The Excavation of a Saxon Settlement and a Mesolithic Flint Scatter at Northampton Road, Brixworth, Northamptonshire, 1994

by

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with contributions by Tess Durden, John Letts, Kevin Rielly, David Richards, Chris Salter and Jane Timby

SUMMARY

A watching brief carried out in 1988 on the line of the Brixworth bypass located structural remains of Saxon date. In 1990 an evaluation was carried out as a requirement of the planning process on an adjacent parcel of land which was proposed as a site for housing. This also located a number of Saxon structures. Prior to the housing development an area excavation was carried out which located at least five post-built rectangular structures and four sunken floored structures of Early/Middle Saxon date. A quantity of struck flint indicates a previous use of this location during Mesolithic times.

INTRODUCTION

This report documents the archaeological excavation and watching brief carried out in advance of a housing development to the south east of Brixworth, in the centre of the county of Northamptonshire (Fig 1)(SP751699). The project was commissioned by David Wilson Homes Ltd. and carried out to a specification agreed with Northamptonshire Heritage. The excavation took place during June 1994.

ACKNOWLEDGEMENTS

We are grateful for the assistance provided by David Wilson Homes Ltd who financed the project, Bob Kings of the Midland Archaeological Research Society, Kay Ainsworth and Sandy Kidd of Northamptonshire Heritage and Isca and Lucy Howell, Luis Huscroft, John Pressly, Andy Smith and Steve Weaver who assisted in various stages during the fieldwork and preparation of this report.

TOPOGRAPHY AND GEOLOGY

The site lies at the top of a gentle slope which steepens eastwards towards a valley now occupied by Pitsford reservoir. The site lies on the Northamptonshire Sand Ironstone formation of Jurassic age at a height of 120 m above OD. For the majority of the excavated area (A) the bedrock consisted of a sandy silt with gravel and clay patches of glacial origin, but for the western extreme (B,C) the bedrock was a blocky limestone. Areas to the west and north of the development have been quarried for ironstone and backfilled.

THE EVALUATION

As a consequence of the information gained during the watching brief of the by-pass (Shaw 1990; 1993–4) and fieldwalking by Mr. P. Martin and the Northamptonshire County Council Archaeology Unit, Northamptonshire Heritage requested an evaluation as detailed in *Archaeology and Planning* (PPG 16, 1990). The evaluation comprised two elements; fieldwalking and machine trenching. The fieldwalking located

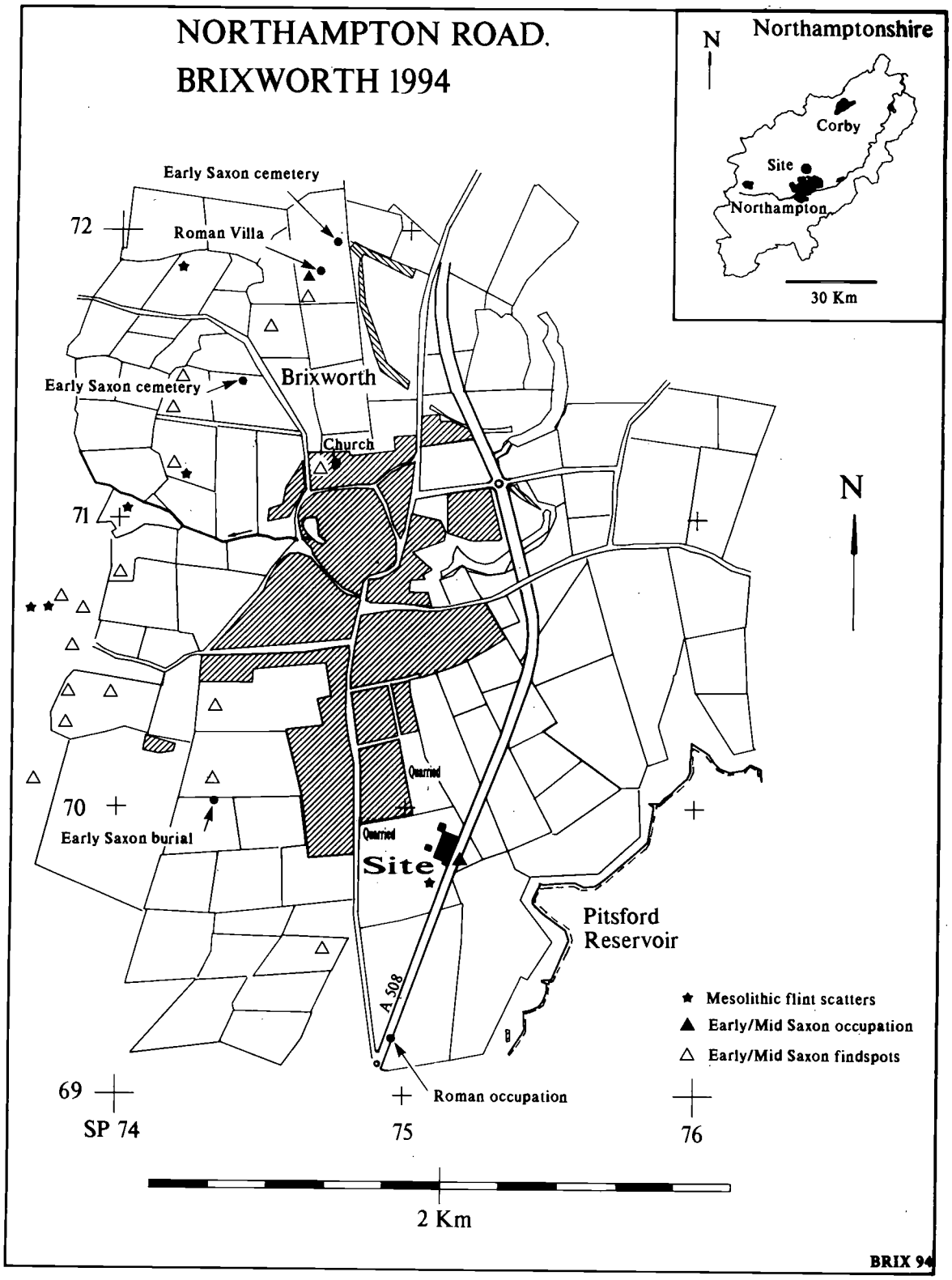

Fig 1 Northampton Road, Brixworth: Location and environs of the excavation and other sites and finds in thevicinity recorded by the County Sites and Monuments Record.

just three sherds of Saxon pottery (making a total of 7 sherds from all fieldwalking) with two sherds of Roman pottery and ten struck flints.

Twenty trenches were dug ranging in length from 7 m to 90 m. The only features of interest were located, as expected, adjacent to where the Saxon structures had been located on the by-pass. These features, mostly postholes in linear alignments, appeared to reflect further structures of Saxon date. The results of the evaluation are detailed more fully in the original report (Jackson, 1990). A single Prehistoric (Neolithic) pit was also located.

THE EXCAVATION

The excavation comprised the topsoil stripping of an area of about 5150 sq. m. using a 360° machine fitted with a ditching bucket. Approximately 45 per cent of trenches A and B were hand cleaned. Approximately 90 per cent of the features were initially sampled for palaeobotanical remains. All of these samples were dry-sieved for small artefact recovery using a 5 mm mesh. 220 subsoil features were identified mainly comprising post-holes many of which formed clear rectangular patterns, along with four sunken-floored buildings (*grubenhäuser*), a hearth and a probable pit (Fig 2). A number of plough furrows were recognised which are probably the remnants of Medieval ridge and furrow.

Only two post-holes (229 and 429) had evidence of post pipes although a further five had packing stones that appeared to be *in situ* (430,431 511,515,517). A single possible stake-hole was identified (334) along with a dubious example (118). Fifteen features were of dubious archaeological validity and are shown in parentheses on the plans.

POST-BUILT STRUCTURES (FIGS 3 AND 4)

STRUCTURE 1

This structure had a near-square ground plan, 4.2 m × 4 m. It consisted of 17 post-holes, one of which was double. The eastern side comprised only two post-holes (one of which was double/replaced (F100)) which may mark an entrance. The postholes were typically up to 0.28 m deep and 0.2–0.4 m in diameter. None showed any evidence for post-pipes but several contained limestone blocks presumably used as post-packing. Corner posts on the east side were missing. There is also a large gap on the west side, This does not appear to be a result of differential survival because post-holes 446 and 447 were well preserved despite truncation by a furrow. There is no obvious symmetry between pairings of posts.

Few finds were recovered from this structure except for a substantial portion of a bossed urn (Fig 7, 1) from F100. A single charred grain of barley was recovered from F412. Examination of samples for evidence of iron-working taken from this structure revealed the presence of vitrified hearth lining and fired clay (F100 and 409). Two nearby features (F419 and 420) also produced possible hearth lining. Relatively little evidence of metalworking was recovered from elsewhere on the site (Table 5) and this may suggest that metalworking was taking place in the vicinity of structure 1, and that the building was in fact associated with this activity.

STRUCTURE 2

The vicinity of structures 2 and 3 witnessed a high density of subsoil features and this, unfortunately, gives scope to several alternative interpretations. The pattern for structure 3 (see below) is fairly clear despite an area of overlap with structure 2 and a possible common post-hole (F123). The most likely interpretation views structure 2 as being rectangular in plan 5.2 m wide and 8.6 m long. One corner post is absent but the others are marked by F136, F228 and 217. Most of the post-holes were of highly variable profile and plan. Dimensions ranged from 0.17 m–0.48 m in diameter and 0.07 m–0.3 m deep (Fig 4). Four features on the western wall line are better described as small pits (F146, 220, 214 218). No post-holes had post pipes but F506 was elongated and sub-rectangular in plan and profile suggesting that it contained a plank rather than a circular post. A line of posts beyond the south eastern side (F226,227,209,221 and 222) may be external supports. This structure may be internally subdivided by F140, F206 and F507. There are several inter-cutting features suggesting replacement episodes and individual posts very close to the projected wall lines (e.g. F211) which may be additional supports.

An alternative scenario is that a smaller near-square structure is present 4.9 m × 5.3 m consisting of 17 features, with corner posts represented by F143, F217, F228 and F214. The remaining posts represent ancillary structures common elsewhere on the site.

STRUCTURE 3

This comprised a near-square ground plan 5.1 m × 4.8 m, consisting of 14 post-holes. The south western corner is conjectured. There are three post-holes within this structure (F121,122,135) which probably belong to structure 2, and two or three possible external supports (F118?,125,132). There is one shallow double feature (F203/204) lying on the north west corner. The post-holes are up to 0.38 m in diameter and 0.06 – 0.27 m deep. Limestone packing stones were recorded, with no evidence of post-pipes.

Three sherds of Saxon pottery were recovered from F113(2) and F131. Fragments of bone were recovered from F113 (pig), F131 (Sheep/goat), F133 (cattle-2) and F134 (cattle-2).

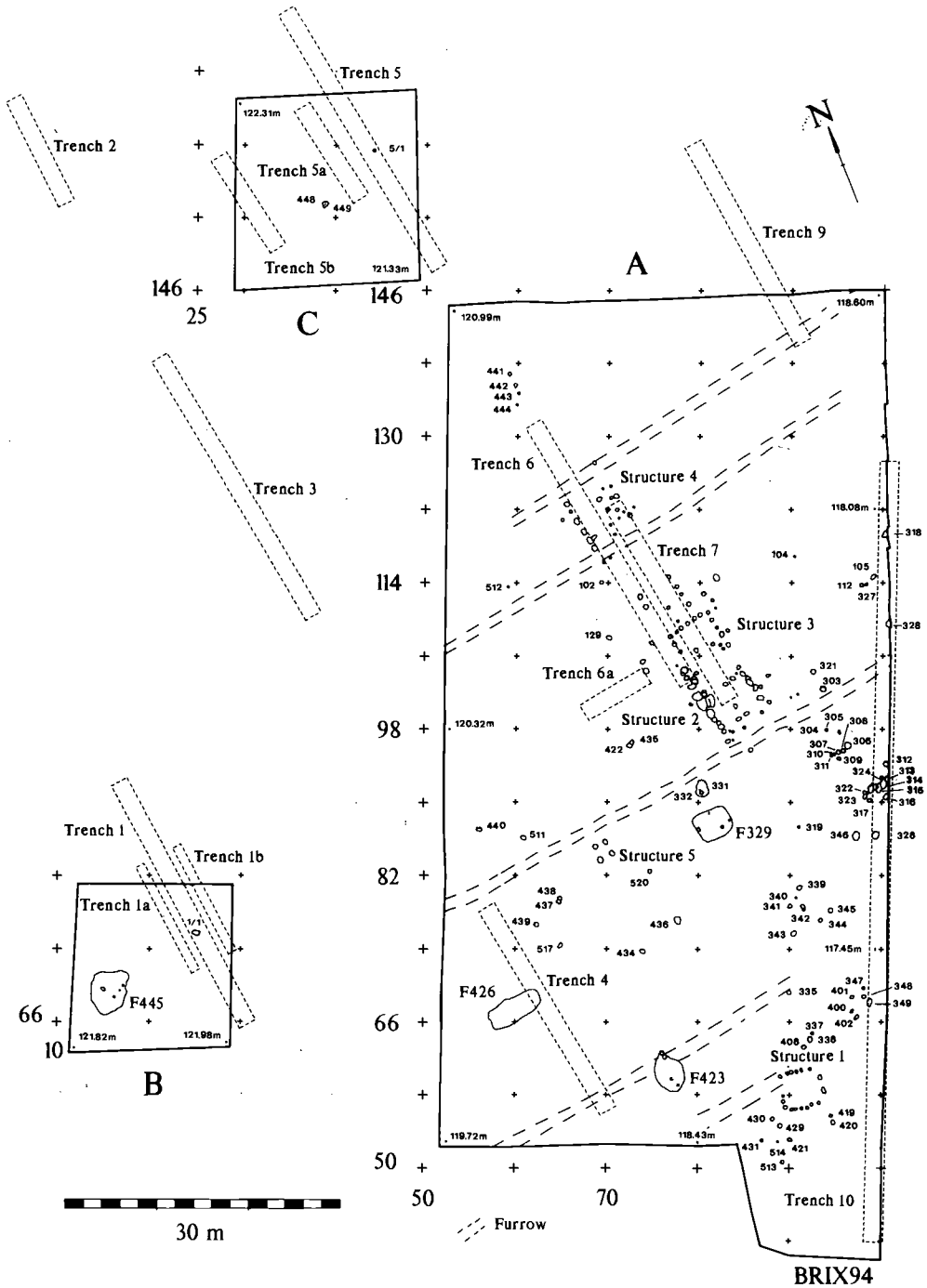

Fig 2 Northampton Road, Brixworth: Location of all excavated features and nearby evaluation trenches.

