

Whitworth Park-WP11 and WP13- Faunal Material

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Methodology

All faunal material was identified and recorded by the author, undertaken at The University of Manchester. All specimens were identified to species, where possible, using identification manuals (Pales and Lambert 1971, Schmid 1972, Hillson 1992); further identification was undertaken, where necessary, using the skeletal reference collections held by the Zoological and Bioarchaeology departments within Faculty of Life Sciences at the University of Manchester. Specimens that were not identifiable to species, such as longbone shaft fragments, or elements not readily identifiable to single species, such as ribs, were classified according to size, as small, medium or large mammal. The completeness of specimens was recorded according to the zonation scheme outlined by Dobney and Rielly (1988), which identifies what parts of the identified skeletal element are present in each specimen.

Osseous remains were aged, where possible, according to the level of union between epiphyses and diaphyses; those specimens exhibiting unfused, actively fusing or fused epiphyses were scored as 'Uf', 'f' or 'F' respectively, and assigned an age according to established fusion sequences and timings for specific species (Silver 1969). All metrics were taken according to von den Driesch (1976), and are presented in appendix I.

Quantification of species and skeletal elements is initially calculated as a simple count of the number of identified specimens (NISP). In larger assemblages, completeness data recorded using the zonation scheme is used to calculate the minimum number of elements (MNE) and minimum number of individuals (MNI), based on the most frequent repeating zone and subsequently, the most repeated element. MNE/MNI calculations are preferential, as they are less biased by the differential survival and fragmentations rates between different species and different skeletal elements within the skeleton. However, in assemblages as small as those presented here, elements are rarely represented by more than a single specimen, making NISP and MNE figures the same. In the following analysis NISP will be used, unless differential fragmentation clearly biases species or element frequencies, in which case MNE/MNI figures will be presented.

Faunal Material

Species	Tr.1	Tr.3	Tr.4	Tr.5	NoPro	Total
Cow	8				1	9
Pig	1		1			2
Sheep/goat	7		6		1	14
Rabbit	2					2
Lagomorph			1			1
Chicken	4			1		5
Duck sp.					1	1
Human	1					1
Medium Mammal	20	1	2		3	26
Large Mammal	8	1	3			12
Unidentified	9		7		1	17
Total	60	2	20	1	7	90

Table 1. Number of identified specimens (NISP) of each species and size category within the Whitworth Park assemblage, and the distribution across each trench.

A total of 90 specimens were recorded across five trenches (table 1); of the identified mammalian species, cow and sheep/goat are most frequent and chicken dominate the avian species, however, the majority of the assemblage is within the 'medium mammal', 'large mammal' and 'unidentified' categories. The following analysis will assess the assemblage

from each trench, separating it, where possible, into 'pre park', 'park use' and 'post park' phases.

Trench 1

The overall frequency of specimens identified to species and size category are presented in table 1.

Pre-Park Contexts

Species and Element	1002	1008	1011	1055	Total
Chicken					
Humerus			1		1
Vertebra	1				1
Cow					
Phalanx I		1			1
Large Mammal					
Long bone fragment				1	1
Rib		1			1
Medium Mammal					
Cervical vertebra		1			1
Humerus		2			2
Rib	2	1	1		4
Thoracic vertebra		1			1
Rabbit					
Scapula		1			1
Sheep/goat					
Calcaneous		1			1
Unidentified					
			7		7
Total	3	9	9	1	22

Table 2. Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution across pre-park contexts in trench 1.

The assemblage from pre-park contexts (table 2) is extremely small, and whilst these deposits all date from before the construction of the park, this is not to say they are contemporary with one another. The 9 specimens from (1011), an interface layer between the underlying geology and the overlying (1008), may relate to activity in the area prior to the park construction. However, as isolated finds, they offer little scope to offer further conclusions, aside from the presence of chicken indicating that whether related to in-situ activity or introduced material, the deposition even occurred after the introduction of this species in the Iron Age. Alternatively, this material may be derived from the overlying (1008). The single specimen from (1055) pipe trench fill may have been included during the digging of the feature; alternatively it may have been a residual specimen, similar to those recovered from (1011), incorporated into the trench fill as the excavated material was used as backfill. Contexts (1002) and (1008) are notably dominated by elements from the axial skeleton (ribs and vertebrae) and elements from the extremities (phalange and calcaneous). The identified species show exclusively larger domestic species (excluding rabbit-see below), and considering the dearth of larger wild species within the entire assemblage, it is highly likely the medium and large mammals specimens are also cow and sheep/goat. The species and skeletal elements indicate this material is most likely butchery waste, as they

