Marcham. The animal bones from the Favissa pit

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A close examination of the Favissa pit contents has encompassed almost three thousand animal bone fragments. However, nearly two thousand of these were not identifiable to species and those that were come from a limited range of animals, dominated by the three main livestock species with a few specimens of equid (probably horse but could also include donkey etc) and dog. There were also bird bones, with all of those identified to species being domestic fowl (chicken). There were a few amphibian bones, with both frog and probably toad identified, as well as a vole bone. There were three specimens which were consistent with lagomorph, and whilst these may represent hare, rabbit is also possible with the attendant possibility of disturbance.

Sheep/goat were the most abundant species by both Number of Identified Specimens (NISP) and Minimum Number of Individuals (MNI) (Table 1). Cattle were the next most abundant, with the pattern between larger and smaller mammals being borne out in the unidentified material which could be identified as cattle-sized or sheep-sized. Pig were least well represented of the three main livestock species, but at 20% of the identified mammals more abundant than is frequently the case.

Table 1. Abundance of taxa by NISP and MNI

Taxa	NISP	% ID larger mammals	MNI
Cattle	239	29	7
Sheep/goat	389	48	9
Pig	163	20	8
Dog	5	1	3
Equid	15	2	2
Domestic fowl	32		
Bird	18		
Vole	1		
Small mammal	3		
Frog	1		
?Toad	3		
Amphibian	1		
Cattle-sized mammal	323		
Sheep-sized mammal	413		
Unidentified mammal	1241		
Total	2847		

Sheep/Goat

All of the specimens which could be positively identified were those of sheep, with no goats identified. Several examples of hornless sheep have been noted, with four cases of this to a single example of an animal represented by the same region of the skull which display the

base of horns. In at least one case the horns appear to have been removed (potentially at a young age) but in the other cases appear to be congenitally absent.

There were very few examples of younger animals present with only three neonatal bones noted; the majority of assessable epiphyses were fused, and those which remained unfused were largely those which are later and the latest fusing. A modest number of mandibles could be assigned an age score (Figure 1), which suggests a range of age groups including older animals. However, a comparison with examples from other features in Trench MF14 suggests that this may be similar to the general profile for this phase of the site.

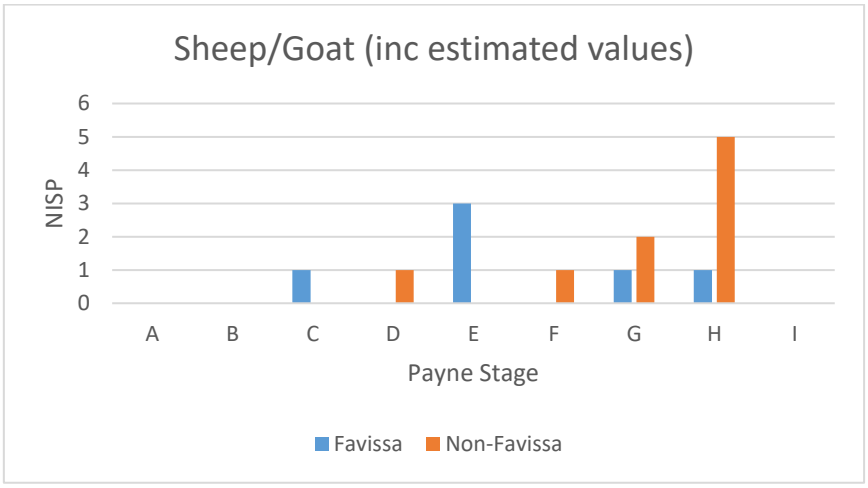


Figure 1. Sheep/goat mandibles, Payne age stages.

Most areas of the body were represented. A simple NISP count (Figure 2) is probably inflated by the differential fragmentation of certain elements and robust elements such as the radius and tibia which are well represented. The assemblage was well fragmented as about 25% of identifiable fragments were loose teeth. However, there does appear to be good representation of the axial skeleton (particularly in comparison to cattle, see below), and a general lack of peripheral elements (phalanges etc).