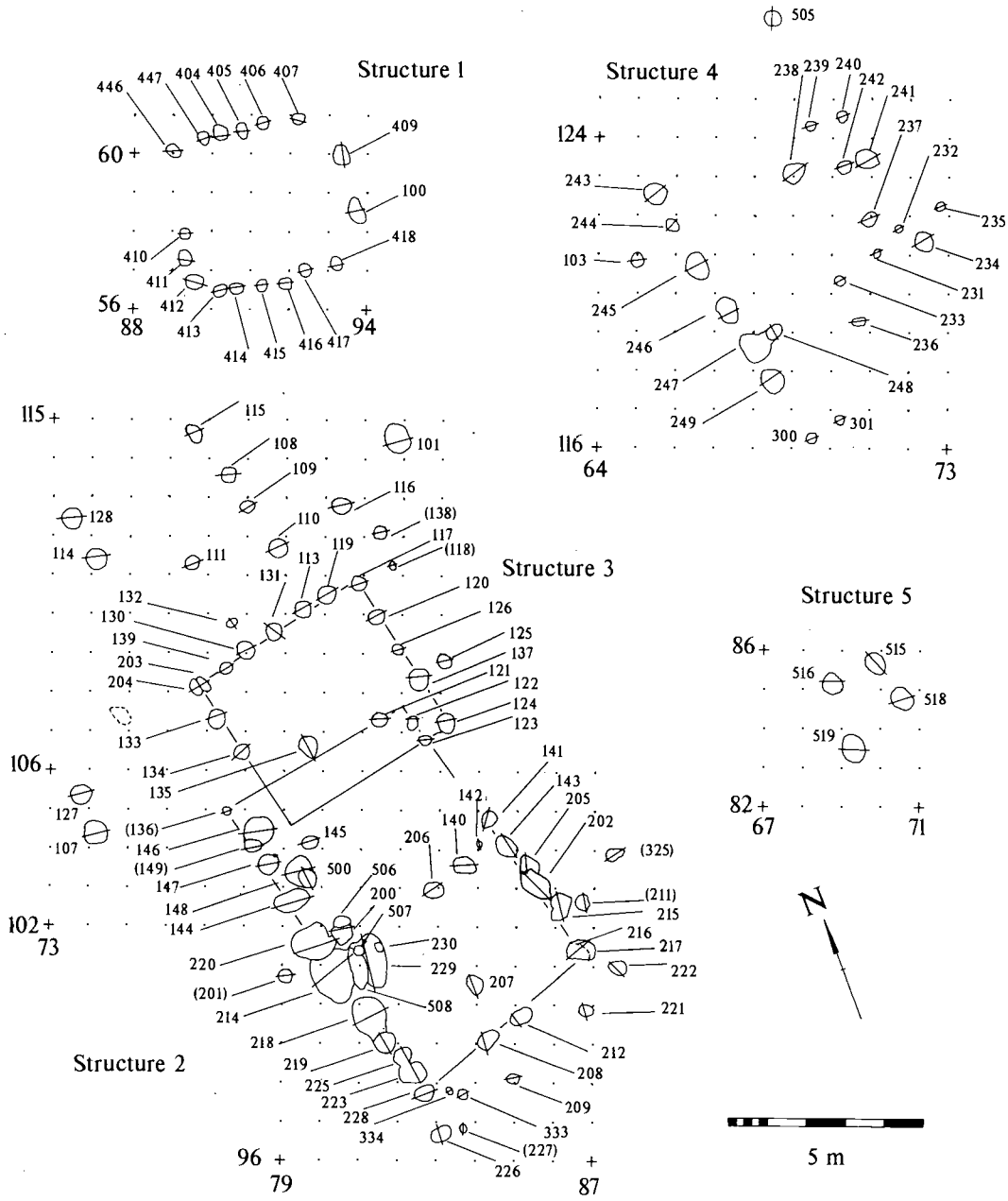

Fig 3 Northampton Road, Brixworth: Plan of post-built structures.

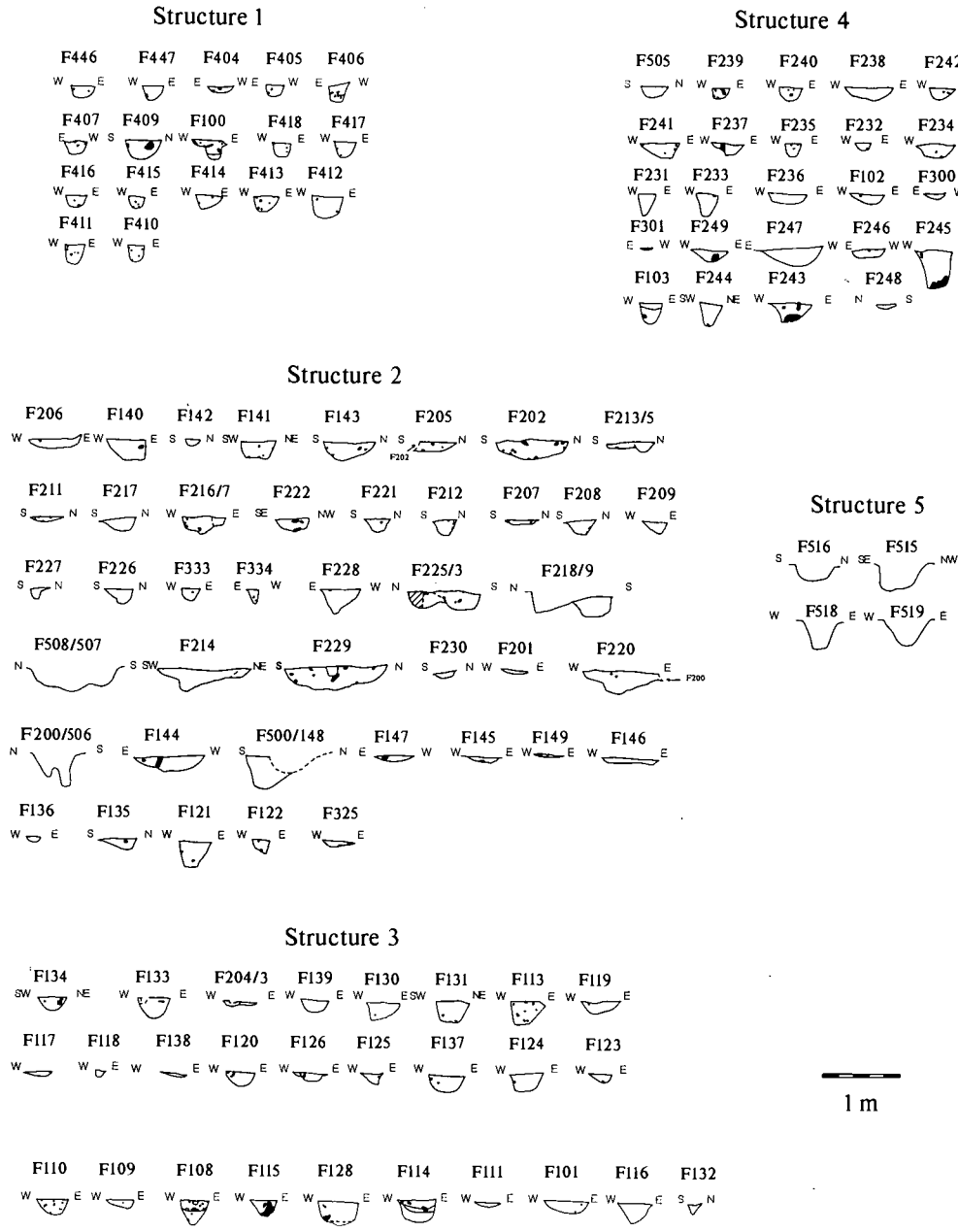

Fig 4 Northampton Road, Brixworth: Post-hole sections of post-built structures.

Structure 3 annexe

Only six post-holes can be assigned with certainty to this structure. There are no post-holes on the north west side and it is either an annexe to structure 3 or is sharing a common wall. Its dimensions are 3.8 m × 5.1 m. There may be an internal post-hole (F132) on the central axis (but see above) and a shallow feature (F111) containing some charcoal. The post-holes are up to 0.37 m in diameter and between 0.11 m and 0.33 m in depth. A single Saxon sherd came from F115. One post-hole (F128) produced three charred cereal grains and several produced animal bone fragments F108 (cattle-2, sheep/goat-1, cattle-sized-4, sheep-sized-2); F114 (sheep/goat-2, horse-1); F115 (cattle-1 and sheep-sized-1); F128 (cattle-1).

STRUCTURE 4

The pattern of post-holes forming this structure was the least obvious on the site. The clearest element was a line of six posts (F243–F249). Approximately parallel to these, 4.4 m away was a line of three posts (F239, F242, F237), which for one interpretation, are assumed to form the north-eastern side of the structure. A second line of three posts (F240, F241, F234), could be external supports. There are no posts marking a north-west side and only one (F236) on the south-east side. The role of a line of four smaller post-holes (F233, F231, F232 and F235) cutting across the north eastern side, is unclear. There is one internal post (F238) and three external posts (F103, F300 and F301). Assuming that it is the inner line of posts on the north eastern side that mark the walls of the structure, a building with dimensions of 6 m × 4.4 m may be present. An alternative reconstruction includes F505 with the outer line of posts on the north east side to form a structure with dimensions of 8 m × 5.3 m. The characteristics of the post-hole dimensions and fills are similar to the other structures on the site.

Five sherds of Saxon pottery were recovered; 3 sherds from F243 and 2 sherds from F249. Rather more features produced animal bone: F232– 3 cattle, 4 sheep/goat; F234– 1 sheep/goat; F235- 3 cattle; F238- 3 cattle, 1 sheep/goat; F245- 1 cattle, 1 sheep/goat, 1 pig.

The post-built structures would appear to be fairly representative of sites of this period with many typical features. The structures are square or rectangular and constructed with posts set in holes in the ground. This building style is more typical of the earlier part of the period (Higham, 1992, 123). Only one example (structure 2) has an internal subdivision. The lack of corner posts is a recurrent observation on several sites such as Bishopstone, Sussex or West Stow, Suffolk and it has been suggested that this indicates the presence of gable ends. (Bell, 1977; West, 1985). One other characteristic of Early and Middle Saxon sites is a uniformity of measurement units for buildings. The four main structures were measured to see how far they compared with these standardised units. Two measures were used, namely a 'rod' of 5.03 m and a 'rod' of 4.65 m subdivided into thirds and sixths as necessary (Huggins, 1991). Structure 1 best fitted a rod length of 4.65 m with a length of 1 rod and width of ⅚. Structure 2, which was less certain in its shape could fit either rod length. For the 5.03 m rod, this gave a length of 1⅓ and a width of 1 rod. For the 4.65 m rod it had a length of 1⅚ and width of 1⅙. Structure 3 did not conform to either rod measurement for both dimensions; for the 5.03 m rod it was 1 rod long but fell between ⅚ and 1 rod wide. For the 4.65 m rod it was 1 rod wide but lay between 1 rod and 1⅙ long. Finally structure 4 would be 1½ rod long and 1 wide using the 5.03 m unit and 1⅔ long but lying between 1 rod and 1⅙ wide. An alternative view of structure 4 regarded an inner line of posts on the north-east side as representing a narrower building. The width produced using the 4.65 m standard now became 1 rod, whereas for the 5.03 m standard it was nearly ⅚ of a rod.

The measurements are not a perfect fit in every case. However, if due allowance is made for the rough and ready character of construction and errors associated with subsequent interpretation and recording of the positions of posts which have been removed, the correlation here appears to be good. The use of two different length standards on the same site is of some concern but at Mucking some 65 structures were analysed and showed that 62 per cent used the short rod and the remainder the long rod (Huggins, 1991, 10).

STRUCTURE 5

This was a four post structure 1.4 m × 1.5 m across with post-holes up to 0.36 m deep and 0.43–0.56 m in diameter (F515,516,518,519). No post pipes were present but large limestone and sandstone packing stones were found in all holes and for F515 the packing appeared to be *in situ*. The floor between the posts was not sunken. Superficially, this structure is similar to four-post buildings typical of Iron Age sites thought to be raised granaries (Gent, 1983). However, a single Saxon sherd came from F515 and the only Iron Age presence on the site is a few residual pottery sherds. This structure is more likely to be a variant of the uncommon four post sunken-floored structures such as those discovered at Pennyland, Milton Keynes (R. Williams, 1993, 85).

