

Excavation of the Roman Villa and Mosaic at Rowler Manor, Croughton, Northamptonshire

by

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with contributions by

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SUMMARY

Investigation of the Roman villa site at Croughton began in 1991 when evidence of settlement was unearthed during the construction of a gas pipeline. Subsequently the location of a villa was revealed by the presence of tesserae found during fieldwalking and metal detecting. Excavation exposed a mosaic pavement portraying Bellerophon slaying the Chimaera. Assessment and evaluation by English Heritage led to scheduling in 1995. A change of ownership raised the possibility of displaying the mosaic in situ beneath a cover building. This required Scheduled Monument consent which was granted, but a further change in ownership resulted in the re-burial of the mosaic and its continued preservation in situ. This report presents the results of investigations at the site since 1991; it includes a full account of the mosaic pavement and excavations as well as episodes of trial trenching, geophysical survey and fieldwalking.

INTRODUCTION

The Roman settlement at Rowler Manor Estate was first recorded in 1991 during the construction of a gas pipeline which ran through an area of Roman period archaeology (Figs 1 and 2). Subject to a watching brief, quantities of Roman pottery and two small coin hoards were recovered. Later investigation to the south of this line led to the excavation of a 4th-century AD mosaic floor and a small area of structural stonework. The mosaic showed the Greek hero Bellerophon slaying the mythical beast Chimaera, set within a frame of geometric design, located within a stone building, or 'villa'.

Subsequent assessment and evaluation established that the site at Rowler Manor Estate probably comprised a stone-built house. Aerial photographs show cropmark enclosures extending over a 5ha site, including part of a now dry streambed to the east of the main house, suggesting the 'villa' was part of a complex of buildings at the centre of a country estate.

A single La Tène II spearhead hinted at activity on the site in the 2nd century BC whilst the ceramic assemblage from fieldwalking and evaluation trenching suggests the most intense period of occupation of the villa was from the 2nd to the 4th centuries AD. The mosaic dates to the mid-4th century. Beads dating to the 5th to 6th centuries

found on the mosaic and burning on its surface, as well as Anglo-Saxon period ceramics in the vicinity, hint at occupation continuing in the 6th century some time after the end of the Roman province.

The site is located in farmland that is presently part arable land, part wooded. It occupies a southward facing slope at the head of a shallow valley which, although culverted and dry today, was once an open stream course. The site is presently a Scheduled Ancient Monument: *Roman Settlement 600m north east of Rowler (Nat Monument no 22703; NSMR 5717)*. It was scheduled in 1995.

In 1998 Rowler Manor Estate was sold and during the restoration some inadvertent damage was done to the Scheduled Area. The damage assessment by English Heritage (Wilmott 2001) re-opened the debate about the future of the mosaic and with the new owner's enthusiasm and interest in the pavement and its context, a plan to put the mosaic on limited display beneath a protective cover building was developed (Dawson 2003). This report draws together the archaeological evidence gathered at Rowler from the first discovery of the site in 1991. It presents the excavated evidence in the context of the wider landscape and includes the specialists' reports on significant artefacts as well as the Bellerophon mosaic.

GEOLOGY AND TOPOGRAPHY

Historically the site is located within the parish of Croughton and Newbottle in Sutton hundred, a medieval sub-division of Northamptonshire. The site is located some distance to the north of the village of Croughton. The village, originally *Criwelstone* (AD 1086 DB), which means a settlement, *tun*, at a fork in the river (Ekwall 1980, 133), was founded by the late Saxon period. Rowler probably means rough, OE *rūh*, in the sense of uncultivated clearing in the woods, OE *leah*.

The solid geology of the area comprises Blisworth Limestone of the Great Oolite Series, with underlying strata of Northamptonshire sands. The site is situated on level ground at approximately 143m OD above a shallow valley of a tributary stream of the River Cherwell. The soils are calcareous loams of the Aberford Association traditionally associated with stock rearing and occasionally winter cereals (Soil Survey of England and Wales 1983, Sheet 4).



Fig 1 Location plan showing the position of the Scheduled Ancient Monument on the Rowler Manor estate at Croughton

THE ARCHAEOLOGICAL INVESTIGATIONS

In early July 1991 during construction of a gas pipeline to Brackley, Northamptonshire, metal detectorists discovered coins, a belt buckle and a brooch. A subsequent watching brief by Northamptonshire Archaeology recorded the remains of stone walls, a surface or roadway close to the bridleway south of Charlton Road. The watching brief also recovered tile, pottery and a small coin (RN 5535/004) (Table 1 see p. 48).

In October 1991, the presence of tesserae in field OS 0557 (Ordnance Survey Land parcel number) alerted two

local amateur archaeologists and metal detector users to the possibility of a mosaic in the area. With the permission of the owners, Mr and Mrs Bryan Harris, a small excavation was mounted and several square metres of decorative mosaic pavement were revealed (*Independent*, 17th Oct 1991). The mosaic was subsequently re-buried on the advice of English Heritage.

In October 1992 and January 1993 the Ancient Monuments Laboratory carried out an extensive geophysical survey to establish the limits to the site and to determine the form of any buildings (David and Payne 1993). In July 1993 English Heritage re-excavated the mosaic 'to

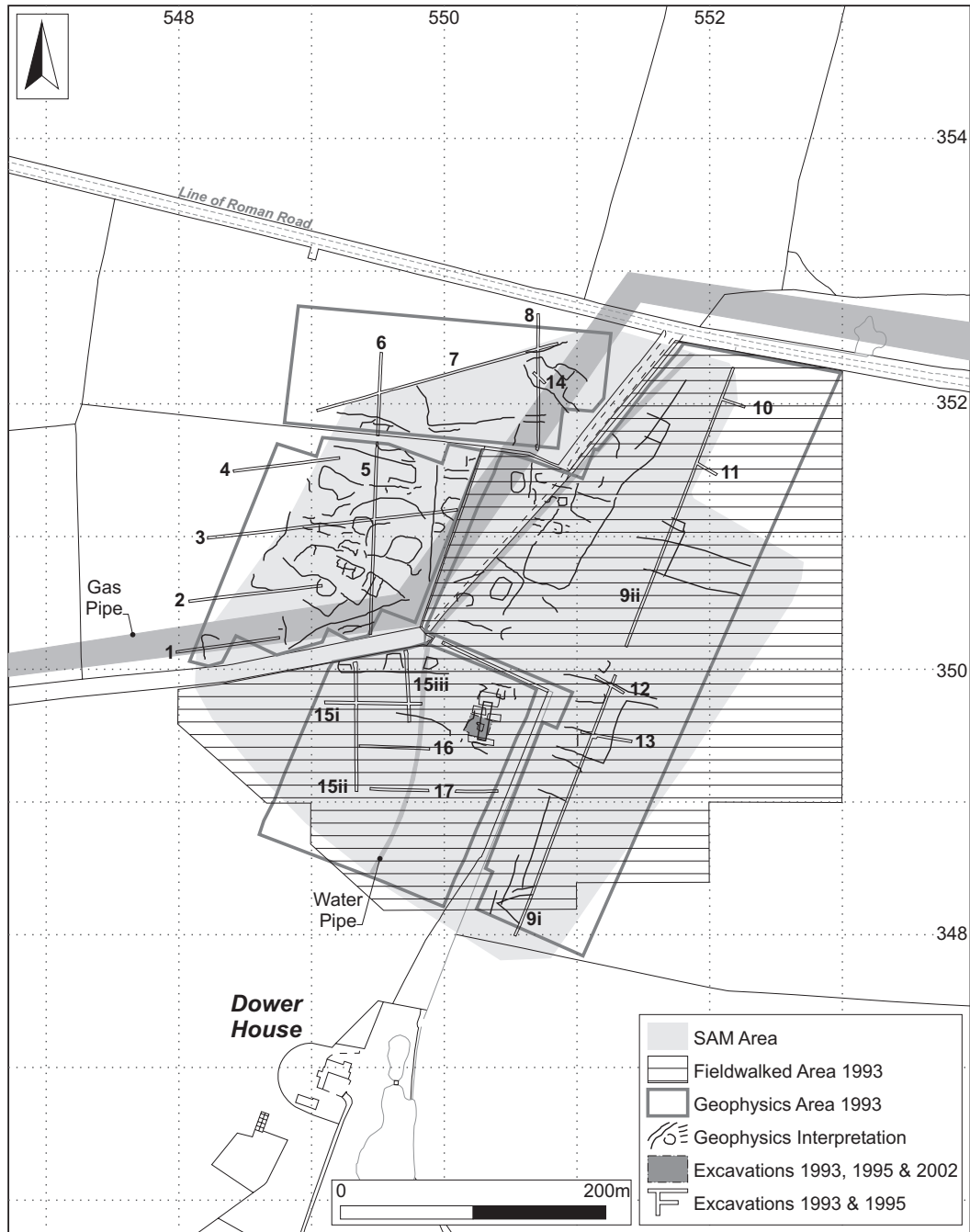


Fig 2 Archaeological interventions plan: geophysics (EH), trial trenches (EH), field artefact collection (NA), excavation trenches (EH) and damage assessment (EH)

assess the...condition of the mosaic and to backfill the area of disturbance with more suitable material' (Blore 1993). The original excavation had been backfilled with sand and the mosaic covered by a steel mesh to deter metal detectorists. David Neal was one of the first people to inspect the Bellerophon mosaic (Mosaic 1) in 1991 and when the pavement was re-exposed in 1993 made a painting of it based on photographs.

In November 1993 Northamptonshire Archaeology carried out field artefact collection on several fields

and a contour survey in September 1994 (Shaw and Audouy 1993, NA 1995).

Building on the results of the early interventions and assessments the site was scheduled by the Secretary of State in July 1995. In order to characterise the site further English Heritage undertook a final season of evaluation in the summer of 1995. Seventeen trial trenches were excavated, largely in the western half of the Scheduled Area, with several more trenches opened to test the extent of the 'villa' building and re-examine the condition of the

Table 1: Datasets from investigations at Rowler Manor Farm

Episode	Site Codes	Contexts used in this Report	Archive Location	Reports
Watching Brief 1991	WB 91	-	Northamptonshire SMR	Watching Brief Sheets
Mosaic Excavation 1991	CRV 91	-	Northampton Museum	
Geophysical Survey 1993	AML 15/93	-	EH	AML 15/93
NA Field Artefact Collection 1993	Fields 4148, 0557, part 7100, part 7158	-	Northamptonshire Archaeology and Rowler Manor Estate	NA 1995
EH 1993 Excavation of mosaic trenches A-E	CAS 492	-	Rowler Manor Estate	Blore 1996
EH 1995 17 trial trenches	CAS 492	1001-1106	Rowler Manor Estate	Blore 1996
EH Damage Ass of Water Main	CAS 662 0-82	6201-6282	Rowler Manor Estate	Wilmott 2001
NA excavation 2002	RMF 02 0-84	0-84	Rowler Manor Estate	Carlyle 2002

mosaic and to record it fully (Blore 1996). Re-exposure provided an opportunity to make a measured drawing of the mosaic and create a new painting, since slightly more of the pavement had been exposed.

In mid-2001 excavation of a new water pipe trench by contractors across the Scheduled Area led to a campaign of evaluation by English Heritage (Wilmott 2001) when the pipe-trench was partially re-excavated and examined.

In 2002, subject to Scheduled Monument Consent, excavation was carried out by Northamptonshire Archaeology and managed by CgMs Consulting in order to assess the potential to display the Bellerophon mosaic and to set the mosaic in context. With the full exposure of the mosaic in 2002 the 1995 survey and painting were updated, whilst a photographic survey was undertaken by David Andrews of English Heritage (Andrews *et al* 2005).

STRUCTURAL EVIDENCE

INTRODUCTION

The evidence for the Roman settlement at Croughton comes from several sources, a watching brief, aerial photography, field artefact collection, sample trial trenching, several stages of geophysical survey and excavation.

Gathered over the past 12 years, no significant attempt has been made to characterize the site except in its broadest terms and today the site is referred to in the scheduling description as ‘Croughton Roman settlement’ and is generally known as a Roman villa.

The contextual data recovered from the site suggests that the villa is at the core of a larger estate centre. Contexts are referred to conventionally as [cut] and (fill). Because of duplicated context numbers a context concordance was drawn up for the publication and remains with the archive (Table 1).

THE PERIPHERY

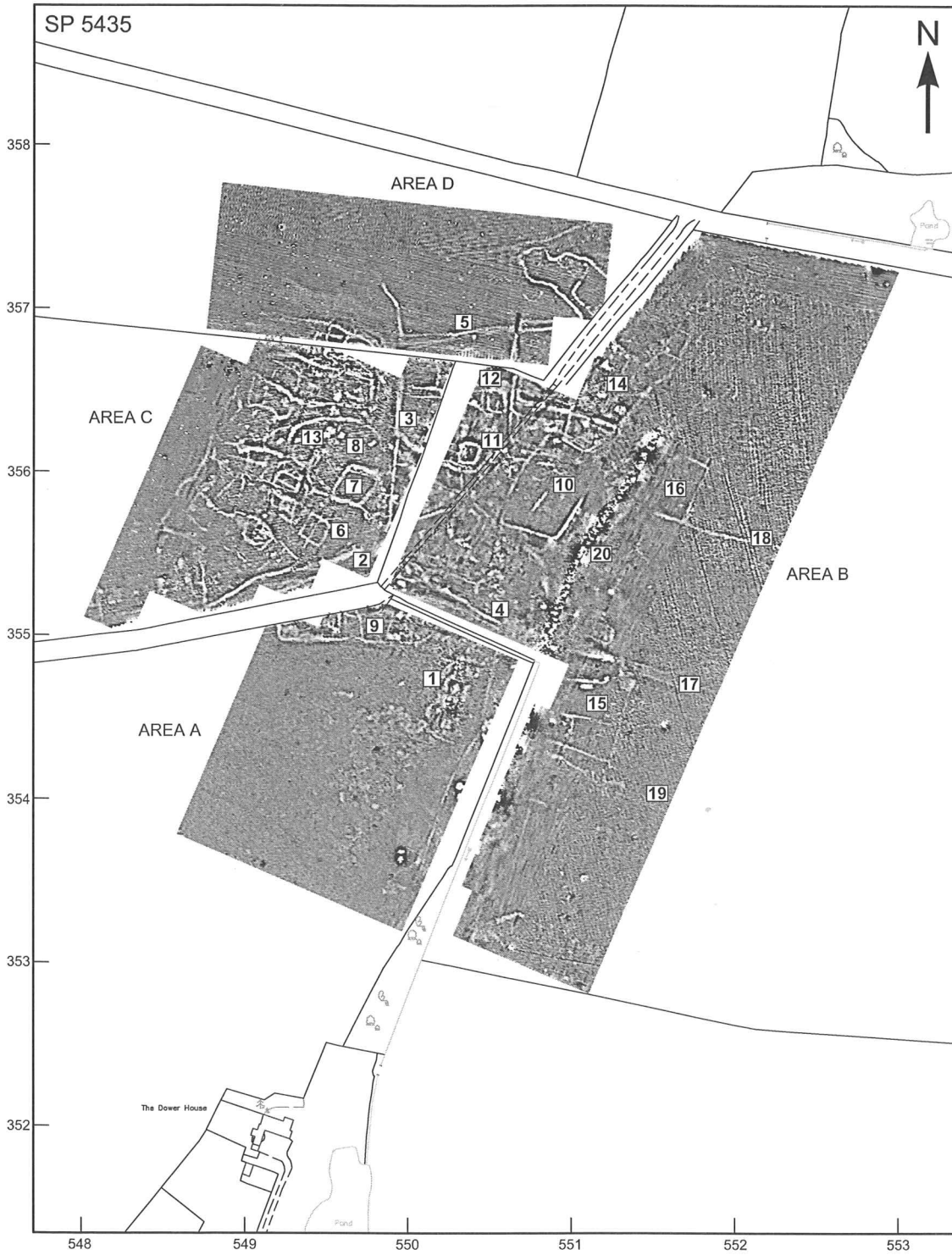
A Payne and M Dawson

The evidence of activity at Croughton extends over an

area of some 6ha. Geophysical survey has revealed a concentration of enclosures on the higher ground to the north with several rectangular areas, probably fields, enclosed by ditches along both banks of a spring fed stream, Rowler Brook, which runs along the eastern side of the site. The stone building, characterised as the villa, occupies a locally prominent position on the southern periphery of the site. It overlooks the brook and is opposite a series of intercutting enclosures.

The stone building, which appears to form the focus of activity in the 3rd and 4th centuries AD at Croughton, was part excavated whilst the structures and enclosures around the periphery have only been assessed for the purposes of scheduling. Consequently the following comprises only a preliminary description based on the results of the evaluation (Fig 2).

The villa building lies to the south-east of the main complex of cropmarks and enclosures, features which primarily consist of ditches defined by geophysical survey as positive anomalies in the magnetic coverage. Several linear positive anomalies (Fig 3, 2 - 4) appear to indicate a series of long straight ditches perhaps defining a system of larger angular enclosures and linear boundaries subdivided by roadways. Within the areas bounded by the longer linear features, the magnetometer has mapped a very dense complex of anomalous activity including intercut ditches and gullies defining small square and sub-rectangular enclosures (Fig 3, 5-7), larger ditched enclosures (Fig 3, 8-10), hut emplacements (Fig 3, 11-12), clusters of pits (Fig 3, 13) and probably some industrial activity. The density and superimposition of many of the anomalies in these areas suggests several phases of modification of the settlement indicative of prolonged activity. Peaks in topsoil magnetic susceptibility occur in a zone associated with the partially excavated Roman building, the villa, and extending some 50m to the north of it. Further localised peaks in topsoil magnetic susceptibility suggest the presence of high temperature industrial activity within one of the enclosures some 200m north of the villa (Fig 3, 14). The earliest activity seems to have occurred on the northern periphery where a polygonal enclosure was identified by



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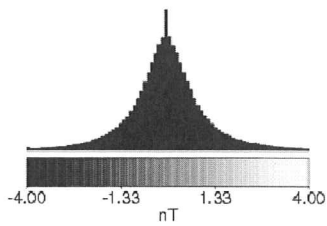


Fig 3 Geophysical survey showing areas of significance

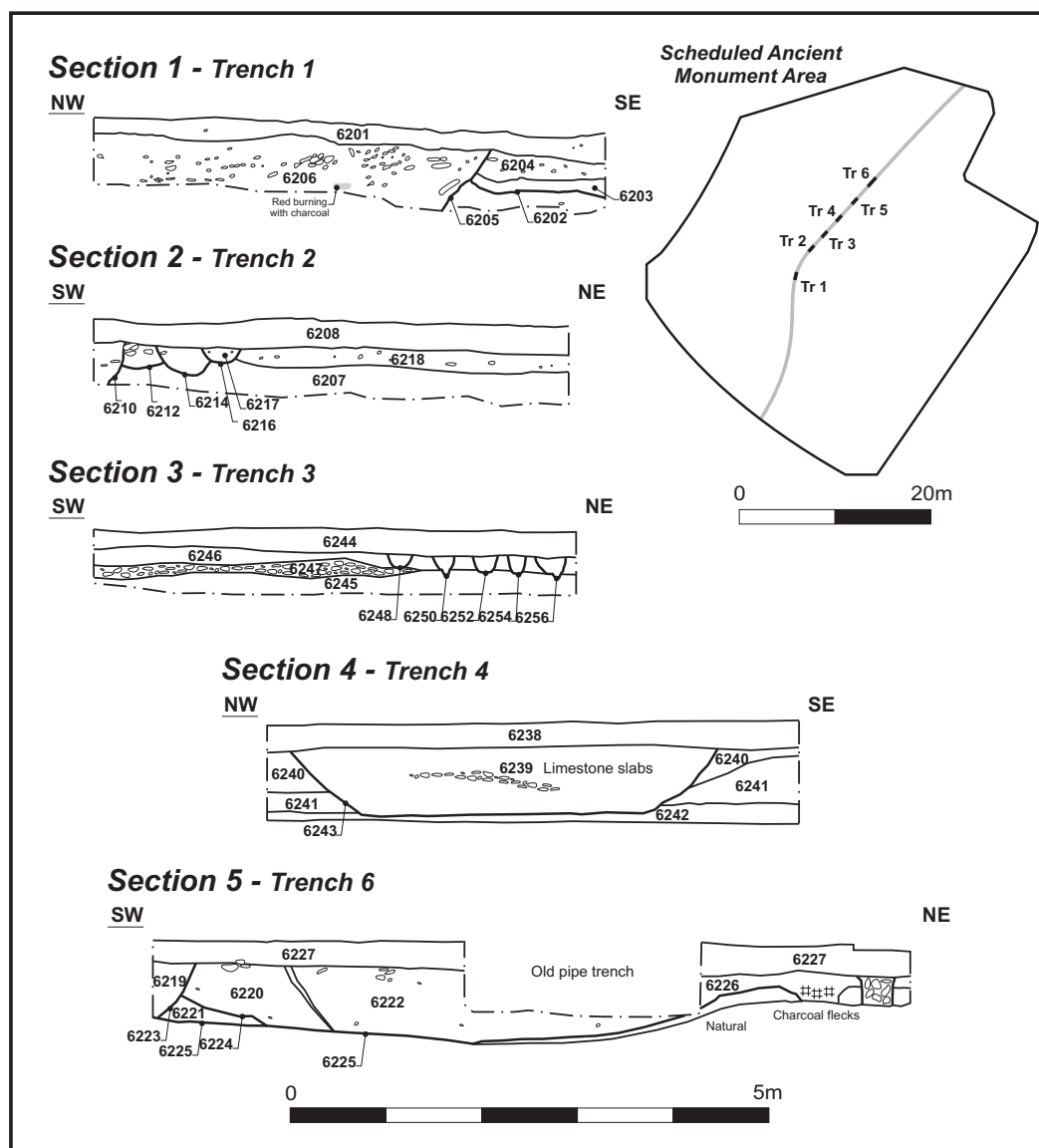


Fig 4 Damage assessment: the water pipe sections (Wilmott 2000)

the geophysics and partially sampled in trenches 7, 8 and 14. Trench 8 (1010) and trench 7 (1009) in fact revealed several ditches and cobbled areas whilst trench 14 (1016) seemed to pick up the line of the enclosure ditch from trench 7. Ceramic dating, however, from (1010) spanned the period AD 170-400 although a La Tène II spearhead characteristic of the period 300-100 BC was recovered from the primary fill of a ditch (1010) (Fig 12.1). The northern area also produced 1st-century coins from a small hoard during the watching brief amongst contexts which suggested later settlement activity.

On the western side of the complex the evidence is of settlement typified by post-built structures, metallised limestone surfaces and trackways amongst ditched enclosures. Animal bone, pottery, fragments of tile and some fired clay fragments suggest a predominantly agricultural settlement. The ceramics produced from this area suggest a later period of activity with a date range of AD 270-400 from contexts (1003), (1004), (1005), (1006), (1008), (1009) in trench 10 (Fig 2). On the eastern

margin of this concentration along the upper slope of Rowler Brook investigative trenching (Wilmott 2001) hinted at a shifting pattern of settlement with buried soil horizons (6218), (6246), (6222) (Fig 4) around several post-built buildings producing ceramic dates of AD 170-400.