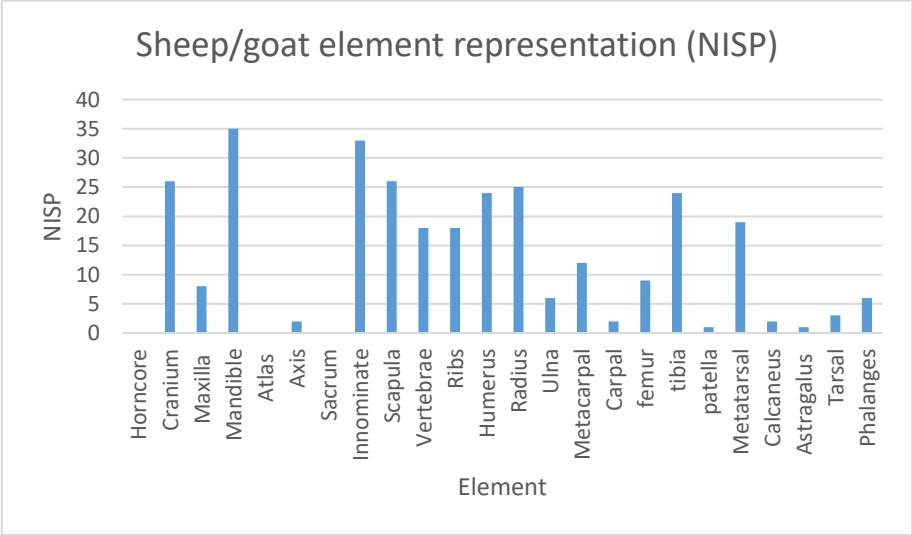


Figure 2. Sheep/goat elements representation by NISP.

Cattle

Cattle were the second most abundant taxa but, probably as a result of differential fragmentation due to element size, there were almost no mandibles to consider for age. A single mandible provided a score which would suggest a young adult; there were a few others which were probably from slightly older animals. Whilst there were a handful of porous fragments, there were very few unfused assessable epiphyses, indicating mainly skeletally mature animals. This contrasts with a small number of young calves indicated by some mandibles from non-favissa contexts in Trench MF14.

The representation of cattle elements differed to that of sheep/goat, in that whilst there was a similar representation of head elements and lack of elements from the extremities, there were far fewer limb bones present (Figure 3). It appears that whilst heads were disposed of in this feature, most other elements were not with the exception of pelves and scapulae.

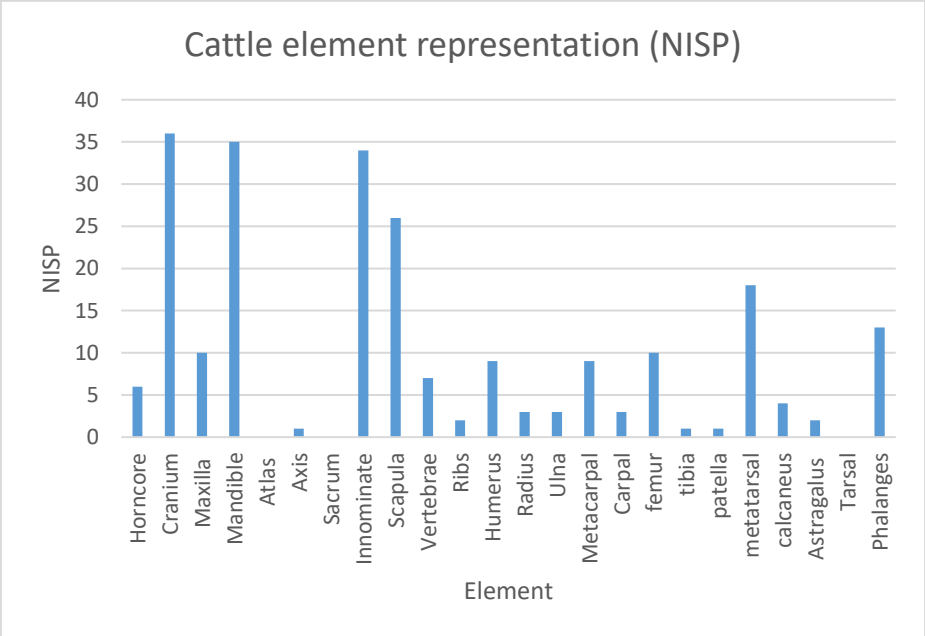


Figure 3. Cattle element representation by NISP.

Pig

Pigs were the third most abundant species but are well represented at 20% and a MNI which suggests an under representation by NISP. The aging information for pigs suggests a common situation wherein the pig population was slaughtered at a younger age. Almost 20% of the assemblage was porous and a greater proportion of assessable epiphyses were unfused, suggesting a younger population. The small number of assessable mandibles from the favissa pit also indicated the presence of the very youngest animals (Figure 4). This may reflect keeping animals nearby resulting in farrowing losses, or more possibly a preference for very young pig for food. The small number of non-favissa pig mandibles available suggest slightly older animals in those features by it is a tentative observation. There are also a small number of lower canines available for consideration and all of these are male.

