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FAUNAL OSTEOLOGICAL REMAINS FROM AREA F,
INDEPENDENCE NATIONAL HISTORICAL PARK, PHILADELPHIA, PA.

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The analysis of faunal remains from Area F, Independence National Historical Park, focuses on the context most productive of osteological material. This was feature 100 (ER100), an early nineteenth century privy. Two smaller features, ER111 and ER113, both mid-eighteenth century contexts of uncertain function, also produced a small amount of animal bone. A series of trenches produced small quantities of bone in fragmentary condition. These latter contexts are treated only in the catalogue at the end of this report. ER111 and 113 contained so little material, that statistically valid conclusions could not be drawn. They are treated in both the catalogue and in table 2.

Table 1 illustrates the distribution of total bone fragments from ER100, organized by species and anatomical location. It also shows the minimum number of each species the remains represent. There were nine separate levels within ER100. Through artifact analysis utilizing measures such as South's mean ceramic date formula, these levels appear to be progressively older in time from top to bottom, and therefore the result of distinct depositions through time.

It can be argued that observable layers in a privy may not represent discreet events, and surely some mechanical mixing does occur between levels of such a deep feature. Nevertheless, total minimum numbers of individuals of each species were obtained by first calculating minimum numbers for each level, and the sum of these was taken to represent minimum numbers for the feature as a whole. The figure would be somewhat lower if the sum of elements as presented in Table 1

were used to calculate the minimum number of individuals.

Cattle (Bos), sheep(Ovis), and pigs (Sus) were the most frequent mammals present, as is expected. Seven cattle represented 2,800 lbs. of meat, 6 pigs represented 810 lbs. of meat, and 7 sheep represented 350 lbs. It is recognized that some difficulty exists in estimating average dressed weights of animals in the past. For further discussion see Lemon (1967) and Bidwell and Falconer (1925).

The osteological material at Area F was generally less densely concentrated than in other known privies. For example, Burnston (1974) has analyzed two other Philadelphia features from Franklin Court, Feature 9 and Feature 22. There are both fewer osteological elements and fewer individuals present at Area F. The Franklin Court features date a bit earlier than Area F, being from the late eighteenth century. Nonetheless, for a site located only a few blocks away in the same city, the contrast is striking. At Franklin Court, F9 totalled 760 fragments and F22 totalled 1891. Our deep privy, ER100, contained only 188 identifiable fragments. While Bos was the major mammalian species in minimum numbers, percent of fragments, and weight of meat provided, Franklin Court feature 9 produced 194 fragments of Bos, while ER100 at Area F produced only 39.

Two variables should be considered regarding interpretation of the Area F bones. Very few of the elements recorded were whole bones, and many of the fragments were chips and slivers which could not be identified. The longbones especially were cracked, apparently for marrow removal, before burial. Furthermore, many bones showed signs of weathering (surface crazing and flaking),

such as are produced by exposure, and some had been gnawed by rodents.

It would seem these conditions would be^{better} produced if some of the bones were yard-or gutter-refuse that was later dumped into the abandoned privy, than if all the bones were deposited directly from the table. Several Rattus bones were recovered, and it is feasible that the gnawing occurred in situ in the privy, although it is seen as a less likely explanation. In further support of the yard-refuse theory, is the fact that one of the oyster (Crassostrea) shells was embedded in building mortar. While the oysters and hard clams (Mercenaria) can be interpreted as food remains in most cases, this mortared shell presents the possibility that general rubble and litter was the source of at least some of the deposited faunal material.

Culturally, two separate culinary traditions converge in eighteenth and nineteenth century Philadelphia: the northern and southern Anglican tradition with emphasis on beef and sheep; and the Southeastern Pennsylvania German tradition with emphasis on pork. Lemon (1967) maintains that in the latter, mutton was not eaten. In the Anglican tradition we might expect less emphasis on the pig. In this way, the colonial triad of Bos, Ovis, and Sus are represented in nearly equal numbers at Area F.

Table 1 allows a comparison of portions of animals which were favored. The anatomical parts are arranged so that hind-quarters, forequarters, and skull portions are grouped. In cow, sheep and pig, the hindquarters are slightly favored, while the feet and cranial portions of pig may relate to such preparations as pigs feet or hog jowls. The preparation

of pig crania for the table can have an origin in Germany, or in England as part of the Boar's head feast.