A series of positive linear magnetic anomalies (Fig 3, 15-16) on the eastern side of the former stream course indicate a pattern of rectilinear enclosures following the course of the stream from north to south. Magnetic activity is more limited within these enclosures compared to those west of the stream, suggesting they probably represent fields and paddocks. Settlement activity appears to fall off considerably in the direction of the higher ground to the east of this linear system of enclosures. A sparser number of weaker linear anomalies here may indicate a trackway running into the settlement from the higher ground to the east (17) (Fig 3) and further field boundaries associated with the Roman settlement (Fig 3, 18-19). Activity does not seem to have spread significantly to the eastern bank

of Rowler Brook until the 3rd and 4th centuries. In the northern end of trench 9 (ii) a T-shaped stone-built corn dryer (1011) was dated by ceramics to AD 300-400 and in the southern sector a single refuse pit (1011/1014) and a ditch produced slightly earlier dates AD 270-400. The evidence in this area may represent stock enclosures.

of a substantial stone built Roman period building. The outline of the building, which included at least two mosaic pavements, was indistinct in the geophysical survey, but appears to consist of a rectangular structure with dimensions of approximately 8m x 30m, aligned nearly north-south (Fig 5). The wall foundations are marked by negative magnetic anomalies. The mosaic seems to be in the centre of this rectangle. Immediately surrounding the rectangle, and further to the south-west, disturbance was apparent but with no coherent pattern. Trenching to the west of the building confirmed the absence of any significant activity close to the building, but demonstrated that the building comprised at least five rooms, possibly a row type house

THE ROMAN VILLA
S Carlyle

Located on the upper slopes of the small valley above the Rowler Brook, but firmly on the southern edge of the main concentration of activity at Rowler, lie the remains

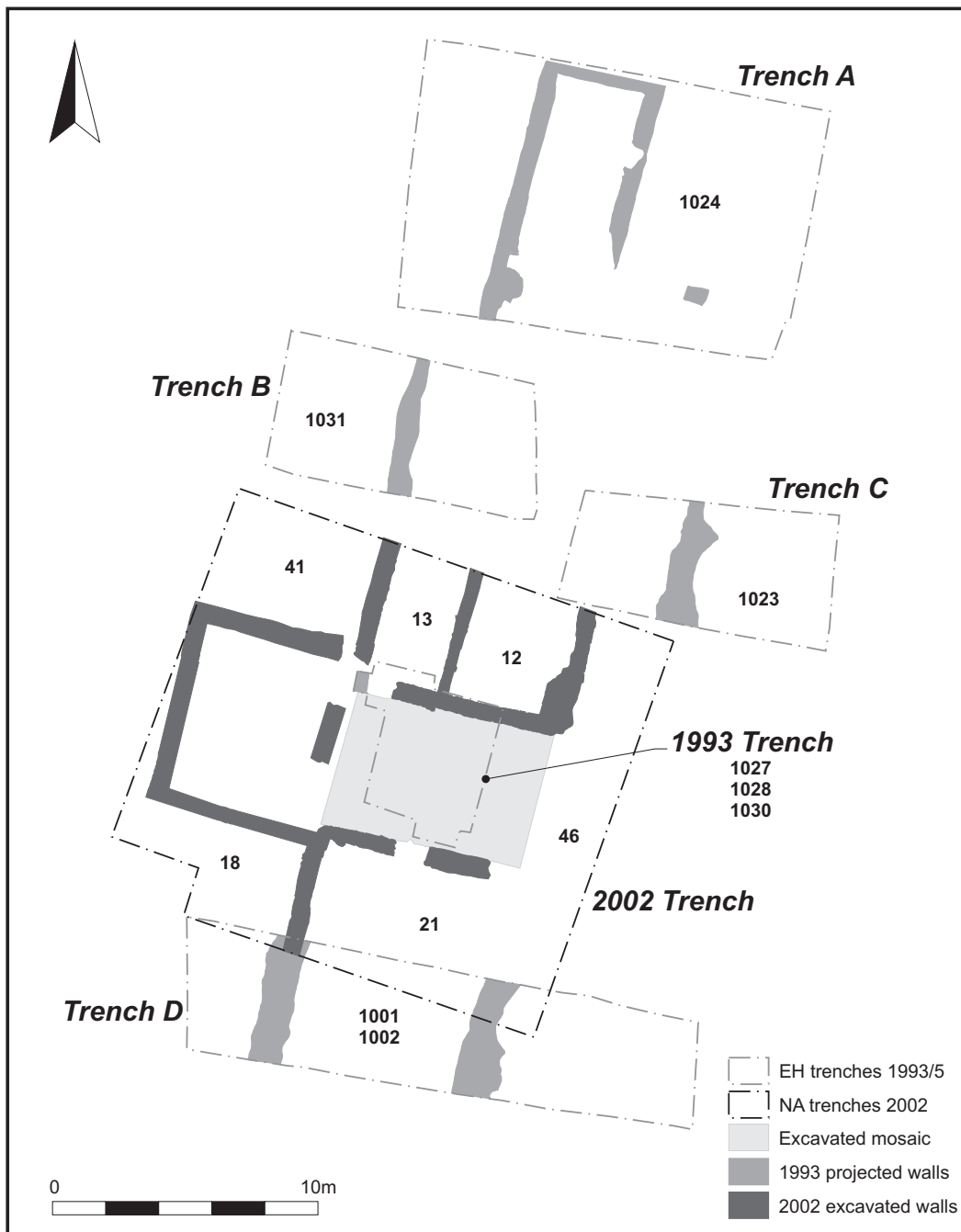


Fig 5 Excavation of the villa core (EH and NA)

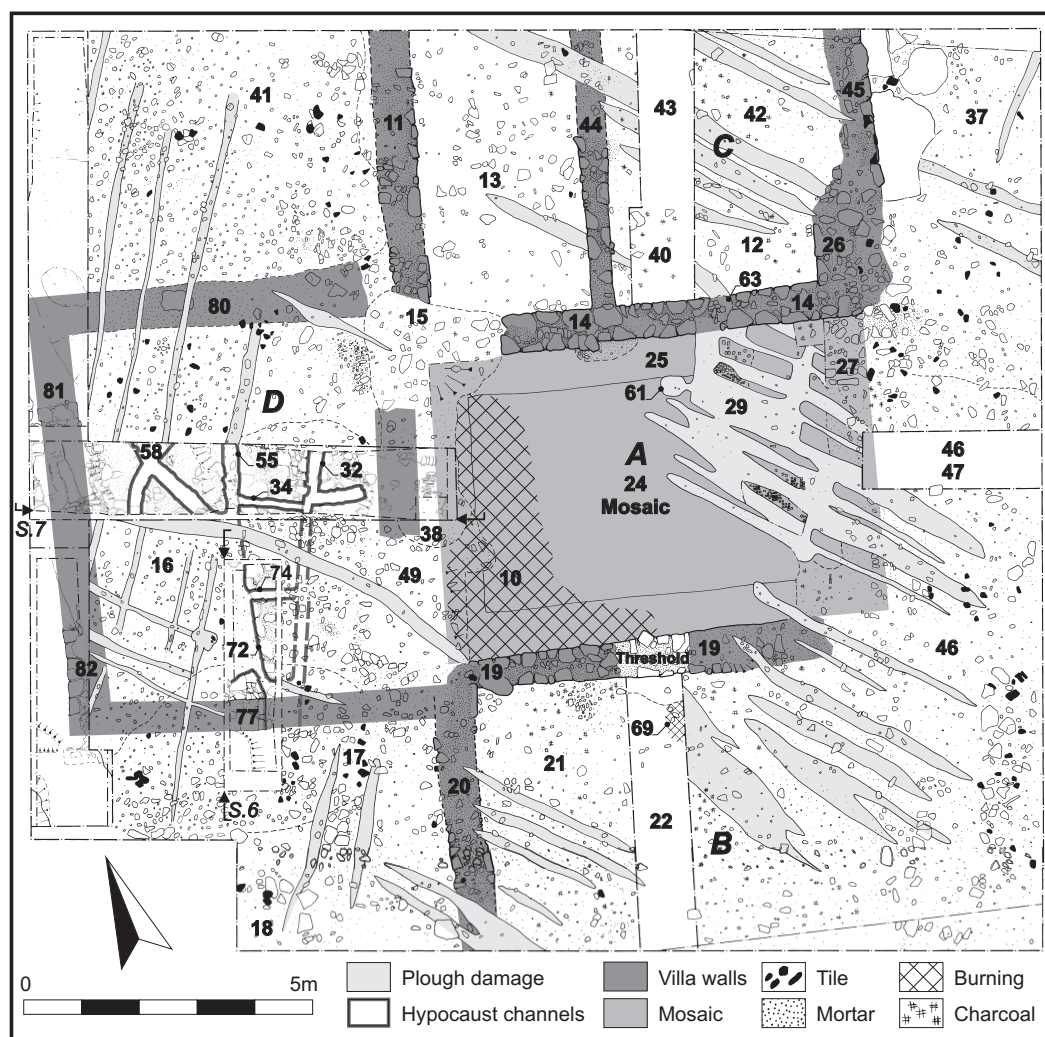


Fig 6 Details of the 2002 excavation

(Smith 1997, 46-64) and probably a villa. The remains of four rooms, designated A to D, were investigated in 2002, three arranged on a north to south axis, and a fourth, which contained a hypocaust and the fragmentary remains of a second mosaic, situated to the west (Fig 6).

The villa was built on prominent ground above the small stream to the east in an area of modern day pasture. The site was covered by demolition material from the building with a robbing horizon (37) to the north containing fragments of limestone, *tegulae*, plaster, charcoal and iron nails. It was some 0.10m thick and included pottery dating to the late 3rd and 4th centuries AD. To the east robbing spoil (46) overlay a brown sand (47), approximately 0.08m thick, over limestone bedrock. In the north-west pottery recovered from the demolition material dated to the 4th century AD with two coins of Tetricus I (AD 270-273). To the south (17) extending beyond the limits of excavation, a mid greyish-brown sand (18) with limestone slabs, ceramic tile fragments, charcoal flecks, tufa pieces and fragments of flue tile yielded a bronze coin dating to the first half of the 4th century AD (Fig 6).

In the centre of the excavation, Room A contained a

mosaic pavement depicting the Greek hero Bellerophon (Fig 7). The mosaic, which was set in a shallow bedding layer of *opus signinum*, on a sub-base of compacted light yellowish orange sand (25) occupied the entire room, 6.5m from east to west, 5.1m from north to south. A single sherd of pottery dated only to the Roman period was recovered from beneath the mosaic.

Lying over the mosaic pavement was a coarse horizon of demolition material (9) (23) (not illustrated) of sandy silts, angular limestone fragments some burnt red, fragments of *tegulae*, plaster, charcoal, pieces of daub, iron nails, melted glass and loose tesserae (not illus). Along the western edge of the mosaic the deposit (9) was up to 0.22m thick, while along the eastern side the deposit (23) was heavily disturbed by ploughing, and only 0.14m deep. In the south-west corner of the pavement the demolition deposit (9) overlay dark grey, almost black sandy silt (10) with a very high charcoal content. This layer contained occasional angular limestone pebbles some burnt, flecks and lumps of plaster, decorative glass beads, loose tesserae and fragments of copper alloy objects. Pottery recovered from these deposits generally dates to the late 3rd and 4th centuries AD. Two glass



Fig 7 The re-exposure of the Bellerophon mosaic in 2002

beads, found on the mosaic pavement, date to the 5th and 6th centuries AD (Fig 14). On the eastern side of the mosaic a similar horizon (29) sealed the mosaic surface.

The remains of the north and south walls [14] and [19] were approximately 0.7m wide, survived to two courses and comprised angular limestone ashlar, bonded with light yellowish-white mortar. With the exception of a small section at its northern end, the east wall was entirely ploughed away, and the west wall had been completely robbed out (see Room D below). The remaining length of the east wall [27] was also heavily disturbed by ploughing.

Close to the northern edge of Room A and cutting through the mosaic were two postholes [61] and [63]. Neither feature was excavated (Fig 6).

To the south Room B lay partly beyond the limits of the excavation. The west wall [20] 0.7m wide was a single surviving course of angular limestone, bonded with light yellowish-white mortar. In places it was largely ploughed away but was still visible as a band of mortar. In the centre of the north wall [19], the worn edges of several stones suggest a threshold between rooms A and B (Fig 6).

The ploughed-out remnants of the east wall survived sufficiently to suggest its position, giving the room an approximate width of 6.5m. The south wall of the room lay beyond the excavation and it is likely that the room was sub-divided by at least one internal wall. Within, Room B was covered by a shallow demolition layer (21), 0.06m thick. This had been heavily scarred by ploughing but it had protected a possible floor surface (22) of compacted light yellowish-white mortar. The floor also

contained angular limestone pebbles and small cobbles, some burnt, embedded in its surface, and reddish pink patches of burning. At the north end at the base of wall [19], was a surviving fragment of plaster that had probably fallen from the wall; this was left *in situ*. At the south end a posthole [69] c 0.28m in diameter, cutting through the floor surface, was also left *in situ*.

Room C to the north was sub-divided into two by a slim partition wall [44]. The west wall [11] was 0.7m wide, its northern end damaged by ploughing. It appeared to have been modified, with two phases of construction. The original east wall [26], of which only a single course survived was also constructed of angular limestone slabs and cobbles, bonded with mortar. It was built on the same line and was of a similar width (0.7m) to the east wall of Room A [27], which originally extended along the east side of room C where it was evident only from the hollow left by stone robbing. Above and slightly offset to the east was a wall of angular limestone, surviving only one course high [45], probably a rebuilding of the original. At its southern end there were the remnants of a tile course, formed from *tegulae*. The sub-dividing wall [44], abutted wall [14], suggesting a later adaptation, its north end ploughed away, originally no doubt continuing beyond the limits of the excavation. Traces of wall plaster still survived *in situ* on its eastern face but were not excavated. In the western part of the room the demolition deposit was not excavated, but comprised light yellowish brown silty sand (13), largely mortar, with angular limestone, some burnt, occasional charcoal flecks and tile fragments both ceramic and Collyweston type. In the area to the east the demolition deposits (12)

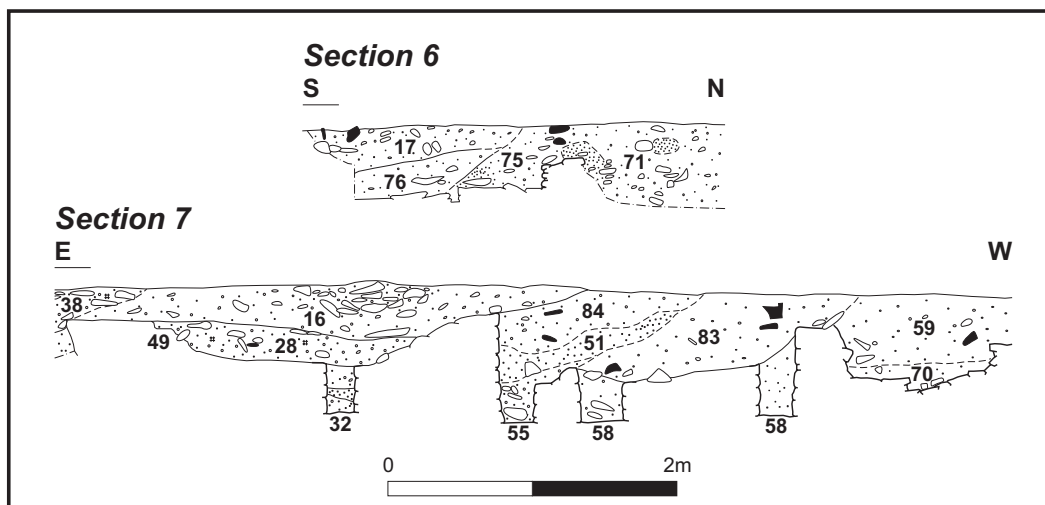


Fig 8 Sections from the 2002 excavations

and (42) were identical to (13) but amongst this deposit were 14 coins dating to the mid to late 4th century (*Guest below*). Underlying the demolition deposits was a mid-grey-brown sand (40) which may represent a buried soil horizon, possibly the remnants of the original soil cover on the site prior to the construction of the villa. This deposit was not excavated. A similar deposit (48) was noted beneath the sand sub-base of the mosaic in Room A (Fig 6).

Excavation west of room A revealed the remains of a fourth room, D, where a hypocaust was sealed by demolition material. Partially excavated (Figs 6 and 8), the hypocaust contained the fragments of a second mosaic, superior in quality to that of the surviving Bellerophon mosaic. The room was approximately 5.1m from east to west and 6.5m from north to south, identical to Room A, the long axis of the room aligned north to south. The east wall, separating rooms A and D, had been partially robbed, together with the mosaic and parts of the hypocaust. The surviving footing for the east wall, a linear mass of mortar limestone slabs and cobbles [49], was c1.0m wide and 0.6m deep, set in a foundation trench. The wall footing was integral with the mass of mortar and stone forming the hypocaust (see below), indicating that Rooms A and D were probably contemporary. A small area of pitched stone, in the demolition material lying on top of the foundation may be the remains of a threshold between the two rooms. The north wall of the room had been entirely robbed, its position revealed by a linear trench [80] separating the demolition deposits within the room from the relatively sterile layer (41) to the north. The robber-trench was between 0.6m and 0.7m wide, 0.42m deep and contained three fills, two of which contained significant quantities of plaster and mortar. Two short stretches of the west wall survive, limestone, [81] and [82], bonded with light yellowish white mortar, approximately 0.7m wide in places up to three courses high (Fig 6).

The south wall [77], also limestone, included the remains of a stokehole for the hypocaust. Constructed

from angular limestone, it was faced with alternating limestone slabs and floor tiles defining an opening in the wall to one of the main hypocaust vents. Four courses survived, forming the western side of an archway over the stokehole. Radiating out from the stokehole was an irregular pattern of hypocaust vents, formed from angular limestone slabs and ashlar, set in mortar. The vents, which were typically c 0.25m wide, were up to 0.35m deep, with vertical sides. They contained tesserae and broken fragments from the second mosaic which had once formed the floor of Room D.

The internal area of Room D contained a complex series of demolition layers overlying and infilling the remains of the hypocaust. These deposits, c 0.6m thick, appear to have been cast up in the direction of the west wall, probably when the mosaic was broken up to gain access to the stone in the upper courses of the hypocaust. This perhaps preceded the final robbing of stone from the walls, which may have been deliberately toppled as many of the stones near the surface of the demolition deposits were pitched to the north and north-west. The demolition deposits typically comprised mid-brown sand, limestone, plaster, occasionally charcoal, tesserae and fragments of *tegulae* and flue tile. Some of the deposits (51) may derive from the sub-base of the mosaic in this room (Fig 7). Pottery recovered from these deposits generally dates to the late 3rd and 4th centuries AD, (*Symonds below*) and there are sherds of cylinder blown window glass typically date to the 4th century AD (*Cool below*).

THE ROMAN MOSAIC PAVEMENTS

D S Neal

INTRODUCTION

During fieldwalking and the excavation of the villa building at Croughton the remains of two mosaic pavements were revealed. The first and best preserved, Mosaic 1, comprised a figured pavement of Bellerophon found

almost intact in Room A (Figs 7, 9 & 11) and the second, Mosaic 2, found in pieces filling the hypocaust channels in Room D (Fig 10). The loose tesserae associated with Mosaic 1 are not discussed here as they duplicate the evidence on the surviving floor. However, covering the surfaces of the north parts of the *in situ* mosaic, and some of the loose fragments associated with Mosaic 2, is pink tile mortar the presence of which may have a bearing on the demise of the villa.

THE BELLEROPHON MOSAIC (MOSAIC 1)

Dimensions: room 6.50m by 5.10m; Panel A 3.60m square, Panels B and C 3.60m by 1.05m. Tesserae: grey, red, white, buff, yellow ochre and dark wine red, 15mm. Border: red and buff, 35mm-50mm (Figs 9 & 11).

The full excavation of the Bellerophon mosaic in 2002 necessitates the amendment of the initial description and illustration in Neal and Cosh 2002 (Mosaic 86.1). The



Fig 9 The Bellerophon mosaic (Mosaic 1), painted by David Neal

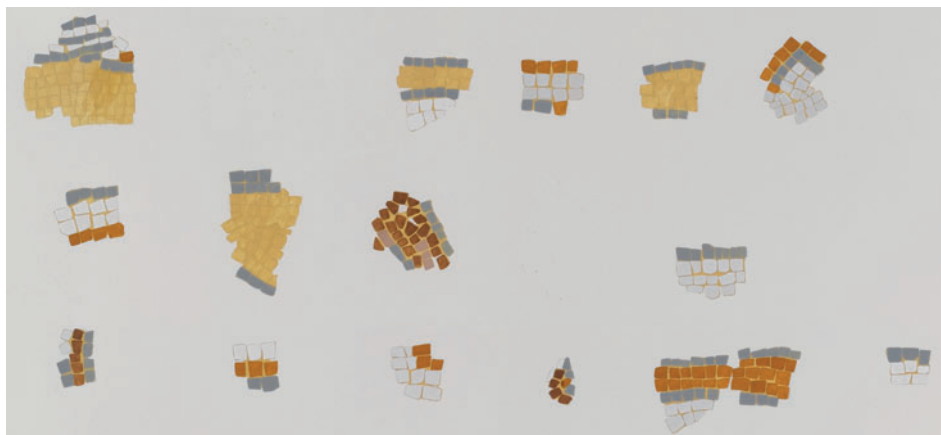


Fig 10 Fragments of the second mosaic (Mosaic 2), painted by David Neal



Fig 11 English Heritage orthophotograph of the Bellerophon mosaic

scheme of the mosaic comprises three panels, a central square (Panel A) flanked on the east and west sides by long rectangles (Panels B and C respectively).

PANEL A

A square panel worked in simple guilloche outlined grey with red and two white strands, with oblique bands of simple guilloche across its corners to create an octagon. Within and tangent to the sides of the octagon is a pair of interlaced squares in simple guilloche, one in the same colours as before and the other with buff and two white strands. The draughtsmanship is so poor that the intended circle of right-angled Z-pattern in the octagon, formed by the interlaced squares, only features around two thirds of the surround. Likewise, a grey octagonal line between the right-angled Z pattern and the interlaced squares stops short. In triangular interspaces created by the interlaced squares are red triangles outlined grey, and in lozenge-shaped interspaces between the interlaced squares and the octagonal panel are lozenges outlined with grey dentilled bands and containing smaller lozenges in grey and red with white centres. Three triangular panels at the corners of the panel survive and all contain a red heart-

shaped leaf with curving stems. Unusually, the clefts of the leaves are looped around a single white tessera and the red tips are partly white.

The central circle contains a scene of Bellerophon, viewed from the south, riding the winged horse Pegasus and slaying the three-headed monster, the Chimaera, all worked in a linear style. Bellerophon is shown looking behind him and holding a spear in his outstretched right hand. His face is white and he has deep red hair. He wears a white tunic and breeches, and across his chest and over his right shoulder is a red cloak, possibly fixed by a rounded grey brooch or clasp on his right shoulder. His shoes and waistband are red and his cuff grey, and on his knee is a grey circular ornament (*orbicula*). Pegasus is outlined in grey and shaded white with the exception of his ears, which are red; his hind legs stretch out behind him and although the front legs are damaged they also appear to have been outstretched originally and in a 'flying' pose. He has a thin tail and a finely drawn mane accentuated by a line of buff, which runs down the back of the neck and also under his head and around his chest. His wing, in alternating grey, buff and white lines, passes in front of Bellerophon and its top edge is confused with,

and parallel to, the spear. Pegasus' bridle is red, as is the saddle-cloth which can be seen in the form of an outline below and above Bellerophon's leg. The Chimaera is predominantly in yellow ochre but its legs are white, as is its feline head, which faces upwards and displays a row of grey triangular teeth and an arrow-shaped tongue spitting fire at the tip of the spear which threatens to pierce its mouth. The front of the beast has a series of parallel grey, right-angled lines, which are intended to represent the mane. From the back of the Chimaera is the head of a goat, with a round eye and a grey collar, so badly drawn that it resembles a duck. Its mouth is wide open, displaying a red tongue, and faces the feline; three red lines indicate that it breaths fire. The tail is turned across the back of the animal and, conventionally, bears the head of a serpent, here with a tiny grey eye and a red tongue. The male genitalia of the beast are shown in grey. In front of the Chimaera are nine single grey tesserae on a field of white and believed by Beeson to be an attempt to represent water as a reference to Pegasus's spring-making qualities (Beeson 1996, 20-1). To the right and left of Bellerophon's head are four red crosses, perhaps intended to represent stars in the sky and an allusion to the apotheosis of Pegasus as he rose into the heavens (Beeson 1996, 21).