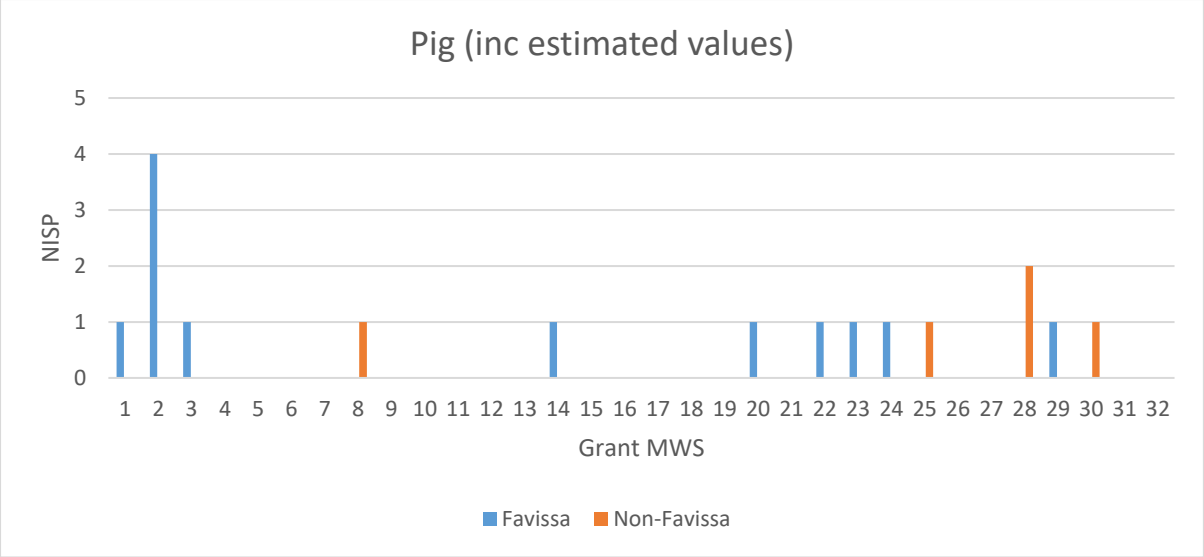


Figure 4. Pig mandibles, Grant mandible wear stages.

The element representation for pig also has what appears to be an emphasis on head elements, and a limited representation of foot elements. However there is a much less clear distribution across the other elements although there is a notable absence of pelves in comparison to sheep/goat and cattle.

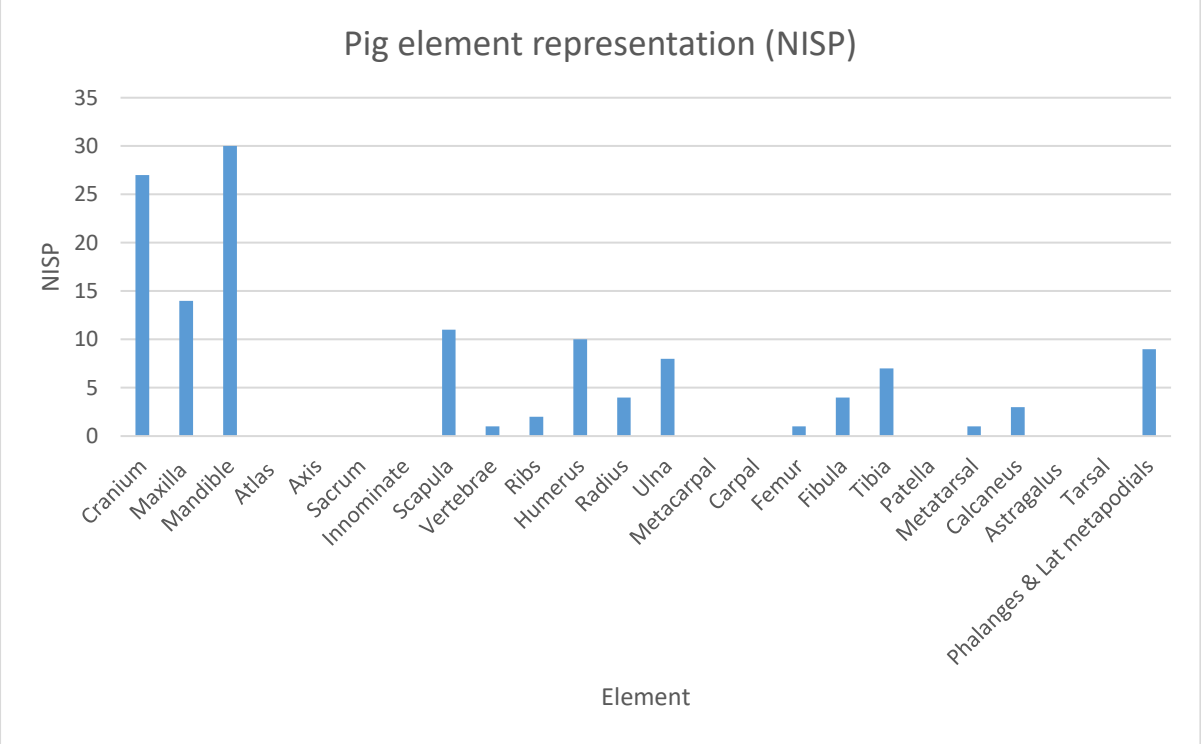


Figure 5. Pig element representation by NISP.

