STREAMLINE GARAGE, KING STREET, LANCASTER

Excavation Report

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Introduction

Between 1995 and 2003, archaeological investigations were undertaken in advance of redevelopment at 77-79 Penny Street (SD 4773 6158; LUAU 1996), 81 Penny Street (SD 4773 6158; OA North 2003a) and the former Streamline Garage site on King Street (SD 4765 6135; LUAU 2000), in the centre of the historic city of Lancaster (Fig 1). The excavations at 77-79 Penny Street and Streamline Garage were carried out by the former Lancaster University Archaeological Unit (LUAU), which had become Oxford Archaeology North (OA North) by the time the 81 Penny Street site was investigated in 2003. The most significant result of this work was the discovery of a number of Romano-British burials, although limited evidence for other Romano-British occupation, and for medieval activity, was also recovered in some areas. The burials seemingly formed part of a cemetery south of, and associated with, the civil settlement that developed east of the Roman fort on Castle Hill. They are likely to have been situated adjacent to a Roman road on the line of modern Penny Street, leading south from the settlement. Two subsequent investigations in the area (Fig 1), at 99-101 Penny Street in 2003 (OA North 2003b), and on Spring Garden Street in 2006 (Schofield and Zant in prep), both undertaken by OA North, failed to find evidence for Roman funerary activity.

Circumstances of the archaeological investigations

At 77-79 Penny Street, an evaluation carried out in June 1995 (Salisbury and Coupe 1995) was followed in September-October 1996 by an excavation undertaken by LUAU (LUAU 1996). Both phases of work were carried out on behalf of Dalesmoor Homes. In January 2003, OA North excavated a rectangular area at 81 Penny Street, immediately adjacent to (and slightly overlapping) the earlier site (OA North 2003a), following demolition of a standing building. This investigation was carried out on behalf of Paul D Lawrence Associates.

The most productive phase of archaeological work in the area occurred in February 2001, when an excavation was undertaken by LUAU on behalf of Fairclough Homes at the former Streamline Garage site on King Street. This site, which was *c* 60 m south-west of 77-79 and 81 Penny Street, had also been subjected to an evaluation the previous year (LUAU 2000).

Roman Lancaster

Whilst a sparse distribution of neolithic and Bronze Age finds, including some Bronze Age burials, is known from the modern city (White 1988; Shotter and White 1990, 5), there is currently no evidence for Iron Age activity at Lancaster, although late prehistoric settlement in Lancashire as a whole has proved extremely difficult to recognise archaeologically (Haselgrove 1996, 62). That Castle Hill may have been a favoured location for prehistoric settlement seems possible, in view of its natural strength, but the strategic importance of the site, commanding the crossing of the River Lune (Shotter 2001, 3), would have made it an obvious choice for the Roman army, regardless of

whether it was already occupied. At the beginning of the Roman period, Lancaster may have lain, politically, within the territory of the Brigantes, a tribe, or possibly tribal confederation, extending over most of what is now northern England (Shotter and White 1990, 17; Shotter 2004, 2-3).

The fort

The precise date at which the Roman fort was established is unclear, although coin evidence (Shotter 2001, 7) suggests it may have been founded during the governorship of Petillius Cerialis (AD 71-4). Until quite recently, Cerialis' role in the conquest of northern Britain was overshadowed by that of Gnaeus Julius Agricola, who held the governorship of Britain a few years later (Shotter 2000). However, since the establishment of a Cerialian date for the fort at Carlisle, which was founded in the autumn/winter of AD 72-3 (Caruana 1992, 102-3), and of an apparently pre-Agricolan date for the primary fort at Ribchester (Buxton and Howard-Davis 2000, 401), it seems clear that the Brigantes were subjugated by Cerialis in the early AD 70s and not, as was conventionally thought, during Agricola's governorship. The limited numismatic evidence from Lancaster is therefore consistent in suggesting a military presence during this period, the fort forming part of an extensive network of military installations, the primary purpose of which was to hold down newly conquered territory.