PANELS B AND C

Except for its south end, much of Panel B has been destroyed by ploughing. What survives is virtually identical to Panel C to the west and will not be described further. Panel C is bordered by a band of three-strand guilloche, outlined grey and with red and white (x2) strands (in places the double white strands are conventionally shaded red, white and yellow ochre). The panel surrounds a broad strip of straight-tongued double guilloche in the same shades as the three-strand guilloche and with similar inconsistencies in the colouring.

WORKMANSHIP

Although the figured panel has been drawn in a lively linear style the geometry and workmanship elsewhere is decidedly poor. The mosaicist has misaligned the radial point of the central panel in relationship to the pair of surrounding interlaced squares resulting in the circular right angled Z-pattern border 'around' Bellerophon being absent on the east side. The style of the guilloche is decidedly unusual; in places, particularly the surround of Panel A, the outer edges of the guilloche are drawn as single or double fillets with little or no attempt to link the grey outline of the braids to the fillets and, in places, white tesserae are set between them as if the mosaicist was trying to create the impression of the braids being on a white background. The guilloche on the western side of Panel C is more crudely drawn as if by a separate hand; the grey outlines to the braids do not curve, as is conventional, but are treated as a series of straight lines.

DISCUSSION

There are three other examples of Romano-British mosaic with scenes of Bellerophon killing the Chimaera; they include the mosaics from Lullingstone, Kent, and

Frampton and Hinton St Mary, Dorset. In the case of the examples from Frampton and Hinton St Mary, mosaics almost certainly constructed by the same mosaicist, the scene is associated with Christian iconography, with the Chi-Rho represented and at Hinton St Mary with the symbol superimposed by a male figure believed to represent Christ (Toynbee 1964). There is no Christian iconography overtly displayed on the Lullingstone mosaic but Henig has interpreted the couplet as possibly concealing a reference to Jesus (Henig 1997, 5). The painted wall plaster recovered from the cellar is indisputably Christian with human figures in the *Orans* attitude of prayer and with Chi-Rho monograms. The Lullingstone plaster came from a house church and it is quite possible that one of the functions of the rooms both at Frampton and Hinton St Mary was the same and a place where guests with the same beliefs could be entertained and perhaps worship. Even though there is no direct evidence for Christian association on the mosaic, or wall plaster, from Croughton, the very fact that the other mosaics in Britain depicting Bellerophon killing the Chimaera have Christian associations, strongly implies that the Croughton mosaic could also have paved a house church. Placing the mosaic within the genre of mosaic workshops is problematic because of its inept layout and workmanship. However, the method of laying the guilloche recalls the workmanship on the mosaic from Thenford and it should also be noted that the use of Pennant stone tesserae for the hair (a material not indigenous to the area and only used sparingly, therefore) also occurs in the hair of Venus at Thenford. Figured mosaics are rare in Northamptonshire, only occurring to the west of the county. The mosaic from Whittlebury is the only other example. For this reason the mosaics have been assigned to the Northamptonshire Figured Group (Neal and Cosh 2002, 29) and attributed to the late 4th century.

FIGURED MOSAIC (MOSAIC 2)

Dimensions: room 5.10m by 6.50, panel: not known. Tesserae: grey, red, white, off-white, buff, yellow ochre, very pale blue-grey and dark wine red, 15mm (Fig 10).

It is not possible to provide clues as to the scheme of this mosaic found in pieces in the hypocaust channels of Room D, although a fragment from context (53) might be part of a lozenge and, therefore, part of a lozenge-based design. However, from the numerous fragments in context (29) it is possible to say with certainty that the mosaic was figured. Two fragments (Fig 10), which almost certainly joined originally, show two grey fillets separating an area of red. This looks as if it might be an arm or leg. It is not part of a conventional motif. Another fragment from the same context has a series of sinuous grey and white lines (Fig 10) against a pale yellowish-grey background. Possibly the sinuous lines represent hair. However, on neither fragment is there sufficient evidence to determine whether the figure is human or animal.

The materials of the tesserae used in Mosaic 2 differ from those in Mosaic 1 in that there is a wider palette of colour. The general background tesserae are off-white

rather than white and on the fragment from context (53) the fillets forming the supposed lozenges are of a blue-grey oolitic limestone similar to Raunds or Stanwick 'marble', a material not noted on the Bellerophon mosaic. There is also a greater use of Pennant sandstone. On the Bellerophon mosaic, Pennant sandstone only occurs in Bellerophon's hair but at least five fragments from Mosaic 2 include this material. A chevron-shaped design on a fragment from context (71) (Fig 10) could be from a variant of round-tongued guilloche but this is uncertain. It is shaded grey and deep red/brown Pennant sandstone.

WORKMANSHIP

The evidence suggests that the workmanship of Mosaic 2 is superior to Mosaic 1. The tesserae are more closely set, and tesserae as small as 5mm are occasionally used for detail. The fact that the background tesserae are off-white, rather than white, suggests the work to be by a different hand but whether any appreciable time separate their construction is unlikely.

A characteristic of both Mosaic 1 and the fragments of Mosaic 2 from (29) is that the surfaces of the tesserae of the actual mosaic (and not just the coarse border tesserae) are covered, in places, with a fine red tile mortar (*opus signinum*) possibly used to grout the mosaics. On one fragment this is 8mm thick. It could be argued, therefore, that the mosaics were never finished (in antiquity grouting mosaics usually took place after the painted wall plaster had been applied which explains why quarter-round moulding, for example, seals both walls and floors). To account for this phenomena two scenarios are possible: an event, such as the fire known to have destroyed the building, happened during building work and mosaic construction or, alternatively, the fire took place during restoration of the building following a period of occupation. The writer knows of no parallel for a mosaic being covered in such material although the mosaic (panel only) from the church at Silchester was sealed with *opus signinum* to create a new surface.

PREHISTORIC ARTEFACTS

FLINT

Andy Chapman

A total of three pieces of flint were recovered during the excavation of 2002, and a further six came from the excavation in 1995. All nine pieces have opaque heavily patinated surfaces, either creamy white to light grey or a mottled blue-grey colour.

The group comprises seven flakes (one burnt), one irregular shattered piece and one natural, gravel pebble. There are few diagnostic features, although the presence of large and irregular flakes would suggest that they come from an industry no earlier than the later Neolithic, and they could represent a later casual usage of flint.

WEAPONS

Natasha Hutcheson

La Tène II spearhead

This spearhead was found on the outskirts of the Roman

settlement at Croughton, from context (1010), the primary fill of a ditch-like feature (Fig 2 Trench 8).

ILLUSTRATED FIND (Fig 12)

- 1 Spearhead, Iron Age, La Tène II (c 300BC – 100BC)
The spearhead is made of iron and is complete. The socket, which is closed, is 75mm in length. The blade, which has a raised central midrib, is 195mm long. There is some suggestion of a hole in the socket, presumably for a rivet to pass through and aid the attachment of a wooden shaft. (sf86)

The most distinctive attribute of this spearhead is the shape of the blade. Rather than leaf-shaped, it is sinusoidal

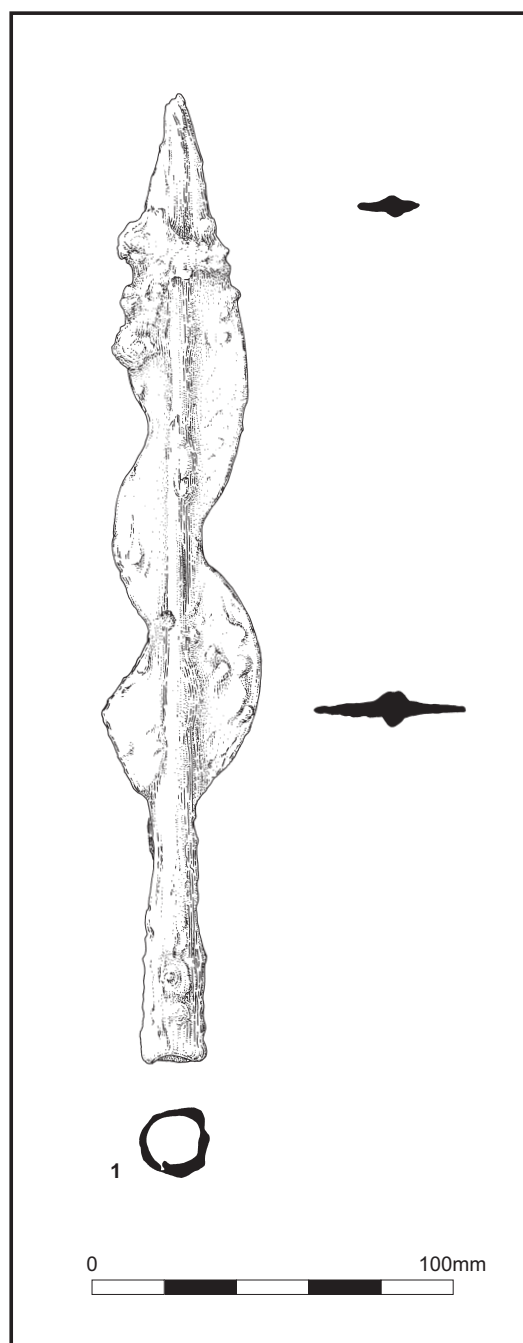


Fig 12 Other finds: The Iron Age spearhead

or curvilinear in form. In order to achieve this shape it seems likely, given that the midrib is straight, that the spearhead was initially smithed into a leaf shape. This was then cut whilst hot into its current sinusoidal form. It is impossible to tell whether this was all undertaken as one task, ie we do not know whether the maker of the spearhead intended to create this shape, or whether the spearhead was reheated and altered at a later stage.

Other Iron Age spearheads are known from Britain, the two largest collections being those from Hunsbury hillfort, also in Northamptonshire (Fell 1936) and those in the Durden collection from Hod Hill in Dorset (Brailsford 1962). The examples from Hunsbury, which are likely to be of Iron Age date, have been categorised into three main types; 'the small javelin head, the long narrow spear-head with slight mid-rib, and the broad leaf-shaped form with distinct mid-rib' (Fell 1936, 66). The example from Croughton does not fit closely in any one of these categories, but if the blade were straight sided it would fall across two of Fell's types. In particular, it can be seen that the Croughton example displays the narrowness of a 'long narrow spear-head' with the broad, blade-base more reminiscent of the 'broad leaf-shape' type.

Given the possible Roman component of the assemblage from Hod Hill, it is not known how many of the examples from this site are Iron Age and therefore close in date to the Croughton example. Manning suggests that the 'majority of the objects from the Durden collection are certainly Roman' (Manning 1976, 18), although recent metallurgical analysis of Iron Age and Roman iron implements demonstrates that such suggestions cannot be confirmed on a morphological basis alone (Hutcheson 1997). However, whether Iron Age or Roman, none of the Durden collection spearheads closely resemble the Croughton example. In addition, this example is not closely paralleled at Danebury (Sellwood 1984; Cunliffe and Poole 1991) or Maiden Castle (Wheeler 1943). It appears at present to be unique to this country. Sinusoidal-shaped spearheads are known from the continent with eleven examples recovered from the site at La Tène in Switzerland (Vouga 1923). The spearheads from the site of La Tène vary in size between 350mm and 450mm and are rather larger than the Croughton example. Given that this spearhead appears to be unique in this country, it is possible that it is an import. If not an import, it is likely that the smith who made it, or the person who 'commissioned' it had seen and was emulating these continental forms.

How this spear was used is unclear, it might have been an implement of war or used for hunting. Given the decorative shape, it could be that it was used more specifically for its visual attributes, perhaps as a 'banner' or 'standard'. With regard to its deposition, it is possible that this spearhead, which is undamaged, was purposefully deposited into the ditch from which it was recovered. The practice of deliberately depositing material, including iron objects such as currency bars into pits, ditches or watery locations is a practice that is well documented for the Iron Age (Hingley 1990; Hill 1995).

ROMAN AND EARLY MEDIEVAL ARTEFACTS

Archaeological fieldwork between 1991 and 2002 produced a range of finds from the Roman and early medieval periods. The majority of finds are Roman and were recovered from topsoil and demolition deposits during excavation and trial trenching although several coins and a buckle fragment came from the watching brief in 1991. The largest group of finds is coins with 22 further small finds, excluding nails, that may be dated stylistically to the Roman period. Many of the nails and undiagnostic fragments were difficult to identify and date with any degree of certainty and have been excluded from this report.

Despite the limitations this small assemblage provides an insight into aspects of life at the settlement and includes items for personal use and recreation, as well as structural fittings and a small number of tools. Most of the finds appear to date to the late 3rd - 4th centuries mirroring the date of the pottery. Most importantly a glass bead dating to the 6th century AD and probably part of a necklace suggests continuing occupation of the villa site into the early medieval period.

All of the individually recorded finds have been entered on to an Access database. A basic catalogue has been compiled, comprising material type and object identifications, together with stratigraphic information. Each object has been described and measured and a descriptive catalogue is retained in archive.

THE ROMAN COINS

P Guest

One-hundred-and-three Roman coins were recovered from the settlement at Croughton between 1991 and 2002. Messrs Shelley and Heritage discovered 44 Roman coins (and a modern halfpenny) while metal-detecting in July 1991, and a further two coins came to light during the watching brief and excavation of the mosaic later that year. Twenty more coins were recovered from the evaluation trenches excavated in 1995, while the 2002 re-excitation of the mosaic produced a further group of 37 Roman coins. Of the 46 coins discovered in 1991, six *sestertii* were found together as a small hoard and these are, therefore, considered separately from the 97 excavated and detected site-finds. The catalogue of excavated coins is presented in Table 3; the metal-detected coins are listed in Table 4, while Table 5 records the coin hoard. A summary of the excavated and metal-detected groups of coins is presented in Table 6.

Of the 97 coins classed as site-finds, 80 could be identified to an emperor's reign or period of issue. Table 2 clearly shows that the majority of these coins were produced between the late 3rd and late 4th centuries, with a particular concentration of coins from the middle decades of the 4th century (AD 330-378). The assemblage contained a single silver coin (a clipped *siliqua* of Valens found in 2002 – sf 27), while the remaining coins were all bronze or silvered bronze denominations. The remaining 17 coins could only be described in more vague terms - 'late 3rd to 4th centuries'.

Only two coins from the excavations and metal-detector

surveys predated the mid-3rd century (both recovered by detector); a *sestertius* of Hadrian (1991, no. 27) and an *as* of Marcus Aurelius as Caesar (1991, no. 13). The main concentration of coins, however, extends from the late 3rd to the end of the 4th centuries. The late 3rd century (Issue Periods XIII and XIV) is represented by 15 coins, including five barbarous radiates and a *quinarius* of Allectus (2002, sf 22), while 63 coins were struck during the 4th century (Issue Periods XV to XXI). Issues of the 330s and 350s were particularly common, especially the FEL TEMP REPARATIO types and their imitations, although significant quantities of Valentinianic and Theodosian coins from the later 4th century were also recovered during excavation and by detector.

Although the coins indicate that the main period of coin loss occurred during the later Roman period, this does not mean that the settlement was unoccupied before this time or that coins did not circulate during the 1st or 2nd centuries. Coinage of the early Roman period in Britain consists of high value silver *denarii* or large bronze denominations (such as the *sestertius*, *dupondius* or *as*), which will have been more zealously and easily recovered if lost than the smaller, lower value, coinage of the later 3rd and 4th centuries. However, the preponderance of later Roman coins is significant, particularly for the dating of the Bellerophon mosaic. Unfortunately, only one coin recovered in 2002 was found in a context that might date the construction and/or use of the mosaic; a small bronze of Arcadius struck 388-402 (sf 37) which was found in the hypocaust flue (33), although it could have been lost once the hypocaust went out of use. The deposits excavated in 2002 were associated primarily with demolition activity and as a result the coin assemblage provides relatively reliable dating for the disuse and collapse of the building containing the mosaic. Altogether, 23 coins were recovered from demolition deposits, while 14 coins were found within context (12) a layer consisting of decayed mortar found in room C to the north of the mosaic. These coins generally span the period from the 330s to the 370s, suggesting that the building was disused and neglected certainly by the end of the 4th century, or possibly as late as the 5th century.

Interestingly, the coins detected in 1991 show a similar chronological distribution to those recovered from the excavations in 1995 and 2002, as if the building housing the mosaic shared the same history as the wider settlement. Therefore, by combining together all of the coins found at Croughton we should have a representative assemblage from the settlement as a whole, which can then be compared to other groups of site-finds from Roman Britain. The first stage of this analysis involves setting the Croughton coins against the background of coin-supply to Britain in order to see when and how they deviate from the notionally average Romano-British site (Reece 1995). Firstly, the coins must be converted into 'coins per thousand' values (Table 6) which are then added cumulatively. These are deducted from the

Romano-British mean (an average of the coins from 140 sites) to produce a sequence of values that shows when and to what extent the Croughton coins deviate from this mean. Table 2 plots the same data as a chart (the x-axis representing the Romano-British background), which shows the concentration of late Roman coins recovered from the settlement. The Croughton coins are always below the x-axis because the site produced significantly fewer early coins (and therefore significantly more later 3rd and 4th-century coins), than the hypothetical average Romano-British site.

When the Croughton coins are compared to other assemblages it is apparent that this pattern of coin-loss identified from Croughton is very similar to the assemblages recovered from the excavations at Nettleton Scrubb, Lamyatt Beacon, Uley, Lullingstone and Gatcombe (Reece 1995, 197-203 & fig. 27). In fact, the settlement at Croughton exhibits the Valentinianic and Theodosian peak of coin-loss characteristic of settlements that were important religious *foci* during the last decades of the Roman period in Britain. Therefore, Croughton finds itself grouped together with the temples at Lamyatt, Nettleton, Uley and the 'villas' at Lullingstone and Gatcombe. Lullingstone was clearly an important pagan (with a Bellerophon mosaic) and later Christian place of religious worship, while at Gatcombe the excavations concentrated on the periphery of a settlement enclosure in which the supposed villa had been destroyed during the construction of a railway cutting in the 19th century (Meates 1979; Branigan 1977). From this comparative analysis, admittedly of the coins alone, it seems reasonable to conclude that the settlement at Croughton was a site of some religious significance during the later Roman period (from about 350 until some time in the 5th century), perhaps with the Bellerophon mosaic at its centre.

The Croughton site produces only limited evidence for coin use before the end of the 3rd century, although interestingly that evidence includes a small hoard of 2nd-century *sestertii* (Table 5). The hoard was found by metal detector in 1991 and the constituent coins had become stuck together into a column after having been kept in a narrow (probably textile) bag (Curteis 2003). The earliest coin is a *sestertius* of Trajan struck in 101-02, while the *terminus post quem* for the hoard is provided by the coin struck for Lucilla between 161-69. In the preliminary report Mark Curteis pointed out that the *sestertius* of Antoninus Pius was not attached to the rest of the coins. However, this coin shared the same level of wear as those in the column and as there are so few pre-3rd-century coins from Croughton it seems likely that the Antoninus *sestertius* was originally part of the hoard. Although 2nd-century *sestertii* are found in a number of 3rd-century hoards (up to the 260s), generally these are much larger than 2nd-century hoards and, therefore, it is likely that the Croughton hoard was deposited at some time between 161 and 200.

EXCAVATION OF THE ROMAN VILLA AND MOSAIC AT ROWLER MANOR, CROUGHTON, NORTHAMPTONSHIRE

Table 2: Roman coins from Croughton

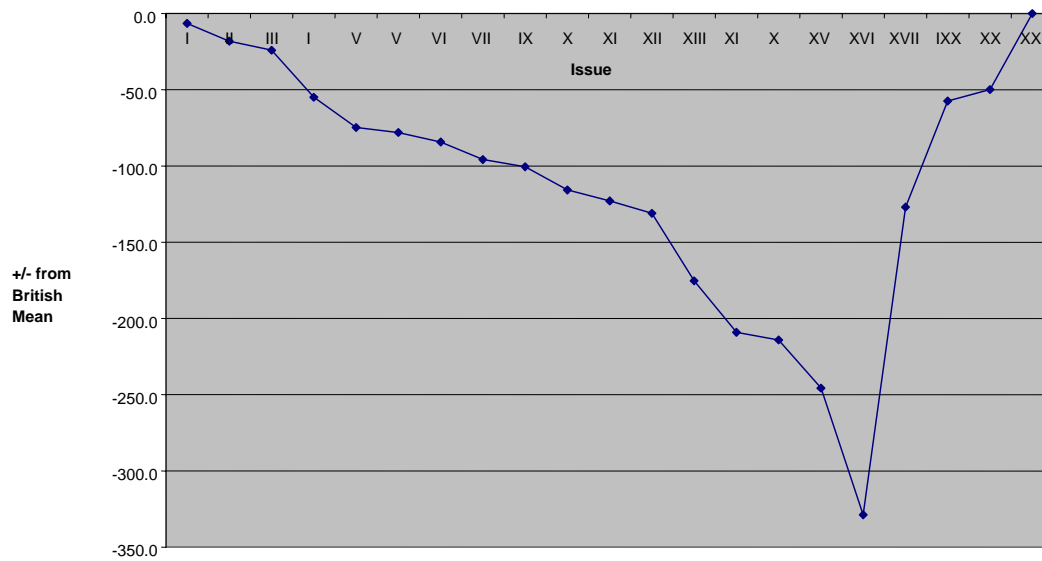


Table 3: Catalogue of excavated coins from Croughton, arranged by year (1995 & 2002) and context

Year	Small find (Context)	Denom	Date	Obverse	Reverse	Mint mark	Reference & Remarks
2002	1 (1)	AE3	353-60	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//CPLG Lyons	CK: 253, 256
2002	22 (1)	quinarius	293-96	ALLECTUS	VIRTVS AVG - galley	//QL	RIC: 55
2002	4 (2)	AE3 copy	350s?	DN Constantinus Aug	2 victories facing, holding shield on column	//[.....]	
2002	44 (9)	AE4 minim	4th c?	illegible	illegible	//[.....]	6mm diam.
2002	11 (12)	AE3	330-35	CONSTANTINOPOLIS	Victory on prow	//TR●P Trier	HK: 66
2002	13 (12)	AE4 copy	353-64	as House of Constantine	as Fel Temp Reparatio - falling horseman	//[.]N	9mm diam
2002	14 (12)	AE4 minim	4th c?	illegible	illegible	//[.....]	6mm diam
2002	15 (12)	AE3	330-35	CONSTANTINOPOLIS	Victory on prow	//cres.PLG Lyons	HK: 196
2002	16 (12)	AE4 minim	4th c?	illegible	illegible	//[.....]	4mm diam
2002	23 (12)	AE4 copy	353-64	as House of Constantine	as Fel Temp Reparatio - falling horseman	//[.....]	10mm diam
2002	29 (12)	AE3	4th c	diademed bust	illegible	//[.....]	
2002	30 (12)	AE3	353-60	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//[.....]	
2002	35a (12)	AE4	4th c	illegible	illegible	//[.....]	8mm diam
2002	35b (12)	AE4 copy	353-64	as House of Constantine	as Fel Temp Reparatio - falling horseman	//[.....]	8mm diam
2002	35c (12)	AE4 copy	353-64	as House of Constantine	as Fel Temp Reparatio - falling horseman	//[.....]	7mm diam
2002	35d (12)	AE4 copy	4th c	diademed bust	illegible	//[.....]	6mm diam.
2002	35e (12)	AE4 minim	4th c	illegible	illegible	//[.....]	6mm diam broken half
2002	35f (12)	AE4 minim	4th c	illegible	illegible	//[.....]	4mm diam

Table 3 (cont.): Catalogue of excavated coins from Croughton, arranged by year (1995 & 2002) and context