SUNKEN-FLOORED STRUCTURES (FIGS 5 AND 6)

Four sunken floored structures were located, three within the main trench and one in trench B:

F329

This feature was sub-rectangular in plan 3.9 m × 3.2 m and was 0.32 m deep. The sides were gently inclined and the base had a slight bowl shape. A double post-hole (F427,428) was present on the south west side but a corresponding one on the north east side was not located. Three other relatively shallow features were recognised cut into the floor of the excavated building. More than 100 animal bone fragments of the usual domestic species were recovered along with 35 sherds of Saxon pottery, two sherds of Roman pottery and two iron objects. Charred plant remains were few and consisted of 3 cereal grains.

F423

This structure was oval in plan 4.8 m × 3.2 m. It was very shallow (0.2 m) and its sides petered away gently especially

NORTHAMPTON ROAD, BRIXWORTH 1994

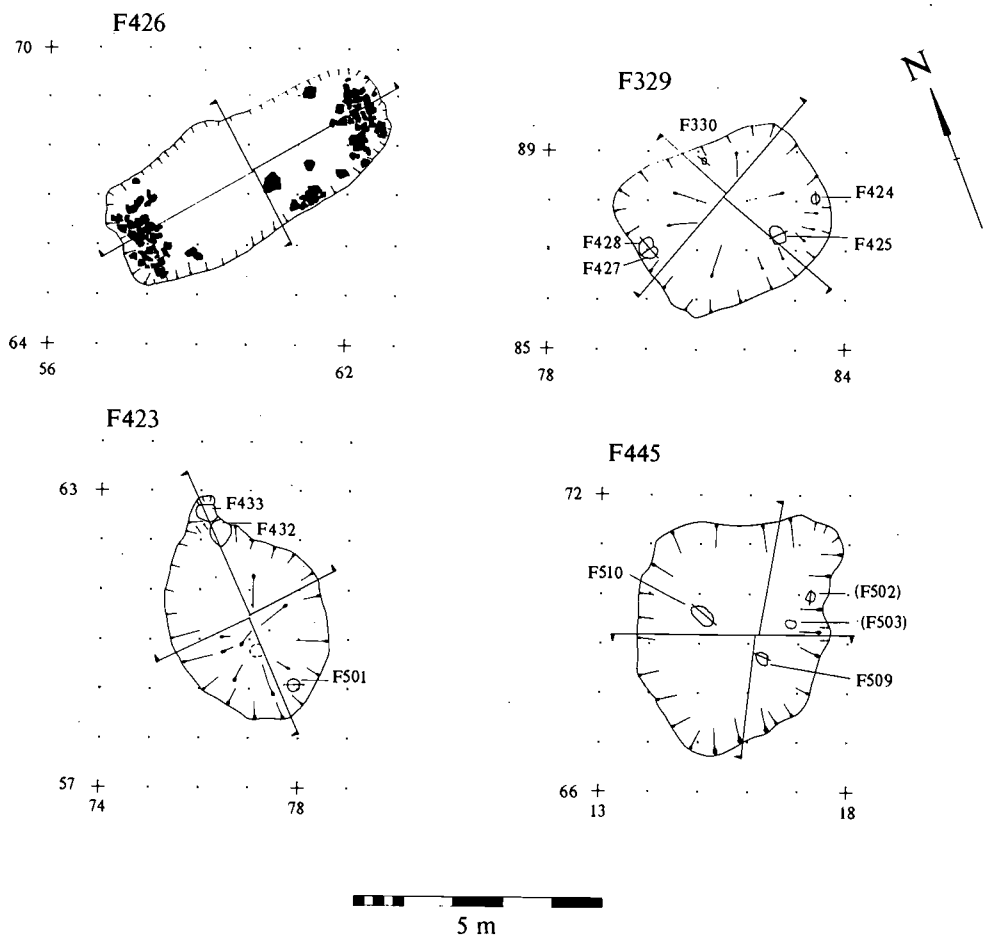

Fig 5 Northampton Road, Brixworth: Plan of sunken-floored structures.

on the south and west sides. The base was irregular. Two post-holes were present at the northern end (F432,433) with a smaller one (F501) diametrically opposed. Nineteen sherds of Saxon pottery, two sherds of Roman pottery and a broken fired clay spindle whorl were recovered along with 33 animal bone fragments. A single charred grain of barley was also found.

F426

This structure comprised a regular sub-rectangular structure 6.0 m × 2.3 m. It was 0.17 m deep. The feature had well-defined sides with a relatively steep incline which came down onto a uniform floor. No features were observed cutting the floor or lying just outside. The most distinctive aspect of this feature was the dumps of large stones (ironstone, limestone) at either end. These stones cannot be described either as foundations or as collapsed walling. The only finds recovered were a fragment of animal bone and a sherd of Post-Medieval pottery (presumably intrusive).

F445

This structure in trench B was very irregular (sub oval?) in plan, 4.7 m × 3.8 m and 0.23 m deep. Several features were

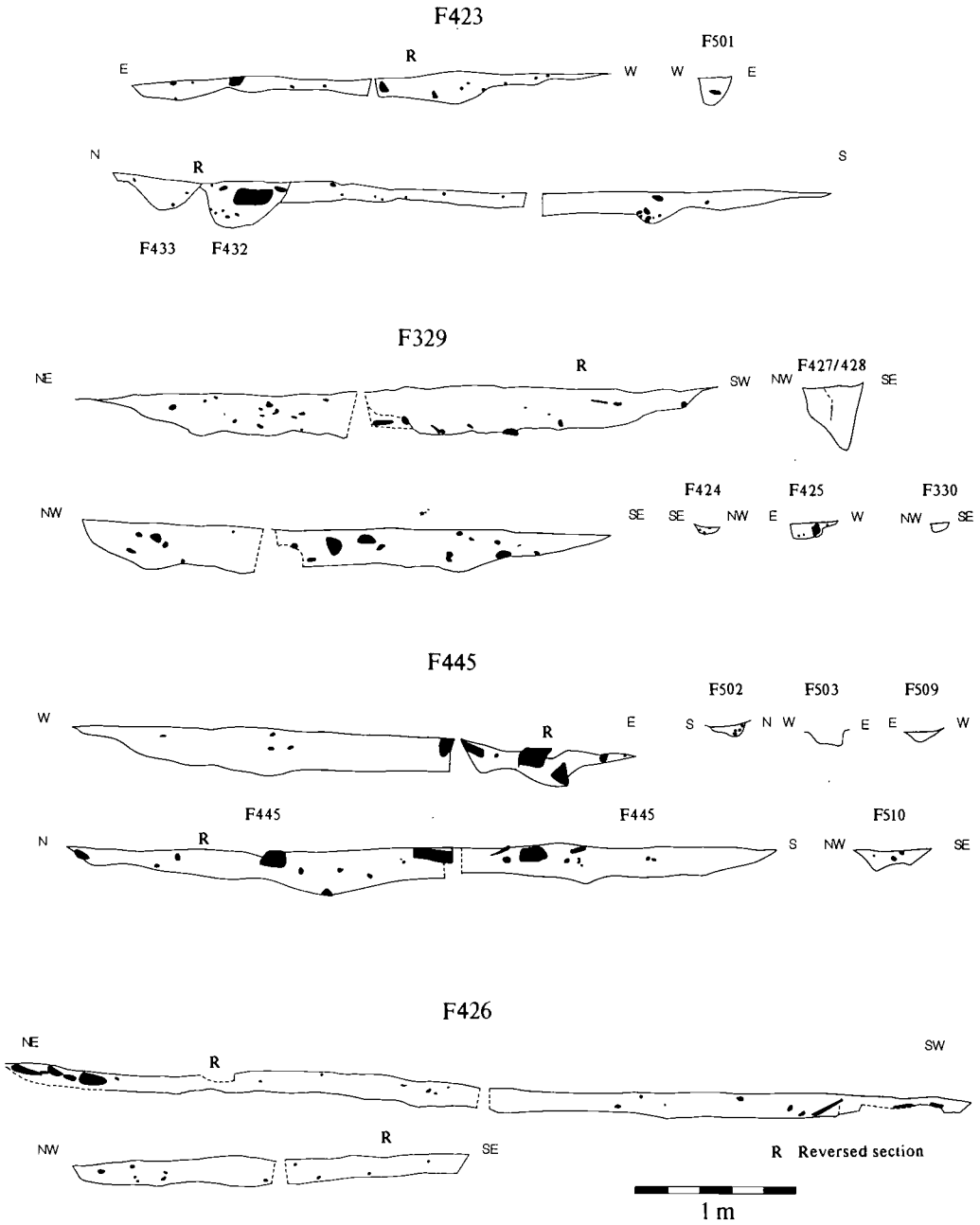

Fig 6 Northampton Road, Brixworth: Sections of sunken-floored structures and associated post-holes.

identified cutting the floor of the structure, but most of these may be attributed either to animal burrows or the blocky nature of the limestone at this location. The more plausible archaeological features are shown on the plan (Fig 5). No diametrically opposed post-holes were found. 50 sherds of Saxon pottery and one sherd of Medieval pottery (intrusive) were found along with over 100 animal bone fragments including chicken. An iron blade, probably from a scythe, was also found. The flotation sampling produced a few charred grains of barley, wheat and pea.

None of the sunken floored buildings conform closely to typical examples, such as with two, six or many post-holes to support a roof or wall (Rahtz, 1976), but nevertheless they belong to this category of structure. F426 was unusual in having no post-holes but with dumps of stone mainly at either end. This stone may represent a collapsed and partly robbed wall, but this was not clear from the evidence available. Three of the four structures produced a quantity of finds which appears to have resulted from their use as middens following abandonment and provide no clue as to the original function of the buildings. The functions of these structures has been commented on many times, (e.g. Higham, 1992, 122) and they could have been used as dwellings, perhaps for lesser ranks of society, for storage or for specialised activity such as weaving as at the Northamptonshire site of Upton (Jackson, *et al.*, 1969).

OTHER FEATURES

OTHER POST-HOLES

Numerous other post-holes are present on the site, which do not form clear plans of buildings. These features can occur in isolation, in pairs, in small groups and in lines of 3.

PITS

It was discussed above that several of the features forming structure 2 are more appropriately described as small pits, although it is likely that they held posts. A further twelve features elsewhere are sufficiently large or deep to be regarded as small pits but could easily have held posts. Apart from one pit containing a quantity of daub (F313), the fill of these features was not sufficiently distinct to determine their function either way. Outside of urban contexts, pits are rare on Saxon sites (Fasham and Whinney, 1991).

HEARTHS/CHARCOAL PATCHES

Three features are possibly the site of hearths. F436 was a small pit 0.5 m in diameter and 0.13 m deep with a charcoal-rich fill, but with no fire-reddening of the pit sides. F422 was a small pit with its upper fill fire-reddened. C311 was a patch of charcoal with a diameter of 0.25 m.

THE FINDS

POTTERY

by Jane Timby with Petrological Analysis by Alan Vince

INTRODUCTION

A moderately small assemblage of 274 sherds (4.8 kg) of pottery was recovered from the excavations. With the exception of a few possible Prehistoric sherds, the material ranged in date from the Roman through to the Post-Medieval period, with the main emphasis on sherds of Saxon date. The pottery was sorted into fabric types using a binocular microscope and quantified by sherd count and weight for each excavated context. A selection of representative Saxon sherds was submitted to Alan Vince (City of Lincoln Archaeology Unit) for petrological analysis, the results of which are integrated into the fabric descriptions below.

PREHISTORIC

Three sherds recovered from surface deposits may be either of Saxon, or Prehistoric date. These are characterized by a sparse scatter of particularly coarse, angular grains of quartz (quartzite/feldspar), up to 8 mm in size.

An unfeatured sherd with a fossil shell and limestone temper from F423 may also be a residual sherd of Iron Age date since such fabrics are regarded as unusual for the Early Saxon period (P. Blinkhorn, pers. comm.) (see Saxon fabric group S9).

ROMAN

Fourteen sherds of possible Roman ware were identified. Most are in relatively abraded condition. The only identifiable ware is a single Oxfordshire colour-coated bowl sherd, Young (1977) type C51, current in the late 3rd–4th centuries.

Roman Fabrics:

R1: A pale grey, wheel made ware. The finely micaceous clay matrix contains a sparse to moderate scatter of fine quartz sand and dark grey round clay pellets. No featured sherds.

