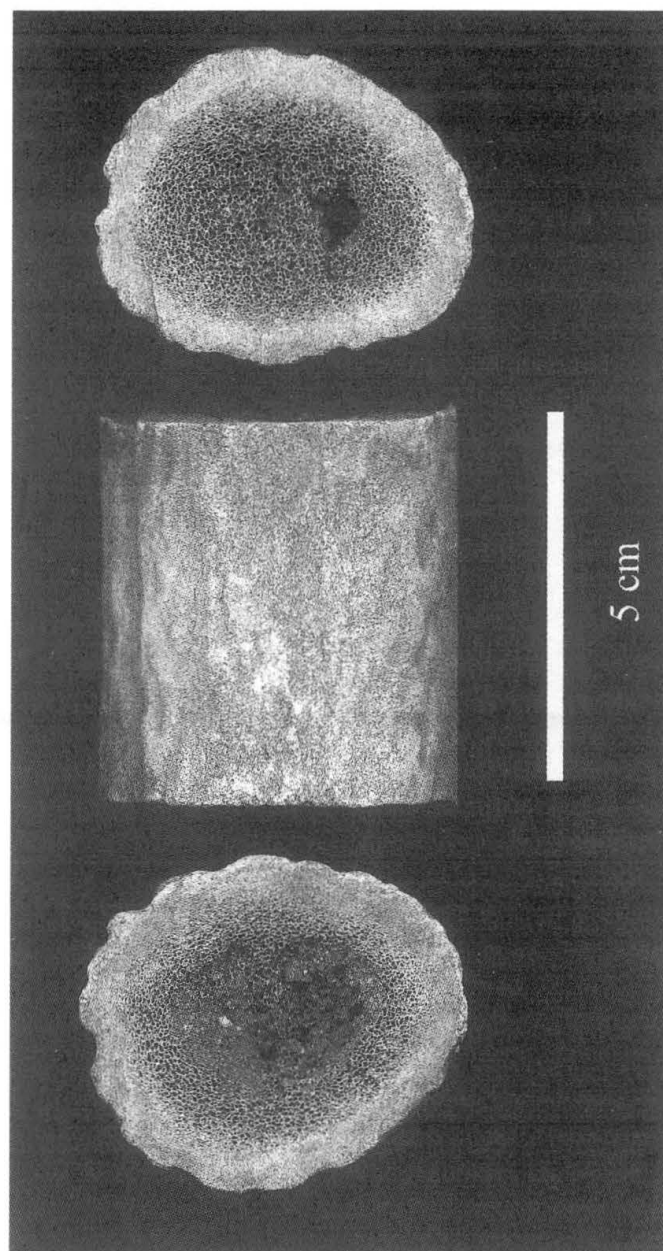


FIGURE 7

Brega (Rosà, Vicenza; US 341): Small portion of red deer antler beam sawed at both ends.

horse tend to be more rectangular lengthwise compared to those of the Lombard horse.

## CONCLUSION

The research on the faunal sample collected during the 2001 excavations at Brega (Rosà, VI) allows some considerations on the diet, handicraft activities and cult practices of the people living at the site during the Late Antique Roman period.



PARTS OF ANTLER	main modification	Sawing (NISP 48, 92.3%)												Blows (NISP 2, 3.8%)	Off-marks (NISP 1, 1.9%)	Peeling (NISP 1, 1.9%)
	secondary modification	A	B	C	D	E	F	G	H	I	J	K	L	A	A	A
<b>WORKED</b>																
Burr with pedicle	2	1												1		
Shed antler frg. with burr	6	1		3			1					1				
Beam worked on both sides	7		1	1			1		1	1						
Beam worked on one side	27	16	3	1		2	1	2			1			1		
Beam	2														1	1
Top of antler	3			1	1					1						
Tines	5	2	2			1										
<b>Total worked</b>	<b>52</b>	<b>20</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>
<b>PARTS OF ANTLER</b>	<b>main modification</b>	<b>key to symbols</b> A none B "off-mark" C final break D polish E blow F blow and peeling G final break and peeling H "off-mark" and final break I "off-mark" and peeling J "off-mark", cut, peeling K "off-mark", final break and peeling L "off-mark", final break, cut and peeling M gnawing														
<b>UNWORKED</b>	<b>secondary modification</b>															
Burr with pedicle	1															
Beam with tines	1															
Beam	26															
Top of antler	6															
Tines	14															
Fragments	130															
<b>Total unworked</b>	<b>178</b>															
<b>Total red-deer antlers (NISP)</b>	<b>230</b>															