After a possible short phase of abandonment towards the end of the first century AD (Shotter 2004, 44), the fort was rebuilt in stone at the beginning of the second century (Shotter and White 1990, 21-2) and was enlarged considerably, either at this time or possibly slightly earlier (*op cit*, 21). At some date in the late first-early second century, it was garrisoned by a cavalry regiment, the *ala Augusta* (*op cit*, 28-9; Jarrett 1994, 40-1). The primary fort was of sufficient size to accommodate this unit, but the larger installation appears to have been big enough to hold further troops in addition to an *ala*. Structural evidence for second- and third-century occupation is slight; however, numismatic evidence suggests that a further episode of abandonment, probably related to the Antonine reoccupation of southern Scotland in the early AD 140s (Shotter and White 1995, 22), was followed by reoccupation (albeit possibly at a reduced level) in the second half of the second century (*op cit*, 22-3). An inscription of the AD 260s recording the rebuilding of a bath-house and a *basilica* by the *ala Sebosiana* indicates that the fort was again garrisoned by cavalry at this time. The fact that the reconstructed buildings are described as having collapsed through old age suggests that the site may have been demilitarised for some time prior to the refurbishment (Jones and Shotter 1988, 208-9), unless this phraseology was an euphemism for destruction by enemy action (Shotter 2001, 11). What was probably the fort bath-house was partly exposed in the early 1970s at Mitre Yard, immediately east of the fort defences (Jones and Shotter 1988).

During the first half of the fourth century, perhaps around *c* AD 330-40, a major new fortification was constructed on the site of the earlier forts. This was enclosed by massive stone walls incorporating projecting bastions, and though details remain unclear, it was perhaps similar in type to the Saxon Shore forts of the south-east coast, and to contemporary installations at Caer Gybi (Anglesey), Caernarfon and Cardiff on the Welsh

coast (Shotter and White 1990, 26; 1995, 78-9), which were built in response to developing sea-borne threats in the later Roman period. It has been suggested that Lancaster may have been garrisoned at this time by the boatmen or bargemen (*numerus Barcariorum*) recorded on an altar found at Halton, although the style of the inscription might indicate that this unit was present during the second or third century (Shotter and White 1990, 29-30; Shotter 2001, 13). Numismatic and ceramic evidence suggests that intensive occupation of the site continued into the late fourth century or early fifth century at least (Shotter and White 1990, 27; Shotter 2001, 27).

The civil settlement

It seems likely that many of the civil settlements attached to Roman forts in Britain came into existence soon after the forts themselves were founded (Sommer 1984, 11), but in most cases this cannot yet be demonstrated archaeologically. At Carlisle, a site on the main road *c* 350 m south of the fort was occupied by timber buildings within a few years of the arrival of the Roman army (McCarthy 1990), and it is conceivable that extramural development at Lancaster was equally rapid (Shotter 2001, 19), although there is as yet little firm evidence for civilian settlement before the very late first century or early second century (Shotter and White 1990, 32, 36; Howard-Davis *et al* in prep).

Precisely where the earliest elements of the Lancaster *vicus* lay remains unclear, although it seems likely that the settlement originated as ribbon development along the road leading from the fort's east gate, the line of which is followed by modern Church Street (Shotter and White 1990, 32, 36). The limited evidence available suggests that the settlement's focus lay principally on Church Street, extending from China Street on the west (immediately outside the fort's eastern defences) eastwards to Cheapside (Shotter 2001, 16), a distance of *c* 450-500 m. To the south, settlement seems to have petered out beyond modern Market Street (Drury in prep), whilst on the north it may have extended along a road leading from the fort's north gate to the River Lune (Shotter and White 1990, 32, 37-8); the river itself probably lay much closer to Cable Street than is the case today (Shotter 2001, 16). Modern Penny Street and Cheapside may follow the line of a Roman road from the south that passed to the east of the fort, heading towards a presumed river crossing (*op cit*, 8, 20).