Year	Small find (Context)	Denom	Date	Obverse	Reverse	Mint mark	Reference & Remarks
2002	27 (16)	siliqua	374-77	VALENS	VRBS ROMA - seated	//TRPS● Trier	RIC: 27b/45a clipped close to bust
2002	18 (18)	AE3	330-37	VRBS ROMA	Wolf & twins	//PLG Lyons	HK: 184, 224
2002	32 (28)	Follies	294-307	MAXIMINUS	GENIO POPVLI ROMANI	//Q[.]	8.9 gm.
2002	37 (33)	AE4	388-402	ARCADIUS	VICTORIA AVGGG	//[.....]	
2002	39 (37)	AE4 copy	353-64	as House of Constantine	as Fel Temp Reparatio - falling horseman	//[.....]	10mm diam
2002	46 (38)	AE3	353-60	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//C[PLG] Lyons	CK: 253, 256
2002	41 (40)	AE3 copy	330-48	as Constantinopolis	as Victory on prow	//[.....]	
2002	34 (41)	AE3	367-78	VALENS	SECVRITAS REIPVBLICAE	//SM♥RP Rome	CK: 725, 730
2002	42 (41)	AE3	367-75	VALENTINIAN I	SECVRITAS REIPVBLICAE	●/--[PC]ON Arles	CK: 501
2002	47 (41)	radiate	270-74	TETRICUS I	illegible		
2002	49 (41)	radiate	270-74	TETRICUS I	LAETITIA [AVGG] GLORIA EXERCITVS	Mint II	
2002	28 (42)	AE3	335-37	CONSTANTINE I	(1 std)	Constantinople	HK: 1025
2002	40 (42)	AE3	348-50	CONSTANTIUS II	FEL TEMP REPARATIO - galley (2)	//TRP Trier	CK: 42
2002	24 u/s	AE4	late 3rd- 4th c	illegible	illegible	//[.....]	9mm diam
2002	25 u/s	AE4	late 3rd- 4th c	illegible	illegible	//[.....]	11mm diam
2002	26 u/s	AE4	388-402	House of Theodosius	[VICTORIA AVGGG]	//[.....]	
2002	48 u/s	AE3	330-35	CONSTANTINOPOLIS	Victory on prow	//[.....]	
2002	53 u/s	AE4	378-83	VALENTINIAN II	VOT / V / MVLT / X	//[.....]	
2002	56 u/s	AE4	4th c.	diademed bust	illegible	//[.....]	
1995	128 (1007)	AE2	348-50	CONSTANTIUS II	FEL TEMP REPARATIO - hut	//TRP Trier	CK: 28
1995	105 (1024)	AE3	364-78	House of Valentinian	SECVRITAS REIPVBLICAE	//[.....]	
1995	106 (1024)	barb. radiate	270-96	stylised radiate bust	stylised stdg figure?		6mm diam
1995	107 (1024)	AE4	388-402	House of Theodosius	VICTORIA AVGG[G]	//[.....]	
1995	108 (1024)	AE3	330-40	CONSTANTINOPOLIS	victory on prow	//TRP● Trier	HK: 59
1995	127 (1024)	AE4	mid-late 4thc	illegible	illegible	//[.....]	
1995	128 (1024)	radiate	273-74	TETRICUS II	PRINC IVVENT GLORIA EXERCITVS		reverse very worn
1995	129 (1024)	AE3	335-40	House of Constantine	(1 std)	//[.....]	
1995	130 (1024)	AE3	337-40	CONSTANS	GLORIA EXERCITVS (1 std)	M//[.....] Trier	HK: 133
1995	131 (1024)	AE3 copy	353-64	as House of Constantine	as Fel Temp Reparatio (falling horseman)	//[.....]	15mm diam
1995	132 (1024)	AE4 copy	4th c.?	stylised (diademed) bust	abstract curved lines & dots	//[.....]	8mm diam

EXCAVATION OF THE ROMAN VILLA AND MOSAIC AT ROWLER MANOR, CROUGHTON, NORTHAMPTONSHIRE

Table 3 (cont.): Catalogue of excavated coins from Croughton, arranged by year (1995 & 2002) and context

Year	Small find (Context)	Denom	Date	Obverse	Reverse	Mint mark	Reference & Remarks
1995	133 (1024)	AE4	388-92	VALENTINIAN II	VICTORIA AVGGG	//[PC]ON Arles	CK: 564
1995	134 (1024)	AE2	351-53	DECENTIUS	VICTORIA DD NN AVG ET CAE[S]	//[.....]	
1995	135 (1024)	AE3/4	388-402	House of Theodosius	SALVS REIPVBLICAE	//[.....]	
1995	184	AE4 copy	353-64	as House of Constantine	as Fel Telp Reparatio (falling horseman)	//[.....]	8mm diam
1995	187 (1024)	AE4 copy	353-64	as House of Constantine	as Fel Telp Reparatio (falling horseman)	//[.....]	9mm diam
1995	188 (1024)	AE4 copy	late 3rd-4th c.	illegible	illegible	//[.....]	6mm diam
1995	189 (1024)	AE3	364-78	House of Valentinian	SECVRITAS REIPVBLICAE	//[.....]	
1995	103 (1027)	AE4	388-402	ARCADIUS	VICTORIA AVGG[G]	//[.....]	
1995	104 (1027)	AE3	364-78	VALENS	SECVRITAS REIPVBLICAE	//[.....]	

Table 4: Catalogue of the metal-detected coins from Croughton

Coin no./ Context	Denom	Date	Obverse	Reverse	Mint mark/ mint	Reference & Remarks
1 u/s	AE4	388-402	House of Theodosius	[SALVS REIPVBLICAE]	//[.....]	recovered during mosaic excavation?
2 near N wall	Radiate barb.	268-70	VICTORINUS	PIETAS AVG		recovered during watching brief?
3	radiate	270-96	illegible	illegible		10mm diam.
4	Radiate	286-93	CARAUSIUS	[PAX AVG]	//[.....]	
5	AE3	353-60	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//[.....]	
6	AE3	353-60	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//[.....]	
7	AE4	347-48	CONSTANS	VICTORIAE DD AVGGQ NN	?? Trier	RIC VIII: Tr 199
8	AE3	364-75	VALENTINIAN I	GLORIA ROMANORVM SECVRITAS	//[.....]	
9	AE3	364-78	VALENS	REIPVBLICAE	//[.....]	
10	AE3	364-78	House of Valentinian	GLORIA ROMANORVM	//[.....]	
11	AE3	364-78	House of Valentinian	illegible	//[.....]	
12	AE?	Late 3rd-4th	illegible	illegible	//[.....]	
13	As	140-44	MARCUS AURELIUS Caesar	[IVVEN]TA[S] - SC	Rome	RIC: (Pius) 1238
14	Radiate	268-70	VICTORINUS	PAX AVG		
15	Radiate	270-74	TETRICUS I	illegible		
16	Radiate	270-74	TETRICUS I	[SPES]		
17	Radiate barb.	259-74	illegible	illegible		
18	radiate barb.	270-96	illegible	illegible		8mm diam.
19	radiate	270-96	illegible	illegible		7mm diam.

MICHAEL DAWSON

Table 4 (cont.): Catalogue of the metal-detected coins from Croughton

Coin no./ Context	Denom	Date	Obverse	Reverse	Mint mark/ mint	Reference & Remarks
20	AE	318-19	CONSTANTINE I	VICTORIAE LAETAE PRINC PERP	//[.....]	
21	AE	337-40	HELENA	PAX PVBLICA	//[.....]	
22	AE	353-55	CONSTANTIUS II	FEL TEMP REPARATIO - falling horseman	//? Trier	RIC VIII: Tr 350
23	AE3	353-60	'CONSTANTIUS II'	FEL TEMP REPARATIO - falling horseman	//[.....]	
24	AE3	353-60	'CONSTANTIUS II'	FEL TEMP REPARATIO - falling horseman	//[.....]	
25	AE3	353-60	'CONSTANTIUS II'	FEL TEMP REPARATIO - falling horseman	//[.....]	
26	AE3	353-60	'CONSTANTIUS II'	FEL TEMP REPARATIO - falling horseman	//[.....]	
27	AE3	347-48	House of Constantine	VICTORIAE DD AVGGQ NN	//[.....]	
28	AE3	350-53	MAGNENTIUS	VICTORIAE DD NN AVG ET CAES	//[.....]	
29	AE3	367-75	VALENTINIAN I	GLORIA ROMANORVM	//?	CK: 525
30	AE3	364-78	VALENS	GLORIA ROMANORVM SECVRTAS	OF/I//[.....]	
31	AE3	364-78	House of Valentinian	REIPVBLICAE	//[.....]	
32	AE3	364-78	House of Valentinian	illegible	//[.....] //LVGP	
33	AE4	388-402	House of Theodosius	VICTORIA AVGGG	Lyons	
34	AE	4th C.	illegible	illegible	//[.....]	
35	sestertius barb.	119-22	HADRIAN	figure seated left		
36	radiate	270-96	illegible	illegible		10mm diam.
37	AE	347-48	House of Constantine	VICTORIAE DD AVGGQ NN	//[.....]	
38	AE	350-53	MAGNENTIUS	SALVS DD NN AVG ET CAES	//[.....]	overstrike on coin of Constantius II
39	AE3	364-78	House of Valentinian	GLORIA ROMANORVM	//[.....]	
40	AE	Roman	illegible	illegible		

(Note: Coins 1 and 2 identified by the author, information on the remaining coins from Curteis 2003)

Table 5: Catalogue of the Croughton coin hoard (Curteis 2003)

Coin no.	Denom	Date	Obverse	Reverse	Mint	Reference & remarks
1	sestertius	101-02	TRAJAN	[TR POT COS IIII PP - SC]	Rome	RIC: 426 very worn
2	sestertius	103-17	TRAJAN	illegible	-	- very worn
3	sestertius	117-38	HADRIAN ANTONINUS	illegible	-	- very worn
4	sestertius	154-56	PIUS	[FIDES EXERC COS IIII - SC]	Rome	very worn
5	sestertius	161	MARCUS AURELIUS	[PROV DEOR TRP XV COS III - SC]	Rome	RIC: 812 very worn
6	sestertius	164-69	LUCILLA	[VENVS - SC]	Rome	RIC: 1772 very worn

Table 6: Roman coins from Croughton

Date	Issue Period	2002	1995	1991	CROUGHTON	
		No. of coins	No. of coins	No. of coins	No. of coins	% of coins
to AD 41	I	-	-	-	-	0
41-54	II	-	-	-	-	0
54-68	III	-	-	-	-	0
69-96	IV	-	-	-	-	0
96-117	V	-	-	-	-	0
117-138	VI	-	-	1	1	12.5
138-161	VII	-	-	1	1	12.5
161-180	VIII	-	-	-	-	0
180-192	IX	-	-	-	-	0
193-222	X	-	-	-	-	0
222-238	XI	-	-	-	-	0
238-260	XII	-	-	-	-	0
260-275	XIII	2	1	5	8	100.0
275-296	XIV	1	1	5	7	87.5
296-317	XV	1	-	-	1	12.5
317-330	XVI	-	-	1	1	12.5
330-348	XVII	6	3	4	13	162.5
348-364	XVIII	10	5	9	24	300.0
364-378	XIX	3	3	9	15	187.5
378-388	XX	1	-	-	1	12.5
388-402	XXI	2	4	2	8	100.0
	Sub-total	26	17	37	80	1000
Æ - late 3rd-4th c.		2	1	1	4	
Æ - 4th c.		9	2	1	12	
Æ - 'Roman'				1	1	
Total		37	20	40	97	

PERSONAL POSSESSIONS

Tora Hylton

This category comprises small portable items which would have formed part of a persons clothing (costume fittings), either worn as jewellery, or held by an individual for personal use, such as toilet equipment and objects for recreational use.

COSTUME FITTINGS

Buckles

Part of a cast copper alloy belt buckle was recovered during a metal detector survey in 1991 at Croughton (Northampton Borough Museum and Art Gallery – Acc. No 1991.132). The buckle, now missing, has not been viewed, therefore, this brief description has been compiled using a sketch illustration supplied by Northamptonshire Archaeology.

ILLUSTRATED FINDS (Fig 13)

- 2 **Zoomorphic buckle**, small and crudely manufactured fragment probably part of a well known type representing two confronting dolphins with open jaws, holding a pellet. The eye of the dolphin

is represented by a ring-and-dot motif, the open jaws by opposing chevrons and the crest is defined by shallow grooves. Stylised dolphins were a common motif during the Roman period and although they have complex levels of symbolism, their use was often for purely decorative purposes (Johns 1998, 2000).

It is impossible to ascertain whether the buckle originally formed part of a Hawkes and Dunning Type IA or IIA buckle (1961, 21), since the diagnostic section of this buckle is now missing. Type IA buckles are cast in one piece, with a closed 'D-shaped' loop with integral hinge bar (ibid 41). Type IIA buckles are composite, they are cast in individual sections, comprising an open-loop, tongue and plate, held together by a bolt (ibid 50, 51). Both types have been recovered in considerable numbers across the country and evidence tends to suggest that they date from the late 4th – 5th centuries (ibid 26).

JEWELLERY

Objects for personal adornment are represented by two brooches, a finger ring and fragments from seven armlets.

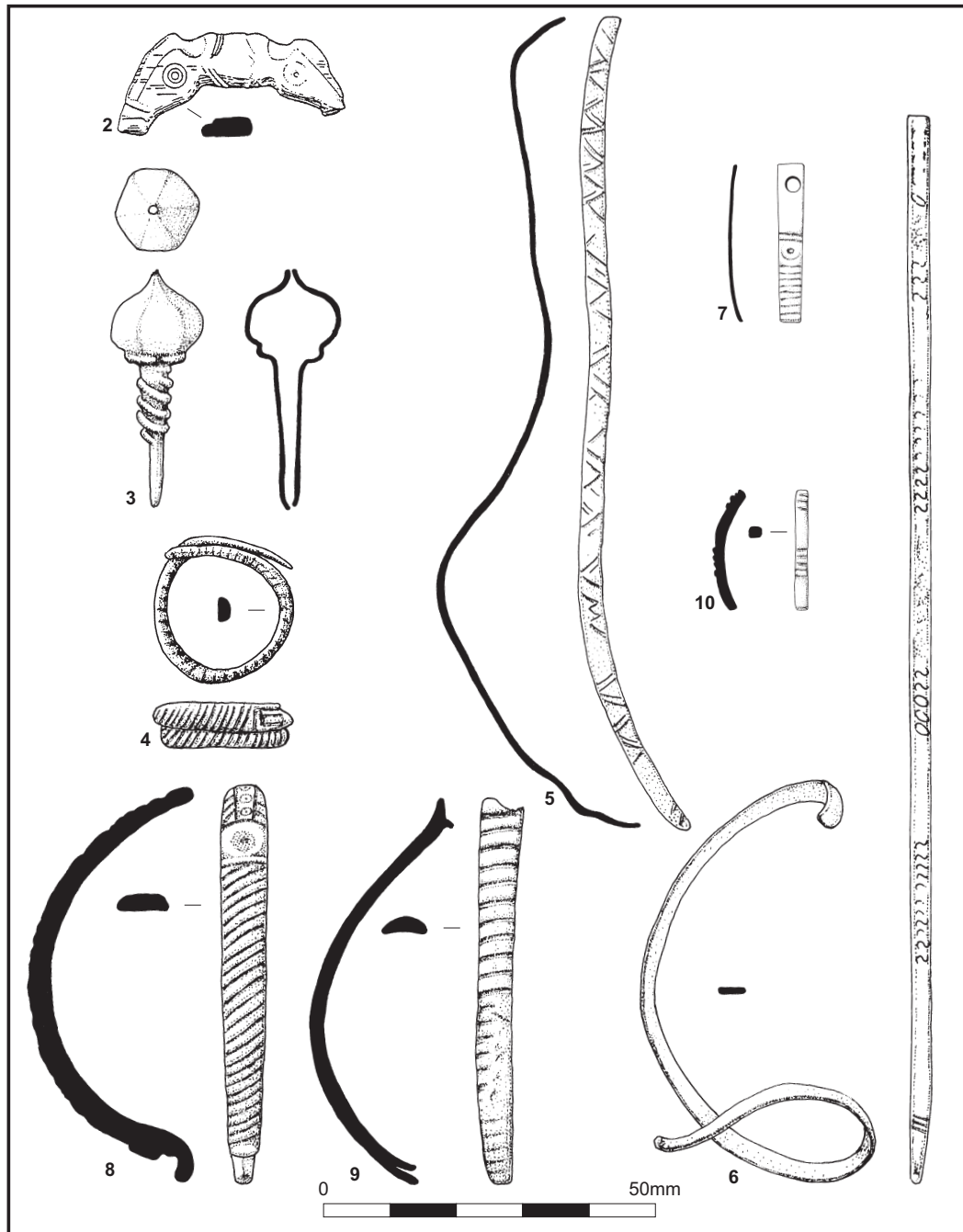


Fig 13 Other finds: 2, zoomorphic buckle; 3, crossbow brooch; 4, finger ring; 5, armband; 6, armband; 7, armband; 8, armband; 9, armband; 10, armband

Brooches
D Mackreth

ILLUSTRATED FINDS (Fig 13)

3 **Crossbow brooch**, the left hand terminal and screw from a Crossbow brooch. The knob is made of sheet and is in the form of a hexagon with an onion-shaped profile with a piece of wire wound round its base as a moulding. The shank on which it is built has a tapering screw of four and half turns and ends in a plain pin with appointed end.

The pin would have engaged in the loop at the head of a brooch pin which was secured in a sleeve or tube behind the lower bow. The minimum spread of the head of the Crossbow brooch would have been 60mm. sf150, (1024)

The brooch terminal is similar to Keller's Type 5 (Keller 1971), although dated by Keller (ibid, Abb.12) to AD 370-400, no coin from the South Bavarian graves was later than 380. The brooches are made from sheet metal. The bow and foot tend to be the same width, and at best the two are of equal length. The knobs are definitely

wider than they are long. Gilding is frequent, if not actually obligatory, and the incised decoration can be very elaborate.

These brooches were made to look massy yet be light. This says more about the fabrics with which they were worn than anything else. These brooches were not made for ordinary people and were designed to be a recognizable badge of rank or office, the two hardly being separate out in the remote Provinces. Their distribution includes Kent, Huntingdonshire, Sussex, Gloucestershire, Herefordshire, Suffolk, Norfolk, Cambridgeshire and Shropshire.

If these brooches represent the presence of high officials, then they were to be found more commonly along the Severn Valley and in East Anglia than elsewhere. Those from Gloucestershire are either from Lydney or Cirencester. The former close to a naval headquarters and the latter a provincial capital.

The terminal from Rowler also bears a close resemblance to Keller's Type 6, dated AD 400-c 450 (ibid 53). The chief feature of this type is the free-standing border consisting of conjoined open-work Cs along each side of the foot. There is, however, one technical innovation which belongs here alone: a pin secured by another. In most instances this extra pin is provided by one of the knobs on the head being screwed into position, the end of the knob having a pin which passes through the hole in the real brooch pin once occupied by the axis bar. This was means of making sure that the brooch could not just fall off or be pulled off without considerable force. The pin is frequently housed in a tube running along the back of the foot. It is not necessary that every brooch has both the screwed terminal and the open-work decoration, but one or the other must be present.

These brooches occur in two sizes: those like Type 5, and those which have much longer feet. The latter have very narrow faces down the front of the bow, in the case of the brooch from Icklingham, 10528 (Keller 1971), actually creased to form an arris. The foot as a consequence also has a very narrow central face. In primitive terms, Keller's Type 6 should always be recognizable by its foot or, failing that, by the narrow front face of the bow in proportion to the depth of the bow which, in any case, is narrower than the foot.

There may be a chronological difference between the short and squat Type 5-derived examples and the elongated Type 6, but dating is virtually non-existent. The Diptych of Stilicho provides a convenient reference point for Type 6, and one may note the giant gold Crossbows somewhat crudely shown on the entourage attending Justinian in San Vitale, Ravenna, which, incidentally all show the brooches being worn with what we normally call the 'foot' sticking up in the air.

Finger rings

Tora Hylton

A single penannular finger ring was recovered from the topsoil overlying Trench B (1022).

ILLUSTRATED FINDS (Fig 13)

- 4 **Finger ring**, copper alloy. Incomplete, one terminal missing, crudely coiled fingering with

D-shaped cross-section. One end is rounded with two short lateral grooves, representing a serpent's head, the other end is missing. Int. Diameter: 167mm, Height: 4mm, Th: 1.5mm. sf71

The finger ring is crudely manufactured from a reused bracelet fragment decorated with oblique, incised grooves. The one surviving terminal of the original bracelet comprises a rounded end with two short lateral grooves and probably represents a stylised devolved serpent's head. Such representations on items of jewellery are common during the Roman period and represent health and healing, rebirth and the spirits of the departed (Johns 1998, 7). For a discussion on bracelets and rings in the form of snakes see Johns 1996 (334). Signs of extreme wear are visible on the back of the ring, but not on the front, suggesting that the ring was in use for a long period of time. Finger rings manufactured from reused bracelet fragments are not uncommon and similar examples are known from Colchester (Crummy 1983, fig 50, 1758) and Verulamium (Waugh and Goodburn 1972, fig 32, 28).

Armlets

Fragments from seven individual armlets were recovered, six of copper alloy and one of shale. All the copper alloy examples were recovered from topsoil deposits, five from Trench A and one from Trench 5. Three small fragments from a shale armlet were recovered from demolition deposits overlying the Bellerophon mosaic, Room A.

ILLUSTRATED FINDS (Fig 13)

- 5 **Armlet**, copper alloy. Ribbon strip type, almost complete but damaged, one terminal missing and the other is rounded. Exterior surface decorated with a crudely executed pattern of pairs of incised oblique grooves in opposing directions, forming a V-shaped motif. Patina flaking. Length: c 145mm Height: 3.5mm Th: 0.5mm. sf 149, (1024), trench A, topsoil
- 6 **Armlet**, copper alloy. Ribbon strip type, almost complete, one terminal missing. Parallel sides with flat cross-section, tapering towards a hooked terminal (hook and eye clasp). The exterior surface is decorated with a panel of stamped reversed S-shaped motifs within marginal grooves. Three transverse grooves separate the hook with the decorated section. Length (incomplete): 130mm Height: 3mm Th: 1mm. sf 125, (1007), trench 5, topsoil
- 7 **Armlet**, copper alloy. Ribbon strip type, terminal fragment only. Terminal perforated (hook and eye clasp). Decorated with incised transverse grooves and ring and dot. Length (incomplete): 13mm Height: 4mm Th: 1mm. sf 151, (1024), trench A, topsoil
- 8 **Armlet**, copper alloy. Incomplete, D-shaped cross-section with hooked terminal. Decorated with multiple motifs, comprising oblique transverse mouldings close to the hook, a plain recessed band and then a centrally placed line of 6 ring-and-dots flanked by pairs of lateral grooves, the outer groove is cut by short equidistant oblique incisions. Diameter: c 60mm Height: 7mm Th: 3mm. sf 147, (1024), trench A, topsoil

- 9 **Armlet**, copper alloy. Incomplete, fragment only. D-shaped cross-section, decorated with transverse grooves. The grooves have been subjected to extreme wear in places, their presence only visible on the extreme outer edge. Height: 6mm. sf 148, (1024), trench A, topsoil
- 10 **Armlet**, copper alloy. Incomplete, fragment only. Circular cross-section, outer edge 'castellated' with panels of four hand-cut transverse grooves. Good patina, Height: 2mm Th: 2mm. sf 186, (1024), trench A, topsoil

The copper alloy armlet fragments are from forms commonly found on Roman settlement sites. Three forms are represented:

- armlets with a flat rectangular cross-section 'ribbon-strip types' (3 examples)
- armlets with a D-shaped cross-section (2 examples)
- armlets with a circular cross-section (1 example)

Four of the armlet fragments still retain one of the original terminals, providing evidence for the type of fastening; three armlets have hook-and-eye fastenings (Fig 13. 6, 7, 8), and one has a rounded terminal, indicating that it is penannular (Fig 13.5). All the armlets are decorated with hand-tooled decoration, comprising either incised grooves or stamped motifs, and in some cases both techniques are used. The range represents stylistic features generally observed on armlets that date to the late 3rd and 4th centuries, and can be likened to those recovered from the cemetery at Lankhills (Clarke 1979) and Colchester (Crummy 1983).