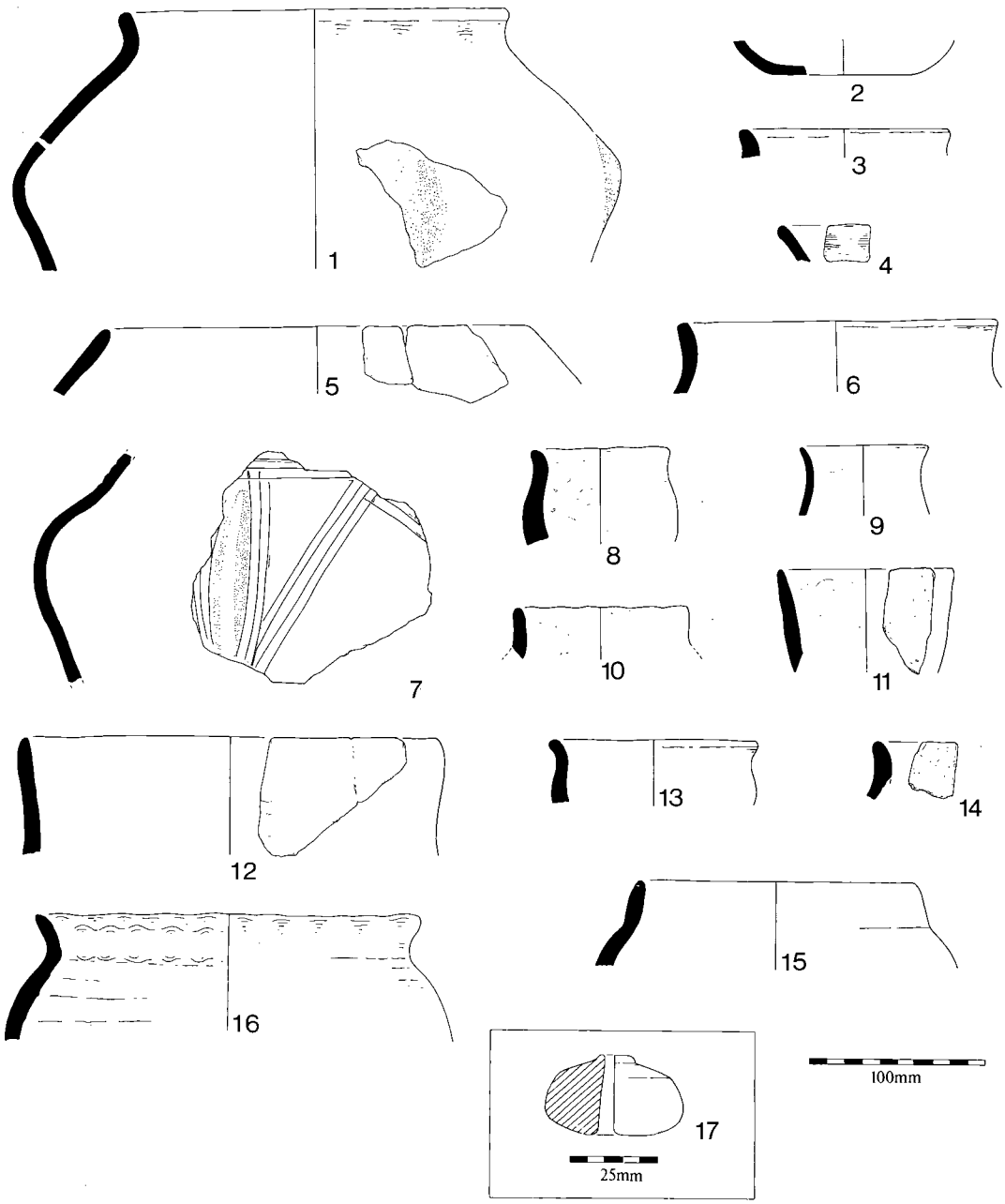

Fig 7 Northampton Road, Brixworth: Pottery; Catalogue of illustrated sherds:
1. Large wide-mouthed urn, mid orange in colour represented by several sherds. A single bodysherd carrying an elongate boss suggests that this is an undecorated bossed urn. Fabric S2. Context F100 (150). 2. Basesherd from a closed vessel. Black in colour, fabric S1. Context F243 (298). 3. Rimsherd from a black narrow-mouthed urn. Fabric S1b. Context F243 (298). 4. Rimsherd from a slightly everted jar/urn. Fabric S1b. Surface find (93E/48N). 5. Large vessel with inward splaying simple rim. The vessel has a smooth black surface finish with faint vertical striations. Red-brown core. Fabric S4. Context F445 (550). 6. Simple rim urn in an orange-brown fabric with a dark grey core. Fabric S4. Context F445 (550). 7. Large bodysherd with a hollow elongate boss and incised line decoration. Fabric S1. Context F445 (550). 8. Small thick-walled bowl, fabric S1c. Context F445 (550). 9. Thin-walled flared rim beaker or small jar. Brownish-grey surfaces with a black core, fabric S1b. Smoothed exterior surface. Context F445 (550). 10. Narrow-necked urn, fabric S1. Context F329 (381). 11. Vertically sided cup/ small bowl. Fabric S3. Context F329 (381). 12. Large vessel with a vertical rim. Red-brown to grey surfaces with a dark grey core. Fabric S6. Context F329 (381). 13. Small bowl with an orange-brown exterior and grey-black core. Fabric S1b. Context F329 (381). 14. Rim from a shouldered jar, fabric ?S1b. Context F329, (381). 15. Large jar with an everted rim. fabric ?S1a. Context F329, (381). 16. Large vessel with a vertical rim. Fabric S7. Context F423 (480). 17. Half a small fired clay spindlewhorl. F423 (480).

R2: Oxidized version of R1. Orange surfaces with a blue-grey core. Wheel-made hooked-rim jar.

R3: A grey wheel-made ware with a red-brown or grey core. The paste contains a moderate scatter of medium grade quartz sand.

R4: Oxfordshire colour-coated ware (Young, 1977, 117ff).

R5: Fine grey wheel-made ware, with a common frequency of well-sorted fine quartz sand.

R6: An oxidized, matt orange, friable fabric with numerous flat voids from dissolved fossil shell/ limestone, and sparse fine quartz sand.

SAXON

In total, 237 sherds of Saxon pottery were recovered, 4451 g in weight. The condition of the sherds varied from fairly large well-preserved sherds to smaller, abraded pieces. The range of fabrics present was fairly diverse and included sand, sandstone, ironstone, organic, granitic and oolitic limestone-tempered examples. The material was recovered from several different contexts including post-holes belonging to the post-built structures, from the sunken-featured buildings and from general surface layers. The two largest groups were recovered from sunken-featured buildings F329 and F445.

Table 1: Relative proportions of the Saxon Fabrics

Fabric		Wt (gms)	%	No.	%
S1:	Sand tempered				
S1a:	coarse sand	1015	24	57	24
S1b:	fine sand	827	18.5	49	20.5
S1c:	micaceous	156	3.5	12	5
S1d:	with organic	4	*	1	*
S2:	Sandstone	1100	25	533	22
S3:	Sandstone and ironstone	106	2.5	11	5
S4:	Granitic	210	5	14	6
S5:	Ironstone	56	1	6	2.5
S6:	Calcareous sandstone	281	6	15	6
S7:	Mixed temper	10	*	1	*
S8:	Mixed temper	35	*	2	*
S9:	Oolitic limestone	645	14.5	15	6.5
S10:	Organic	6	*	1	*
Total		4451	100	237	100

* less than 1%

Only two vessels were decorated, one a single large sherd with a hollow elongate boss with incised combed lines (Fig 7.7); the other, a vessel represented by several sherds, including a single extant elongate boss. Such vessels are a relatively rare occurrence in Northamptonshire, the main published exceptions being two vessels from the cemetery at Wakerley (Adams and Jackson, 1989, Graves 47 and 82) and two smaller bossed sherds from Northampton (Gryspeerdt, 1981, fig. 14, 2,3).

Twenty potsherds, including a spindlewhorl were submitted for petrological analysis. Thin sections (reference codes L936–955) were prepared at the Lincoln Ceramic Petrology Laboratory using standard procedures (including staining using Dickson's method). In the following descriptions the petrological groups defined by Vince are integrated into the macroscopic divisions. The very diverse nature of the material is reflected in the greater number of petrological groups compared to the macroscopic groups and it is suspected if additional sherds had been analyzed the groups would be even greater. The smallness of the present assemblage precludes a more rigorous division of the wares.

All the samples analyzed had optically anisotropic clay matrices (i.e. none were fired at temperatures high enough to completely transform the clay minerals). Unless otherwise stated the clay matrix contained sparse to moderate fragments of silt-sized quartz, and either no specks of muscovite, or sparse specks.

S1: Sand-tempered

S1a: A moderately hard, generally black ware with a hackley fracture. The poorly wedged clay contains a moderate to common frequency of rounded to sub-angular, occasionally angular ill-sorted dissociated quartz grains. These are accompanied by sparse fragments of quartz sandstone, iron, and less commonly odd grains of mica, and organic matter.

S1b: As S1a but perceptibly finer

Petrological Group 10: Group 10 is tempered with sparse rounded and abundant angular quartz, some grains of which are polycrystalline. The quartz ranges up to 0.7 mm across. Moderate sandstone fragments up to 1.5 mm across are also present. This sandstone contains quartz grains ranging from 0.1 mm to 1 mm across. The grain boundaries are usually marked by a brown rim although there is some overgrowth of the grains. There are areas of silicious cement and areas of opaque iron ore cement. The impression from comparing grain size and character of the inclusions is that the quartz sand is in the main derived from the decomposition of the sandstone.

S1c: A similar fabric to S1a but distinguished by a finely micaceous matrix indicating a different clay source.

Petrological Group 11: Group 11 contains more rounded quartz than Group 10 and has a micaceous matrix but is otherwise similar.

S1d: A sandy ware with a marked presence of fine rounded iron grains and organic matter.

Petrological Group 12: Group 12 contains sparse highly

rounded quartz grains up to 0.2 mm across, moderate fine sandstone (with equant quartz grains c. 0.2 mm across) and moderate rounded reddish and opaque iron ore. The latter is probably altered glauconite.

S2: Sandstone tempered
A hard, handmade, generally reduced fabric containing a moderate frequency of ill-sorted, sub-angular quartz and a sparse frequency of sandstone. Probably a variant of fabrics S1a/b where the sandstone is more visibly intact.

S3: Sandstone and iron-tempered
A hard, black, hand-made ware containing a moderate frequency of ill-sorted quartz sand, mainly rounded to sub-angular in shape, occasional sandstone and sparse grains of angular ironstone.
Petrological Group 1: The main characteristic of Group 1 is abundant fragments of angular iron ore up to 5 mm across. In thin-section abundant fragments of sandstone are also seen. This sandstone contains rounded and sub-angular quartz grains up to 0.4 mm across and has a silicious and opaque iron ore cement. Sparse fragments of rounded mudstone, and moderate fragments of angular quartz are also present.

S4: Igneous rock-tempered
A very micaceous clay containing a sparse scatter of sub-angular quartz, occasional large plates of biotite mica, occasional grains of ironstone and fragments of composite rock, probably a granite. The fabric generally has black surfaces and a red-brown core and shows a laminar fracture. A variant (4b) has a harder black fabric with very large rock fragments 3 mm to 4 mm across.

S5: Ironstone-tempered
A moderately hard, occasional softer brownish-grey ware with a dark grey core. The dominant inclusion in the paste are ill-sorted grains of ironstone of rounded to sub-angular shape up to 1.5–2 mm in size. These are often accompanied by a scatter of ill-sorted sub-angular to angular quartz sand.
Petrological Group 9: Abundant rounded fragments of oolitic iron ore, similar to that found in Group 5 (see below), together with sparse angular quartz up to 0.2 mm across.

S6: Calcareous sandstone-tempered
A very finely micaceous clay, brownish-black in colour with a dark grey core. The fabric is characterised by large grains of sandstone with a distinctive white calcareous cement. In some sherds this has dissolved leaving large irregular voids up to 3.5–4 mm across. Some sherds have an additional scatter of fine rounded to sub-angular quartz and iron.
Petrological Group 4: Abundant fragments of a distinctive limestone, or calcareous sandstone up to 2 mm across. This rock contains rounded and angular quartz, angular flint and rounded altered glauconite grains in a sparry ferroan calcite matrix. There are some areas of opaque iron ore cement. The rock also contains veins of non-ferroan calcite. The clay matrix is noticeably micaceous.

S7: Mixed temper
A greyish-brown fabric containing a moderate scatter of ill-sorted rounded to sub-angular quartz (less than 1 mm across), occasional large plates of mica, dark red-brown ?grog/clay pellets, ironstone, sandstone and sparse fragments of a dark brown scoriaceous inclusion, which might be a pyroclastic rock, or simply iron slag.

S8: Mixed temper
A dark brownish-black ware with a dark grey core. The moderately hard fabric is characterised by a mixed temper of sandstone, sub-angular to rounded quartz, ironstone, quartz sandstone and irregular voids up to 2–3 mm in size.
Petrological Group 8: Characterized by the presence of moderate fragments of a non-ferroan calcite mudstone up to 1mm across. Other inclusions are moderate angular and rounded quartz and sparse sandstone fragments up to 1.5 mm across.

S9: Limestone tempered
S9a: Oolitic limestone. A moderately hard ware characterized by the presence of grains, both single and attached, of oolitic limestone. In some cases these exist as voids on the vessel surfaces, particularly the interior surfaces. The amount of quartz sand present varies, from approximately equal that of the limestone to an almost complete visible absence.
Petrological Group 6: Abundant rounded voids up to 1mm across in a clay matrix containing almost no inclusions. These voids are likely to have contained oolitic limestone and individual ooliths.
Petrological Group 7: Group 7 contains similar voids to those found in Group 6 but also contains quartz grains and sandstone fragments, as well as sparse subangular flint fragments up to 1.5 mm across.

S9b: Fossiliferous limestone
It is uncertain whether the two sherds sectioned here are Prehistoric or Saxon in date. The occurrence of limestone-tempered wares other than oolitic is very rare.
Petrological Group 3: The principal characteristic of Group 3 is abundant fragments of a limestone, up to 2 mm across. Sparse fragments of a sandstone up to 1 mm across were also present. The limestone consisted of fragments of shell and other non-ferroan calcite debris surrounded by coatings of micrite and in a matrix of non-ferroan micrite and sparry ferroan calcite in which the sparry calcite seems to be a later replacement. The clay matrix of this group is noticeably micaceous.
Petrological Group 5: Group 5 contains abundant fragments of a fossiliferous limestone which contains rounded grains of ?bryozoa, or echinoid shell and sponge spicules in a sparry ferroan calcite cement. The rock has substantial replacement of the calcite matrix by opaque iron ore. A rounded fragment of oolitic iron ore 1mm across was also present. The clay matrix contains abundant mica, including both muscovite and biotite.

S10: Organic-tempered
A moderately soft black fabric with a reddish-brown interior. The finely micaceous, slightly sandy textured fabric contains frequent organic inclusions resembling chopped grass or straw, and sparse iron. The ware has a characteristic laminar fracture.
Petrological Group 2: The main characteristic of Group 2 is chaff, probably deliberately added to the clay as animal dung. Sparse rounded quartz up to 0.3mm across, angular quartz up

to 0.2 mm across and rounded reddish clay pellets up to 1 mm across were also present.