are the meat-poor portions that are either removed, such as the phalanges, or trimmed off, such as the ribs. Both rib specimens exhibit saw and cut marks that attest to processes of butchery. Both (1002) and (1008) are materials imported as part of the park construction; therefore this material is not the result of in-situ activity, but instead was more likely discarded as waste and incorporated into the material prior to its use in the park construction. The single rabbit specimen, recovered from (1008) may also be domestic refuse incorporated into the imported material, however, as a burrowing species, remains can also pertain to individuals that have died in burrows and become incorporated into the surrounding material.

Park Use Contexts

Species and Element	1083	1084	Total
Human			
Phalange		1	1
Pig			
Fibula	1		1
Total	1	1	2

Table 3. Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution across park use contexts in trench 1.

Only two contexts, (1083) and (1084), both lower lake deposits, returned any osseous remains that may relate to in-situ use of the park (see table 3). More significantly, the basal fill of the lake returned a single human intermediate phalange, most likely from the fifth digit (little finger) based on size and proportions. Three potential explanations for this specimen can be offered; firstly, it is residual material from early activity in the area, which had become reworked into the lake deposits. Secondly, it originates from the ‘puddling clay’ (1088) or sand (1087) used to line the lake, in which case it is not possible to comment on what depositional state it existed in prior to being excavated and imported to the site. Thirdly, it originates from a whole individual, partial individual or isolated part of an individual that was deposited into the lake whilst the park was in use. Radiocarbon dating the specimen would establish whether it is contemporary with the park, or earlier residual material.

The single pig fibula from (1083), originating from a juvenile c.6-8 months of age, could be interpreted as consumption waste, as the fibula makes up the ‘hock’ or ‘shank’. (1083) is interpreted as a primary intentional backfilling deposit, which suggests this specimen, like the specimens within (1002) and (1008), may have been discarded as waste and incorporated with the matrix of (1083) before it was introduced to the site. Alternatively, this specimen may have originated in the lower (1084), and become forced into (1083) during backfilling; if this is the case, this specimen may also pertain to use of the park.

Post-Park Contexts

The post-park contexts (table 4) can be divided roughly into those that backfill the paddling pool (1033, 1076 and 1078), and those that cover the park more generally (1001-1007). However, the faunal material from these two groups is very similar; both contain axial element from sheep/goat and cow sized species, and limb elements of either cow, sheep/goat, or both. All of the sub-assemblages are too small to draw any detailed conclusions, however, overall, the material represents both butchery waste (vertebrae and ribs) and potential consumption waste (limb elements). Numerous specimens exhibited saw and cut marks, including vertebrae sawn longitudinally and limb bones with the ends sawn off, associated with the division of whole carcasses and the preparation of ‘on the bone’

meat joints. However, as intentional backfill deposits, this material has been imported from elsewhere; the species and skeletal element patterns would suggest the osseous material at least is derived from domestic waste, and potentially some industrial butchery waste. As a regularly consumed species, the presence of chicken fits with the interpretation of this material as at least partially domestic consumption waste. The rabbit may also be consumption remains, however, as discussed above, their remains can also be intrusive due to their burrowing habits.

Species and Element	1001	1004	1005	1007	1033	1076	1078	Total
Chicken								
Femur				1				1
Ulna		1						1
Cow								
Astragalus	1							1
Femur			1					1
Phalanx II	2							2
Radius						1		1
Ulna			2					2
Large Mammal								
Rib		3		1				4
Vertebrae	2							2
Medium Mammal								
Long bone fragment	1							1
Lumbar vertebrae	1		1					2
Rib		3			1	2	1	7
Thoracic Vertebrae					1			1
Tibia	1							1
Rabbit								
Tibia					1			1
Sheep/goat								
Humerus	1							1
Pelvis		1						1
Radius	1				1	1		3
Ulna	1							1
Unidentified								
	2							2
Total								
	13	8	4	2	4	4	1	36

Table 4. Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution across post-park contexts in trench 1.

