

**THE ROMAN SITE (2ND TO 5TH CENTURIES A.D.) AT
QUINTA DO MARIM NEAR OLHÃO (ALGARVE,
PORTUGAL): VERTEBRATE FAUNAS**

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RESUMO

Palavras-chave: Mamíferos - Aves - Época romana - Algarve - Portugal.

São estudados, pela primeira vez em Portugal, restos da época romana de mamíferos - domésticos, coelho (em parte bravo?), rato preto - e aves. Nada demonstra a prática de actividade cinegética. A amostragem provém de tanques

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de salga, correspondentes a: 1, fase de laboração de uma fábrica de salga de peixe; 2a, primeiro episódio de abandono; e 2b, derrubes e lixeiras tardo-romanos. Só no primeiro caso foi detectada a presença de porco, o que está certamente relacionado com ocupação permanente do local. Modificação aparentemente significativa de 2a para 2b das proporções das ocorrências de cabra, que declinou, vs. boi (além da ocorrência de carneiro em 2b). Estes aspectos bem como a presença de ganso-patola sugerem oscilação climática no sentido de clima menos seco e quente.

RÉSUMÉ

Mots-clés: Mammifères - Oiseaux - Époque romaine - Algarve - Portugal.

On étudie, pour la première fois au Portugal, des restes de mammifères domestiques, de lapin (en partie sauvage?), du rat noir et d'oiseaux, de l'époque romaine. Rien ne démontre l'activité cinégétique. Les échantillons proviennent du remplissage de bacs pour la salure de poisson correspondant à: 1, phase de laboration de la fabrique (2ème moitié du IIème siècle AD - 1ère moitié du IIIème); 2a, premier épisode d'abandon (2ème moitié du IIIème - 1ère moitié du IVème); 2b, des éboulis et dépôts d'ordures tardo-romains (IVème siècle - début Vème). La présence du porc n'a été reconnue que dans le premier cas, ce qui doit être en rapport avec l'occupation humaine permanente du site, permettant l'élevage de ces animaux. Entre 2a et 2b il y a eu des changements, apparemment significatifs, des rapports quantitatifs entre les chèvres (dont la présence a décliné) et, d'autre part, les boeufs. Ceci, outre les présences de mouton et du fou de Bassan dans le remplissage 2b, suggèrent une oscillation climatique dans le sens d'un climat moins sec et peut-être moins chaud.

ABSTRACT

Key-words: Mammals - Birds - Roman epoch - Algarve - Portugal.

In this paper we deal, for the first time as far as Portugal is concerned, with

the study of vertebrates from Roman infillings of tanks for fish salting: domestic mammals, rabbit (partly wild?), black rat and birds. There is no evidence of hunting. Samples correspond to: 1, industrial plant operational phase, from the 2d half of the II century AD to the 1st half of the IIIrd century; 2a, first abandonment episode, 2d half of the IIIrd century to the 1st half of the IVth century; 2b, late Roman fallen materials and disposal dumps, IVth century to early Vth century. The presence of pig has only been recognized in the lower, 1 infilling and seems to be related to human permanent occupation of this area that allowed the breeding of these animals. Apparently significant changes occurred between 2a and 2b, with a decline of the presence of goat vs. an apparent increase of cattle and the presences of sheep and gannet *Sula bassana* (that may be regarded in this context as a rather northerly species); all this suggests a climatic oscillation towards a less dry and maybe less warm situation.

INTRODUCTION

Roman occupation seems to have been important in coastal Algarve. Among others, two important towns existed in its eastern part - Ossonoba (now Faro) and Balsa, this last being probably represented by the site at Torre de Ares.

Economic activities were undoubtedly thriving since early times, even before Augustus' reign (27 BC - 14 AD). They even justified the production of several coinages at the above referred towns. Fishing certainly played (as today) a major economic role. Hence it is not surprising that fishes, either clearly recognizable as tuna (as in Gades Roman-Phoenician coinage) or probably so (i.e. in coins from Ossonoba, Balsa and elsewhere), appear nearly always in these coins, like a true "leit motiv" (see GOMES & GOMES, 1981-1983).