The ribbon-strip type armlets are decorated with incised or stamped ornament. One or both decorative techniques have been applied as surface decoration. One armlet is decorated with incised double chevrons (Fig 13.5) and is not dissimilar to the motif on the inner face of a finger ring manufactured from an armlet found in Colchester (Crummy 1983, fig 50, 1774). The other two armlets are ornamented with both incised and stamped motifs. One has a panel of reversed S-shaped motifs, sandwiched between incised marginal grooves (Fig 13.6), similar to an example from Colchester (Crummy 1983, fig 43, 1700). The other is furnished with a single stamped ring-and-dot motif, flanked by transverse grooves (Fig 13.7), and it parallels a 4th-century example from Richborough (Henderson 1949, plate XLIX, 9). Two armlets have D-shaped cross-sections. One is elaborately decorated with distinct panels of decoration (Fig 13.8), similar to examples from Poundbury, Dorset (Cool 1993, fig 66, 19) and Shakenoak (Brodribb *et al*, 1973, fig 54, 194). Armlets of this type are usually referred to as 'multiple unit' armlets; they are decorated with a symmetrical pattern of five or more panels. Where they have been recovered from datable contexts, they are generally 4th century in date or later (Clarke 1979, 307) but Cool suggests that there are some indications that the type developed in the late 3rd century (Cool 1993, 89). The other armlet is faintly decorated with equidistant transverse grooves (Fig 13.9), similar to segmented forms recovered from the Caerleon Canabae (Lloyd-Morgan 2000, fig 80, 59) and a 4th-century penannular bracelet from Colchester (Crummy 1983, fig 44, 1683). The remaining armlet

fragment appears to have been manufactured from a circular-sectioned rod fragment (wire), the outer face of the piece is 'crenellated' with alternate panels of plain and raised, hand-cut, transverse incisions (Fig 13.10). Similar examples have been recorded at Colchester (Crummy 1983, fig 46, 1721) and Shakenoak (Brodribb *et al* 1973, fig 54, 192) and at Bancroft Villa, Milton Keynes (Hylton and Zeepvat 1994, fig 144, 71), the latter recovered from a late 3rd to mid 4th century deposit.

Three small abraded fragments of shale were recovered from demolition deposits overlying the Bellerophon mosaic (10). Although they do not appear to join together, the curvature of one of the pieces suggests that it may have been part of an **armlet** (not illus).

Beads

H E M Cool

Four glass beads and a fragment that may be a much decayed fifth bead were found during the 2002 excavations in the deposit above the floor (10).

ILLUSTRATED FINDS (Fig 14)

- 14 **Annular bead**, Asymmetric. Body appearing black with opaque red marvered zig-zag around the outside face. Diameter 15mm, perforation diameter 7mm, maximum thickness 7mm. sf 8.1 (10)
- 15 **Annular bead**, Body appearing black with marvered zig-zag trail around the outside face; trail mostly missing but appears likely to have opaque white or yellow. Diameter 12mm, perforation diameter 5.5mm, maximum thickness 5.5mm. sf 8.2 (10)
- 16 **Annular bead**, Asymmetrical. Light yellow/brown. Diameter 13 x 12mm, perforation diameter 5mm, thickness 5.5mm. sf 8.3 (10)
- 17 **Annular bead**, Translucent deep blue. Diameter 10.5mm, perforation diameter 4mm, thickness 4.5mm. sf 8.4 (10)

Annular bead, fragment. Probably highly decayed glass. Diameter 15mm. sf 8 (10) (not illus)

All the beads are annular forms. The two monochrome examples (Fig 14. 16, 17; sf 8.3 and sf 8.4) cannot be closely dated as they are a simple long-lived form. The polychrome beads though are a distinctive Saxon form in use during the 5th and 6th centuries. Sf 8.1 (Fig 14. 14) has a red trail marvered into glass that appears black, whilst on the other 'black' bead the trail has much decayed but appears to have been a yellowish colour. Both belong to Guido's Schedule D type vi (Guido 1999, 178-80). Beads such as sf 8.3 and sf 8.4 were in use contemporaneously so the group as a whole may be taken as indicative of occupation in the 5th to 6th centuries.

Toiletry equipment

Tora Hylton

One almost complete double-sided composite bone comb was recovered from topsoil deposits overlying Trench A.

ILLUSTRATED FINDS (Fig 14)

- 11 **Double-sided composite comb**, Bone. Incomplete, comprises 1 end segment, 1 tooth segment, 2 connecting plates and a small number of loose

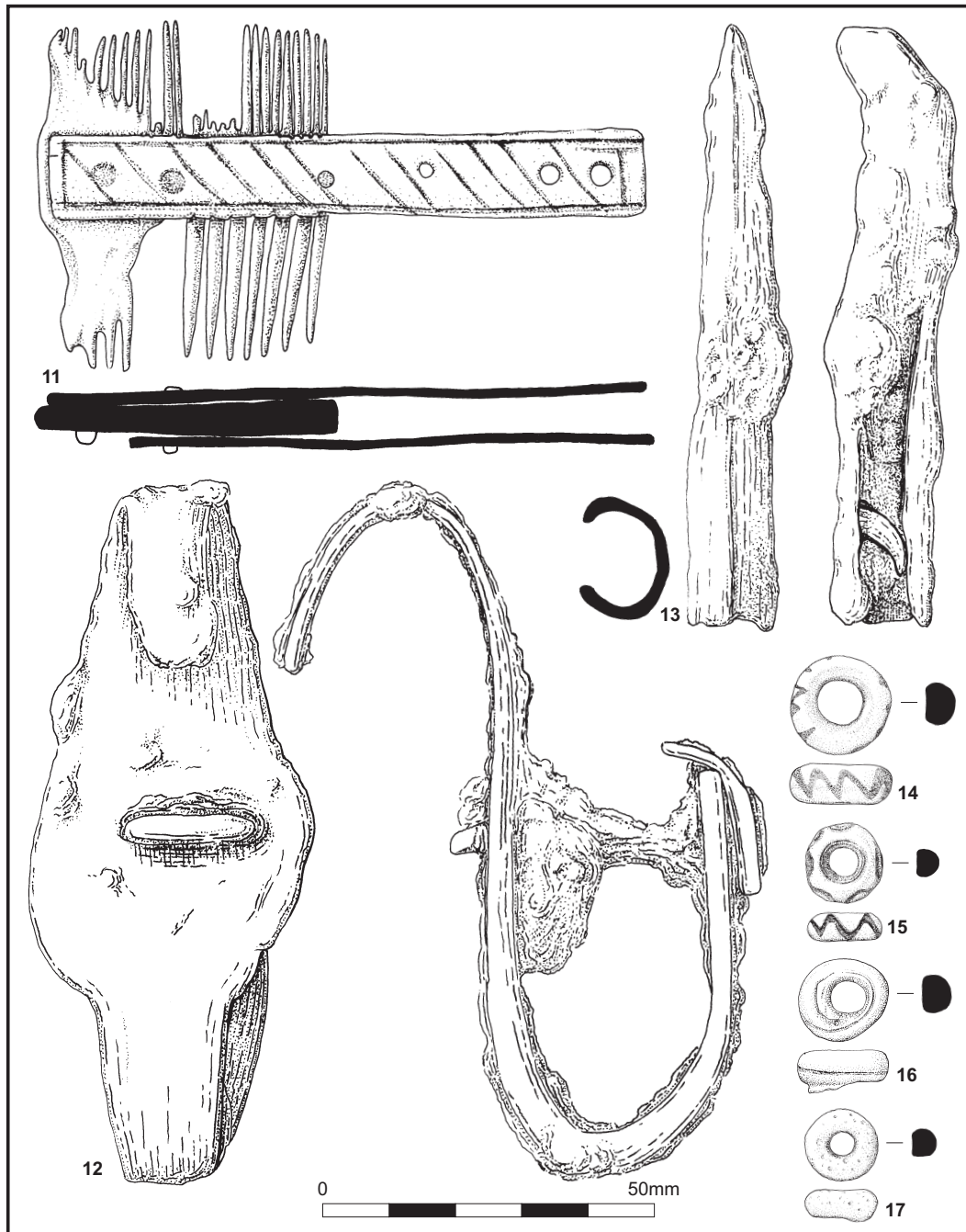


Fig 14 Other finds: 11, comb; 12, drop hinge; 13, pruning hook; 14, glass bead; 15, glass bead; 16, glass bead; 17, glass bead

teeth (originally there would have been 2 end segments and 2 teeth segments). The vertical edge of the surviving end segment has a concave curve either side of the connecting plate and the teeth are graduated. There are two sizes of teeth, fine (8 per centimetre) and coarse (4 per centimetre) on either side of the comb, they appear to be slightly worn and measure 18-19mm in length. The end segment and teeth segment is supported by two connecting-plates secured by six iron rivets (three extant) that pass through the end/tooth segments. The connecting-plates are ornamented with irreg-

ularly spaced oblique incisions within an incised marginal groove. The outside longitudinal edges of the connecting-plates are furnished with tiny equidistant notches, spaced according to the size of the teeth. These were most probably created during the cutting of the teeth. Length: 90mm Width: 48mm Depth: 8mm. sf 152, (1024), trench A, topsoil

The comb is fairly well preserved, though the side that had been facing down and in contact with the soil is slightly pitted. Combs were popular in the late Roman

period (Galloway 1979, 247) and stylistically this comb displays similarities to late 4th-century examples. Stylistically, features observed on combs of this date are similar to those seen on continental examples (Galloway 1993, 108) and include being rectangular in shape with flat connecting-plates and profiled end segments. The main feature that differentiates them from the continental combs is, that like the example from Croughton, they are less elaborate and more simply decorated. Galloway has postulated that this suggests that the combs may have been manufactured locally, but they still retain the general characteristics of the continental combs (1979, 108). Stylistically the Croughton example displays similarities to late 4th-century examples from the cemeteries at Poundbury, Dorset (Farwell and Molleson 1993) and Lankhills, Hampshire (Clarke 1979). The profile of the end segment may be paralleled by examples from Poundbury (Galloway 1993, fig 78, 3), Lankhills (Galloway 1979, fig 31, 64) and Thorplands, Northampton (Oakley 1977, fig 19, 279), the latter was recovered from a late 1st to 3rd-century deposit.

The connecting-plates are crudely decorated with a linear ornament; the marginally placed horizontal and vertical incised grooves may be paralleled by a comb from Lankhills (Galloway 1979, fig 31, 64) and Poundbury (fig 78, 1). It is, however, possible that such a decorative technique may be a crude representation of the stepped bevelling seen on combs of a similar date (Galloway 1979, fig 78, 2).

RECREATION

A single ceramic roundel was recovered from the topsoil during trial trenching in 1995.

Ceramic **roundel**, manufactured from the complete base of a Nene Valley Colour Coat beaker (grey coat), a fabric which dates to the mid 3rd and 4th centuries. The roundel measures 39mm in diameter and the broken edges appear to have been grounded down to form a flat edge. Similar examples are known from Colchester (Crummy 1983, fig 98, 2449). Trench 9 (1011)

Ceramic roundels are often recovered from Roman sites and they may have had any number of uses, including reckoning counters or gaming pieces. (For a full discussion on their possible uses, see Crummy 1983 (93)).

BUILDING EQUIPMENT

There are a small number of objects which may have formed part of or been attached to, the villa building. Apart from a drop-hinge recovered from demolition deposits (16), the objects were recovered from topsoil.

ILLUSTRATED FINDS (Fig 14)

- 12 **Drop-hinge** for supporting a door or shutter. It has been manufactured from a single piece of sheet metal folded over to form a U-shaped hanging eye. Although incomplete, one terminal missing, it comprises a short arm, a longer 'shaped' arm (incomplete) and the hinge would have been secured by a nail (extant) which passes

through both arms. Similar examples are known from Lakenheath (Manning 1985, plate 58, R9). Recovered from demolition deposits lying to the west of Room A (16)

Not illustrated

Fragments from two **split-spiked loops** for attaching rings and fittings. One has an out-turned spike and the distance between the loop and the clenched spike suggests that whatever the split-spiked loop had been passed through, measured c 8mm thick. Trench 12 (1014) and trench A (1024). For similar examples see Manning 1985 (plate 61, R49-50).

A **joiners-dog** would have been used for joining timbers. Topsoil overlying trench 2 (1002). (Manning 1985, 131).

Lastly, a perforated **leaf-shaped terminal** is either part of a decorative binding strip or a terminal from a box fitting, comparable to an example from Fishbourne (Cunliffe 1971, fig 62, 61). Topsoil overlying trench 5.

Nails

A total of 199 nails were recovered, including four hobnails which presumably derive from footwear. Stratified nails (54) were recovered from demolition deposits overlying Rooms A (90), (10), (23), C (12), (13), (42) and D (16), (28), (38), (59) and just outside the east wall (46). The remainder (145) derived from topsoil deposits overlying the footprint of the villa and a series of trenches excavated to the north-west of the building (Fig 2) (trenches 1, 2, 3 and 5) and are therefore unstratified.

Of the total number 13% (26 nails) are of indeterminate form, with their heads missing etc, the remainder have been classified according to Mannings Type series (1985, 134ff). The majority of the identifiable nail types are Mannings Type 1B (62%), which range in recorded length from 44-100mm. The majority clustered between 40-55mm and were presumably used for furniture or light structural fixings. Other types represented include, large structural nails, possibly for securing major timbers (Type 1A, 3%), nails with T-shaped heads (Type 3, 9%), nails with 'L' shaped heads (Type 4, 5%), nails lacking a distinct head (Type 5, 1%), nails for upholstery (Types 7, 2% and 9, 1%) and hob nails (Type 10, 1%).

TOOLS

Tools are represented by a pruning hook and a fragment of a spindle whorl (not illus), both were recovered from topsoil deposits.

ILLUSTRATED FINDS (Fig 14)

- 13 **Pruning hook**, iron. Complete. Short curving blade, oval-sectioned open socket. Cutting edge proceeds directly from the top of the socket. Length: 88mm Blade – Width: 14mm Socket – Diameter: 1.6mm sf 257, context 1, topsoil, unstratified

The presence of an iron pruning hook/small hook attests to some form of agricultural/horticultural activity during the lifetime of the settlement. The pruning hook is small and displays similarities to Rees Type 1a, the most common type (Rees 1979, 461). It has a short gently curving blade with open socket, rather like an example from Pitney, Somerset (ibid, fig 195c). Although prune/small hooks may have been used for agricultural/horticultural purposes, the small size of this example, suggests that its function may well have been more general purpose.

A fragment of a burnt/charred **spindle whorl** (not illis) was recovered from trench E, its presence possibly attesting to textile manufacture, or certainly spinning. Although incomplete, diagnostic features suggest that originally the whorl may have been plano-convex. The centrally placed perforation is waisted, indicating that it had been drilled from both sides.

Lead

Fourteen pieces of lead were recovered, seven from Roman contexts, four from topsoil over lying trenches 1, A and C, and three unstratified. Lead from Roman deposits were located mainly within demolition deposits overlying Room C1 (13), Room D (17, 35) and Room B (21). In addition, one fragment of lead waste was recovered from the hypocaust (72) and 2 from subsoil (2) (Fig 6).

There are no complete objects and the entire assemblage comprises undiagnostic fragments, represented mainly by cut sheeting and fused lumps. Fragments of sheeting measure up to 100 x 70mm and up to 7mm thick. Two fragments still retain perforations, indicating that they may have originally been used as flashing on the building. One piece measuring 100 x 70mm was recovered from demolition deposits overlying Room C1 (13) and the other measuring 8 x 8mm, with two square perforations is unstratified. The assemblage also includes a small number of molten fragments suggesting that after the building had been abandoned, lead was removed and possibly melted down for reuse elsewhere.

BUILDING MATERIALS

Window glass

H E M Cool

All of the window glass is of the cylinder blown variety, typical of the 4th century. Although it is thin, averaging 2mm in thickness, this would not have been the sort of glass you could see through because it is translucent rather than transparent. Light would have come through but it would have been tinted green. The greatest concentrations, judged by areas recovered, came from trench A and the hypocaust (Figs 5 & 6).

Painted Wall Plaster

Ros Tyrrell

This report concerns 479 fragments of painted plaster, weighing 12.186kg from the 1993 and 2002 excavations, and 1.778kg from the 1991 salvage work. A further 27.559kg of 'undecorated or plaster backing' pieces were discarded on site. No comment can be made as to the fabric or type of this material, or whether the

Table 7: Window glass

Context	Colour	Area cm ²
0	Light green bubbly	11
0	Light green bubbly	14
1	blue/green bubbly	3
1	Light green bubbly	0
57	Light green bubbly	5
70	Light green bubbly	34
70	Light green bubbly	17
75	blue/green bubbly	9
75	Light green bubbly	38
75	Light green bubbly	35
1002	Light green bubbly	3.5
1002	yellow green bubbly	2.5
1023	Light green bubbly	3.5
1024	Blue/green	7
1024	blue/green bubbly	2.5
1024	Light green bubbly	9
1024	Light green bubbly	12
1024	Light green bubbly	6
1024	Light green bubbly	8
1024	Light green bubbly	12
1024	Light green bubbly	12
1026	Light green bubbly	11

back retained any impressions of the wall or ceiling on which it had been mounted. No measurement of the size of the fragments has been made but visual assessment suggests that most of the fragments are small. In fact, few fragments are as large as those found in 1991 (75 x 80mm). This is probably partly due to plough damage as well as the demolition of the building and later robbing.

The largest amounts of plaster were found in Rooms A, 6.895kg, and D, 5.250 kg, which were the rooms with evidence of having been floored with mosaics. These relative quantities, however, were increased by the sampling strategies used on the site. Fragments of material lay in Room B and traces of plaster *in situ* were seen in Room C, but were not excavated or described. It is presumed that there were no colours visible.

The fabric of the wall plaster is made up of a yellow sandy matrix with rounded chalk and ironstone inclusions. The thicker pieces have a darker yellow version of this material with larger inclusions as the base coat on which the finer 10–15mm plaster is laid to take the paint. Of the plaster kept for the archive, 44% was burnt to a dark orange-red. The discolouration of these pieces in some cases started on the painted surface but did not penetrate to the backing and on others the opposite had happened.

Two impressions of box flue tile combing were noted on the back of plaster from Room D. Many other fragments had the imprint of the stone walls of the building preserved, but the generally small size of the fragments does not favour the preservation of this type of detail. There were also two pieces of white painted, round edged door or window mouldings from Room A.

Onto these fabrics a number of colours have been applied. Pink, red, yellow, light blue, white and black were used. These are probably not exotic or expensive pigments and are singly applied, with no undercoats, used

to improve the tones of colours. There is no evidence for replastering or repainting. Lines, borders and possibly some mock marbling seem to be the designs represented by the fragments. There are no pieces that displayed evidence of any figured scenes. Colour combinations of a white line on red, yellow and white divided by a black line, a red line on yellow, are probably panel divisions. The predominance of white and black fragments suggests that these may have been background colours. Fragments found in 1991 suggested *c* 50mm wide pink band and *c* 45mm red band divided by a white 5mm line. The red is bordered on the other side by an area of black and white mock marbling. The colours on the burnt fragments are more difficult to describe, but it is mostly possible to see lines and indications of the colours, if not the actual shade. The plaster is well finished, although there are no signs of the polished surfaces of the highest quality wall paintings.

Due to plough disturbance and the small size of the assemblage it is not possible to make any assumptions as to the décor of each room. Thus the possible designs of the room with the Bellerophon mosaic remain enigmatic.

Stonework

Ian Meadows

A total of 40 pieces of stone were retained, seven as small finds, from the evaluation of 1995. Most was unworked.

sf 70 A small fragment of a limestone peg tile, the peg hole is 5mm diameter. This piece is a maximum of 95 x 85mm and 16mm thick and is of a Jurassic shelly limestone. The piece may have part of two original edges suggesting an original lozenge shape for the tile. It comes from an unknown context, it is itself undateable, and stone roof slates are common in this area throughout the last two millennia.

sf 100 Two non-joining fragments of Jurassic oolitic limestone from a curved, possibly circular, object with an original potential diameter of at least 1.5m. The piece thickens towards the edge where it has a slightly raised lip on one face with an incised line at the base of this lip. At one point on the edge there is evidence for knife sharpening. This piece was tentatively identified by the excavator as a stone basin, however, if this was the case it would only be a few millimetres deep, which would appear to militate against such an interpretation, elsewhere such stone basins are generally over 40mm deep. Perhaps a more likely function is as a limestone tabletop. Stone tabletops have been recovered from several sites and they come in rectangular and bowed form (Solley 1979). The date placed on such elements is generally 3rd or 4th century with provenances either urban or villa. On continental sites where similar finds occur a possible role in religious practice has been suggested.

sf 118 A large fragment of fine-grained fissile Jurassic limestone with many shell fragments. The piece measures 210 x 130mm and is up to 30mm thick. The piece shows no signs of working although a small part of the surface is smoothly worn, but this could be a natural feature as well as the possible result of usage wear. The piece is perhaps part of a stone floor slab.

sf 119 A fragment of the lower stone from a probably Derbyshire gritstone rotary quern with an original diameter of at least 240mm, unfortunately none of the original edge survived. The piece is 220 x 170mm and 70mm thick. The upper, grinding, surface is worn to a smooth polish. The round perforation had been drilled from both sides, and is a maximum of 25mm diameter at the grinding surface, narrowing to about 10mm before flaring to the underside surface (50mm). This piece could date to either the later Iron Age or Roman period but is itself not closely dateable.

Most of the stone are natural unworked fragments. These are catalogued in the archive.

VESSEL GLASS

H E M Cool

The earliest vessel glass comprises a few fragments of blue/green glass. All those that can be identified as to form come from the range of square bottles in common use from the later 1st century, throughout the 2nd and into the 3rd century. These utilitarian vessels are common on rural sites.

The majority of the vessel glass fragments, however, come from 4th-century drinking vessels. Where the forms can be closely dated, they belong to the second half of the century and into the 5th century. Again, it is not unusual to have an assemblage like this on a late villa site. By the 4th century glass was overwhelmingly used for drinking vessels.

INDUSTRIAL PROCESSES

A Chapman

Two contexts, (1007) and (1024), produced very small quantities (230g and 90g) of undiagnostic ironworking slag. This small quantity indicates the occurrence of iron smithing nearby.

THE ROMAN POTTERY

R P Symonds

INTRODUCTION

(This is an abbreviated report on the pottery. A full copy is held with the archive.)

Roman pottery was recovered from Croughton during field artifact collection in 1993 (Shaw and Audouy 1993), trial trenching in 1993 and 1995 (Blore 1996), from damage assessment in 2001 (Wilmott 2001) and during excavation of the mosaic in 2002 (Carlyle 2002). The assemblages from the fieldwalking in 1993 and trial trenching in 1993/5 both came from topsoil as no excavation was undertaken during the trenching, whilst the damage assessment and 2002 excavation produced a small quantity of stratified material.

The pottery has been reported on by Robin Symonds using methodology developed by the Museum of London. The forms were recorded following the MoLSS/MoLAS system, which in turn is based on the system devised

Table 8: List of fabrics present

Fabric	Description	Edate	Ldate
NVCC	Nene Valley colour-coated ware	150	400
OXRC	Oxfordshire red/brown colour-coated ware	270	400
OXWC	Oxfordshire white colour-coated ware	240	400
BB1	black-burnished ware 1	120	400
FINE	unsourced fine wares	50	400
AHFA	Alice Holt/Farnham ware	250	400
SAND	unsourced sand-tempered wares	50	400
VRG	Verulamium region grey wares	50	200
CALC	late Roman 'calcite-tempered' ware	300	400
COAR	unsourced coarse wares	40	400
GROG	unsourced grog-tempered wares	40	400
PKG	pink-grogged ware	50	400
OXID	unsourced oxidised wares	50	400
OXIDF	unsourced fine oxidised fabric	50	400
OXWW	Oxfordshire white ware	180	400
VRW	Verulamium region white ware	50	160
CC	unsourced colour-coated wares	50	400

by Marsh and Tyers (1978), more recently updated (Symonds (ed) 1999); for details of the use of rows see Symonds and Rauxloh (2003).