Trench 3

Only two specimens were recovered from trench 3 (table 5), neither were identifiable to species. As these specimens were recovered from (3017), which was a construction backfill for the bandstand, the osseous material may have been part of the matrix prior to its extraction and deposition at the site.

Species and Element	3017
Large Mammal	
Long bone fragment	1
Medium Mammal	
Rib	1
Total	
	2

Table 5. Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution across post-park contexts in trench 3.

Trench 4

Species and Element	4001	4002	4020	4021	4022	4024	Total
Lagomorph							
Radius				1			1
Large Mammal							
Rib	1						1
Vertebrae						2	2
Medium Mammal							
Rib			1			1	2
Pig							
Incisor					1		1
Sheep/goat							
Mandible				5			5
Molar				1			1
Unidentified		2	1	1		3	7
Total	1	2	2	8	1	6	20

Table 6. Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution in trench 4. Note the 5 fragments of sheep/goat mandible refit, along with the molar, therefore presenting an MNI of 1.

A total of 20 specimens were recovered from trench 4 across six contexts (table 6), which can broadly be separated into pre-park garden contexts (4021, 4022 and 4024), park construction contexts (4020) and post-park contexts (4001, 4002). The sub-assemblage from the pre-park garden layers is extremely small, thus limiting any firm conclusions, however, comprising of teeth, mandible, ribs and vertebrae, it could be characterised waste from butchery, as opposed to consumption. It is not possible, however, to ascertain whether this is from local butchery practice, or they were brought in from elsewhere, potentially to be used as fertilising additives to the soil. The single lagomorph specimen sits within the size range of both rabbit and hare and is not morphologically identifiable to either species; it may be waste from consumption, or it may relate to intrusive burrowing.

Two specimens from the park construction phase (4020) could not be identified to species, however, the 'medium mammal' rib is likely to be sheep/goat, based on the relative prevalence of this species over pig. Similarly, the three specimens from the post park topsoil and subsoil (4001 and 4002) could not be identified to species; the large mammal rib is likely to be cow.

Trench 5

A single chicken ulna was recovered from context (5005). If this material is demolition material relating to the 'Old Men's Shelter' that once stood on the site, this osseous specimen may relate to consumption debris from within the structure.

WP 10 NoPro

A total of 7 specimens were recovered from the 2010 evaluation, from a single context (table 7). Based on size, the duck femur is from a larger species, such as mallard, shelduck or domestic duck. Without contextual information it is not possible to draw any further interpretations of the materials beyond the identification of species and elements.

Species and Element	1A	Total
Cow		
Calcaneous	1	1
Duck sp.		
Femur	1	1
Medium Mammal		
Rib	3	3
Sheep/goat		
Tibia	1	1
Unidentified	1	1
Total		
	7	7

Table 7 Number of identified specimens (NISP) of species, size categories and skeletal elements, and distribution in WP10 NoPro evaluation.

Conclusions

The majority of the faunal remains within the assemblage were recovered from contexts that were imported to the site from elsewhere, for either the construction or later remodelling of the park. The species and skeletal element frequencies suggest a mixture of consumption and butchery waste, indicating the materials used in the park were at least in part domestic or industrial refuse derived from outside of the park. Only the remains from (1084), and potentially (1083), relate to in-situ park use; of the two specimens recovered from these contexts, the presence of a human hand phalange is particularly notable. If radiocarbon dating confirms this to be contemporaneous with park use, it indicates the discard or deposition of, at the very least, a partial human finger into the lake, and at most, offers the potential for more human remains within the basal lake deposit.

Bibliography

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Specimen	Project Code	Trench	Context	Find No.	Species	Element	Side	Bd	BG	Bp	Dd	DID	Dip	GLP	Glpe	HS	LG
2	WP13	1	1007	58	Bird	Femur		21.8			17						
15	WP11	1	1008	026	Cow	Phalanx I	Unsid	31.2		29					60		
16	WP11	1	1008	026	Lagomorph	Scapula	Right		7.8					8.9		56.9	6.3
19	WP11	1	1004	017	Bird	Ulna				12		12.1					
30	WP11	1	1001	001	Sheep/goat	Radius	Left			37.7							
49	WP13	5	5005	247	Bird	Ulna	Right			9			13.1				

Appendix I. Metric Data.