Spindlewhorl (L955):
Petrological Group 13: Identical to Group 10 with the addition of moderate fragments of chaff up to 0.5 mm long.

Petrological Discussion
by Alan Vince
Fourteen of the twenty samples contained fragments of a similar sandstone. These included L955, the spindlewhorl, which one might imagine was one of the most likely of the samples to be locally produced. In three samples this sandstone was accompanied by limestones (Groups 3, 7 and 8) and in one group by angular iron ore. A rare fragment of acid igneous rock in one sample is likely to be an erratic from the Mountsorrel granite, whilst flint is present in groups 7 and 13. The chaff-tempered fabric, Group 2, was similar to that of the spindlewhorl, Group 13, and this too is likely to be a 'local' product. The suggestion (see below) that these fabrics are derived from glacial deposits is consistent with their petrological characteristics. Of the remaining four fabric groups, 4, 5, 6, and 9, two contained fragments of an oolitic iron ore (Groups 5 and 9). In the former of these two, a distinctive limestone containing sponge spicules is the main inclusion type whereas in the latter iron ore is dominant. These two fabrics are also clearly distinguished by their clay matrices, Group 5 being the only fabric group to have biotite in the clay matrix. Finally, Groups 4 and 12 both contain inclusions characteristic of Cretaceous deposits; the calcareous sandstone in Group 4 contains flint and probably altered glauconite, whilst the rounded quartz grains in Group 12 are characteristic of the Greensand, as is the ?altered glauconite. Although not sampled for thin-section analysis the coarser variant of fabric S4 is likely to have originated closer to the Mountsorrel outcrop, although it is probable that the source of the inclusions is a glacial sand, gravel or boulder clay. The scarcity of acid igneous rock fragments in the sample fabrics indicates that in the main the Mountsorrel granite is not found in the Northamptonshire drift deposits.

The petrological survey confirms the conclusions from the macroscopic analysis that the Brixworth Anglo-Saxon pottery was obtained from a number of distinct sources, of which the majority would have been local. The low quantity of chaff-tempered pottery noted is interesting, given the suggested early date for the site, whilst the low quantity of igneous rock-tempered pottery is significant given the much higher quantity found at Northampton in the Early to Mid Saxon period. Local sources of pottery, represented here mainly by sandstone-tempered wares, were being replaced by the end of the Anglo-Saxon period by wares from sources up to 40 miles away. The distinctive nature of several of the Brixworth fabrics offers the possibility that a more extensive survey of Anglo-Saxon pottery fabrics in Northamptonshire would reveal more detail of the patterns of pottery supply operating in the area during the Anglo-Saxon period, and the equally interesting possibility that some of the Brixworth fabrics may prove to have had a relatively short period of use and might therefore, provide much-needed chronological indicators.

Conclusions
by Jane Timby
The wide range of fabrics exhibited within this relatively small group is typical of material of Early–Mid Saxon date and is to be expected from an area with such varied local geology. Whilst Brixworth itself is situated on the Inferior Oolite, it is immediately adjacent to river sand deposits and outcrops of Great Oolite and Upper Lias. Deposits of boulder clay in the area contribute to a varied geology containing rock fragments of mixed origin. As demonstrated in Table 1 the sandy wares dominate the group accounting for over 45 per cent. Fabric S1b is very typical of material found elsewhere in the county, notably Raunds (P. Blinkhorn, pers. comm.). The sandstone category (fabric S2) accounted for a further 25 per cent, with the calcareous sandstone category (S6) accounting for an additional 6 per cent. A source from a clay derived from a Cretaceous area may be possible for this fabric thus implying a non-local source (see above). Granite-tempered wares contribute 5 per cent of the assemblage. These are also fairly widespread and a source from the Charnwood/Mountsorrel area has been proposed from similar material in Northampton (Williams, 1979, 155; Gryspeerdt, 1981, 110). The admixture of granitic minerals alongside sandstone and other minerals in some of the Brixworth pottery may suggest a source from a boulder clay deposit is perhaps more likely.

Organic-tempered material, generally regarded as typical of the Early to Mid Saxon period elsewhere, is relatively scarce in the Northamptonshire area (Gryspeerdt, 1981, 110). Only 2 per cent of the wares from 5th–6th century contexts at West Stow, Suffolk were chaff-tempered (West, 1969, 11). This is also reflected in the Brixworth material where it accounted for less than 1 per cent.

Earlier excavations in the Vicarage garden, Brixworth also produced Saxon pottery (McCarthy, 1977, 82). Although in excess of 200 sherds were recovered from these excavations, none appeared to be featured, although the fabrics seem to reflect the assemblage described here. Comparable material to that from Brixworth has also been found at Stoke Doyle Road, Oundle and Chalk Lane, Northampton (Gryspeerdt, 1981). Similar fabrics appear in the Wakerley cemetery assemblage, Northants, dating to the 6th–7th centuries (Pearson, 1989). However, although most of the Brixworth fabric groups are replicated at Wakerley, the relative percentages of different petrological groups is considerably different, where, for example, oolitic limestone and sandstone-tempered fabric groups dominate.

The forms at Brixworth include a variety of shapes and sizes ranging from large urn-like vessels to small cups or bowls. The majority are plain, but there are at least two urns with elongate bosses, one of which has additional incised line decoration. Such vessels are relatively rare in the county to date but can be parallelled with vessels from cemeteries to the north-east, for example Lackford, Suffolk (Lethbridge, 1951, figs 13 and 24) and Caistor-by-Norwich (Myres and Green, 1973, fig 31), and to the north, with similarly styled vessels from Millgate, Newark-on-Trent, Nottinghamshire (Kinsley, 1989, figs 24–5). Although decorated vessels are perhaps more generally associated with inhumation cemeteries, their presence within a domestic context has been documented elsewhere, for example, at West Stow (West, 1969, 11) where 6 per cent of the sherds were decorated. Whether such vessels had a domestic purpose, or had already been designated burial vessels is impossible to determine.

Several sherds showed evidence of internal blackened residue on the interior surfaces, a number of which appear to be from vessels with a more carefully smoothed surface finish, although not exclusively so. The only three fabrics not to have examples of residue were S2, S6 and S9. One example of an S9 sherd showed a leached interior, and one sherd of fabric S1b had a calcareous internal lining.

The two largest assemblages came from the two sunken-featured buildings F329 and F445. Building F329, the earlier of the two, contained two residual Roman sherds. The Saxon sherds (695 g) include examples of fabrics S1a-b, S2, S3, S4, S6, S8 and S9, perhaps indicating the likely contemporaneity of most of the wares. The dominant fabrics were S6 (30%) and S1b (29% by weight). Building F445, probably of slightly later date, produced considerably more material (1672 g), but slightly less diversity of fabrics, with examples of S1a-c, S2, S3, S4 and S9. In this case the dominant groups were S9 (34%), S1a (30%) and S1b (20% by weight). Most of the other groups recovered were quite small. The inference from this is that fabric S6, and possibly S8, did not survive into the middle Saxon period. The poorly represented fabrics S1c, S2, S3 and S4 may also reflect earlier material which had become redeposited. The recovery of one of the stylistically earlier sherds with a boss from F445 suggests some disturbance. Absent from both groups were fabrics S1d, S5, S7 and S10 which occurred elsewhere on the site.

In addition to the pottery half a fired clay spindle-whorl (Fig 7,17) was recovered from F423 (480) and two loom-weight fragments from F439 (494).

In conclusion, it appears that the Brixworth pottery dates from around the 5th century A.D., on the basis of the two decorated vessels. The difference in composition between the assemblages from the two sunken features suggests that the diversity of wares seen in the earlier Saxon period had become more focused into two or three main types, a sand-tempered (S1a/b) and an oolitic limestone-tempered ware (S9) by the 7th–8th centuries. This may reflect a change from an essentially domestically-orientated production, to a market-based industry, where pottery production was once more in the hands of specialist producers.

Table 2: Distribution of pottery sherds by fabric and feature

	S1	S1a	S1b	S1c	S1d	2	3	4	5	6	7	8	9	1/9	R	R1	R2	R3	R4	R5	R6M
100	–	1	–	–	–	35	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
101	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
113	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
115	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
131	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
202	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
206	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	4	–	–
212	–	–	1	1	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
216	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
218	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
220	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
221	2	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–
223	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
227	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
232	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
243	2	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
249	1	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
329	7	1	8	3	–	2	1	2	–	6	–	1	2	1	–	2	–	–	–	–	–
331	–	–	–	–	–	1	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–
332	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
341	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
348	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
403	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
418	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
421	1	–	1	–	–	–	2	2	–	1	–	–	–	–	–	–	–	–	–	–	–
423	5	–	5	–	–	–	1	2	3	3	1	1	1	–	–	1	2	–	–	–	–
426	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
429	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
433	–	–	–	–	–	5	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
439	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
445	12	–	13	5	–	3	1	4	–	–	–	–	12	–	–	–	–	–	–	–	2
500	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
508	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–
511	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–
515	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
517	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–

MEDIEVAL AND POST-MEDIEVAL

A small quantity of Medieval and Post-Medieval pottery was recovered from the surface layers. The 13 sherds of Medieval pottery mainly comprised wares from the Potterspury and Lyvedon/Stanion kilns (Northamptonshire County Council (NCC) fabrics 329 and 320) dating to the period A.D. 1200–1400. A few sherds of Early Medieval shelly coarseware (NCC fabric 330) dating to the period A.D. 1000–1400 and a sherd of Late Medieval oxidized ware (NCC fabric 401) were also present. The Post-Medieval material, amounting to some six sherds, included two sherds of Midlands purple, and glazed redware.

METALWORK
by David Richards

A small but interesting collection of eight iron and three copper alloy objects was found (Table 3). Numbers 1,3,6,10 and 11 are almost certainly Roman despite some being retrieved from Saxon contexts. The others could be of the same date also. Of the recognisable objects, the knife, drift and scythe-tip are all long-lived forms and are little help in dating the collection within the Roman period.

The copper alloy armlet may have been deliberately snapped at its thickest point. No close parallel has been found for this well-made object but generally similar tapering and patterned armlets have been found in 4th and Early 5th Century graves at Colchester (Crummy, 1983, fig. 47, no. 1730).

Table 3: Metalwork catalogue

1) Drift (leatherworker's punch) 91E/51N
Length: 31 mm. A rectangular-sectioned iron shank tapered at one end, and flattened and widened to a chisel end at the other. This is a common Roman form of punch used for many purposes from wood and leatherworking to cutting stone strips into tesserae.

2) Sheet. 52E/96N
Length *c.* 24 mm. Two rectilinear pieces of copper alloy sheet stuck together, with an irregular and thicker piece apparently fastened on top.

3) Knife. Trench B 15E/67N
Length 79 mm. A small, tanged, iron knife, small enough for surgical use. The cutting edge has been worn away by frequent working but enough remains to enable identification as Manning's type 16 subgroup with blades smaller than 100 mm. (Manning, 1985, P1 55, NVQ55). This is a common and long-lived form.

4) Tang. 72E/58N
Length 76 mm. Sharply tapered, centrally-mounted iron knife-tang. One shoulder, probably the upper one, and a rivet, survive at the blade end.

5) Ring (or washer). 52E/59N
Diameter 28 mm. A semi-circular object made from round-sectioned iron rod.

6) Blade (fragment). F445 (550) sp 1
Length 55 mm. A tapering, crescentic fragment probably the top of an iron scythe or bill-hook blade.

7) Sheet. F111 (162)
Length *c.* 45 mm. An irregular piece of iron sheet, heavily encrusted, with the remains of one or possibly two rivets surviving.

8) Object. F329 (381)
Length *c.* 90 mm. A bent, rectangular-sectioned iron rod. The bend, and the curved arm, seem integral, so that this is part of an implement, or perhaps a mechanism.

9) Nail stem. F329 (381)
Length 34 mm. A small iron stem, the original being perhaps 40 mm.

10) Bracelet. 84E/98N
Diameter 50–60 mm. A tapering, crescentic D-sectioned copper alloy arm, broken at the thick end. There are single and double bands of decoration at this end. The surviving thin terminal is apparently intact.

11) Binding strip. 58E/140N
Length 54 mm. A piece of U-shaped copper alloy sheet, decorated with groups of incised lines on one side, and with two sets of rivet holes.

IRON SLAG
by Chris Salter

THE EVIDENCE

Less than 0.5 kg of slag was recovered. This consisted of a small amount of blacksmithing slag and hearth lining together with a little clay which had been fired under reducing conditions. Table 4 gives the broad classes of material found, and Table 5 is a catalogue giving a more detailed description of material examined in feature number order.

Table 4: Summary of iron slag evidence

	Weight (gm)	Number
Smithing slag	305	10
Hearth lining	44	22
Fired clay	26.8	14
bedrock	35.8	1
Total	411.6	47

The smithing slag consisted of two small but more or less complete smithing bottoms, together with a number of small fragments which were probably fragments from broken smithing hearth bottoms. The hearth lining material showed various degrees of vitrification but some had been heated sufficiently for the vitrified clay to begin to flow. However, the lining from F100 (150) was slightly unusual in that it was in the form of thin flat plates with a granular surface appearance. Similar material is sometimes seen to have formed under the stone or clay blocks used to protect the bellows from the heat in a floor-level hearth.

A number of lumps of fired clay had been fired under reducing conditions and had a fabric that was similar to and suitable for use as a mould for copper working. However, as there was no other evidence of copper-working activity, it is more likely that these samples simply represent clay from a hearth lining. The local soils may well produce the sort of sandy clay observed.