TABLE 8

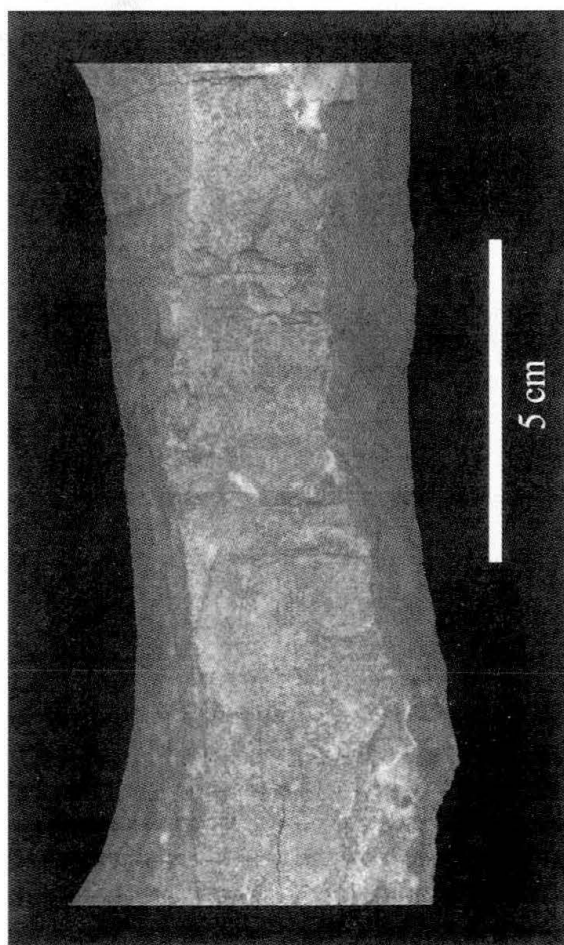
Brega (Rosà, Vicenza; US 341): *Cervus elaphus*: modifications on antlers (NISP).

FIGURE 8

Brega (Rosà, Vicenza; US 341): Antler beam of red deer peeled with cuts parallel to the surface.

In a pit located in one of the rectangular buildings a complete skeleton of a relatively small horse (about 133 cm of height at the withers) was found. The animal, about eight years old, was laid down on its left side. Its dimensions and slenderness make this individual comparable to other Late Roman horses in Central and Northern Italy, where several ritual burials of horses are known, in particular the Lombard horse of Bovolone (Riedel, 1993).

Most of the faunal materials were collected from a cistern, mainly in US 341. The sample of this latter stratigraphic unit is considered to be representative for the whole cistern assemblage. In such stratigraphic unit consumption and handicraft refuse was found. The analysis of the consumption sample indicate that the meat diet was based on cattle, ovicaprines, and pigs. The distribution of the age at death for the ovicaprines seem to suggest the exploitation of live products besides meat. As regards cattle, young and adult animals were consumed, probably even large individuals originally used as draught animals. A few pigs, young and adult, were also exploited. The distribution of anatomical elements suggests that while cattle carcasses were butchered somewhere else in the site, and then sectioned in the final consumption place, ovicaprines were probably butchered and consu-