It is rather important that none of the elements, especially of the lower limbs and phalanges, were articulated. Had the elements been cooked and eaten, the likelihood of their separation from each other in burial is increased. If the foot bones, for instance, were recovered with all their adjoining members, it would be necessary to postulate their disposal in a fully articulated position as the waste products of butchering.

In comparison with a published example of the osteology of a deep feature in the South, the late-eighteenth century Bray well in Kingsmill, Virginia (Barber, 1976), fewer wild species occurred in Area F. Only one deer (Odocoileus) bone and a duck (Anas) bone were recovered at Area F, and the duck may be domestic.

At least three explanations can be made for the greater number of wild species at Bray. First, the Kingsmill situation is rural while Area F is urban. Thus the natural occurrence of wild species in the vicinity for either food or carcass disposal is reduced at Area F. Second, BR100 dates from the nineteenth century, when Philadelphia was an urbane and leading city in the young nation. Tastes were beginning to favor domestic species for the table over wild game. Third, cultural food preferences in the Colonial South diverged somewhat from the Middle Colonies and New England. By the late eighteenth century, regional tastes and specialties were well developed.

Among the less common food species which were identified at Area F were two snapping turtles (Chelydra) and a single

claw (Chela) of a blue claw crab (Callinectes). Both are still regional favorites in this estuary region of the Middle Atlantic Coast, as are the large numbers of oyster (Crassostrea) and hard clam (Mercenaria) listed in the catalogue.

Two interesting invertebrate marine mollusks were recovered which are not usually considered food species. Both valves of a species called False Angel Wings (Petricola pholadiformis), and a single specimen of the snail Northern Moon Shell (Lunatia heros) were found in ER100. These are both common Atlantic species and were probably inadvertently brought in with a take of oysters or clams.

A large number of cats (Felis domesticus) were noted in the Bray well and Franklin Court features, and four occurred in ER100. A point should be made concerning Barber's (1976:70) interpretation of 13 cats in the Bray well as "carcass disposal". While cats were surely not eaten at either Area F or Bray, the species itself displays behavioral proclivities that can lead to death in tightly enclosed places such as abandoned wells. Cats seek shelter in such dark, covered spaces, and may pursue rodents which congregate there. A crowded urban refuse situation is perhaps better for envisioning this process than a plantation, especially since the Bray well produced only one specimen of Rattus.

Likewise with chickens (Gallus), F22 at Franklin Court produced 14, the Bray well produced 14, and ER100 produced 13, the most numerous of the birds. The chicken, known in the eighteenth and nineteenth centuries as "Dunghill Fowl", is a very adaptable bird which fares well feeding on household refuse in a relatively small yard area. It is possible that chickens were kept even in urban nineteenth century Philadelphia, for both eggs and consumption.

Table 1 shows that unlike the large mammals, chicken wings and forelimbs were preferred over legs. One of the specimens of Gallus from Area F was a rooster, with a large spur core prominently displayed on the tarsometatarsus.

Finally, a single piece of bone was identified which had been altered into an artifact. A segment of a rib was sawed flat on one side and scored in a criss-cross pattern on the rounded side. It was drilled in two places for fastening it, apparently to a table utensil such as a bone handled knife, fork, or spoon.

Table.1- ER100- Total elements present

pelvis	3	1				3	1
femur	1	2	1		2	1	1
tibia	3	1	2		2	1	
tarsals	10	3		1			
Metatarsals	2		1				

scapula		2					
humerus	5	3		1	2	2	6
radius					2		12
ulna					6		2
carpals							
metacarpals		1					

metapodials	3	5	2				
phalanges	2	3	5		2	1	

cranium		1	1				
mandible	3	1	2		2		1
teeth	6		9				

vertebrae							
ribs	1						

sternum							
coracoid					6		1
tarsometatarsus					11		
tibiotarsus					5	4	2
tendon					1	3	

carapace							15
chela							1

<u>Callinectes</u> <u>sapidus</u>	1
<u>Chelydra</u> <u>serpentina</u>	2
unidentified <u>Avian</u>	4
<u>Anas</u> <u>sp.</u>	1
<u>Meleagris</u> <u>gallopavo</u>	4
<u>Gallus</u> <u>gallus</u>	13
<u>Rattus</u> <u>norvegicus</u>	3
<u>Felis</u> <u>domesticus</u>	4
<u>Canis</u> <u>familiaris</u>	1
<u>Odocoileus</u> <u>virginianus</u>	1
<u>Sus</u> <u>scrofa</u>	6
<u>Ovis</u> <u>aries</u>	7
<u>Bos</u> <u>taurus</u>	7

