Table 1: No. 1 Poultry (Saxon); Facies Types (soil microfabric types and associated data)

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 1a/ Soil Microfabric Type 1a	**M234/4**; 234/a (9.62-9.64 m)	SM: heterogeneous, burrowed fine blocky with packing microstructure; Coarse:Fine (C:F), (limit at 10 µm), 75:25; Coarse: as Facies 2, less well sorted with frequent sand and dominant silt; very few large (30 mm long) mollusc shell, gravel size rounded flint and subangular pot/burned daub/brick; occasional iron slag, many burned bone and coprolitic? bone; frequent charcoal and abundant amorphous and organ/tissue organic fragments, including lignin (wood bark); dotted and speckled dark yellowish brown (PPL), moderate interference colours (crystallitic b-fabric; XPL), dark yellowish brown with abundant black specks, and many red specks (OIL); rare patches of autofluorescent soil (UVL); very abundant fine amorphous and charred organic matter, occasional to many ash: occasional patches of yellowish brown amorphous Fe and P infills and associated likely pseudomorphs of needle vivianite. BD: humic (8.1% LOI) and very phosphatic (3340 ppm PcitricOI), with enhanced MS (785 $SI^{10-8}Kg^{10-1}$) and P ratio (1.5)	B114; Saxon Floor; "active zone" of occupation surface; spreads of domestic hearth waste, wood charcoal, bone, burned bone, shell, and background domestic (daub, burned daub, pot) and industrial (slag) waste.
Facies 1b/ Soil Microfabric Type 1b	**M234/4**; 234/a (9.60-9.62 m)	SM: as Facies 1a, but compact, with layered microstructure (layers 1 –2-4 mm thick); layers of burned organics, plant remains, and "clean" brickearth (see Facies 2); 17 mm long fragment of lignified woody material up to 1.2 mm in thickness, separates Facies 1b from 1a. BD: as Facies 1a	B114; Saxon floor: "passive zone" of compacted and layered – beaten floor; possible remains of plant material covering – possible remains of bark covered wood plank?

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 2a/ Soil Microfabric Type 2a	**M234/4**; 234/b M9.54-9.58 m) with 234/5a	SM: broadly homogeneous; two brickearth (slabs) floors, 30 mm (upper) and 35 mm (lower) thick, separated by 4 mm thick occupation deposit (as Facies 1b); Upper brickearth floor (below Facies 1a): massive with fine channels; C:F, 60:40, well sorted coarse silt and fine sand-size quartz, with few medium and coarse sand and very few flint gravel; very few mica; rare burned bone and charcoal in voids; dusty yellowish brown (PPL), low and medium interference colours (speckled and granostriate b-fabric, XPL), pale yellowish brown with rare red and black specks (OIL); rare amorphous organic matter and charcoal; occasional patches of finely dusty void clay coatings and grain coatings; rare secondary iron (likely phosphatic) impregnations. Lower brickearth floor: similar to above, but horizontal cracking (layered structure) forming, and common patches of greyish (PPL), high interference colours (crystallitic b-fabric; XPL), greyish yellow (OIL); abundant impregnative iron and likely Fe/P mottling; occasional impregnative calcium carbonate nodules. BD: poorly humic (2.3-2.4% LOI), with low MS (37-58 $SI^{10-8}Kg^{10-1}$), and low to moderately low amounts of phosphate (720-1540 ppm PcitricOI)(234/4b and 234/5a)	B114; Saxon floor: “reactive zones” formed of brickearth slabs, taken from calcareous subsoil Bt and decalcified subsoil Bt horizons of Argillic Brown Earth soils; iron staining, some phosphate contamination and layer structural formation have resulted from occupation.
Facies 2b/ Soil Microfabric Type 2b	**M234/5**: 234/5b (9.38-9.42 m)	80 mm of 5 floor sequences (charcoal and burned bone rich occupation deposit over brickearth slab/floor), varying from 5-20 mm. SM: Occupation floor layers as Facies 1b, 1-7 mm in thickness, but speckled dark reddish yellowish brown (PPL), moderate interference colours (crystallitic b-fabric; XPL), dark reddish brown with abundant black specks, and many red specks (OIL); mainly charcoal and burned bone inclusions; two examples of lignified wood/bark fragments up to 13 mm in length. Example of 1 mm size secondary iron (likely phosphatic) impregnations (nodule), infilled with needles of vivianite; also wood material impregnated with Fe/P and vivianite. SM: Brickearth floor/slab as Facies 2a, but dusty reddish brown (PPL), low and medium interference colours (speckled and granostriate b-fabric, XPL), reddish brown to red with rare red and black specks (OIL). (Also layers of non-rubified brickearth floor and basal 30 mm of occupation deposit) BD: overall, humic (9.6% LOI) and very phosphatic (3860 ppm PcitricOI), with high mS (779 $SI^{10-8}Kg^{10-1}$), with low P ratio (1.1). (	B114; Saxon floors, with examples of burned, rubified surfaces, either near hearth or related to destruction?