US 26 <i>Equus caballus</i>		Measures		Height at the withers			
Anatomical element	GL mm	LI mm	(Kiesewalter, 1888)		(May, 1985)		
			index	cm	index	cm	
radius, left	325.0	313.4	LI x 4.34	136.0	GL x 4.111	133.6	
metacarpus, left	212.5	204.8	LI x 6.41	131.3	GL x 6.102	129.7	
metacarpus, right	212.5	205.7	LI x 6.41	131.9	GL x 6.102	129.7	
femur, left	378.0	-	LI x 3.51	-	GL x 3.501	132.3	
tibia, left	347.0	312.0	LI x 4.36	136.0	GL x 3.947	137.0	
metatarsus, right	257.3	250.6	LI x 5.33	133.6	GL x 5.239	134.8	
metatarsus, left	258.2	247.0	LI x 5.33	131.7	GL x 5.239	135.3	
Height at the withers			min	131.3	min	129.7	
			max	136.0	max	137.0	
			average	133.4	average	133.2	
			stand. dev.	2.1797	stand. dev.	2.7946	

TABLE 9

Brega (Rosà, Vicenza; US26): *Equus caballus*: length values from selected long bones and height at the withers.

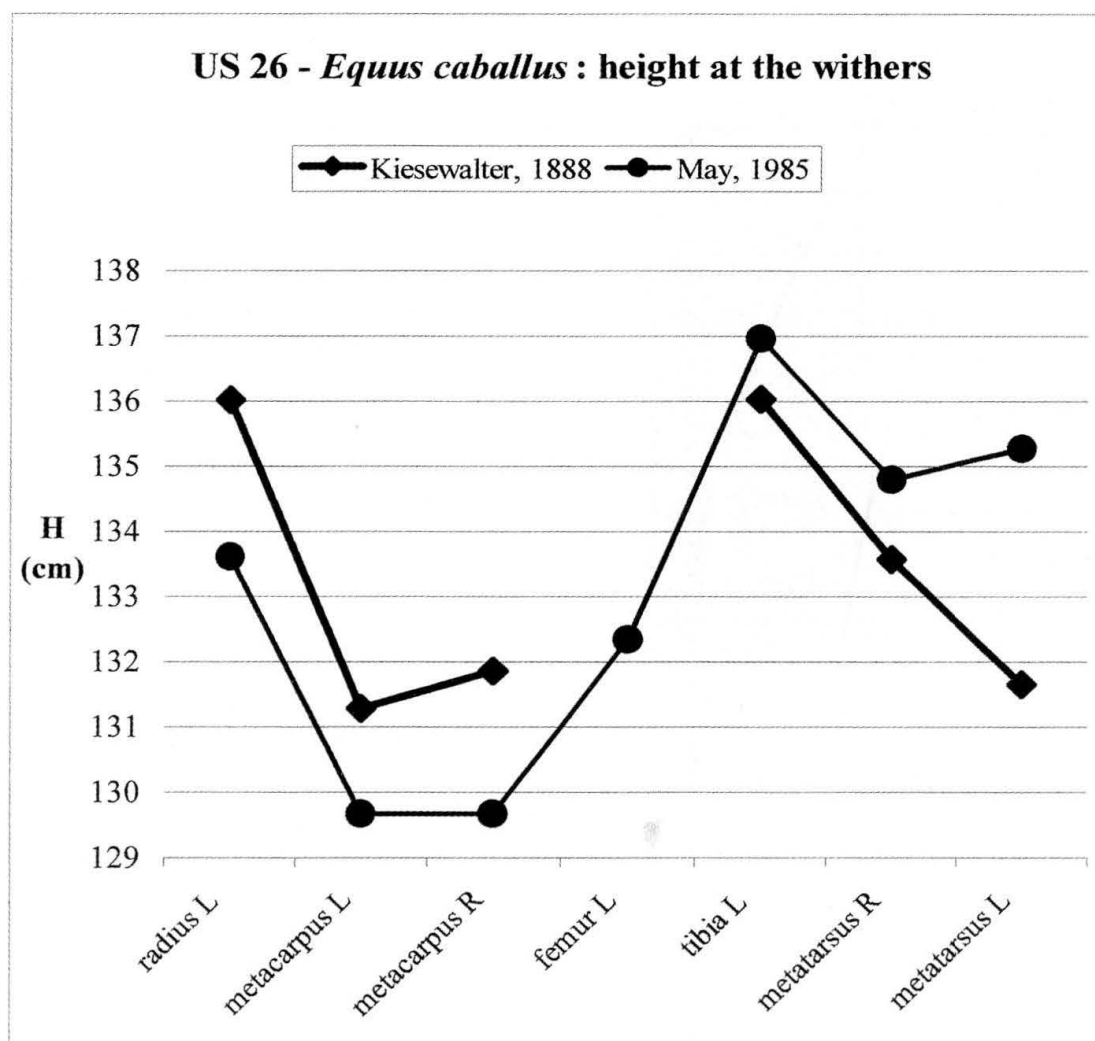


FIGURE 9

Brega (Rosà, Vicenza; US26): *Equus caballus*: height at the withers estimated from long bones.

Teeth							
Brega US 26 - <i>Equus caballus</i>				Bovolone (Riedel, 1993) - <i>Equus caballus</i>			
Tooth	L	B	L/B	Tooth	L	B	L/B
upper P2 average	39.8	24.9	1.60	upper P2			
upper P3 average	28.8	28.4	1.01	Upper P3	29.7	28.7	1.03
upper P4 average	28.2	28.6	0.98	upper P4	28.1	29.1	0.97
upper M1 average	26.5	26.7	0.99	upper M1	25.0	27.0	0.93
upper M2 average	26.4	26.1	1.01	upper M2	25.0	26.2	0.95
upper M3 average	29.0	29.6	0.98	upper M3			
lower P2 average	33.2	18.1	1.84	lower P2			
lower P3 average	28.8	20.4	1.41	lower P3	27.2	20.8	1.31
lower P4 average	27.3	20.2	1.35	lower P4	26.3	20.0	1.32