Dog and equid (horse or donkey)

Dogs are particularly poorly represented in this assemblage, although there are significant numbers of specimens which have been gnawed by canids. This suggests that there were dogs present on the site and this material was available to them, but this feature was generally not

appropriate for the disposal of their remains, or the source of the material did not generally include dogs. The material mainly relates to fragments of mandibles, half with the teeth lost post-mortem, which suggests that they originated elsewhere before deposition in this feature.

Equids are almost as poorly represented. They are represented by a scatter of elements representing all parts of the body; all assessable epiphyses are fused.

Domestic fowl

A total of 50 bird bones were recovered from six contexts within the pit, of which 32 could be positively identified as domestic fowl (chicken), whilst the remaining material is likely to originate from the same birds. In contexts 14348, 14329 and 14346 the majority of the material probably relates to associated bone groups representing the disposal of partial carcases, combined with a few elements from additional birds. Most of these birds are compatible with bantam sized birds; there was a single juvenile, and two birds which may be female.

Butchery

About 2% of the mammalian assemblage exhibited cut marks associated with butchery. The majority of this was in the form of heavy cuts and chops, in some cases with multiple cuts in the same location, although sometimes in a disorganised pattern. A range of elements is affected and all taxa except dog have cut marks present, including equids. One cut mark was noted on a chicken bone, on the distal tarsometatarsus where the foot had been removed. In general, the butchery is not regularised or systematic.

Pathology

Pathological changes were noted in most taxa. An example of age related change occured in a cattle pelvis, as was also the case with an equid, suggesting older animals. There were examples of non-specific infections on two other cattle elements and a cattle-sized fragment of rib displayed periostitis. This also occurred on two sheep-sized rib fragments. There was a healed fracture to a long bone of sheep-sized animal as well as one example of penning elbow in sheep. One fragment of sheep skull displayed abnormal thickening of the tables.

Pathological changes were noted in two cases in domestic fowl. In context 14348 a pair of femurs exhibit changes in the proximal articulation of the femur and there is a pelvis from the same context, also with changes which suggest degeneration of the joint and probably comes from the same bird. One of the femurs is broken mid-shaft but has extensive new disorganised bone on the surface, possibly as a result of a fracture or an infection in the leg. In context 14346 there was a tarsometatarsus with a healed fracture. This suggests care.

Taphonomic information

It has been noted above that there was a considerable amount of dog gnawing present in the assemblage. The material, whilst fragmented was in generally average or average-good condition, which is attested by the various indicators which have been mentioned above. There were however also burned fragments, and there were concentrations of this in particular contexts. In 14292, 14311 and 14312 there were large numbers of burned fragments. Much of this could not be identified to species but amongst it all of the three main livestock taxa were represented. The burning was not complete or even; there were a range of

colours present within each group, and often more than one degree of burning on individual fragments, ranging from charred black through to entirely calcined material. This appears to represent a non-systematic and incomplete practice.

General observations

Given the identification of this feature as a favissa pit associated with the operation of the Roman temple, it is worth noting that there is limited evidence for strong patterns in these data which might indicate any particular practice. The relative abundance of the species does not suggest selection on that basis; there are differences between the species in regard to element representation, but this is not marked; there is no clear emphasis on animals in one age cohort, and in addition, there is no tendency to one side of the body or the other in any of the species.

Much of the material has been gnawed by dogs, suggesting that it was available prior to burial. Butchery was no more common than is generally seen in assemblages of this period, but it does not appear to be expert or systematic. In addition there were several contexts which suggest episodes of burning, but this was incomplete and also non-systematic.

The general impression from this material is that it is compatible with general food waste. The lack of young animals in this relatively well preserved assemblage suggests that the location was unlikely to be close to an area where they were being raised. However, there are indications of some selection of animals for meat. The young pigs would fit into this scenario, whilst several of the differences with respect to element representation may indicate specific joints of meat being brought to the site as well as animals slaughtered on site. Older cattle and sheep, possibly surplus breeding stock, may have been regarded as an acceptable source of meat. Chickens were probably cooked whole which explains the groups of associated bones. The apparently elevated number of heads being disposed of in this location would need to be considered in relation to the representation of taxa and elements in other parts of the site in order to provide its full context and import.