Minimum #

pelvis	1		2	
femur	1	1		
tibia	1		1	
tarsals			2	1
metatarsals				
scapula				
humerus		1	1	1
radius				
ulna		1		
carpals				
metacarpals				
metapodials				1
phalanges				
cranium				
mandible			1	
teeth				
vertebrae				
ribs				
sternum				
carapace	2			

<u>ER113</u>	<u>Minimum #</u>
<u>Bos taurus</u>	<u>1</u>
<u>ER111</u>	
<u>Bos taurus</u>	<u>1</u>
<u>Ovis aries</u>	<u>2</u>
<u>Sus scrofa</u>	<u>1</u>
<u>Gallus gallus</u>	<u>1</u>
<u>Rattus ncrvegicus</u>	<u>1</u>
<u>Chelydra serpentina</u>	<u>1</u>

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CATALOGUE

ER100A

Crassostrea virginica 1

Unidentified Mammalian Fragments

3 ribs

ER100B

21 Crassostrea virginica

16 Mercenaria mercenaria

Bos taurus

1 lower premolar

2 astragali

Ovis aries

1 femur

Sus scrofa

1 femur

1 tibia

1 calcaneum

1 phalanx

Gallus gallus

1 tarsometatarsus

2 coracoids

1 ulna

3 radii

1 humerus

Unidentified Avian fragments

1 coracoid

1 tibiotarsus

1 ossified tendon

8 longbone

ER100C

Sus scrofa

1 phalanx

Unidentified Mammalian Fragments

1 rib

1 vertebra

1 metapodial

Gallus gallus

1 coracoid

ER100D

1 Crassostrea virginica

Unidentified Mammalian Fragments

1 rib

1 unidentified fragment

2 crania

Gallus gallus

2 humeri

1 tibiotarsus

Meleagris gallopavo

1 tibiotarsus

Ek100E

47 Crassostrea virginica

67 Mercenaria mercenaria

1 Lunatia heros

Bos taurus

1 pelvic fragment

1 rib

2 mandibles

3 teeth (Lower first premolar, second and third molars)

2 tarsals

1 metapodial

1 phalanx

Ovis aries

1 femur

2 metapodial

1 humerus

1 cuboid

1 calcaneum

Sus scrofa

2 metapodials

1 tibia

2 phalanges

Odocoileus virginianus

1 humerus

Canis familiaris

1 calcaneum

Rattus norvegicus

1 femur

1 rib

Unidentified Mammalian Fragments

67 rib

18 vertebrae

15 longbone

4 calcined

15 unidentified fragments

Gallus gallus

1 radius

2 humeri

2 tibiotarsals

3 tarsometatarsals

Meleagris gallopavo

2 tibiotarsals

3 ossified tendons

1 phalanx

Unidentified Avian Fragments

9 longbone fragments

Chelydra serpentina

15 carapace fragments

1 shell fragment

ER100F

5 Crassostrea virginica
5 Mercenaria mercenaria

Bos taurus

1 pelvic fragment (acetabulum)

Ovis aries

1 humerus

1 metacarpal

1 phalanx

Unidentified Mammalian Fragments

2 vertebrae

14 rib

Gallus gallus

1 radius

1 ulna

1 tibiotarsus

1 tarsometatarsus

ER100G

77 Crassostrea virginica

32 Mercenaria mercenaria

Bos taurus

4 humeri

1 premolar

1 femur

2 astragali

2 cuboids

2 calcanea

2 metapodials

2 tibiae

1 pelvis (4 fragments)

21 rib fragments (probably Bos)

Ovis aries

1 skull (cranium + mandible)

1 humerus

1 pelvis

2 scapulae

1 astragalus

1 metapodial

2 phalanges

Sus scrofa

5 teeth (2 premolars, 1 molar, 1 canine)

Felis domesticus

1 ulna

Rattus norvegicus

2 humeri

1 tibia/fibula

Unidentified Mammalian Fragments

48 rib

23 longbone

20 vertebrae

ER100G (cont.)