lower M1 average	24.6	19.1	1.29	lower M1	24.3	18.4	1.32
lower M2 average	24.5	18.1	1.36	lower M2	24.8	17.0	1.46
lower M3 average	35.7	16.3	2.19	lower M3			

Site	Bone	GLP
Brega	scapula	83.4
Bovolone	scapula	92.5

		GH	LmT	GB	BFd	GH/GB	GB/BFd
Brega	right astragalus	56.5	58.4	58.7	52.8	0.96	1.11
Brega	left astragalus	57.0	58.2	58.4	51.4	0.98	1.14
Bovolone	astragalus	56.2	56.7	58.5	49.8	0.96	1.17

		Bd
Brega	metatarsus	48.6
Bovolone	metatarsus	48.0

		GL	Bp	Dp	SD	Bd	GL/Bp	GL/SD	Bp/Dp
Brega	right ant. I phalanx	79.6	52.9	-	34.5	45.5	1.50	2.31	
Brega	left ant. I phalanx	80.3	51.6	33.8	34.6	45.3	1.56	2.32	1.53
Bovolone	ant. I phalanx	83.6	53.0	34.9	34.3	44.8	1.58	2.44	1.52
Brega	II phalanx	42.5	51.9	30.4	44.8	-	0.82	0.95	1.71
Bovolone	II phalanx	43.7	49.5	29.9	42.8	46.7	0.88	1.02	1.66

TABLE 10

Brega (Rosà, Vicenza; US 26): Metrical comparison between the horse of Brega and that of Bovolone.

med in the same place. Another source of meat was domestic fowl, well represented by both young and adult individuals. The faunal assemblage includes also a few remains of wild animals such as fox, red deer, domestic or wild goose (also used as food source), and the raven.

Another component of the sample is the large amount of cervid antlers, all belonging to red deer except one shed antler of roe deer. The relatively high number of shed antlers and the presence of only one red deer bone, indicate that the origin of antlers, to be used for artifact making, was mainly

a result of collecting shed antlers rather than hunting these animals.