FIELDWALKING 1993

The area of fieldwalking is outlined on Figure 2 and details of the stints and collection points form part of the site archive. A total of 1845 sherds weighing 8374 grammes were recorded from 109 stints. The assemblage consisted almost entirely of small, badly abraded and difficult-to-identify sherds, with an average weight of 4.5 grammes. The assemblage can be broadly dated to the late Roman period (AD 200-400), with just four sherds likely to be residual by AD 200 (see Table 9 p. 74).

The Ceramics Fabrics

The most common fabric in the assemblage is pink grog-tempered ware (PKG), with 31.7% by rows, 33.2% by sherd-count and 43.5% by weight (Table 10) with five or six common fabrics. (For the nature and characteristics of PKG see Woodfield 1983, 78-9, Booth and Green 1989, Marney 1989, 64-7, Tomber 1989, 67-9, and in Booth *et al* 2001, 328-31).

Unsourced oxidised wares are the second most common fabric by rows and sherd-count, but not by weight, with both unsourced grog-tempered wares and unsourced sand-tempered wares more common by weight. Although Oxford red-brown colour-coated wares are the fifth most common fabric type (118 sherds), it may be that some unsourced oxidised wares and fine oxidised wares were not recognised as Oxford products because of surface abrasion and the small size of many sherds. In the same way other fabrics likely to have been under-identified are Oxford white ware (OXWW) and Oxford white colour-coated ware (OXWC), as well as late Roman calcite-gritted ware, for which identification is usually helped by some horizontal rilling on the exterior of jar forms, often absent from badly abraded small sherds. Although pink grog-tempered ware is generally among the easier

of specific fabrics to identify, it is likely that a certain number of sherds identified as unsourced grog-tempered ware are in fact PKG sherds which may have been burnt or otherwise damaged or discoloured. Similarly some of the unsourced sand-tempered sherds are likely to be Nene Valley grey ware or another specific grey ware, while some unsourced oxidised sherds could in fact be Verulamium region white ware or possibly some other more specific oxidised fabric.

Eleven sherds, or less than 1% of the assemblage, are not Romano-British in origin. All of these are samian ware, one being East Gaulish, probably from Trier, while the other ten are all Central Gaulish (nine probably from Lezoux, while the tenth is probably from Les Martres de Veyre). Other wares which travelled some distance to reach the site are 13 sherds of black-burnished ware 1, from southern Dorset, 21 sherds of Nene Valley colour-coated ware, 14 sherds probably from Alice Holt, near Farnham in Surrey (all probably from the later Alice Holt industry), and 10 sherds of oxidised Much Hadham ware. Pottery types which are likely to have travelled more than 50km to reach the site comprise 5% of the total, whereas 95% of the vessels are likely to have been made within a 50km radius of the site.

The Ceramic Forms

Some 78.3% by sherd-count of the assemblage comprises sherds of unidentifiable form. Most of the rest of the pottery can only be attributed to a general form type such as unidentifiable flagon or jar – by sherd-count specific forms amount to just 3.5% of the assemblage but it represents an entirely Romano-British assemblage with no evidence in the form-types of a pre-Roman culture, despite the rural nature of the site.

Dating

The data has been assessed by Edate (earliest), Ldate (latest) and sherd-count, and indicates that all the stints have date-ranges which end at AD 400, and roughly two-thirds have date-ranges which begin at AD 250 or later.

Table 9: The ceramic fabrics recovered during fieldwalking in 1993

Fabrics	Code	Rows	% Rows	Sherds	% Sherds	Weight (g)	% Weight	Date-range
<i>samian wares</i>								
Central Gaulish samian ware	SAMCG	9	0.5%	9	0.5%	14	0.2%	120-250
Les Martres-de-Veyre samian ware	SAMMV	1	0.1%	1	0.1%	4	0.0%	100-120
Trier samian ware	SAMTR	1	0.1%	1	0.1%	2	0.0%	125-300
<i>Romano-British fine wares</i>								
Much Hadham ware	MHAD	10	0.6%	10	0.5%	31	0.4%	200-400
Nene Valley colour-coated ware	NVCC	21	1.3%	21	1.1%	110	1.3%	150-400
Oxford red/brown colour-coated ware	OXRC	114	6.8%	118	6.4%	529	6.3%	270-400
Oxford white colour-coated ware	OXWC	2	0.1%	2	0.1%	44	0.5%	240-400
<i>black-burnished wares</i>								
black-burnished ware 1	BB1	13	0.8%	13	0.7%	29.5	0.4%	120-400
black-burnished ware 2, fine fabric	BB2F	1	0.1%	1	0.1%	17	0.2%	140-250
black-burnished style ware	BBS	5	0.3%	5	0.3%	50	0.6%	120-400
<i>fine reduced wares</i>								
unsourced fine wares	FINE	34	2.0%	36	2.0%	110	1.3%	50-400
<i>reduced wares</i>								
Alice Holt/Farnham ware	AHFA	14	0.8%	14	0.8%	78	0.9%	250-400
Highgate Wood C ware	HWC	3	0.2%	3	0.2%	5	0.1%	70-160
Nene Valley grey ware	NVG	4	0.2%	4	0.2%	19	0.2%	200-400
unsourced sand-tempered ware	SAND	211	12.6%	221	12.0%	922	11.0%	50-400
<i>tempered wares</i>								
late Roman 'calcite-tempered' ware	CALC	28	1.7%	29	1.6%	188	2.2%	300-400
unsourced coarse ware	COAR	7	0.4%	7	0.4%	75	0.9%	40-400
flint-tempered ware	FLIN	2	0.1%	2	0.1%	11	0.1%	50-200
unsourced grog-tempered ware	GROG	236	14.1%	272	14.7%	1101	13.1%	40-400
unsourced grog- and shell-tempered ware	GROGSH	1	0.1%	1	0.1%	13	0.2%	40-400
pink grog tempered ware	PKG	531	31.7%	613	33.2%	3640.5	43.5%	170-400
unsourced shell-tempered ware	SHEL	72	4.3%	75	4.1%	277	3.3%	40-400
<i>oxidised wares</i>								
North French/southeast English oxidised ware	NFSE	2	0.1%	2	0.1%	5	0.1%	50-160
unsourced oxidised wares	OXID	302	18.0%	334	18.1%	849.5	10.1%	50-400
unsourced fine oxidised fabric	OXIDF	31	1.9%	31	1.7%	67.5	0.8%	50-400
Oxford white ware	OXWW	8	0.5%	8	0.4%	130	1.6%	180-400
Verulamium region white ware	VRW	4	0.2%	4	0.2%	36	0.4%	50-160
<i>miscellaneous fabrics</i>								
unsourced colour-coated wares	CC	8	0.5%	8	0.4%	15.5	0.2%	50-400
Total		1675	100.0%	1845	100.0%	8373.5	100.0%	

TRIAL TRENCHING 1993 AND 1995

Trial trenches in 1995 were opened by machine and no excavation beyond hand cleaning took place. The contexts, therefore, all represent topsoil and or sub-ploughsoil horizons. A total of 1534 sherds, or 326 rows, weighing 19378g, from 27 contexts, were examined in this assemblage. Although the abrasion is generally not enough to hamper identification, many of the sherds are fairly abraded, and small-to-medium sized. All of the contexts are late Roman (AD 200+), or, in the case of five contexts (1022, 1023, 1024, 1026 and 1027), probably residual in post-Roman levels, although a small number of residual sherds are present which may date to the 1st or 2nd centuries.

Only two sherds, one of samian ware from la Graufesenque and one of fine micaceous ware, are definitely residual at AD 200; all the remaining 1532 sherds have date-ranges which end no earlier than AD 250, and some 98.3% of all the sherds recorded have date-ranges which end at *c* AD 400.

The Fabrics

In common with the fieldwalking data both sherd-count (35.8%) and weight (49.1%) indicate that the most common fabric present is pink-grog tempered ware (PKG). By rows the most common fabric is Oxford red/brown colour-coated ware (OXRC; 25.5%): the discrepancy between rows and sherds/weight is caused here by the fact that many more Oxford ware sherds have recognisable forms, each of which requires a separate row, (records, or unique fabric, form and decoration combinations) whereas a much smaller number of PKG sherds have an identifiable form. By sherd-count and weight tempered wares (mainly grog-tempered but also shell-tempered and late Roman calcite-gritted wares) make up at least 50% of the entire assemblage. By sherd-count about 27% of the assemblage is unsourced, probably local sandy reduced or oxidised wares, and about 15% is Romano-British fine wares (mainly Oxford and Nene Valley wares), and the rest accounts for the remaining 8%. Imported pottery amounts to less than about 4% of the assemblage by weight (1.4% by sherd-count).

The Forms

By sherd-count about 60% of the assemblage is composed of either unidentifiable jars or unidentifiable forms. Nearly all of the most clearly identifiable forms are represented by one, two or just a few examples, with the exception of hook-rimmed jars (13 rows, 34 sherds), Dr 38 bowls (11 rows, 18 sherds) and black-burnished-type flanged bowls (16 rows, 32 sherds). Storage jars are also common, but these probably should be classed as an 'unidentifiable form', since they are often simply thicker-walled-than-normal sherds. Not surprisingly, jars and bowls are the largest form categories, whereas flagons are very low in comparison with most urban sites.

Dating

There are no contexts with a *terminus ante quem* earlier

than *c* AD 400 (Table 10). To some extent this results from the fact that in the late Roman period (after *c* AD 200) most pottery types have long date-ranges, and most of those date-ranges end in 400 because the types continue to be present in the latest recorded assemblages. The frequent presence of the full variety of Oxford wares along with other obviously late types does, however, suggest that by far the most intensive occupation represented by the pottery belongs to the 4th century. A single sherd of Portchester D ware (PORD) is perhaps not enough to suggest that the bulk of that occupation was in the second half of the century, but at least some may have been that late. All of the Alice Holt Farnham ware (AHFA) from the same production area in Hampshire/Surrey as Portchester D ware was found in a single context in trench 12 (1014). It may be significant that this included no definite examples of large AHFA storage jars, which are usually thought to be *c* AD 330+, but these are generally less common so far north from the production area, and their role would have been very adequately fulfilled by the large pink-grog tempered storage jars.

THE DAMAGE ASSESSMENT 2001

In 2001 English Heritage investigated the line of a watermain dug through the scheduled area at Croughton (Wilmott 2001), a total of 73 sherds, or 38 rows, weighing 722g, from six contexts plus surface finds and unstratified finds, were examined in this assemblage. There is a maximum of 52 vessels represented. Although the abrasion is generally not enough to hamper identification, many of the sherds are fairly abraded, and small-to-medium sized.

The Fabrics

It should be noted that attempting to assess the quantitative significance of this assemblage is an exercise of somewhat questionable usefulness, since it amounts to less than a kilogram of pottery, and calculating percentages of numbers than less than 100 is always statistically dubious. It is nevertheless clear that in general terms this assemblage is very similar to the pottery from the nearby villa. About one-quarter of the assemblage is pink grog-tempered ware (PKG), for the production of which evidence has been found in the form of pottery and at least one kiln about 6km to the east at Stowe Park (Booth *et al* 2001, 328). Wares imported from outside Britain are represented by just three sherds of Central Gaulish samian ware; Romano-British fine wares, black-burnished ware 1 and a possible sherd of Colchester white ware amount to a total of 13 sherds likely to have been imported from other parts of the province. Almost 80% of the assemblage is thus either likely to have been made locally or of unknown origin (but probably made in the surrounding region). All the wares present are also represented at nearby sites such as Milton Keynes (Marney 1989) and Towcester (Woodfield 1983).

As might be expected the fabric types and fabric origins are similar to those from the trial trenching. This is especially true at the broadest level of comparison: both

Table 10: The dating, by contexts

Context	Trench	Rows	% Rows	Sherds	% Sherds	Weight (g)	% Weight	Edate	Ldate	Comments
1003	1	11	3.4%	33	2.2%	353	1.8%	270	400	
1004	2	14	4.3%	101	6.6%	1382	7.1%	270	400	
1005	3	19	5.8%	69	4.5%	1973	10.2%	270	400	
1007	5	56	17.2%	505	32.9%	6792	35.1%	300	400	Includes 1 sherd of TPW (Transfer Printed ware - post-med)
1008	6	6	1.8%	29	1.9%	307	1.6%	270	400	
1009	7	3	0.9%	17	1.1%	35	0.2%	270	400	
1010	8	2	0.6%	13	0.8%	40	0.2%	170	400	
1011	9i, ii	8	2.5%	12	0.8%	188	1.0%	270	400	
1014	12	19	5.8%	74	4.8%	1230	6.3%	270	400	
1015	13	15	4.6%	29	1.9%	537	2.8%	270	400	
1017	15i	1	0.3%	3	0.2%	30	0.2%	50	400	
1018	15ii	3	0.9%	4	0.3%	9	0.0%	170	400	
1019	15iii	8	2.5%	17	1.1%	109	0.6%	270	400	
1020	16	1	0.3%	2	0.1%	16	0.1%	170	400	
1021	17	2	0.6%	2	0.1%	77	0.4%	170	400	Plus 1 sherd of ENGS INSU (modern)
1032	9 & 11	12	3.7%	31	2.0%	127	0.7%	300	400	All very abraded
Villa Building										
1001	D	15	4.6%	22	1.4%	326	1.7%	300	400	
1002	D	21	6.4%	82	5.3%	845	4.4%	300	400	
1022	B	19	5.8%	117	7.6%	1346	6.9%	300	400	SAND = Northants grey ware; contains 4 sherds TPW (1805-1900)
1023	C	10	3.1%	32	2.1%	326	1.7%	300	400	Contains 22 sherds of 19th-century porcelain (TPW)
1024	A	43	13.2%	282	18.4%	2206	11.4%	350	400	Many sherds very abraded; includes 48 sherds of white porcelain, 20 sherds of TPW and 3 sherds of stoneware (1895+)
1025	D	2	0.6%	3	0.2%	22	0.1%	270	400	
1026	u/s	12	3.7%	15	1.0%	401	2.1%	270	400	Includes 1 sherd of white porcelain and 2 sherds of TPW
1027	E	16	4.9%	29	1.9%	448	2.3%	300	400	Includes 6 sherds of white porcelain and 1 sherd of TPW
1028	E	6	1.8%	9	0.6%	248	1.3%	300	400	
1030	E	1	0.3%	1	0.1%	3	0.0%	270	400	
1031	B	1	0.3%	1	0.1%	2	0.0%	300	400	
Total		326	100.0%	1534	100.0%	19378	100.0%			

assemblages have a total of not less than 94.5% Romano-British wares, and thus a maximum of 5.5% imported wares, or imported wares combined with unsourced miscellaneous wares.

The Forms

Only nine sherds of the 73 come from specifically ident-

ifiable forms and apart from a complete lack of amphora sherds, the range of forms represented appears to be entirely normal for the late Roman period.

Dating

The date-ranges indicate that all of the pottery may belong to the late Roman period, and in this respect the

Table 11: Ceramic dating, by contexts from the 2001 damage assessment

Context	Size	Rows	% Rows	Sherds	% Sherds	Weight (g)	% Weight	Edate	Ldate
6204	S	7	18.4%	10	13.7%	36	5.0%	270	400
6206	S	1	2.6%	1	1.4%	5	0.7%	170	400
6218	S	5	13.2%	11	15.1%	113	15.7%	170	400
6222	S	10	26.3%	26	35.6%	303	42.0%	300	400
6239	S	1	2.6%	1	1.4%	5	0.7%	50	400
6246	S	6	15.8%	13	17.8%	72	10.0%	270	400
Surface finds	S	3	7.9%	4	5.5%	51	7.1%	170	400
Unstrat	S	5	13.2%	7	9.6%	137	19.0%	270	400
Total		38	100.0%	73	0.0%	722	100.0%		

assemblage is similar to that from the trial trenching. It is obvious that the greater the number of sherds present in a context, the later the date-range is likely to be.

EXCAVATION 2002

The pottery from 30 contexts was examined, amounting to a total of 220 sherds in 146 rows, an estimated 177 vessels represented weighing 3159g. The quantities in each context are shown in Table 12 below.

Dating

The dating of individual contexts is shown in Table 12, below. Nine of the 30 contexts were found to contain at least some sherds of St Neots ware. This Saxon and early medieval shell-tempered ware can be distinguished from Roman shell-tempered wares made in the Northamptonshire region by the presence of bryzoa microfossils in the tempering. Although the identification of these sherds is not really in doubt, it does seem curious that only one single type of post-Roman pottery was present, even in topsoil (1). Otherwise, however, the Roman pottery present is entirely late, with no context having a *terminus ante quem* earlier than AD 400. The contacts are mainly dated by Oxford ware (OXRC; AD 270-400) and/or by late Roman calcite-gritted ware (CALC; AD 300-400). Demolition material (12) post dates *c* AD 325-400 by the presence of a Young (1978) form 75 bowl. Demolition (28) contains a flanged bowl in late Roman calcite-gritted ware whose form probably dates to the second half of the 4th century (Brown & Woodfield 1983, 100 and fig 30, nos. 256-7; Symonds & Wade 1999, 458 and fig 6.110, nos 11-12). The dating of late Roman fabrics lacks precision in Britain as a whole, and it is difficult with such a fairly small assemblage to say much more than that it probably belongs to the 4th century. There is, nevertheless, no pottery present which unequivocally attests to occupation prior to the second half of the 3rd century. (There is one possible sherd of Verulamium region grey ware (VRG), dated AD 50-200, and one possible sherd of Verulamium region white ware (VRW), but there some doubt about both of these identifications.)

The fabrics

There were no imported (into Britain) fabrics present – no samian ware, no imported fine wares and no amphorae. The assemblage is dominated by late Roman

fine wares from the Oxford region (OXRC and OXWC; Young 1977) and the Nene Valley (NVCC; Howe, Perrin and Mackreth 1980; Perrin 1999), as well as fine (FINE) and coarse local grey reduced sandy (SAND) wares, pink grog-tempered ware (PKG; Booth and Green 1989), and late Roman calcite-gritted ware (CALC). The reduced wares are almost certainly all from local or regional productions, as is the late Roman calcite-gritted ware (Symonds 1980, Brown and Woodfield 1983).

One surprising aspect is the presence of just three sherds of Black-burnished ware, probably from only two vessels. Other late Roman sites in the region tend to have much more substantial quantities of the ware, and one might draw the inference that because such sites are likely to have had 3rd century and earlier occupation, their Black-burnished ware probably pre-dates the occupation of this site (Table 12).

Conclusion

The pottery assemblage from fieldwalking, despite the difficulties of identification, is an assemblage which is Romano-British in character not dissimilar to assemblages in urban areas during the late Roman period. Imported pottery occurs in smaller percentages than in urban areas, but by this period imported wares were already very much in decline throughout the province, and rare though they are, some imported wares are still present.

The ceramic assemblage recovered during trial trenching from the periphery of the site area includes among the imported and fine wares a small quantity of amphorae and samian in proportions to be expected at a late Roman rural villa in central Britain. This assemblage is important since the quantities of ceramic types imported into the province had greatly diminished by the time this site was occupied intensively. In this assemblage samian reaches only 3.1% by rows, 1.4% by sherd-count and 3.6% by weight. It compares poorly with about 5% at the Wroxeter Baths Basilica (Symonds 1997, 273, fig 19) where it was residual, in contexts dated between the late 4th century and the 7th century or later, but rather favourably with Milton Keynes, where most of the late Roman sites studied by Marney (1989, Appendix 2, 196-7) were found to contain no samian at all. The rather more substantial amount of Oxford colour-coated ware could be taken to suggest that despite the low quantities of imported wares this site was of high status, since Oxford red/brown colour-coated vessels often occur in samian forms, and could be seen as a Romano-British

Table 12: Context date-ranges

Context	Size	Rows	Sherds	ENVs	Wgt (g)	I/C/R	Edate	Ldate	Comments
Topsoil 1	S	5	5	5	63	C	270	400	
Topsoil 1	M	25	40	37	370	R	300	400	Contains 2 sherds of St Neots ware; all very abraded.
Topsoil 1	S	9	10	10	122	R	270	400	Contains 9 sherds of St Neots ware; mostly very abraded.
Topsoil 1	S	6	8	8	235	C	300	400	All very abraded
Above mosaic 9	S	1	4	3	16	C	300	400	
Above mosaic 9	S	5	7	5	163	R	270	400	Contains 3 sherds of St Neots ware.
Above mosaic 9	S	5	15	5	197	R	270	400	Contains 6 sherds of St Neots ware.
Above mosaic 9	S	10	12	12	305	R	270	400	Contains 2 sherds of St Neots ware; mostly very abraded.
Above mosaic 10	S	4	5	4	23	C	270	400	All very abraded
Above mosaic 10	S	4	6	6	109	C	150	400	
Above mosaic 10	S	12	17	15	259	R	270	400	Contains 2 sherds of St Neots ware.
Demolition 12	S	8	18	10	214	C	325	400	
Demolition 16	S	8	13	9	121	C	300	400	All very abraded.
Demolition 16	S	3	5	3	80	R	300	400	Contains 1 sherd of St Neots ware.
Demolition 17	S	2	2	2	7	C	270	400	
25	S	1	1	1	2	C	50	400	
28	S	4	6	5	98	C	300	400	All very abraded
28 Lower	S	3	5	3	141	C	200	400	
29	S	2	3	3	22	C	270	400	
35	S	4	4	4	75	C	270	400	
38	S	4	4	4	31	C	270	400	All very abraded
39	S	1	1	1	4	C	300	400	?MPOT
41	S	6	10	7	99	C	300	400	
42	S	1	1	1	5	C	270	400	
46	S	4	7	5	118	R	270	400	Contains 2 sherds of St Neots ware.
46	S	5	7	5	105	C	270	400	All very abraded.
53	S	1	1	1	22	C	270	400	
59	S	1	1	1	5	C	50	400	
73	S	1	1	1	133	C	50	400	
76	S	1	1	1	15	C	270	400	
Total		146	220	177	3159				

(S = small, less than 30 sherds; I/C/R = intrusive/contemporary/residual). (See Figs 6 & 8, contexts 35, 39, 53 & 73 not ill)

replacement for the samian which no longer arrived from Gaul.

The low quantity of black-burnished wares, either BB1, BB2, is to be expected with black-burnished wares, including both BB1 and wheel-thrown varieties reaching a maximum of 4% by rows, and only 1.9% by sherdcount or 1.6% by weight. Large quantities of BB1 can be observed on some urban sites in the Midlands region, on average about 23% in the late Roman Baths Basilica

at Wroxeter (Symonds 1997, 273, fig 19; White 1997, 313, figs 270-1), reaching a peak above 30% in the late Roman period at Little Chester, Derby (Symonds 2002, 157-8, tables 15-18) (although the figures for black-burnished wares in the Little Chester archive are slightly inflated compared to those quoted for other sites since the totals do not include the samian ware); further south, a peak above 30% has also been recorded at Silchester (Fulford 1984, Group 2.3, 154). By contrast in the

Alcester Road suburb at Towcester the peak of 12.5% is reached in Phase 1 (up to AD 170; Woodfield 1983, 79), while in the town centre the peak of 16% does not arrive until the 3rd century (Phase 6a; Symonds 1980, 82 table 3). At Milton Keynes, however, the percentages of BB1 reach a peak of only 3.97% (Marney 1989, Group 9, 35-6 and 126-8), and the peak at Alcester also reaches only 3.5% (Booth *et al* 2001, 365). The high levels of BB1 in particular at urban sites seems to suggest that the ware benefitted from a distribution system which was certainly as efficient within Britain as the distribution system for samian wares throughout northern Europe. By contrast, however, Allen & Fulford's study of the distribution of BB1 in south-western Britain (1996) seems to miss the fundamental point that quantities of widely-disseminated wares like samian and BB1 were not nearly as affected by the distance from the production site as by the function of the destination site, in particular by whether it was urban or rural in nature. It would seem that the Croughton assemblage provides further support to the conclusion of Booth *et al* (2001, 364-5), along with Evans (2000) and Hancocks *et al* (1998), that 'BB1 was marketed from urban centres and was therefore commoner at those centres'.