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 3/ Soil Microfabric Type 3	**M234/6**; BD: 234/6a	Top SM: Semi-layered and highly heterogeneous; C:F, 50:50; Coarse Mineral and anthropogenic inclusions: frequent fine sand and silt-size quartz; very few flint, shell/burned shell and brickearth fragments; occasional burned bone (white to brown); rare eggshell, fused silica ash (melted phytoliths), unfired clay daub; Coarse organic: very abundant fine to coarse (5 mm) wood charcoal; charred lignified (bark) material, likely cereal hairs/spiklets? Dominant 35 mm thick sequence of layers of a) fine clumpy (and pseudomorphic of wood cells), cloudy grey to yellowish grey (PPL), high to very high interference colours (open porphyric, crystallitic b-fabric, XPL) grey, with rare black specks (OIL); very thin humic staining, rare amorphous organic matter, rare to many phytoliths, cellular pseudomorphs (wood ash and ashed Poaceae), and b) speckled and dotted grey to yellowish brown (PPL), moderately high to high interference colours (close porphyric, crystallitic b-fabric), greyish brown with rare red specks and very abundant black specks and coarse inclusions (OIL); abundant humic staining, very abundant charred organic matter and rare phytoliths (trampled and compacted ash); occasional ferruginous impregnation and likely Fe/P infills and staining. The above occurs over 5 mm thick brickearth floor containing pottery fragments, burned bone and burned shell. Probe: - Elemental Maps - floor is composed of Ca, K, Mg, and P (ash), high (quartz sand) and low (phytoliths) Si, small concentrations of Mn (mottles), Fe and Al ("brown clay"); high concentrations of P identify bone; Ca/Si concentrations identify fused silica (melted phytoliths) ash, Ca/P bone and ash. BD: very humic (17.8% LOI) and phosphatic (3020 ppm Pcitric), with high a P ratio of 0.9, and moderately high MS (231 $^{10-8}$ Sikg^{-1})	B114; Top 10 mm: Poaceae (cereal?) processing ash waste with vitrified silica, cereal hairs etc. – in possibly in situ wood ash of hearth or very localised ash rakeout; In all a 35 mm thick sequence of wood ash, burned debris (bone and shell, eggshell etc) – compacted and very slightly weathered by trampling. Occurs over a thin (5 mm) thick brickearth clay floor.
	M234/6; BD: 234/6b	SM: As SMT 1a, similarly high heterogeneous, but very coarsely (4-5 mm) bedded over some 50 mm thickness; BD: neutral (pH 7.4), highly humic (15.6% LOI) and phosphatic (3110 ppm Pcitric), with a P ratio of 0.9, and moderately high MS (153 $^{10-8}$ Sikg^{-1})	B114;

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 4/ Soil Microfabric Type 4	**M234/6 and 7**; 234/7a	SM: massive, with laminae and burrowed; 40% voids, very dominant loose packing voids, frequent moderately poorly accommodated planes; heterogeneous with i) organic and finely laminated organo-mineral material, and as burrow fills and ii) layered "ash"; i) basal (2-3 to 10 mm) laminae and as broad (2-6 mm) excrements; C:F, 0:100 to 20:80, Coarse Mineral – dominant silt and very fine sand, very few medium to coarse sand (rare cocoliths?); rare coarse bone, slag, and earthworm granule; Coarse Organic – many large fragments of amorphous organic matter, lengths of plant tissues, occasional charcoal, bark?; Fine Material – finely speckled or limpid dark reddish brown (PPL), isotic (XPL), brown, reddish brown, with many black specks and red patches (OIL); laminae of very abundant amorphous organic matter, finely laminated fragments of organic matter, with rare druses, spherulites, very abundant phytoliths, commonly as long (20+ mm) articulated plant material; spores and pollen present (very abundant secondary micritic calcite and fine ash); invasive gypsum/bassanite at base; broad (>2 mm) and welded excrements (with embedded biogenic earthworm? granule), mixture of ash (ii) and very fine amorphous organic matter fragments and occasional phytoliths. ii) Sub laminated; no coarse mineral; few long (up to 10 mm) blackened amorphous organic or tissue fragments (50-150 µm wide) some lignified; Fine material – pale greyish orange with thin black streaks (OM)(PPL), moderately high interference colours (mosaic speckled b- fabric, XPL); whitish grey, pale brown grey, with black streaks (OIL); very dominant weathered ash, kaolinised? weathered ash, abundant pseudomorphs of long articulated cellular material (finely layered monomorphic plant material) and coarse (400 µm wide) rounded cellular fragments (ashed large cominuter excrements?) ; coarse (20 µm) ash crystals; contains likely pollen (possible aquatics, trees, cereal – but fine material too obscuring) Probe: Base of M234/6, top of M234/7; - Elemental Maps – generally widespread high amounts of Ca, with K, Mg, and P present, patchy Fe, rather low Mn and Al, and Si absent apart from some sand grains; elemental combinations also show patches of Ca/P. Patches of Ca/Si are organo-mineral (ash) excrements, that are preferentially high in K, Al; iron staining picks out layers and is also associated with P and Ca.	B114 (3051); Animal stabling with lower stabling crust deposits, succeeded by ashed stabling bedding deposits that became burrowed by probable earthworms.