The manufacturing process on the antlers employed mainly a metal saw with fine teeth to separate the tines from the beam as well as to cut the beam into smaller portions. In a few cases sectioning was carried out by heavy blows. A particular characteristic is the relatively high proportion of "peeling" traces made with a cutting metal tool in order to remove the surface portion of the antlers. The absence of remains at later manufacturing stages does not allow to identify the whole reduction sequence nor the types of the finished

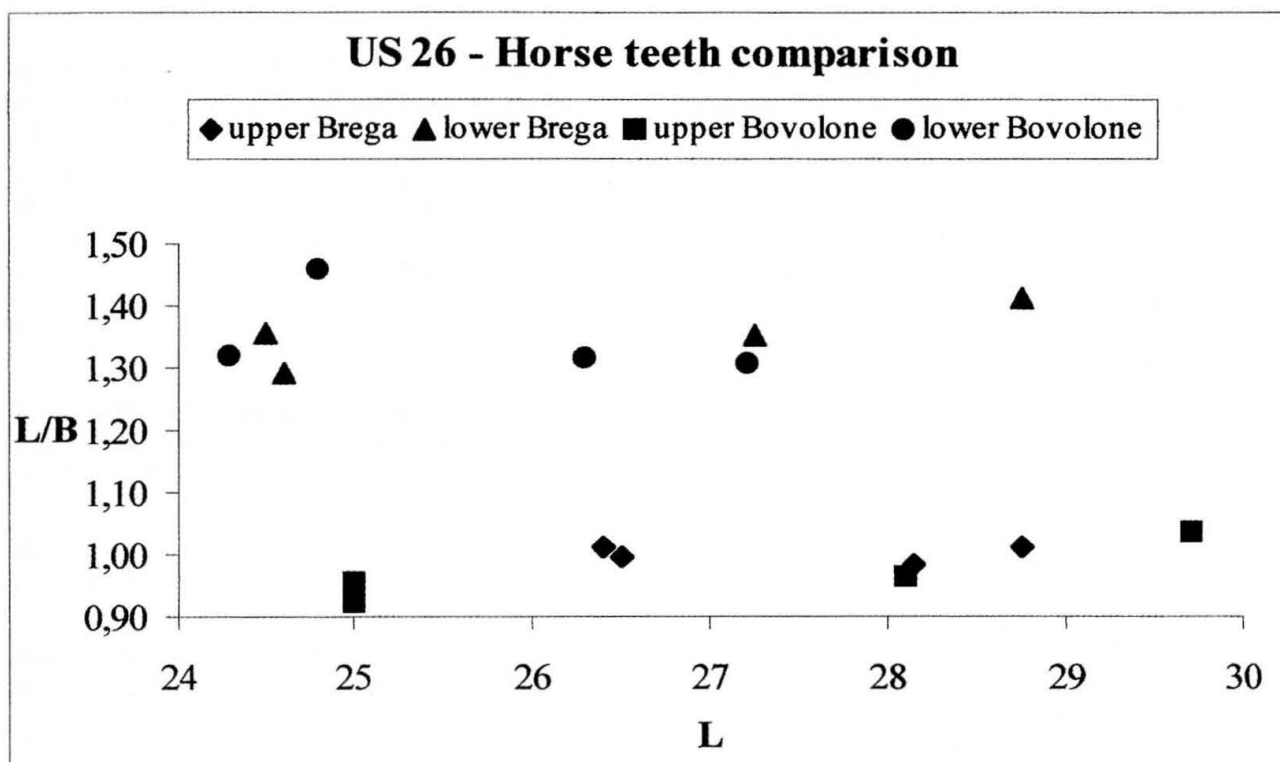


FIGURE 10

Brega (Rosà, Vicenza; US26): Biometrical comparison (length vs. length/breadth index) between the teeth from the horse of Brega and that of Bovolone.