The 73 sherds excavated during the damage assessment represent further late Roman occupation of a similar nature and chronology to the assemblage from fieldwalking and trial trenching. Both assemblages are dominated by one regional ware, pink-grog tempered ware (PKG), which accounts for almost half the pottery by weight. *Prima facie* this suggests this site may be unusually isolated, given the low quantities of imported pottery, but the low percentages of well-travelled wares may also be due to the immediate proximity of the nearby pink grog-tempered production centre, whose products have overwhelmed this site, rather than to any decline in trade networks.

CATALOGUE OF PREVIOUSLY UNPUBLISHED CERAMIC FORMS (FIG 15)

44.3	Fieldwalking stint	Flanged bowl, sandy reduced ware SAND 4M
64.4	Fieldwalking stint	Prehistoric or Saxon sherd with ?notched decoration, SHEL
65.9	Fieldwalking stint	Jar, unsourced grog-tempered ware, GROG 2
76.10	Fieldwalking stint	Mortarium, Oxford white-ware (Young 1977 form M22), OXWW 7M22

85.22	Fieldwalking stint	Plain-rimmed dish, Black-burnished ware 2, fine fabric, BB2F 5J
86.2	Fieldwalking stint	2 Bead-rimmed? bowls. Grog-tempered ware, GROG 4? BR
106.1	Fieldwalking stint	Plain-rimmed dish. Nene Valley colour-coated ware. NVCC 5J PR
492	Excavation	Central Gaulish Samian vessel Dr1R dish with rouletting and post-firing holes to accommodate 4-5 lead rivets (CAS492 (1005))

THE CERAMIC BUILDING MATERIAL

P Mills

(The report on the CBM is an abbreviated text of the original specialist report. The full text is available in the archive.)

The Ceramic Building Material (CBM) derived from Croughton is quantified in Table 13 (below) and has been catalogued in the archive (ACBMG 2003, IFA 2001). The majority of the material is small and fragmentary, consistent with an assemblage produced by collapse of the main structures after abandonment, subsequently disturbed by robbing and ploughing. The material is mainly of 3rd-century date, from the comb patterns on the box flue tile and the painting and external decoration on some of the roof tiles recovered. There was a small amount of post-medieval material recovered from the fieldwalking in 1993 (Shaw and Auduoy 1993) (Table 13).

THE FABRICS

Ten fabrics were identified from the assemblage.

CRO01

A hard red fabric with an irregular to fine fracture, and sandy feel. Inclusions of common fine mica, common sub-angular quartz 0.1-0.2mm across, common angular 0.2mm black iron stone and sparse shell, up to 0.2mm across. Used for the production of brick, flue tile, *tegula* and *imbrex*.

CRO02

A hard red fabric with a grey core, a fine fracture and a sandy feel. It has inclusions of common mica less than 0.1mm across, moderate sub-angular 0.2mm quartz,

Table 13: The Ceramic Building Material (CBM) assemblage

Episode	Site Code	Wt (kg)	No	Cnr
Mosaic Excavation 1991	CRV91	8.454	77	4
NA Field Artefact Collection 1993		121.214	4577	20
EH 1993 & 1995 excavation of mosaic and 1995 trial trenches	CAS492	92.345	2210	9
NA excavation 2002	RMF02	121.575	880	128
Total		343.588	7744	161

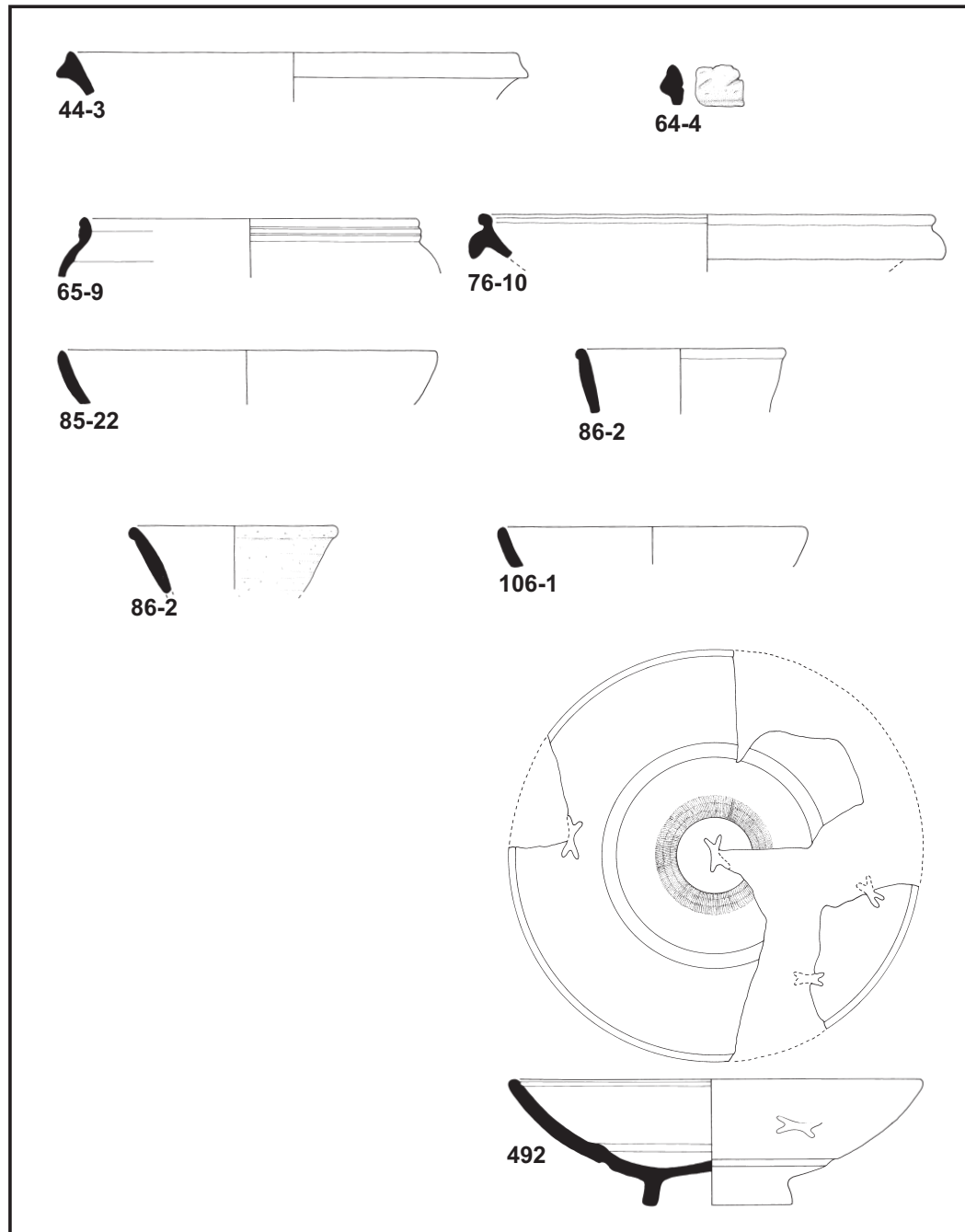


Fig 15 Previously unpublished forms of ceramics from Croughton

occasional sub-angular black ironstone, 0.3mm in size and moderate 0.1mm rounded calcareous material. Used for the production of brick, flue tile, *tegula*, *imbrex* and ridge tile.

CRO03

A red fabric with a grey core. It is hard, having a hackly fracture and harsh feel. It has inclusions of common organic voids, moderate quartz, 0.4mm, common rounded calcareous material 0.3mm, moderate sub rounded grog 0.3mm. This fabric is used for the production of brick, flue tile, *tegula*, *imbrex* and ridge tile.

CRO04

A pale variant of CRO02. Used for the production of brick, flue tile, *tegula*, *imbrex* and ridge tile.

CRO05

A variant of CRO01 having a slightly more irregular fracture. This fabric is used for the production of brick, flue tile, *tegula*, *imbrex* and ridge tile.

CRO06

Pale buff fabric, hard, has a fine fracture and a sandy feel. It has inclusions of common shell, common quartz, moderate mica and occasional flint. This fabric is used

for brick, imbrex and tegula. There is a flint tempered fabric manufactured at Piddington (Fabric 4B, Ward 1999, 12) dated to the 2nd century.

CRO07

This is a red variant of CRO01. There is one example of an imbrex.

CRO08

Pale buff fabric with a dark grey core. Contains abundant angular 3mm across calcite. Used for ridge tile and tegula. Similar to Piddington tile fabric 1A/B (Ward 1999, 12) which is probably manufactured in the 3rd - 4th centuries.

CRO09

This fabric is a pale variant of CRO03. It is used for imbrex and tegula.

CRO10

This fabric is dark red and grey. It is very hard with a fine fracture and sandy feel. It has inclusions of abundant mica and fine quartz and occasional calcareous material. A post-medieval fabric, used for bricks.

The fabric list suggests that there are five Roman groups of fabric utilised on the site: Calcite (CRO08), Lime (CRO02, CRO04) Flint (CRO06), grog (CRO03, CRO09) and shell (CRO01, CRO05, CRO07).

In addition to the possible parallels of flint and calcite-tempered mentioned above there is a wide variety of grog tempered tiles manufactured at Piddington villa from 2nd – 4th centuries (Ward 1999, 14-15). From Croughton there are two main groups, grog and shell-tempered, represented in the material.

FORMS

The forms identified from the settlement are summarised in Table 14. The majority of material was not classifiable and this is coded as 'B/T'. The majority of recognised forms comprised roofing tiles.

Roof tile

No complete examples of roof tiles were recovered. However, the following categories were defined:

Tegula had a thickness between 20mm and 35mm, with a variety of handmade and occasionally knife finished flange types. A number of *tegula* were observed to have nail holes in them. They were typically 7–10mm in diameter and round, having been made pre firing. One

tegula still had a nail still attached to it. Cutaway types were recorded using the codes in Brodbribb (1987, 16).

Imbrex were identified in two main categories: type 1 which was c 11-15mm thick and type 2 which are 15-20mm thick.

Ridge tiles in Britain are similar to *imbrex*; only they tend to be thicker and less obviously tapered (Brodbribb1986). In this catalogue, all curved tile with more than 21mm thickness are classified as ridge tile

It would be expected that the normal ratio of *tegula* to *imbrex* by weight would be c 3:1 for a roof. However, as *imbrex* tend to be more recognizable than *tegula* even for small fragments the pattern reflected here is what would be expected from collapsed roofed structures. The small quantity of ridge tiles is expected, as there would only be a few on each structure. There is no specialisation in fabric group by form type (Table 15).

Painted and decorated roof tile

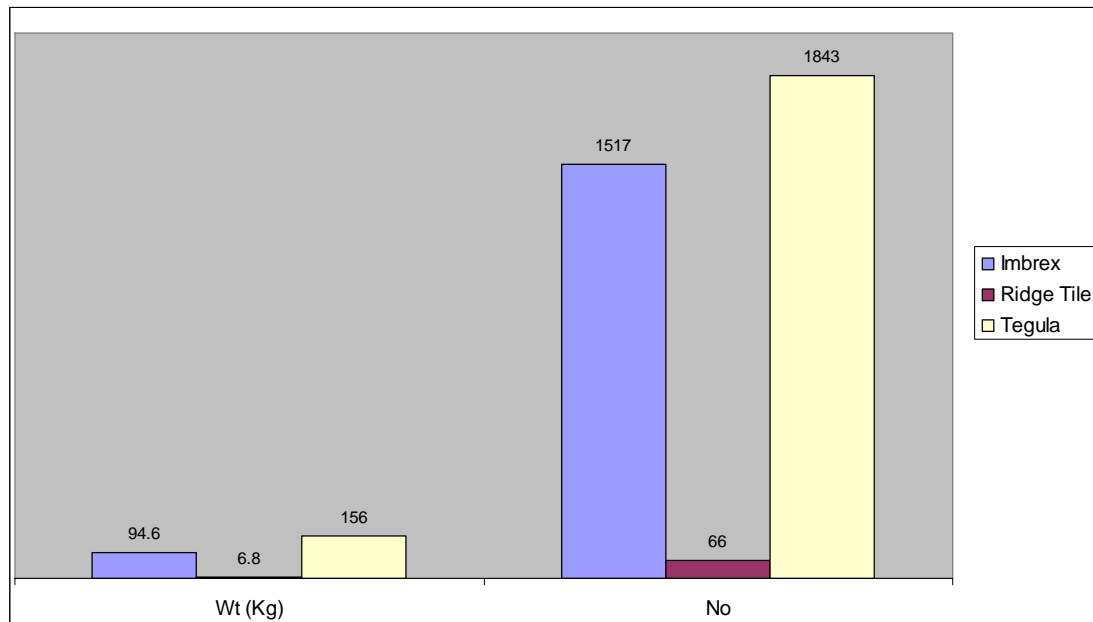
A significant proportion of the roof tiles are decorated, either by paint or by external wavy line decoration, or a combination of these. The wavy line decoration was observed on a small amount of roof tile, usually near the end of a tile. These may have been used for keying in order to help mortar to grip slipped or painted tiles. The painted and decorated tiles were observed in the grog, lime and shell fabric groups. The proportion of painted tiles to the unpainted tiles by number of fragments suggests that the painted tile emanated from one roof. The number of painted tile types by fabric group does suggest that their may have been originally different supplies for the painted *imbrex* and *tegula*.

The painted tiles were treated in several different ways; a deep red slip or paint was coated on the finished tile; a white plaster or slip was coated onto the tile; the tile was covered in white slip or plaster and then red paint in the form of a coat or stripes painted over the white surface. Whilst recreating the original pattern of the roof is beyond the scope of this evidence, a number of suggestions can be made. A couple of examples of nail hole *tegula* had remains of the purple/red paint on them, which suggest that the lowest course of the roof was painted red. The red lines parallel to *tegula* flanges on the whitewashed *tegula* suggest that red painted imbrex were laid down white painted *tegula*. There seem to have been more red painted roof tiles than white painted ones, and a number

Table 14: The CBM forms by project and number of fragments

Form	CAS492	CRV91	CAS 492	RMFO2	Total
B/T	1319	16	2559	32	3926
Brick	5		56	67	128
Flue Tile	25	2	67	167	261
Imbrex	440	16	765	296	1517
Ridge Tile	26	8	32		66
Tegula	395	34	1096	318	1843
Tessera		1	2		3
Total	2210	77	4577	880	7744

Table 15: The amount of roof tile by number of fragments



of tiles had several coats, suggesting that a change in decoration occurred at some point on the roof.

Box flue tile

The box flue tile was mainly fragmentary, and had a thickness of *c* 15- 20mm. It was identified from the assemblage on the strength of the comb decorations. This style of keying is common on flue tiles manufactured in the 3rd-century AD (Ward 1999, 38).

Table 16: Box flue tile by Fabric group

Fabric Group	No	Wt (g)	Cnr
GROG	53	3305	
LIME	197	5248	1
SHELL	11	685	

Bricks

No complete bricks were identified from the assemblage. This is due to the difficulty in determining flat pieces of Roman brick from other forms such as *tegula* and flue tile. The main type of brick identified was a voussoir type – a tapered brick used for making arches. The other Roman bricks are probably from bricks used for flooring and the *pilae* stacks to support the floor.

Markings

Other kinds of marking observed on the material is summarised in Table 17. Signatures are marks made by the tile maker, usually on *tegula*. They are generally seen as a way of recording which tiler has made which batch in a situation where multiple tilers were working in the same location. Tally marks are possible numbers to mark the amount of tile in a pile. Animal prints are often noted on Roman CBM and are formed when animals walk on tiles which are left out to dry prior to firing.

Dating

The main form of dating for this assemblage comes from the box flue tile. The broad combing reflects a mid-3rd-century date (Ward 1999). The use of painted and decorated tile in the vicinity has been observed on mid-3rd-century structures (Ward 1999)

Formation process

The majority of this material was used primarily as roofing or hypocaust for the building. A small quantity of second hand material would also have been used as hardcore in parts of the structure as well as for other deposits close to or within the grounds of the villa. This material was allowed to collapse in its entirety through either abandonment or deliberate destruction. Subsequently material was disturbed by robbing and agricultural activities.

Spatial analysis

The majority of the material from the fieldwalking comprised unidentifiable fragments of CBM scattered around the entirety of the fieldwalked area, with a major concentration over the structures of all types and fabrics. The painted tile and ridge are concentrated in the centre of the scatter. The flue tile is concentrated on the west part of the scatter in terms of weight. The calcite tempered CBM is part of a small scatter in the north-west part of the concentration.

DISCUSSION

The material is consistent with having been produced from the mid-3rd century for a complex of buildings. The similarity of the grog-tempered tile to that manufactured and used at Piddington suggest a similar geological source. The lime and shell-tempered CBM would appear to come from another source. As there is no ready pattern

Table 17: Catalogue of marked tiles

Site	Cxt	Fabric	Wt (g)	No	Cnr	Type	Markings
CAS 492	1024	CRO02	78	1		Tegula	Cat Print?
CAS 492	1024	CRO02	1124	1		Tegula	Sig 2f
CAS 492	1024	CRO02	276	1		Tegula	scored line
CAS 492	1027	CRO03	321	3		Tegula	Sig 1f
CAS 492	1087	CRO02	41	1		Tegula	Sig
CAS 492	1091	CRO03	271	3		Tegula	Sig cl, pp
CAS 492	1092	CRO02	19	1		Tegula	Sig
CAS 492	108	CRO03	157	3		Tegula	Possible tally
RMFO2	1	CRO02	82	1		Tegula	Sig wl
RMFO2	1	CRO02	166	1	1	Tegula	Sig s
RMFO2	9	CRO03	282	1		Tegula	finger prints
RMFO2	16	CRO02	118	1		Tegula	Possible Sig
RMFO2	16	CRO03	1363	4		Brick	Sig cl
RMFO2	16	CRO04	235	1		Tegula	Sig s
RMFO2	17	CRO02	74	1		Tegula	Possible tally
RMFO2	17	CRO03	3463	7	1	Tegula	Sig s
RMFO2	17	CRO03	405	1		Tegula	cat print, pp
RMFO2	28	CRO02	2081	4	2	Tegula	Sig s, pp
RMFO2	28	CRO03	3175	10	3	Tegula	Sig cl, pp
RMFO2	37	CRO03	3591	13	2	Tegula	Sig cl
RMFO2	59	CRO02	66	1	1	Imbrex	tally
RMFO2	76	CRO04	671	1		Tegula	Sig s, pp

Codes: pp = purple paint; sig = signature; cl = curvilinear; S = S shaped; WL = wavy line; 1f = one finger signature; 2f = two finger signature

in the final distribution of these main fabric groups, it would suggest that both these sources were used at the same time for the different structures. The small quantity of flue tile and brick, indicative of a hypocaust structure, may be emanating from a single structure in the west of the complex. The majority of the hypocaust would be underground, so only the top parts are likely to have been disturbed during the post-abandonment activities on the site, hence the relatively small amount.

The painted roof tiles are concentrated at the centre of the complex, and probably relate to a single roof over the mosaic. The main roof was originally painted in red and white, although at some point a number of the white elements of the roof were painted over in red. The pattern was perhaps of a white roof with a red border and possibly with red vertical stripes.

The other structures would have been roofed in well-made orange to red roof tiles. In trying to reconstruct the phenomenology of the late Roman landscape, it is clear that these roofs would have occupied a dominant position. In terms of the surrounding topography they are clearly standing above the land to the south, where the height OD rapidly drops *c* 30m over 1km and still prominent to the north with the land rising *c* 5m over 1km. The roof may have been part of a 3rd-century attempt to dominate an existing landscape.

In terms of the wider cultural identity of the material, it has been observed that the painted and combing patterns of some of the roof tiles, as well as probable supply relates it to other sites in Northamptonshire. Unfortunately, given the present lack of retained and properly reported CBM collections from the Roman period comparisons are difficult. The paint and colour of roof tiles in 3rd-

century Roman Britain may have been used in some communities as a marker of cultural identity. Whether this reflects resurgence in a confident indigenous community or the arrival of elites from elsewhere in the Roman world remains to be explored.

PLANT MACROFOSSILS

R Scaife

INTRODUCTION

Samples for plant macrofossil analysis were taken from the villa site during the excavations of English Heritage in 1995 and subsequently by Northamptonshire Archaeology in 2002 when total sampling was undertaken of the deposit above the mosaic. Further sampling of the remaining contexts was undertaken under the guidance of Dr J Williams, English Heritage Environmental Science Advisor. Material for analysis comprised processed and previously assessed material (de Rouffignac 1996); processed but unsorted material and, unprocessed bulk samples. The latter have been floated and examined as part of this study. A total of 22 samples from different stages of excavation have now been amalgamated and examined.

During the excavations carried out by English Heritage in 1995, a significant cache of charred grain was recovered which prompted a more comprehensive sampling regime. Samples obtained were taken largely from the excavation of the Bellerophon mosaic floor on which the grain rested and from overlying demolition deposits. The resulting plant remains, predominantly cereal grain, clearly offered potential for study of diet, crop cultivation and the economy of the villa site.

METHOD

Samples of 10 to 40 litres volume were taken from all of the principal contexts (10) and (9) excavated during the two phases of excavation and, especially where these exhibited obvious charred remains lying above the mosaic floor. Of the samples taken by English Heritage, samples of 10 litres were processed using buckets and overflow into sieve sizes of 1mm and 0.5mm. Samples taken from the later excavations by Northamptonshire Archaeology were stored until processing in 2004 using Siraf type flotation tanks by R. Bailey Archaeoservices. The flot was similarly collected in nested sieves down to 0.5u. This resulting flot was air dried. Residues were kept and examined for non-floating botanical and scanned for other archaeological material. Sorting, examination and identification of the plant remains was carried out using a Wild M3c low power binocular microscope (x6 - x40). Material obtained from flotation comprised largely cereal remains with some charcoal and mollusca but with surprisingly few seeds of associated arable weeds. All nomenclature follows that of Stace (1997) and Jacomet (1987). For the purposes of this study, and because of the substantial quantities of grain and its purity, a fraction only of the total quantities was identified and counted for those contexts/samples in which grain was most abundant. The weight of the total flot was measured and of the fractions which were examined. These data are given in Table 19 and allow some broad calculations to be made of total grain numbers.

THE DATA

After assessment of material obtained from the 1995 trenches, the necessity of a detailed sampling strategy in any further excavations was recognised (de Rouffignac 1996, 46). Subsequently, therefore, bulk samples were taken from all of the principal contexts recorded during excavations in 2002. These included the most interesting (10), a fine layer of black silty sediment containing most of the charred plant remains, and the coarser overlying demolition layer (9). Samples were taken from different areas of the mosaic and overlying deposits, as well as the topsoil, sample (9) 1 and a modern layer and fills of a hypocaust (29) 8 and (39) 18. The latter were particularly sparse in plant remains.