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 5a/ Soil Microfabric Type 5a	**M234/7**; BD: 234/7a	SM: Massive and coarsely (2-6 mm) laminated charcoal and brickearth soil rich deposit; planar and vughy porosity; C:F, 60-80:40-20, very dominant silt-size and very fine sand-size quartz; frequent gravel-size slag/hammer scale, with high or low interference colours; very few brickearth, burned brickearth, silty ash residues (silt and phytoliths), shell fragments, bone, burned bone; Coarse organic include common wood charcoal and few wood and bark fragments, and very few fragmented sheets of articulated phytoliths; Fine: speckled and dotted, dirty grey brown (PPL), moderately low or high interference colours (close porphyric, speckled or crystallitic b-fabric, XPL), dark greyish brown with black and occasional red flecks; very abundant amorphous (some likely dung fragments) and charred organic matter, many phytoliths, many to abundant ash crystals; occasional dark amorphous coatings and associated very abundant strong to diffuse ferruginous (with Ca and P?) impregnations and hypocoatings of organic matter and slag/hammer scale; rare secondary micritic calcite impregnation and likely fine root pseudomorphs, rare gypsum/bassanite and likely vivianite pseudomorphs; rare very thin (<100 µm) organic excrements and biogenic calcite. BD: Neutral (pH 7.5), and very humic (11.5% LOI), with high phosphate content (3070 ppm Pcitric), with a high P ratio of 2.2, and extremely high MS (3278 $^{10\text{-}8}$ Sikg^{-1})	B114 (3000?); Trampled spreads from brickearth floor surfaces associated with industrial activities that generated high amounts of wood charcoal and slag/hammer scale; likely additional trampling of wood products, bark, floor board fragments; possible instance open-air growth of grasses? Major effect of overlying stable is inwash of organic and phosphate-rich solutions, causing some decalcification and iron (phosphate) panning.
Facies 5b/ Soil Microfabric Type 5b	**M234/7**; BD: 234/7b	SM: Massive, poorly laminated charcoal-rich layer, with brickearth soil; C:F, 80:20, very dominant coarse (> 2mm) wood charcoal, wood and clear, vesicular slag; very few mortar; speckled greyish brown (PPL), very low interference colours (porphyric, speckled b-fabric, XPL); grey with black specks (OIL); many charred organic matter, occasional to many phytoliths; occasional patches of ash, amorphous organic matter and articulated phytoliths (Poaceae); pedofeatures as F5a. BD: Neutral (pH 7.2), and very humic (20.7% LOI), with high phosphate content (2470 ppm Pcitric), with a high P ratio of 2.8, and extremely high MS (2894 $^{10\text{-}8}$ Sikg^{-1})	B114 (3023); Trampled spreads of charcoal, vesicular slag, likely stabling waste and oyster shell, from industrial activity; deposit exposed to weathering became decalcified, then also contaminated by later spreads and stabling.