Anas sp.

1 pelvis

Gallus gallus

3 pelvic fragments

1 sternum

2 coracoids

1 femur

4 radii

1 humerus

1 tibiotarsus

5 tarsometatarsals

2 phalanges

Meleagris gallopavo

2 mandibular fragments

1 tibiotarsus

Unidentified Avian Fragments

1 radius

1 humerus

1 tibiotarsus

1 vertebra

12 longbones

Chelydra serpentina

1 mandible

ER100H

10 Crassostrea virginica

5 Mercenaria mercenaria

2 Petricola pholadiformis

1 Callinectes sapidus (chela)

Bos taurus

2 mandibles

1 molar

1 astragalus

1 calcaneum

1 tibia

Ovis aries

1 tibia

Sus scrofa

1 phalanx

Unidentified Mammalian Fragments

5 cranial

15 rib

3 vertebral

1 scapular

2 metapodial

10 unidentified fragments

ER100J

12 Crassostrea virginica

9 Mercenaria mercenaria

Ovis aries

2 metapodials

Felis domesticus

5 ulnae

2 humerii

2 radii

2 tibiae

2 femora

Sus scrofa

2 mandibles

2 maxillae

4 teeth (2 molars, 2 incisors)

Bos taurus

1 phalanx

Unidentified Mammalian Fragments

15 cranial

9 rib

2 vertebral

1 pelvic

3 longbone

19 unidentified fragments

Gallus gallus

2 radii

1 tarsometatarsus (male with spur core)

Unidentified Avian Fragments

4 longbone

ER100-disturbed

Ovis aries

1 vertebra

Unidentified Mammalian Fragments

1 fragment

Gallus gallus

1 scapula

ER110

1 Mercenaria mercenaria

Ovis aries

1 calcaneum

Sus scrofa

1 phalanx

Unidentified Mammalian Fragments

1 rib

ER111

70 Crassostrea virginica

Unidentified Mammalian Fragments

24 ribs

9 vertebral

2 cranial

3 longbone

24 fragments

ER113

2 Crassostrea virginica

Bos taurus

1 rib

1 astragalus

T1L2

2 Crassostrea virginica

1 Mercenaria mercenaria

Unidentified Mammalian Fragments

1 rib

Gallus gallus

1 coracoid

T1L2

3 Crassostrea virginica

Ovis aries

1 humerus

Unidentified Mammalian Fragments

5 fragments

T1F3

3 Unidentified Mammalian Fragments

T2L2

2 Unidentified Mammalian Fragments

T2L3

1 Unidentified Mammalian Rib Fragment

1 Gallus gallus ulna

T3L2

2 Mercenaria mercenaria

T5L1

11 Crassostrea virginica

Bos taurus

1 cuboid

1 femur

Ovis aries

1 calcaneum

1 metapodial

Sus scrofa

1 phalanx

Unidentified Mammalian Fragments

15 rib

3 calcined

2 cranial

1 longbone

1 cut bone utensil handle, drilled for attachment, decoratively scored.

Gallus gallus

1 radius

1 ulna

1 coracoid

Meleagris gallopavo

1 ulna

2 phalanges

T5F1

3 Crassostrea virginica(one embedded in mortar)

Bos taurus

1 astragalus

Unidentified Mammalian Fragments

1 rib

T5F2

18 Crassostrea virginica

2 Mercenaria mercenaria

Ovis aries

1 cuboid

1 metapodial

1 premolar

Rattus norvegicus

1 tibia/fibula

Unidentified Mammalian Fragments

29 rib

4 cranial

3 vertebral

5 longbone

1 calcined

4 fragments

T6L2

1 Mercenaria mercenaria

T7L3

2 Crassostrea virginica

5 Unidentified Mammalian Fragments

T11L3

1 Crassostrea virginica

T16F2

1 Unidentified Mammalian Fragment

T17L3

1 Crassostrea virginica

T24L3

1 Crassostrea virginica

2 Mercenaria mercenaria

1 Unidentified Mammalian Fragment

T26L3

3 Crassostrea virginica