In coastal Algarve, then a part of Hispania Ulterior province, it could thus be expected that there were several plants for the production of fish preserves and specially of the highly prized *garum*, a salted fish paste (or sauce). Similar plants were then active much farther North at Troia and Setúbal, at Cacilhas (near Almada) and even at Lisbon (as in Casa dos Bicos foundations).

However the actual discovery in Algarve of a *garum*-production unit with salting vats is quite recent: this was found at Quinta do Marim, near the town of Olhão, close by the Ria Formosa and opposite to the Barra Grande. This site was

excavated in 1988 and 1989 by archaeologists C. Tavares da Silva and J. Soares, who presented a full account of their work (see SILVA & SOARES, 1991). Some bones were collected. Accordingly, Mr. Tavares da Silva asked for our (M.T.A.) collaboration in this study. As some specimens were subsequently recognized as birds, M.T. Antunes asked Mrs. Mourer-Chauviré to identify them.

Summing up the results of C. Tavares da Silva and J. Soares stratigraphical observations, the following infillings were recognized:

1 - from the *operation phase*, 2d half of the 2d century AD to the first half of the 3d century; beds 3 or 4, both from the same phase; room corresponding to the square Q I 14.

2 - still Roman but later than the operation phase

a) accumulated during the *first abandonment event*, 2d half of the 3d century to the 1st half of the 4th century AD:

- vat I, local bed 6 (= bed 4 in the general stratigraphy)
- vat II, bed 6 (= bed 4)
- vat IV, beds 6, 7 and 8 (= beds 4 and 5 in the general stratigraphy)
- vat V, bed 5 (= bed 4)
- vat VI, bed 5 (= bed 4), somewhat later than the abandonment event.

b) *Late Roman collapsed materials and disposal dumps*, 4th century to early 5th century AD:

- vat I, beds 3 to 5
- vat II, beds 3 to 5
- vat IV, beds 3 to 5
- vat V, beds 3 and 4
- vat VI, beds 3 and 4.

3 - *Medieval and modern materials* (XIV to XVIth centuries?) on the vats I and II, not considered in this study.

As far as we know, this is the first archaeozoological study of a Roman site in Portugal, and specially the first account on birds from any portuguese archaeological site.

Quite curiously - because fish preserves were not kept - all samples are nearly devoid of fish remnants. Even for the remainder of the fauna, material is quite scarce and does not allow a complete insight on the characters and relative

proportions of animal food consumed by man in this context. Even so, some conclusions may be drawn.

Furthermore, this study may be useful for comparison with faunal data concerning other, and particularly Roman, localities.

THE FAUNA

The fauna so far recognized in the 1, 2a and 2b infillings is shown in the Table 1, along with data about *post mortem* modifications: cut and gnawing marks, and evidence of bones having been fired.

Of course, not all fragments could be identified, owing to fragmentation.

Samples from the earliest, 1 infilling are too poor to warrant the validity of a statistic approach, although percentages are given anyway. A synthesis of the data so far obtained is presented in the Table 1.

For the larger mammals consumed by man (pig, cattle, goat, sheep) the identified bones corresponding to the cephalic, axial and appendicular skeleton were counted and percentages were calculated (Table 2), although their low numbers do not offer any clear indication as to the body parts more often used as food.

CONCLUSIONS

Summing up, we may reach the following conclusions:

1. Most of the bones are obviously human food leftovers; many of them have been fired.
2. Many bones show gnawing marks indicative of secondary consumption by either domestic animals (dog and cat) and commensal ones (black rat).
3. The presence of cat is interesting since its generally spreading as a pet or mouse controlling agent has been generally assigned to a much later date; however evidence in Portugal shows the presence of cat since even earlier times as at the Garvão site, III century BC (ANTUNES, 1991).
4. There is no evidence of game animals (except eventually if some rabbit

remnants belonged indeed to wild ones), hence hunting was not carried on or it had but a minor role in human activities in that seemingly poor in game (or nearly devoid of it) region.

5. The presence of pig only in the lower level, corresponding to the occupation phase can be correlated to the stability of the human presence and to the availability of food leftovers such as fish less prized parts, used to feed domestic pigs.