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 6/ Soil Microfabric Type 6	**M385** BD: 385a	SM: Upper: 7 mm thick massive mortar floor layer (see “centre”) over 22 mm of occupation soil (as SMT 1a). SM: Centre – 30 mm: massive ash dominated mortar floor; compact, massive with fine (<0.5 mm) vughs, channels and planes; C:F, 25:75, common sand-size quartz with frequent silt, very few shell, burned shell, brickearth and burned brickearth; rare amorphous, yellow (bone-ghost) likely human coprolite; rare fine sand-size igneous grindstone?; dotted and speckled cloudy grey (PPL), high interference colours (open porphyric, crystallitic b-fabric, XPL), whitish grey with rare black and red specks (OIL); many amorphous yellow stained areas, occasional charred organic matter fragments; very abundant ash crystals, some pseudomorphic of wood? and Poaceae?; occasional limpid, yellow and isotic void coatings possibly originating from coprolite; laminae of fine brown stained micritic ash residues; very abundant thinnest (<0.1 mm) excrements of ash. 4 mm: occupation (as SMT 1a). 6 mm: brickearth floor (as SMT 1b). 1 mm: layer of charcoal, mixed amorphous organic matter (dung), lignified woody (bark), secondary Fe/P concretions, burned bone and bone, BD: Poorly humic (5.9% LOI), with high phosphate content (2680 ppm Pcitric), with a low P ratio of 0.8, and moderately low MS (174 $^{10\text{-}8}$ Sikg^{-1})	B115; Series of trampled ash-rich “mortar” floors and trampled occupation soil, constructed over a thin brickearth floor; the last rests on a very thin spread of occupation debris, including stabling waste.
Facies 7/ Soil Microfabric Type 7	**M385**/ BD: 385b	SM: compact massive with coarse crumb and vughy porosity; 10-15% voids, fine planes, coarse vughs and chambers; C:F, 60:40, very dominant coarse silt, fine and medium sand-size quartz, very few sand-size glauconite, with up to gravel-size mortar, shell, brickearth daub, pot, flint and quartzite; occasional bone and reare fine (human?) coprolites; very dark blackish brown (PPL), isotic/high interference colours (close porphyric, patchy isotic and crystallitic b-fabric, XPL), blackish grey, with abundant red and black specks (OIL); very abundant charred and amorphous organic matter; occasional coarse charcoal and amorphous organic matter (dung? fragments; many coarse (2 mm) yellow (Fe/P) amorphous impregnations sometimes associated with rare vivianite concentrations; total biological fabric with very few thin (1 mm) organo-mineral excrements associated with amorphous organic matter. BD: Neutral (pH 6.8), and moderately humic (7.9% LOI), with high phosphate content (3490 ppm Pcitric), with a P ratio of 1.4, and moderately high MS (210 $^{10\text{-}8}$ Sikg^{-1})	B115; Pre-Saxon/Post Roman dark earth soil formation followed by Saxon stabling, earthworms working dung fragments down profile (Saxon stock concentrations?); Post Roman humic, calcareous brown earth formation in Roman occupation deposits.

Material	Sample Number examples	Soil Micromorphology (M), Bulk Data (BD), Microprobe (Probe) and Elemental Map (EM).	Interpretation and Comments
Facies 8/ Soil Microfabric Type 8	**M386**/ BD: 386a	SM: Fine to very fine (downwards) laminated organic material; very dominant fine (1mm) planes, to very dominant medium (2 mm) channels; C:F, 100:0 (Organ and tissue fragment layers (monomorphic plant material; fragmented across width of slide) to C:F, 50:50, organo-mineral layers – very dominant silt; Layered organo-mineral layers as SMT 4 but without ash and other calcitic material, downwards micro-layered but fragmented, speckled dark yellowish brown (PPL), generally isotic (isotic to very weakly XPL), very dark grey to black (OIL); very abundant tissue and amorphous organic matter, occasional to many phytoliths, with lengths of articulated phytoliths; rare ash; spores and pollen present; very few *in situ* roots, some coarse (5 mm) concentrated at 50 mm depth; localise concentration of abundant vivianite and gypsum/bassanite; few fine (2 mm) burrows with thin organic excrements. BD: Neutral (pH 6.5), and highly humic (27.4% LOI), with very high phosphate content (4330 ppm Pcitric), with a P ratio of 1.0, and very low MS (75 $^{10-8}$ Sikg^{-1})	OA131; Norman Pit fill composed of stabling debris – mainly organic bedding material and organo-mineral stable floor crust material; pit fill became rooted by fleshy roots of likely semi-aquatic plants.
Facies 8/ Soil Microfabric Type 8	**M386**/ BD: 386b	SM: Massive with fine subangular blocky microstructure; as above, organo-mineral layer, but totally homogeneous and more ash-rich; C:F, 40:60; mineral as above, eith very few coarse shell and brickearth fragments; fine – speckled and dotted very dark brown (PPL), isotic with background high interference colours (close porphyric, isotic with crystallitic b-fabric, XPL), dark brown with very abundant black specks (OIL); fine organic as above; very few charcoal, *in situ* roots and likely earthworm granules; total biological fabric, with dominantly medium to broad excrements. BD: Humic (13.1% LOI), with very high phosphate content (4140 ppm Pcitric), with a P ratio of 1.1, and moderately high MS (241 $^{10-8}$ Sikg^{-1})	OA131; Norman Pit fill: earlier stabling deposit which either weathered on a dung heap first or more likely weathered *in situ*, all deposits becoming rooted.