Samples from immediately on the mosaic floor,
Context 10

Preliminary examination of three samples was carried out by Clare de Rouffignac from (1029) and (1031) excavated from Trench E in 1995. Of these, the former contained perhaps the richest grain samples from the site resting on the mosaic floor on the western side. A single sample (1031) from the fill of a cremation on the western side produced only a very small number of plant remains. The samples of de Rouffignac from (1029) comprised sub-samples of c 10 litres which were shown to be exceedingly rich in charred cereal remains and, from restricted sorting of the samples, produced in excess of 6000 cereal grains. De Rouffignac (1996, 45) also noted the presence of pest damage. This aspect has subsequently been re-examined by Dr. M. Robinson

who has determined that this phenomenon is in fact a taphonomic/preservation process rather than from insect infestation (Robinson pers comm). For this study, a small proportion of the material previously examined was re-analysed to assess the proportions of grain of different taxa, and to identify the chaff remains (Table 19). This comprised samples 1 and 2 from context (1029), that is, the cache of grain which rested directly on the Bellerophon mosaic floor. In fact, the grain appears to be an almost pure crop of *Triticum spelta* L. (spelt wheat) with higher proportions of chaff from this grain than recovered from other, subsequently analysed, samples. De Rouffignac does, however, note a single grain of *Hordeum* sp. (barley) and a rachis fragment, clearly a very small proportion of the overall grain present. Re-examination of this important English Heritage sample 1 (1029) produced solely *T. spelta*, cf. *Triticum spelta* and some grain fragments, all of which are likely to be from the same taxon. Identification of grain to spelt and/or emmer wheat is usually only possible from chaff debris alone (the strongly nerved glume bases plus some spikelet forks) since the grain of these glume wheats is morphologically similar (Renfrew 1973). Here, the presence of the former is verified by the chaff remains which were most abundant in this sample. These comprised glumes and spikelet forks of *T. spelta* L. (Table 19). A single *Triticum dicoccum* (emmer) glume was also recovered and also confirms de Rouffignac's study who also noted a few similar occurrences. Clearly, however, this was not a major constituent of the crop and was probably from occasional growth as a 'weed' within the crop. More detailed measurements of the grain (spelt) size have been made (Table 18) below.

During excavations in 2002, further samples were taken from above the same mosaic floor on its southern and south-western edge (10). The overlying coarse demolition horizon (9) was also sampled, samples 1a, 1b, 4a, and 4b. Samples of 10 and 20 litres (6a, 6b) from the black silty deposits (10) overlying the mosaic, as expected produced similarly high numbers of almost pure spelt grain (*T. spelta* L.) being more abundant in samples 5, 6 and 7 (Table 19). Contrasting with the 1995 samples, the quantities of chaff were substantially smaller. Where present, however, these were again glumes and spikelet forks confirming that the grain comprises almost pure spelt. A small number of other grain types were recovered. These included *Hordeum vulgare* L. (barley) in sample 6 (10) and *Avena* sp./*Bromus secalinus* (oat and/ rye brome). In all samples, the number of seeds from non-cultivated crops is remarkably small clearly showing that the grain was at its final stages of processing prior to its grinding for flour.

The demolition layer (9)

Context (9) is a much coarser deposit, described as a demolition layer which seals the plant rich, context (10) overlying the mosaic. The demolition layer (9), (23) and (46): samples 1, 2, 4, 6, 7 and 20 also contained substantial quantities of charred cereal grain which again comprised almost solely spelt wheat. Grain was most abundant in samples 4, 6 and 7 from the south and south-west side of the mosaic and from (23) sample 2 from the

north-east corner. Numbers/quantities of chaff remains were small in all samples with occasional glume bases which confirm the presence of spelt. These were most abundant in sample 5. Again, there were notably few weed seeds.

The abundance of these charred grain remains in these demolition deposits and especially in zones above context (10) suggests that mixing and incorporation of grain from the lower layer is likely to have occurred. Certainly, the grain constituents are the same, also suggesting this has occurred.

Other contexts

Although sampling concentrated on the charcoal rich layers overlying the mosaic floor, samples were also taken from the fills of hypocaust (29) and (39) and from pit features (12) and (42). All of these contained few charred remains comprising *Triticum indet.* and indeterminate grain fragments.

GRAIN MORPHOLOGY

The grain of spelt wheat has typical characteristics with generally flat ventral sides and a broad shape with blunt apices. A relatively small number (100) of cereal grains was examined in greater detail with measurements of length, breadth and thickness made. The following measurements (Table 18) were calculated from the 100 sample grains. Measurements were for maximum dimensions; length of grain; length of ventral surface at right-angles to length and thickness from ventral side to dorsal side.

Table 18: Dimensions of a sample of 100 grains of spelt (*Triticum spelta* L.)

Minimum length	4.34 mm
Average length	5.69 mm
Maximum length	6.72 mm
Maximum breadth	3.75 mm
Minimum breadth	2.49 mm
Average breadth	3.24 mm
Maximum thickness	3.10 mm
Minimum thickness	1.61 mm
Average thickness	2.55 mm
Ratio of breadth to length	1 to 1.76
Ratio of breadth to thickness	1 to 1.27

DISCUSSION

Overall, the charred plant remains recovered were almost solely of Spelt wheat (*Triticum spelta* L.) with the only special characteristics of this assemblage being the excellent state of preservation of much of the grain, its purity, that is, without much chaff debris or weed seed contaminants. Originally, damage by pest infestation was suggested by de Rouffignac. Of 150 spelt grains examined, some 23% showed some degree of damage in the form of holes, pits and gullies. Dr. M. Robinson has, however,

carried out a more detailed analysis of this aspect and now supports the idea that these features (damage) were caused during the charring process.

As noted above, the similar morphology of spelt and emmer wheat grain means that identification to species is not generally possible from grain alone and usually relies on the presence of chaff including glume bases and spikelet forks. Fortunately, the richest areas of grain found here, also contained a relatively small proportion of glumes and spikelet forks which verify that the assemblage is indeed of spelt rather than emmer wheat. Chaff debris (and other seeds) was, however, almost non-existent in other samples and overall, it is likely that cleaned grain was processed away from the site and stored for consumption at a later time.

The fact that this is a non-free threshing wheat that requires parching (heating in an oven) to release the grain prior to threshing and winnowing, means that its remains are more likely to be encountered through accidental burning. Here, however, the charring/burning seems to have occurred accidentally through a fire within the villa. Dr. Robinson has suggested the possibility that the grain may have been stored in the roof space and during the fire fell onto the mosaic floor. This may also explain the admixture within the overlying demolition layer (9).

The abundance of spelt here is very characteristic of most Romano-British grain assemblages because of the greater possibilities of accidental burning during parching. It is clear, however, that there was a predilection for spelt wheat during this period and the preceding Iron Age. This phenomenon has been widely discussed since the classic work of Jessen and Helbaek (1944) and Helbaek (1952). Such importance has subsequently been verified from many studies in southern and central England (eg Murphy 1977; Jones 1981; Green 1981; Scaife 1994, 2000a, 2000b). The principal reasons given for this increased importance of spelt which have been made include changes in taste preferences, increased production in response to increased population during the Iron Age (Murphy 1977, 245) and change to Autumn sowing due to the fact that this wheat was more suited to a cooler, wetter climate (Fowler 1984, 163). In addition, Jones (1981) has also suggested it may have been widely used in making porridge. Use in brewing has also been postulated because of sprouted ears which have frequently been recovered. It is also important to note that in the case of spelt, there is some evidence that this crop may have been harvested and transported as whole ears to its place of consumption and possibly stored until its use (Jones 1981). Thus, cropping may not, necessarily, have taken place near the site and, whilst it is more conceivable that this was, in fact, taking place locally, it must also be considered that cultivation was being practised on another farmstead. Thus, as suggested by Jones, there may be a distinction between producer and consumers with final processing for use taking place on the site of the latter. Here, the relative absence of chaff remains suggests that we are dealing with the very final stages of crop production and processing (post-threshing and winnowing) prior to grinding of the grain for flour at the villa. The demise of the crop through burning can, however, only be conjectured.

Table 19: Croughton plant macrofossils (continued below)

Sample No	CAS492 <1>	CAS492 <2>	CAS492	1a	1b	2	3	4a	4b	5
Context	1029	1029	1031	9	9	23	10	9	9	10
Feature Note	On Mosaic	On Mosaic	Cremation	Dem. Layer NW Corner	Dem. Layer NW Corner	Dem. Layer NE Corner	Above mosaic	Dem. Layer S. edge	Dem. Layer s. edge	Below (9) S. edge
Area										
Flot Weight (g)	56	280	10	9	3	5	25	40	38	82
Weight Anal. (litres)	5	20	10	9	3	5	25	10	9.5	10
Grain										
<i>Triticum spelta</i> L.	298	245	1	27	10	82	12	501	418	553
T.cf <i>spelta</i>	133	39		19	13	24	23		97	102
<i>Triticum</i> indet				5		6			0 (1)	
T. cf <i>aestivum</i> type						6				
<i>Triticum</i> sp.						6				
<i>Avena/Bromus</i>	1								1 (4)	5
<i>Hordeum vulgare</i>								1	0 (1)	
Indet grain	113		6	88	15					66
Grain fragments	36		9	34	16	84	31		273	341
Chaff										
gb <i>Triticum spelta</i> L.	58	20							3 (3)	2 (7)
gb T. cf <i>dicoccum</i>	1									
gb T. indet	9	1							0 (3)	0 (1)
sf T <i>spelta</i>	42	17								0 (3)
sf T indet	21									
awn frags.										0 (2)
Seeds										
<i>Vicia/Lath</i>				1	1					1
cf <i>Arabidopsis</i>										
<i>Galium</i> sp.			1							

EXCAVATION OF THE ROMAN VILLA AND MOSAIC AT ROWLER MANOR, CROUGHTON, NORTHAMPTONSHIRE

Sample No	Context	Feature Note	Area	6a	6b	7a	7b	8	18	19	20a	20b	21	22
			Dem. Layer SW Corner	Dem. Layer SW Corner	Dem. Layer SW Corner	Dem. Layer SW Corner	Dem. Layer SW Corner	Hypocaust	Under dem.	Mosaic	Dem Layer	De. Layer	Pit	Pit
			SW Corner	SW Corner	SW Corner	SW Corner	SW Corner	Upper fill	Subsoil	Sand?	W. end	W. end	N. of Mosaic	N. of Mosaic
Flot Weight (g)	38		25	27	13	13	2	2	1	6	8	2	8	3
Weight Anal. (litres)	9.5		25	9	13	13	2	2	1	6	8	2	8	3
Grain														
<i>Triticum spelta</i> L.	313		143	115	54					43	8	5		4
T.cf <i>spelta</i>	208		146	101	22					6	10	2		
<i>Triticum</i> indet														
T. cf <i>aestivum</i> type											1			
<i>Triticum</i> sp.							1	1						
<i>Avena/Bromus</i>	4			2										
<i>Hordeum vulgare</i>	2	1												
Indet grain				30	27			2			9	4		4
Grain fragments	158		46	74	30			2		16	9	3		9
Chaff														
gb <i>Triticum spelta</i> L.			1		1		1	1						
gb T. cf <i>dicoccum</i>														
gb T. indet														
sf T <i>spelta</i>	1				2									
sf T indet					1									
awn frags.	1 (1)													
Seeds														
<i>Vicia/Lath</i>	2 (1)										1			1
cf <i>Arabidopsis</i>														
<i>Galium</i> sp.														

Whilst the importance of spelt wheat is evident, there is, nevertheless some evidence for other crop types including *Hordeum vulgare* (barley), *Avena* sp. (oat). The presence of these indicated cultivation and use of these crops but, however, their small numbers may relate to the lesser likelihood of their being preserved due to accidental burning. It is possible that they were inclusions as weeds of the spelt crop and also, the fact that only a small number of different, and obviously rich contexts, were sampled.

DISCUSSION

THE NATURAL ENVIRONMENT

The meagre dating evidence from the early stages of the Roman settlement at Croughton may indicate an origin in the late 2nd century AD, while the single La Tène II spearhead found in the primary fill of a ditch hints at earlier activity in the area. The physical environment at the end of the Iron Age in the Croughton area has not been studied in detail but elsewhere in the region, further north at Wollaston and in the Raunds area, the landscape had been largely cleared of tree cover in the late Bronze Age. Not far from Rowler Manor the ring ditch (NSMR7286) may be sited in a prominent location to take advantage of the cleared landscape. Areas of grazing and cultivation varied in size, but at Crick weed seeds associated with large scale cultivation, rather than garden-type agriculture have been noted (Monckton 2006, 270). Nearby a watching brief on a new grain store at Rowler Manor noted only a very shallow soil above cornbrash on the ridge to the east of the villa, where the absence of data such as tree throws or boundary ditches may hint at the possible location of grazed clearings (Dawson 2001).

EARLY SETTLEMENT

The area of settlement at Croughton in the 2nd century AD may represent a concentration of activity and a shift in the late prehistoric pattern. The latter is evident from a series of cropmark enclosures close to Plomers Firs Farm in the east (NSMR 90) and in the west towards Charlton (NSMR 159, 158), their morphology perhaps an indication of dispersed small scale farming communities. Typically these are occupied from the middle to late Iron Age and are characterised by roundhouses, stock and garden enclosures in a landscape of tree stands and open areas. Whether these farmsteads are occupied over several centuries or a much shorter time, perhaps a matter of few generations, has yet to be confirmed either by ceramic, artefactual or scientific dating.

Coin evidence from the watching brief, not far from the water pipe trench, and ceramics from the trial trenching suggest the earliest settlement at Croughton is in the central and northern part of the area (Fig 2). The dating, ceramics of late 2nd-century date, AD 170 and the small coin hoard deposited between AD 161 and 200, suggests an origin in the late 2nd century. The character of the excavated evidence seems to indicate a combination of post-built and stone-founded structures within or

surrounded by ditched enclosures, whilst the geophysical survey and trial trenching has revealed polygonal enclosures which may indicate a settlement form similar to those at Standlake or Appleford in the Upper Thames valley. The dating evidence and the site layout appears to show the settlement grew progressively from the earlier part in the north to include areas to the west and the east by the 4th century, with the villa occupied until the 6th century. The complexity of the geophysics suggests that the settlement layout may have remained stable within a broadly rectangular framework of enclosures on the northern side of the Rowler Brook, with later expansion onto the southern bank.

The character of the settlement at Croughton is firmly agricultural with evidence for iron smithing, crop processing and to a limited extent animal husbandry through the small animal bone assemblage. Together with the enclosures, evident from the geophysics, the settlement may have practised a mixed agriculture of stock rearing and some garden cultivation in the early period and perhaps further afield cereal cropping. There is no evidence to date of the dominance of one form of cultivation and the local soil type today supports both stock rearing and winter cereals.

THE VILLA BUILDING

The villa building in which the Bellerophon and another figured mosaic were located was sited in a prominent position above Rowler Brook to the east. The site, which was previously unoccupied, was clearly chosen to take advantage of the view across the shallow valley to the east and south-west towards what is now Croughton village. Rowler Manor is one of four villa sites along the higher ground above the River Cherwell including Chipping Warden, Thenford and Fringford. An underlying developmental model for this pattern emphasises the origins of villa estates in land controlled by late Iron Age family groups who were able to expand areas of cultivation to exploit the market offered by incorporation into the Roman Empire (Hingley 1990, 122). More emphatically Smith has argued that kin groups were able to combine resources to exploit larger areas and, thereby, gain the economies of scale, which allowed them to achieve the sort of economic growth that permitted the construction of villa type buildings (Smith 1997, 278). The latter model lays emphasis on social change, suggesting architecture became the principal means of status display replacing the retention of a retinue during the first years of the Roman conquest. In addition to economic growth Smith also noted the potential benefits implicit in office holding by one or more members of the kin group, which in turn could have provided the economic basis for the construction of a villa (Smith 1997, 279). Neither model fits comfortably with the evidence from Rowler where the settlement developed without antecedent in the later 2nd century, creating a settlement form which is familiar from several recent excavations, in particular at Water End East, Bedfordshire, and Scotland Farm, Cambridgeshire (Timby *et al* 2007; Abrams 2008). Both these sites and the date of settlement at Rowler hint at the potential for shift in the settlement pattern, perhaps

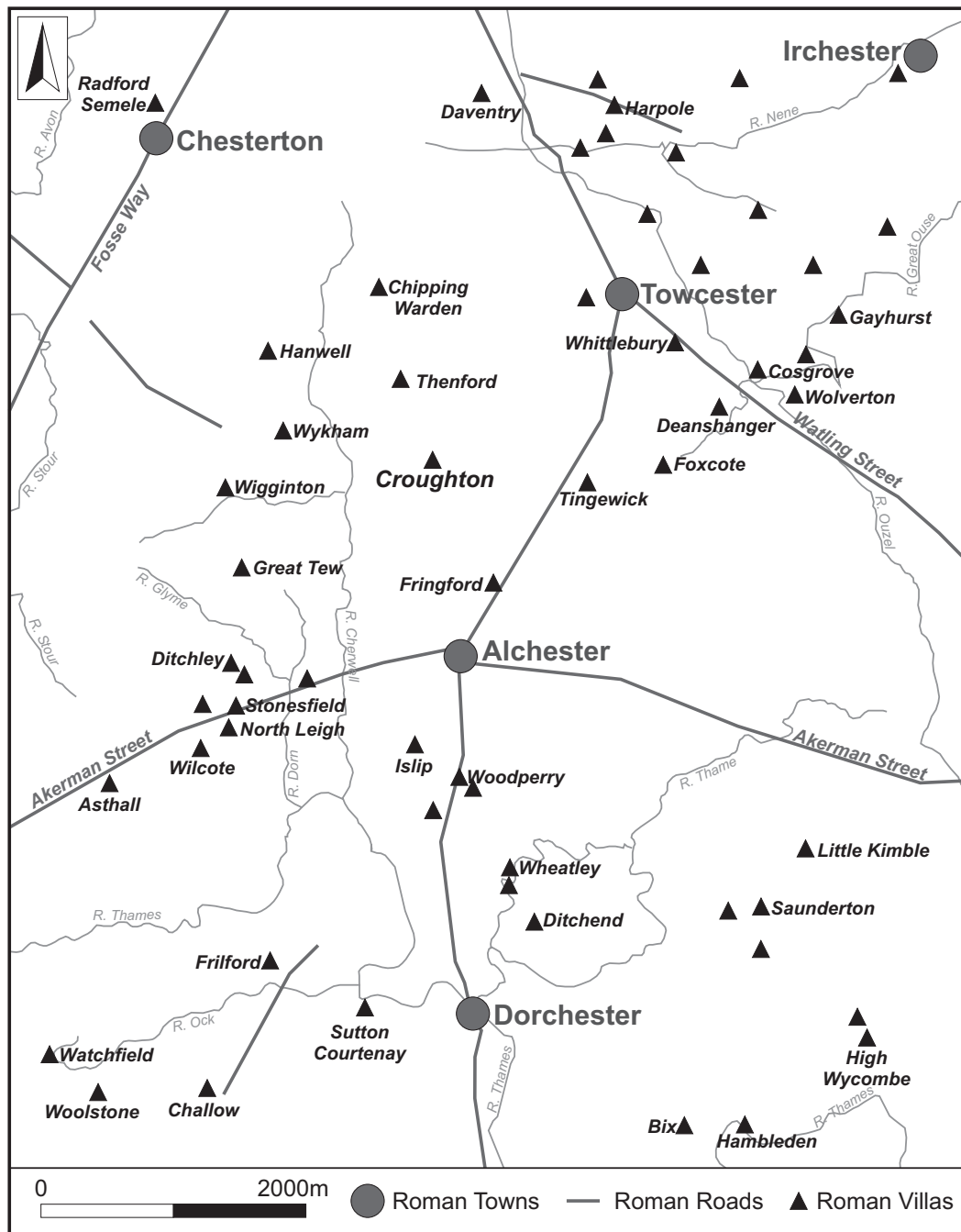


Fig 16 The Roman landscape of Rowler Manor and Croughton

even a period of enclosure and nucleation when the ladder type settlement provided the basis for economic growth. A further factor is the distribution of villas along the River Cherwell. There is no sense of this group, or others in the region, clustering around a potential market at Alchester. Instead the regularity of villas set back but along the higher ground above the River Cherwell seems to imply that there is no specific benefit in proximity to urban centres or even the strategic road system.

The evidence from Rowler is a slim base on which to build a model of settlement practice. Initially perhaps

it was a planned complex based on a rectangular land allotment in the late 2nd century, it developed its own internal hierarchy which included other substantial dwellings, but by the 4th century its most significant building, the villa with the mosaics, was located on a pristine site above the local steam and spring. If the distribution of the other villas above the Cherwell is indicative of land holding the villa stood at the apex of a large estate (Fig 16).

The form of the villa may be that of a row type house, with the long axis aligned north to south. The layout of

the rooms and the repair to walls [26]/[45] suggest later additions to the original design. The house was stone built probably with some architectural embellishment in the form of worked tufa, but it has been extensively robbed in antiquity.

RITUAL AND STATUS

The status of the villa at Rowler can be gauged in both social and economic terms. The latter is evident from the use of coinage, the mosaic decoration and hypocaust, the stature of the building with tiled roof and satellite farms or dwellings. Located at the core of an estate its wealth may have derived either directly from estate produce and/or indirectly from tribute. Wealth may also have flowed to the estate due to the status of the occupant suggested by the crossbow brooch and late Roman buckle fragment. Both of which are indicators of status and rank.

Models developed around the status of an individual suggest a kin group may be attracted to that individual. This process may lead to the agglomeration of settlement as kin move away from smaller more isolated farms to a more centralised settlement. In some examples symmetrical building plans for the villas themselves have been proposed as the basis for shared occupancy (Smith 1997, 292). At Rowler the pattern of building is more dispersed and alternative factors may have attracted settlement. Perhaps the most potentially significant factor is the combination of high status objects such as the buckle and crossbow brooch terminal together with at least two mosaics. Both the analysis of the mosaic and the coins have suggested the character of the villa in the late 4th century may have been religious, in particular, it may have been Christian. The stone table fragment has also been interpreted in this light (sf 100).

The coinage suggests a similarity between the assemblage at Rowler and the temples at Lamyatt, Nettleton and Uley, and the villas at Gatcombe and Lullingstone (Meates 1979, 73). The latter is particularly associated with Christianity following the discovery of a Chi-Rho monogram painted onto the plaster walls of a room in which there was a Bellerophon mosaic. Similarly the Chi-Rho is associated with the Bellerophon mosaic from Hinton St Mary (Toynbee 1964, 7-14). Although there is no Chi-Rho at Rowler, the presence of high status artefacts, the Bellerophon motif and similarities between the coin assemblage and other religious sites seems to indicate a religious centre which became a house church in the late 4th century. That it may have continued in use, possibly for worship, into the 6th century is suggested by the presence of a late bead from the necklace lost on the mosaic floor.

THE END OF ROWLER

The demise of the villa at Rowler may have occurred as late as the 6th century AD, dated by the appearance of a glass bead in the burnt deposit above the Bellerophon mosaic. The circumstances, however, are far from clear. The deposit above the mosaic (10) which contained a large quantity of charred grain, Scaife has suggested, may have been derived from grain stored in the roof or

floor above. It may have been deposited during the fire which destroyed the villa and mixed in with the collapsing remains of the structure. The nails and iron fragments noted by Hylton may relate to timbers burnt in the conflagration, although there is no evidence of significant quantities of charcoal lodged above the pavement. Nor is there evidence of molten glass from broken windows, although there is a small quantity of fused lead. The fire, therefore, may have been limited to the roof but no less final in the life of the building. Neal has suggested the presence of mortar on some parts of the mosaic indicates it was either never completed, postulating that the fire may have occurred during the final construction of the building or during restoration. In either context the bead is problematic and may suggest that the building continued to function into the 6th century before the fire. Subsequently the remains may have stood derelict until the site was finally robbed during the late Saxon period, evident from the appearance of St Neots ware amongst the demolition materials.

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Abbreviations

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AML	Ancient Monuments Laboratory
B/T	brick or tile
CAS	Central Archaeology Service, English Heritage
CBM	Ceramic Building Material
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EH	English Heritage
HK	Carson, R A G, Hill, P V, and Kent, J P C, 1960 <i>Late Roman Bronze Coinage, AD 324-498</i> , Part I: AD 324-346, London
IFA	Institute of Field Archaeologists
NA	Northamptonshire Archaeology
NSMR	Northamptonshire Sites and Monuments Record
RIC	Mattingly, H, and Sydenham, E, (eds) <i>Roman Imperial Coinage</i> , Vols I (1923) to X (1994)

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