6. The later phases are characterized by a majority of domestic goat remnants, along with some sheep ones - only recognized in the Late Roman 2 b infilling - and with rare cattle. Apparently people did not settle there, at least permanently, although there was some temporary occupation. Cattle does not seem to have been extensively bred. This fact, along with goat predominance, are undoubtedly related to shepherd activities in a rather dry country with few suitable grazing. The presence of dogs is only to be expected in shepherd communities.

7. Consumption of rabbit was common during the first abandonment event and after.

8. The presence of the black rat is interesting; it is in agreement with the suggested later immigration (generally ascribed to Crusade times) of the now prevalent *Rattus norvegicus*.

9. The skylark (*Alauda arvensis*) clearly points out to dry, open environments, while the gannet (*Sula bassana*), an entirely marine species, now only nidifies in more Northern latitudes (but migrates southwards down to portuguese coastal waters during Winter).

10. Environment does not seem very different from today's as far as 1 and 2a infillings are concerned - there were open spaces and a rather dry, warm (hot, in Summer) coastal environment generally with scant vegetation. However when passing to 2b infilling, samples apparently show a sharp decline of goat coupled with increases in cattle and sheep. These convergent data seem to suggest an episode of a less dry and maybe not so warm climate/environment. The presence of a relatively northern species as *Sula bassana* also seems to point out in the same direction.

Table 1 - Synthesis of the vertebrate faunas of Quinta do Marim

	TAXA	INFILLINGS														
		1					2 a					2 b				
		n	% (gr.mam)	% (mam.)	n	% (gr.mam)	% (mam.)	n	% (gr.mam)	% (mam.)	n	% (gr.mam)	% (mam.)			
Mammals	<i>Canis familiaris</i> L.	-	-	-	-	-	-	-	-	-	15	-	16.7			
	Small Carnivore	-	-	-	-	-	-	-	-	-	1	-	1.1			
	<i>Sus domesticus</i> L.	5	55.6	41.7	-	-	-	-	-	-	-	-	-			
	<i>Bos taurus</i> L.	-	-	-	2	2.3	1.3	-	-	-	8	22.9	8.9			
	<i>Capra hircus</i> L.	4	44.4	33.3	85	97.7	55.9	-	-	-	15	42.9	16.7			
	<i>Ovis aries</i> L.	-	-	-	-	-	-	-	-	-	12	34.3	13.3			
	Σ gr.mam.	9			87						35					
	<i>Oryctolagus cuniculus</i> (L.)	-	-	-	40	-	26.3	-	-	-	3	-	3.3			
	<i>Rattus rattus</i> L.	-	-	-	3	-	2.0	-	-	-	-	-	-			
	Undeterm. mammals	3	-	25.0	22	-	14.5	-	-	-	36	-	40.0			
	Σ mam.	12			152						90					
Birds	<i>Sula bassana</i> (L.)	-	-	-	-	-	-	-	-	-	8	-	-			
	<i>Alauda arvensis</i> L.	-	-	-	1	-	-	-	-	-	-	-	-			
Fish	Undeterm. Selachian	-	-	-	1	-	-	-	-	-	-	-	-			
	Σ	12			154						98					

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REFERENCES

ANTUNES, M. Telles (1991) - Restos de animais da estação arqueológica de Garvão (séc. III AC). Volume jubilar A. Nobre de Gusmão. [Em publicação].

GOMES, R. Varela & GOMES, M. Varela (1981-83) - Novas moedas hispânicas de Balsa e Ossonoba. *NUMMUS*, 2ª série - Vol. IV/V/VI, p. 155-182. Porto/ Sociedade Portuguesa de Numismática.

SILVA, C. Tavares da; SOARES, J.; COELHO-SOARES, A. (1992) - Estabelecimento de produção de salga da Época Romana na Quinta do Marim (Olhão). Resultados preliminares das escavações de 1988 - 89 [Nesta publicação].

Table 2 - Number and % of bones according to parts of the skeleton.

	Cephalic		Axial		Limb		Σ n
	n	%	n	%	n	%	
1. Operation phase	6	66.7	-		3	33.3	9
2a. 1st abandonment event	22	28.7	32	42.1	22	28.9	76
2b. Late Roman collapsed materials and disposal dumps	30	57.7	14	26.9	8	15.4	52