The soil samples proved to contain a minimal amount of evidence of metal-working. Sub-samples were washed through 0, 5, 2.5 and 0.75 mm sieves. The residues in the 10 and 5 mm sieves were examined for the presence of slag, and those from the smaller sieves magnetically sorted. What was recovered was a little crushed slag and the occasional fleck of hammer-scale along with a much larger quantity of particles of iron-rich soil which had been partially reduced and hence become magnetic. The magnetic fraction of these soil samples have been retained by C.J. Salter.

DISCUSSION

Unfortunately, the type of slag recovered is not diagnostic of the period of iron-working involved. The amount of slag and its distribution is typical of a general background distribution that one might expect to find around any settlement. The minimal amount of hammer-scale recovered would suggest that the blacksmithing activity was not in the immediate vicinity. On the other hand, the state of the slag, the recovery of some hammer-scale and the various fragments of delicate hearth lining suggests that the slag may well indicate the presence of a limited amount of simple blacksmithing activity associated with the Saxon settlement.

Although there is evidence for a lot of iron-working and iron production from the Northampton area, much of this is ascribed to the

Table 5: Catalogue of slag and metalworking evidence

Context/ location	Ref no	Wght gms	No	Description
67E/68N	3002	6.2	1	Small fragment of smithing slag
68E/122N	3005	8.7	1	Clay fired under reducing conditions- the slightly sandy fabric is similar to that of OX3004.
76E/105N	3010	35.8	1	Local ironstone. Natural.
F100 (150)	3006	6.3	1	Plates of a thin vitrification layer from a hearth lining.
F100 (150)	3007	5.6	1	Plates of a thin vitrification layer from a hearth lining. This piece is similar to the type of material that forms by the fusion of soil under the blacksmiths bellow-protector plate (eisenstein).
F100 (150)	3008	1.2	1	Plates of a thin vitrification layer from a hearth lining.
F409 (461)	3016	9.2	2	Two pieces of fired clay, one fired under reducing conditions, the other oxidising conditions.
F409 (461)	3017	5.2	6	Sandy clay, fired under reducing conditions.
F409 (461)	3018	19.1	2	Two pieces of vitrified hearth. The hearth temperature was sufficient for the lining to begin to flow.
F409 (461)	3019	0.7	10	Very small fragments from the same sort of materials as seen in OX3018.
F409 (461)	3014	4.0	1	Fired clay or sintered clayey soil, possibly from a hearth lining.
F409 (461)	3015	5.1	5	Vitrified hearth lining possibly with some additional material from the hearth slag.
F419 (471)	3004	2.0	1	Clay fired under reducing conditions to the point of vitrification. The fabric is of a sandy type that could be suitable for a mould for casting copper alloy. However, this material is more likely to be from hearth lining or is highly fired daub.
F420 (470)	3009	3.7	5	Sandy clay, fired under reducing conditions with one piece of natural.
F423 (480)	3011	79.2	1	Small smithing hearth bottom.
F423 (480)	3013	194.0	1	Moderate sized smithing hearth bottom. Flat, slightly plate-like form.
F423 (480)	3012	7.9	3	Fragments of smithing slag, possibly broken off a smithing hearth bottom.
F426 (481)	3001	5.1	1	Small fragment of smithing slag.
F445 (550)	3003	12.6	3	Small fragments of smithing slag.

Roman period. It is almost certain that there was earlier activity in the area. The evidence of Saxon iron-working is very limited compared with the Roman and Medieval periods. There is smelting activity recorded in the north and east of the county but the only evidence of iron working rather than smelting is on two Late Saxon sites in Northampton. There is no evidence of Early or Middle Saxon iron-working elsewhere in the county to accompany that from Brixworth.

There is evidence of Medieval iron-working within Brixworth itself, observed in a pipe trench excavated in 1959 (Moore, 1980). A pit yielded Medieval sherds, slag and animal bones but there was no detail of the type and extent if the slag found to indicate whether this was iron-working or smelting.

STRUCK FLINT
by Tess Durden

INTRODUCTION

During the course of excavations at Brixworth an assemblage of 245 flints was collected, mainly from a systematic search of the topsoil-stripped surface (Fig 8) (Table 6). The material ranged from the Mesolithic through to later Prehistoric periods (Neolithic/Bronze Age), with the majority dating to the former period.

To date there is still relatively little information regarding pre-Iron Age Prehistoric settlement patterns in Northamptonshire, though the work of Martin and Hall (1980) and Hall (1985) has rectified the situation in recent years. Generally later Prehistoric sites are more common in the county than Mesolithic or earlier Neolithic ones; Hall cites 41 sites with a Mesolithic component out of a possible 108 (1985), with a further 7 listed on the County Sites and Monuments Record. Few have been examined in detail by excavation (*c.f.* Saville, 1981).

GEOLOGY AND FLINT SOURCE

The site is located on Northampton Sand and Ironstone, a light soil which appears to have been favoured by Prehistoric settlement. This is demonstrated by the considerable number of lithic scatters in the Brixworth area. The flint source itself is glacial gravel pebbles (Hall, 1985) which is present on the site or alternatively pebbles could be collected from nearby rivers. It is of variable quality.

ANALYSIS OF FLINTWORK

There is no clear patterning of lithic material in the excavated area, flintwork being fairly evenly spread over the site with no particular zones of activity (Fig 8). It is probable that any clustering of material may have been disturbed by Saxon occupation on the site and Roman and Medieval agriculture.

Flakes and blades were not subjected to metrical analysis owing to the low proportion (19.6%) of intact pieces. Flakes and blades together comprise 53 per cent of the total collection; in turn blades (assigned by eye) make up 39 per cent of this material, a figure which is consistent with a largely Mesolithic assemblage (Ford, 1987).

Although blade cores are represented in the collection, they make up 36 per cent of all core material (excluding fragments and struck lumps). This low figure is no doubt due to the mixing of Mesolithic material with that of later periods which favoured the use of broad flake cores. The blade cores ranged in weight from 18–52 g, compared to a weight range of 6–68 g for broad flake cores. This may point at a more standard way of working cores during the Mesolithic. The average weight of blade cores is 31.25 g which is broadly comparable to the nearby Mesolithic site 27 examined by Hall and Martin (1980), where the average weight for blade cores was 26 g.

Flakes, blades and spalls were also examined for the presence of blade scars on their dorsal surfaces, as this could also be indicative of Mesolithic blade removals. 12 per cent of flakes, blades and spalls bore these blade scars; this is comparable to Ford's calculation of 15 per cent as representing a purely Mesolithic assemblage (1987).

Retouched material amounted to 6.9 per cent of the total collection of flintwork. This consisted of simple retouched flakes and blades, scrapers, a finely retouched knife (later Neolithic), a burin and microburin and seven microliths (five of which are illustrated, Fig 9) (Table 7). The microliths are all the simple, obliquely blunted variety, with the exception of one possible scalene type (Fig 9, 1), which is definitely datable to the Late Mesolithic. The others could be assignable either to the Early or Late Mesolithic. The burin and microburin are also datable to the Mesolithic. The remaining retouched material is not particularly diagnostic of any period.

52 of the 245 pieces of flint collected were patinated, and, similar to the findings of Martin and Hall, and Hall (1980, 7, 12; 1985, 33), a large proportion of these could be assigned to the Mesolithic rather than later periods, although flakes and spalls are largely undiagnostic. However, only three of the microliths and four of the blade cores were patinated. In this case their suggestion that patinated material is generally of Mesolithic date due to the then alkaline soil conditions, and that later flints were unpatinated due to acid conditions following forest clearance, may not apply as the results from this site are not particularly clear-cut.

CONCLUSIONS

The flintwork excavated at Brixworth consists of a large proportion of Mesolithic material, supported by the proportions of blades, blade cores, material bearing dorsal blade scars and the presence of microliths. This material is also mixed with flintwork of Neolithic and possibly

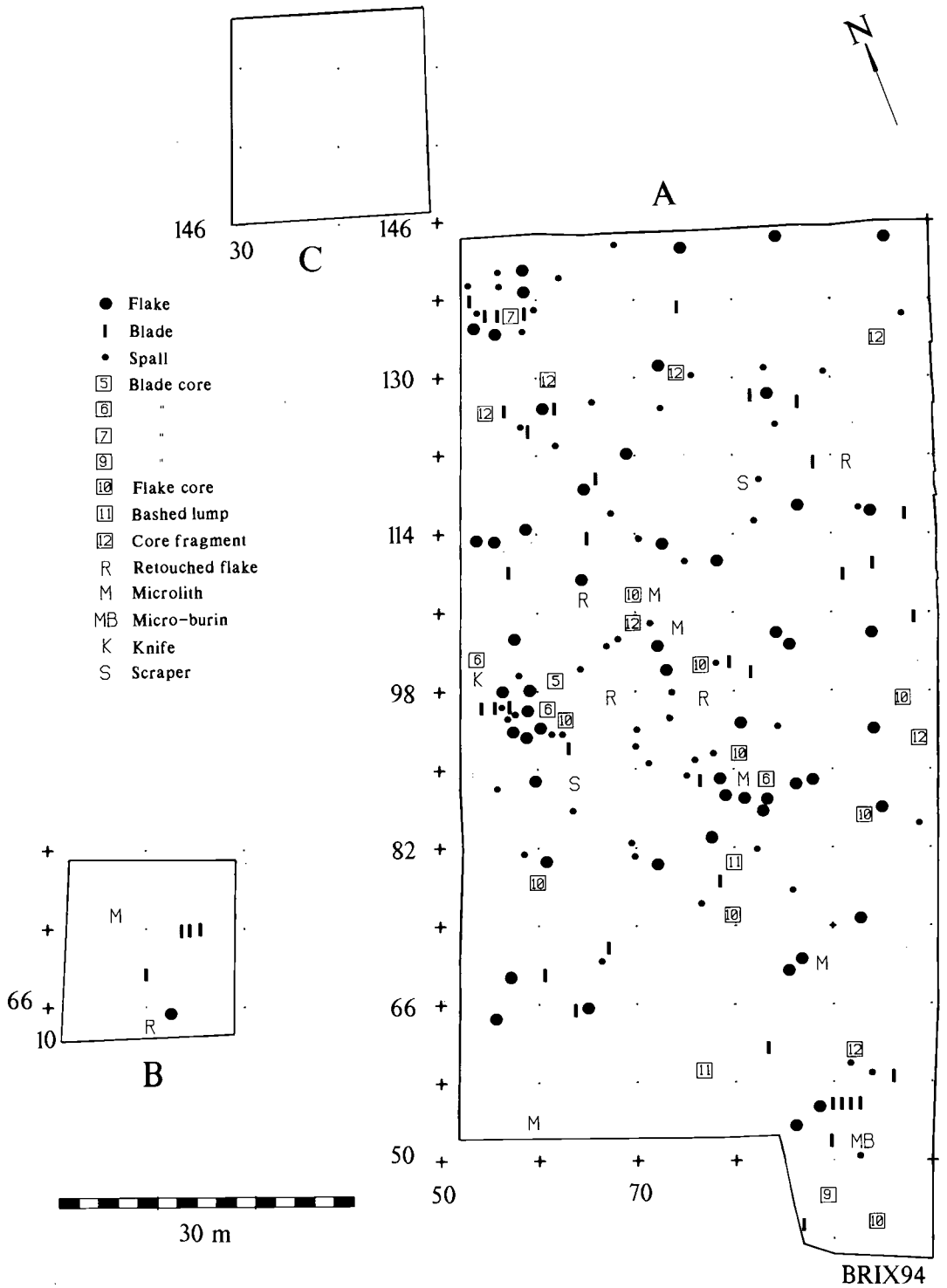

Fig 8 Northampton Road, Brixworth: Distribution of flintwork.

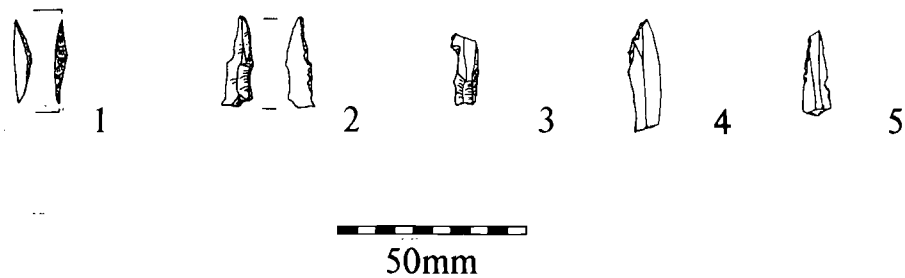

Fig 9 Northampton Road, Brixworth: Flintwork; Catalogue of illustrated microliths: 1. F129 70E/108N 2. F218 81E/99N 3. 79E/89N 4. 59E/55N 5. 88E/70N

Bronze Age date, represented by the broader flakes collected and the cores from which they were removed. The flintwork probably represents an occupation site which has been disturbed by later activity. Nevertheless it serves to add to the growing picture of Mesolithic settlement in the county and in the East Midlands as a whole.