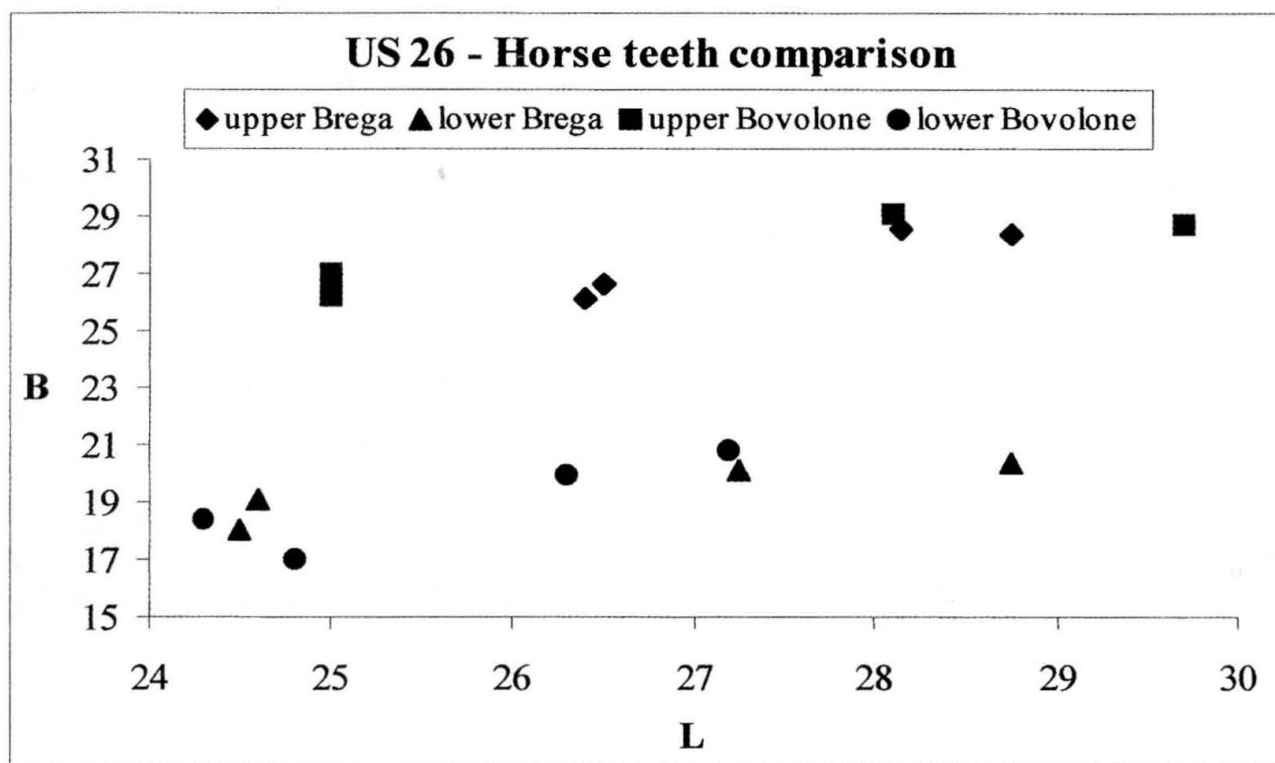


FIGURE 11

Brega (Rosà, Vicenza; US26): Biometrical comparison (length vs. breadth) between the teeth from the horse of Brega and that of Bovolone.

objects. The presence also of cut horn core fragments of cattle and of a ram, produced for the removal of the horn sheath, indicates that handicraft activities played an important economic role at this site.

In conclusion the faunal composition and the residues of handicraft activities are well in agreement with the agricultural and artisanal vocation of the Roman *villae rusticae*, where subsistence activities and the manufacture of products for the "market" took place.

#### ACKNOWLEDGEMENTS

We wish to thank Dr. Elena Pettenò (Soprintendenza Archeologica del Veneto) for allowing the presentation of the material, and Dr. S. Tuzzato for information on the archaeological context. We are also grateful to Giampaolo Gratton for the translation of the abstract in Spanish and to Beatriz Pino Uria for its technical revision.

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