Table 6: Components of the flint collection

Flakes (intact)	25
Flakes (broken)	54
Blades (intact)	23
Blades (broken)	28
Spalls	63
Blade cores	8
Other cores	14
Core fragments and bashed lumps	13
Retouched material	17
TOTAL	245

Table 7: Retouched material

Burin	1
Invasively retouched piece	1
Knife	1
Microburin	1
Microlith	7
Retouched blade	3
Scraper	2
Retouched flake	1
TOTAL	17

CARBONISED PLANT REMAINS

by John Letts

Ten of the 30 flotation samples that were submitted for analysis contained charred remains of cereals or weed species. All of the samples were reprocessed in the laboratory in order to

Table 8: Detail of samples examined for charred plant remains

Context	Volume(L)	Description
109 (160)	6	
113 (164)	6	Triticum cf. aestivum (1), Triticum indeterminate (1), Hordeum vulgare (2)
114 (178)	10	
117 (167)	6	
119 (169)	10	
128 (181)	8	Triticum cf. aestivum (2); cereal indeterminate (1)
137 (191)	4	
143 (195)	8	Small legume cotyledon (Pisum/Vicia) (1)
200 (252)	8	
206 (256)	10	Triticum cf. aestivum (1)
216 (268)	10	
223 (275)	8	
238 (292)	10	
245 (350)	10	
313 (368)	10	
322 (376)	8	
329 (381)	20	Cereal indeterminate (3)
348 (450)	10	
409 (461)	10	
412 (464)	12	cf Hordeum vulgare (1)
420 (472)	8	Triticum indeterminate (3)
423 (480)	10	Medial hulled barley (Hordeum vulgare) (1)
426 (481)	20	
428 (483)	8	
431 (487)	6	Triticum indeterminate (1), Triticum cf. aestivum (1), Hordeum vulgare (3), Avena sp. (1), cereal indeterminate (2)
433 (489)	6	
436 (491)	7	
442 (497)	6	
445 (550)	10	Hordeum vulgare (1), cf. Hordeum vulgare (2), Pisum-type cotyledon (1), Triticum indeterminate (1)
446 (551)	10	

remove investing clay, and specimens were identified by comparison with modern reference material.

Unfortunately, most of the cereal grain in the samples is badly charred and poorly preserved. Nevertheless, several of the grains are most probably derived from naked wheat (i.e. bread wheat *Triticum aestivum*), and no hulled wheat grains or chaff (i.e. glume bases) occur – ruling out Roman residuality. Barley grain was also poorly preserved, but a sample from F423 (480) contained one hulled (median) grain. The single oat grain from F431 (487) could be derived from either a wild or a cultivated plant and is of little archaeobotanical significance, as with the small wild legume cotyledon from F143 (195). The pea-like (*Pisum*-type) cotyledon from F445 (550) indicates cultivation of either pea (*Pisum sativum*) or broad bean (*Vicia faba*) – a common Saxon crop – as it is too large to be a wild *Vicia* or *Lathyrus* species.

Based on the very limited and poorly preserved plant remains, these samples are most likely to be Saxon, and suggest cultivation of bread wheat, barley and legumes. Bread wheat is much less common on pre-Saxon sites, and legumes also appear to be more common in Saxon and later assemblages.

WORKED BONE

by Kevin Rielly

1) An incomplete, double-sided, composite comb from SBF F445 (550). It is in five fragments, a tooth segment and parts of two connecting plates, no complete teeth survive. All three components of the comb were made from antler. The comb is undecorated. The teeth are cut down almost to the connecting plates thus the edges of one of these plates displays small nicks where the teeth have been cut. A rivet hole 6 mm in diameter is situated in the middle of one of the connecting plates (Fig 10, 1).

2) An incomplete bone pinbeater consisting of one point and part of the shaft from SFB F445 (550). It appears to be tapering towards its fractured end so it is probable that it was originally double pointed. The object is roughly triangular in cross-section, and has a pronounced medial groove running up its shaft. A less obvious indentation is visible on another of its faces. It is polished and very slightly curved (Fig 10, 2).

Double-pointed pinbeaters are often found on Early Anglo-Saxon settlement sites, however, they more commonly have a circular or ovoid section. They are thought to have been used in weaving, to keep the weft pushed tightly together on a warp-weighted loom.

Studies on the lengths of double pointed pinbeaters from this period show that they can be arranged into two different groups. Group A covers the artifacts between 80 mm and 110 mm and those in group B measure between 130 mm and 140 mm (Waller, 1993, 117). The pinbeater fragment from Brixworth measured 83 mm. In its original form it is probable that it was no longer than 110 mm, thus it would lie in group A.

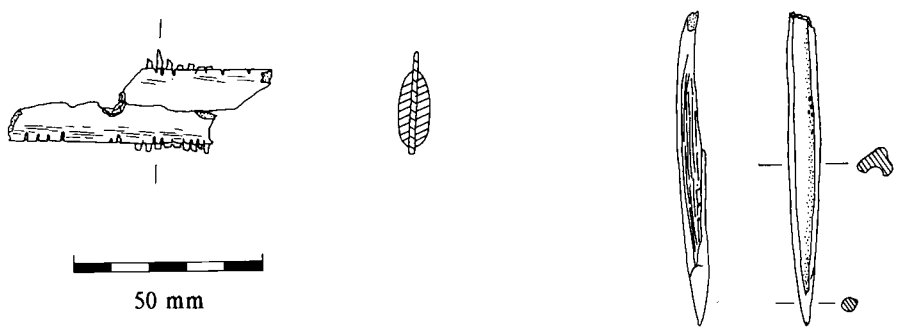

Fig 10 Northampton Road, Brixworth: Fragmentary composite bone comb (1) and pinbeater (2) both fromSFB F445(550)

FAUNAL REMAINS
by Kevin Rielly

INTRODUCTION

608 animal and bird bones were collected by hand, with an additional 112 recovered by sieving. The latter total was the result of a comprehensive sampling strategy involving a large proportion of the occupation deposits. While bones were found throughout the site, they were particularly concentrated in the sunken-floored buildings (SFB's) i.e. 73.3 per cent (446 fragments) of the hand collected and 73.2 per cent (82 fragments) of the sieved bones. The remaining bones were recovered from the various post-holes and pits, the majority from those interpreted as the remains of structures. Concentrations within the two main feature types are as follows:- SFB – F329 and F445 with 256 and 160 fragments respectively; Structure 2 with 79 bone fragments.

The site assemblage was, in general, well preserved (referring to the surface condition of the bones) and highly fragmented. A proportion of this fragmentation may be due to dog gnawing. 5 per cent of the SFB assemblage and 2.4 per cent of the remaining bones showed gnawing marks.

METHOD OF STUDY

Identification proceeded to species or species group level where possible. Otherwise, bones were classed according to size, namely cattle and sheep-size. The latter fragments included all vertebrae (with the exception of atlas, axis and sacrum), ribs, non specific limb bone shaft pieces and other indeterminate fragments.

The single phase of occupation allows for the analysis and discussion of the site assemblage as a single unit. However an attempt is also made to study the bones from the main features. Towards this end the assemblage has been divided into SFB, Structure and Other (see Tables 9 and 10). The latter bones were produced by the unassociated post- holes/pits.

The level and extent of the analysis is necessarily limited due to the small sample sizes (particularly concerning age and size data) and the high fragmentation. A description of the biases introduced by these limiting factors is discussed in the relevant sections.

SPECIES REPRESENTATION

Cattle is clearly the dominant species in the hand-collected assemblage (see Table 9), forming a large part of the identifiable bones and, undoubtedly, most of the cattle-size fragments as well. The latter assumption is based on the representation of this species relative to the other cattle-size species present i.e. horse and red deer. Taking account of the sheep-size fragments the next species in importance are obviously sheep/goat and pig. A few sheep/goat bones could be identified as sheep, which possibly suggests, at the least, the predominance of sheep over goat. No clear differences in the representation of cattle, sheep/goat and pig is visible between the major feature groupings.

All but one of the horse bones were found in SFB deposits, and most of these were recovered from F329 (15 out of 20 bones). Red deer and chicken were both found in SFB F445 only, the former represented by a single worked antler fragment.

Hand collection and a high level of fragmentation tend to favour the recovery of the larger species. The sieved bone collection can be used to illustrate this point. A noticeable feature of this collection (Table 9) is the better representation of sheep/goat and pig bones (relative to the hand-collected assemblage). However the sieved bones also show an abundance of cattle-size fragments. The combined evidence clearly suggests that the smaller species are under-represented, which is likely due largely to fragmentation pressures, and partly to recovery biases.

USE OF ANIMALS

This section examines the evidence for the method or methods of exploitation.

a) Meat Species

Bones with cut marks are, in general, clear indicators of a meat use. Butchery cuts were found on cattle (6 cases), cattle-size (4 cases) and sheep/goat (1 case) bones only, all from SFB deposits. Regarding the cattle and cattle-size cut bones, there is evidence for dressing (removing the lower hindleg) and splitting the carcass (vertebrae), as well as defleshing (tibia and rib) and marrow extraction (split radius). The sheep/goat cut is a chop removing a horncore which may have occurred during skinning.

In the absence of cuts a meat use can be inferred either from the fragmentation of the bones or from knowledge concerning the ancient or modern usage of a particular species. Obviously the former factor is difficult to interpret given the high background fragmentation. However it is clear that the horse bones are considerably less fragmented in comparison to the cattle bones, or indeed the sheep/goat or pig bones. In addition it is possible that a large proportion of the horse bones are likely to represent the disarticulated remains of a small number of individuals. This evidence suggests that horse, at this site, was unlikely to have been exploited for its meat. However, the presence of at least two fragments of an immature horse (from SFB F329) could suggest otherwise (see next section).

It can be assumed that the pig and chicken bones represent the remains of food debris. Conversely, there is no evidence to suggest that red deer contributed to the meat diet.

Most of the meat was clearly provided by cattle, even allowing for the likely under representation of sheep/goat and pig. The contribution of chicken to the meat diet cannot be determined.

Evidence for locally-bred stock can be provided by the presence of neonate or very juvenile animals. No such individuals were recognised. However there is clear evidence for the processing of whole animals. Each of the major domesticates show a wide distribution of parts from the SFB and Structure assemblages. The waste from all aspects of the butchery process, from skinning to defleshing, are clearly represented.

A final point concerns whether these animals were specifically bred for their meat. This is obvious concerning the pig, where meat is the main exploitation product. All the other species represented are noted for their *ante mortem* products. The possible exploitation strategies concerning these species are discussed in the next section.

The pig bones are from immature as well as mature animals. A canine from a mature individual could be identified as female. Clearly both breeding and meat stock are represented.

b) Other Products

The teeth ageing evidence for both cattle and sheep/goat show a majority of mature individuals (Table 10). A similar result is indicated by the fusion data (Table 10). The fused bones in the middle and late fusion groups can be classed as representing mature and adult individuals respectively. These results must be viewed against the small sample sizes and the fact that the bones of mature/adult animals are less susceptible to fragmentation pressures compared to those from younger individuals.

The ageing data for cattle and sheep/goat suggests, at the least, that a proportion of each survived beyond their prime meat use age i.e immature. These are likely to have been bred for some secondary use e.g. cattle – milk and/or work, and sheep/goat – milk and/or wool/hair. A few may also have been kept for breeding purposes. Whether this proportion formed a majority of the herd/flock is difficult to estimate given the limitations imposed on the data.

The presence of younger individuals clearly shows that some animals were bred and culled specifically for their meat.

Both the chicken bones are from mature individuals which suggests the presence of breeders and/or the use of eggs in the diet.

The horses are possibly represented by just three individuals, an adult and an immature animal in one SFB (F329) and an adult in a Structure deposit (F423). It can be suggested that the older animals were used for work purposes. The presence of a younger horse could indicate either the accidental death of a locally-reared animal or possibly one which was brought to the site for its meat.

There is no evidence to suggest that red deer was exploited at this site unless the worked antler piece was crafted by a local artisan.

SIZE

The small number of measurements are compared to the range of similar dimensions from other Early Saxon sites in the vicinity and elsewhere in Southern Britain. All measurements follow von den Driesch (1976).

Cattle

Withers heights could be calculated (using the factors described in Boessneck and von den Driesch, 1974) from two length measurements i.e a radius (320 mm) and a metacarpus (200 mm). These gave heights of 1376 mm and 1224 mm respectively. Both heights are within the size range found at Shrivenham Road (Rielly, forthcoming) and in the top half of the range found at Hamwih (Bourdillon and Coy, 1980). Other measurements compare favourably with similar dimensions found at Shrivenham Road, Pennyland (Holmes, 1993) and a variety of both Roman and Saxon sites described in Maltby (1981, 187).

Other Species

The sheep/goat, from three tibia measurements, are well within the range of sizes provided by the local sites mentioned above and by the Roman and Saxon sites listed in Maltby (1981, 190). A single pig measurement can be favourably compared to pig sizes found in Britain up to the Late Medieval period, while the single measurable chicken is at the smaller end of the Roman and Saxon range (Maltby, 1979) but larger than a bantam.

The size data confirms the assertion that just three horses are represented. One of these, the largest, provided a shoulder height of 1388 mm (following Boessneck and von den Driesch, 1974). This size is within the range found at Hamwih and is very similar to a horse found at Shrivenham Road. The other measurable horse was approximately middle pony in size.

CONCLUSIONS

The overall bone assemblage suggests a dominance of domestic species. Various limiting factors make it difficult to estimate the true abundance of the species represented. However it can be assumed, at the least, that cattle was the main meat provider. Other species exploited for their meat include sheep/goat, pig and chicken. With the exception of pig, these species were clearly also used for some secondary product. The skeletal part data for cattle, sheep/goat and pig suggest that they were all processed, if not bred, in the vicinity of the site.

Horse was probably exploited as a work animal only, although the presence of an immature individual may possibly indicate a meat use. The red deer was identified from a worked object, which may represent the work of a local craftsman or an import.

These results can be tentatively compared with those from similarly-dated sites. The sites of Shrivenham Road (Rielly, forthcoming), Pennyland (Holmes, 1993) and Bancroft Mausoleum (Holmes and Rielly, 1994) all produced cattle- dominated assemblages. Of interest is the fact that numerous sites in Southern Britain moved towards a sheep-based economy

following the Roman period e.g. see Portchester Castle (Grant, 1975 and 1976). An explanation for this disparity could lie in the very Early Saxon dates of these local sites or perhaps it could be related to a local phenomenon.

The meat use of cattle, sheep/goat, pig and chicken is reflected elsewhere. In addition there is butchery evidence for the eating of horseflesh from Shrivenham Road. Major domestic secondary products are used at all these sites. At Pennyland, which provided a reasonable sample of age data, cattle were utilized principally for their secondary products, while sheep/goat tended towards a greater importance of meat.

It was shown that the size of the Brixworth animals are similar, in general, to those found at various sites in the locality and elsewhere.

Table 9: Species representation – total fragment count

a) Hand-collected

	SFB's	Feature Structures	Other
Cattle	101	22	6
Sheep/goat	28	14	8
Horse	20	1	1
Pig	8	6	2
Red deer	1*		
Chicken	2		
Cattle size	242	67	8
Sheep size	44	19	8
Total	446	129	33

SFB – Sunken floored building
* – a fragment of antler comb

b) Sieved

	SFB's	Feature Structures	Other
Cattle	5	1	
Sheep/goat	7	1	
Pig	3		1
Cattle size	65	11	5
Sheep size		11	
Total	82	24	6

Table 10: Age of Cattle and Sheep/Goat

a) Teeth

	Number of Mandibles and Maxillae			
	Cattle		Sheep/Goat	
	SFB	All	SFB	All
Juvenile – M1 unw	1	1		
Immature – M1 w, M2 unw	1	2	1	1
– M2 w, M3 unw	2	2	4	4
Mature – M3 w	3	7	2	10

M molar, w worn, unw unworn

b) Epiphyses

Cattle	SFB		All	
Fusion groups	Fused	Unfused	Fused	Unfused
Early	10	1	17	1
Middle	8	2	9	3
Late	3	4	3	4

Sheep/Goat (all fused) from All:- Early 1, Middle 5 and Late 1.

Epiphyses used:-
Early – scapula P, humerus D, radius P , pelvis acetabulum and 1st phalange P.
Middle – tibia D and metapodial D.
Late – humerus P,radius D, femur P and D, and tibia P.

P proximal and D distal.

RADIO-CARBON DATING

Four radiocarbon determinations were achieved on bone finds as documented in Table 12. The calibrated dates were calculated using the curve of Stuiver and Pearson (1986) and the probabilistic method of calibration as calculated using revision 2.0 of the University of Washington Quaternary Laboratory Radiocarbon Calibration Program (CALIB) (Stuiver and Reimer, 1986).

CONCLUSION

Brixworth is renowned for the presence of its 7th Century church, thought to be a monastic establishment (Everson, 1977). The parish has witnessed much field survey (e.g. Martin and

Table 11: Faunal remains by context

Context	Cattle	Sheep/ goat	Pig	Horse	Cattle sized	Sheep sized	Other
101 (151)	1	–	–	–	3	1	–
102 (152)	2	–	–	–	–	–	–
105 (182)	–	–	–	–	1	–	–
107 (157)	–	–	–	–	1	–	–
108 (158)	1	1	–	–	4	2	–
108 (159)	1	–	–	–	–	–	–
113 (164)	–	–	1	–	–	–	–
114 (180)	–	1	–	1	–	–	–
115 (165)	–	1	–	–	–	1	–
127 (177)	–	–	–	–	2	6	–
128 (181)	1	–	–	–	–	–	–
131 (185)	–	1	–	–	–	–	–
133 (187)	2	–	–	–	–	–	–
134 (188)	2	–	–	–	–	–	–
140 (192)	–	–	1	–	2	2	–
140 (194)	–	–	–	–	2	–	–
143 (195)	–	–	–	–	2	–	–
148 (250)	1	–	–	–	1	–	–
200 (252)	1	–	–	–	–	–	–
202 (254)	1	–	1	–	5	–	–
208 (260)	–	–	–	–	4	–	–
209 (261)	–	–	–	–	2	–	–
212 (264)	–	–	–	–	2	2	–
214 (266)	–	3	–	–	2	–	–
215 (267)	–	–	–	–	–	1	–
216 (268)	1	–	–	–	–	2	–
217 (269)	–	–	–	–	–	4	–
218 (270)	2	–	3	–	4	1	–
219 (271)	–	–	–	–	–	3	–
220 (272)	–	–	–	–	–	1	–
222 (274)	1	–	–	–	–	–	–
223 (275)	3	3	–	–	3	5	–
225 (277)	–	–	–	–	–	1	–
226 (278)	–	–	–	–	1	2	–
227 (279)	–	–	–	–	–	2	–
228 (280)	–	–	–	–	–	4	–
229 (282)	–	–	–	–	–	3	–
232 (286)	1	2	–	–	1	2	–
234 (288)	–	–	–	–	–	1	–
235 (290)	–	–	–	–	1	–	–
238 (292)	–	1	–	–	3	–	–
245 (350)	–	1	1	–	1	–	–
303 (358)	1	–	–	1	–	–	–
306 (361)	2	5	1	–	15	15	–
313 (368)	–	–	1	–	2	–	–
322 (376)	–	1	–	–	1	–	–
323 (377)	–	1	–	–	–	–	–
329 (381)	25	–	2	1	20	–	–
329 (381 sp1)	14	2	1	–	20	8	–
329 (381 sp2)	27	11	2	13	24	7	–
329 (381 sp2 sv)	–	1	–	–	1	7	–
329 (381 sp3)	17	8	3	5	18	7	–
329 (381 sp3 sv)	3	–	3	–	11	4	–
331 (383)	3	–	–	1	2	–	–
342 (394)	2	1	–	–	–	–	–
349 (451)	–	–	–	–	1	3	–
402 (454)	2	1	–	–	–	–	–

Context	Cattle	Sheep/ goat	Pig	Horse	Cattle sized	Sheep sized	Other
423 (480)	7	2	–	4	6	4	–
423 (480 sv)	–	6	–	–	4	–	–
426 (481 sp1)	–	–	–	–	1	–	–
428 (483)	–	–	–	–	–	1	–
431 (487)	–	–	–	–	1	2	–
436 (491 sv)	–	–	–	–	1	–	–
439 (494)	–	–	–	1	–	–	–
445 (550)	–	–	1	–	1	–	–
445 (550 sv)	1	1	–	–	7	2	–
445 (550 sp1)	15	4	–	1	15	9	chick-1
445 (550 sp1 sv)	–	–	–	–	2	–	–
445 (550 sp2)	24	1	1	–	39	3	chick-1
445 (550 sp2 sv)	4	–	–	–	1	1	–
445 (550 sp3)	15	5	–	–	36	2	–
445 (550 sp3 sv)	–	–	–	–	4	2	–
448 (553)	1	1	–	–	1	1	–
500 (555)	1	–	–	–	1	–	–
506 (572)	–	–	–	–	–	3	–
508 (573)	2	–	1	–	–	–	–
515 (566)	–	5	–	–	–	2	–
516 (567)	1	–	–	–	–	–	–
520 (571)	–	1	–	–	–	–	–

sv- sieved finds; sp- spit

Table 12: Radiocarbon Determinations

	result	calibrated age ranges calendar years AD 68% Probability	95% probability
F329 BM 2958	1500 + 45	460–480 or 525–625	440–635
F133 BM 2961	1490 + 50	465–475 or 530–635	440–645
F445 BM 2960	1310 + 40	660–720 or 740–760	650–785
F216 BM 2959	1230 + 50	715–740 or 760–875	670–900

Hall, 1980) along with some excavation, and the location of a number of other Early/ Mid Saxon sites are known. The Royal Commission indicated 10 sites for the parish (RCHME, 1981, fig. 31), a figure which has been added to over recent years (Fig 1). The survey work has also located a number of Prehistoric flint scatters along with Iron Age and Roman pottery scatters. The geology and land-use has also favoured the discovery of a number of sites by aerial photography. Together, this suggests that the Brixworth area has been favoured for settlement since early times.

Inevitably for a large area excavation, several periods are represented by the finds and features on the site, but only two main phases of activity are recorded:

PREHISTORIC

The earliest material present is that of (later) Mesolithic date. This activity is recognisable by the presence of a modest collection of struck flint mostly recovered from the stripped surface of the site, but including a few from the topsoil. No subsoil features were located which could be assigned to the Mesolithic period. The two phases of fieldwalking which took place prior to the excavation only located a few undiagnostic struck flints. As most sites of this period comprise scatters of struck flint *within* the topsoil, (*c.f.* Wymer, 1977) it is unclear how many more finds were removed during the stripping operation. This

makes absolute comparisons with other sites in terms of the density of material present, a difficult proposition.

In areas of marked topographic change in the highland zone such as the Pennines or upland Wales, there is a contrast in the nature of Mesolithic settlement with small upland sites (task specific) occupied over the summer months contrasting with larger, low-lying/riverine sites (base camps) occupied for longer periods during winter or all year round (Radley and Mellars, 1964; Jacobi, 1980). It has been suggested that the pattern of red deer migration is mainly responsible for such a pattern (Clark, 1972).

For Northamptonshire, and other parts of southern Britain, such marked topographic variation is not present and it seems less likely that a pattern of deer migration is responsible for the observed settlement patterns. Further, it is by no means clear that the Mesolithic economy is closely linked to migratory species such as deer, as both pig and cattle are well represented in the faunal assemblages of this period (Simmons *et al.*, 1981).

The Mesolithic settlement pattern is dominated by a riverine/low-lying distribution, almost certainly reflecting the greater food producing potential of aquatic resources (Clarke, 1976). Nevertheless, sites such as those located on the Northamptonshire uplands and including some large upland sites in Gloucestershire and Oxfordshire (e.g. Saville, 1984; Case, 1986, 18) point to a significant component of the Mesolithic settlement system that is not necessarily riverine-based. It is within this context that the site at Brixworth should be viewed.

LATER PREHISTORIC AND ROMAN

A small quantity of post-Mesolithic material was recovered. A fine invasively flaked knife was found of Late Neolithic/ Early Bronze Age date and a small pit (1/1) contained a few scraps of what was thought to be Neolithic pottery (Jackson, 1990). Despite similarities with Saxon pottery, a few other sherds are thought to be of Iron Age date. A few sherds of Roman pottery and metalwork finds were also recovered from the site and as residual finds in later features. These are presumably a result of them being accidentally incorporated into manure which was subsequently spread onto arable fields. A similar interpretation applies to finds of Medieval and later pottery.

SAXON

The main phase of use of the site consists of an unenclosed settlement comprising a collection of post-built and sunken-floored structures. The site is known to extend to the south east with two structures identified during construction of the bypass (Gaimster *et al.*, 1990, 203; Shaw, 1990; Shaw, 1993–4). The density of features discovered suggests that a significant proportion of the site has now been examined, although the presence of the sunken-floored structure in trench B points to the likelihood of further outlying structures, despite negative evidence from the evaluation trenches. A plan of features at the extensive excavation at Pennyland, Milton Keynes shows a dense area of post-built structures occupying an area of *c.* 80 m × 30 m but with more than ten sunken-floored structures in a zone up to 130 m away (R. Williams, 1993, fig. 25). Large sites such as Mucking occupied several hectares of land (Hamerow, 1993).

The dating evidence for Brixworth initially provided by the pottery alone suggested that the site was of 5th–6th Century A.D. date. However, the calibrated radio-carbon dates show that the site could be much longer-lived, or have been occupied in two phases. The dates form two discrete groups with two dates of 5th–7th Century A.D. and two of 8th–9th Century date but the gap between the two pairs of dates is not large. The radiocarbon chronology is not able to be better resolved and the evidence is such that the site could have had a shorter life span in Middle Saxon times (7th–8th Centuries A.D.).

The two structures found in the bypass were associated with Early/Middle Saxon pottery and would appear to be broadly contemporary with the features here (Shaw, 1993–4). For the larger features of the main excavation, individual pottery fabrics are often associated together, suggesting a broad degree of contemporaneity. However, the complexity and overlapping plans of post-hole patterns forming structures 2 and 3,

shows some time depth to the site which is not contradicted by the radio-carbon evidence. The overall north–south alignment of these and structure 4 suggests a continuation of the basic layout of the site.

Although first use of the site could date to the 5th century, there is no indication of continuity of site location from Roman times. There is no shortage of Roman sites in the area and the Royal Commission indicate 8 sites and a villa for the parish (RCHME, 1981, fig. 31). Several other locations of Roman finds are also known. The site is, however, laid out on (arable) fields manured in Roman times. The nearest known site which lies 650 m to the south, was also located during the watching brief of the bypass.

The nature of the site, comprising a combination of post-built and sunken-floored structures appears typical of Early and Middle Saxon settlement sites (Higham, 1992, 121). Other sites in the region such as Briar Hill are only represented by sunken-floored structures (Bamford, 1985), whereas at Pennyland, Milton Keynes the site also included several four-post structures, droveways and enclosures (R. Williams, 1993). At Chalton, Hampshire (Welch, 1992) the extent of the site is thought to indicate the presence of a hamlet, and at Mucking and West Stow analysis has shown that the very large number of structures was caused by the drift of a smaller settlement over a period of several hundred years (Hamerow, 1993; West, 1985). The scale of the site at Brixworth places it towards the lower end of the size range of Saxon settlements and perhaps represents an individual farmstead.

Higham (1992, 126) regards sites like Brixworth as occupied mainly by the aristocracy. Yet the artefactual, faunal and structural evidence indicates nothing to suggest that the site is of high status. While it is possible that rank in Saxon society may only be recognisable archaeologically in the burial record, it seems more realistic to regard sites with elaborate structures such as Cowdery's Down, Hampshire and St Peter's Street, Northampton as high status sites (Millett and James, 1983; J. Williams, 1979). As more fieldwork under controlled conditions takes place, many more sites similar to Brixworth should be discovered.

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