Archaeological evidence suggests that the settlement flourished during the second and third centuries, although the degree to which the periodic abandonment of the fort affected the adjacent settlement remains unclear (*op cit*, 19-20). What evidence there is suggests that, in common with many other *vici* in the North (Bidwell 1997, 76-7), the settlement suffered a decline during the fourth century (Shotter 2001, 20, 27; 2004, 162). The precise situation is uncertain, however, as in many areas the latest Roman levels have been destroyed by post-medieval cellars (Shotter 2001, 20, 27). On a cautionary note, in all cases where fourth-century activity within *vici* has been recorded elsewhere in Britain, the adjacent fort continued to be occupied (Bidwell 1997, 76-7). Since it is known that the late Roman installation on Castle Hill remained in use to the end of the fourth century at least, there appears to be some potential for continued occupation in the adjacent settlement; alternatively, it is conceivable that the remaining inhabitants of the *vicus* were

moved into the military enclosure itself (Shotter 2001, 27), although evidence is lacking.

Results

77-79 Penny Street

Evaluation of the 77-79 Penny Street site in 1995 (Salisbury and Coupe 1995), involving the excavation of two small trenches (Fig 2), demonstrated that the western part had been deeply cellared during the nineteenth century, resulting in the total destruction of earlier archaeological levels. To the east, however, archaeological deposits of Romano-British date had survived. The 1996 excavation comprised a roughly square area of *c* 60 m^2 situated towards the rear of the property, surrounding the easternmost evaluation trench (Fig 2). Evidence for Romano-British activity was recorded, principally towards the north-east corner of the site, although the remains were generally quite ephemeral and consequently difficult to interpret.

The principal discovery made during the evaluation comprised a disturbed cremation burial interred within a Black Burnished ware Fabric 1 jar, datable to the period *c* AD 230-300 (Pottery 1; below). The urn had been smashed in antiquity, perhaps by subsequent agricultural activity, and the broken sherds had been scattered (Salisbury and Coupe 1995); no trace of a pit or other feature into which the burial might have been placed was noted. With the exception of a fragment of a radius, thought to derive from a mature adult (*op cit*, 4), the few small pieces of calcined bone found in association with the urn were too poorly preserved to permit further identification (below).

The remains of the burial were situated towards the base of a thick (up to 1.08 m) layer of homogeneous brown silty clay that sealed the natural yellowish-brown or reddish brown stony clay and was itself directly overlain by nineteenth-century levels. The lower 0.1-0.2 m of this deposit, which is likely to have been formed by prolonged agricultural or horticultural activity, produced 17 sherds of Roman pottery, in addition to the remains of the burial urn itself. The assemblage included five calcite-gritted sherds of possible late third- to fourth-century date (below).

During the excavation, the natural subsoil was found at a depth of *c* 1.3-1.6 m below the modern surface (*c* 18.2-18.5 m OD). The earliest anthropogenic deposits comprised spreads of stony, sandy clay, 0.25-0.45 m thick. These were similar in character to the underlying subsoil, but were generally more mixed and, in some cases, yielded small quantities of Romano-British pottery and a few small fragments and flecks of burnt bone and charcoal. They were presumably formed as a result of disturbance to, or reworking of, the surface of the natural clay. Two of these deposits (*88* and *90*; not illustrated) produced a small assemblage (22 sherds) of abraded pottery, all oxidised wares that can only be broadly dated to the second-fourth century (below).

Layer *90* was cut by two large, intercutting features (*103*, *115*; Fig 3); the earlier (*115*) had been mostly destroyed, only its western edge having survived, but it may have been

sub-rectangular or oval in plan, at least 2.2 m north to south, in excess of 1 m wide, and up to 0.3 m deep. It was filled with a very mixed, orange-brown silty clay (*104*) containing sparse charcoal fragments and flecks and small, calcined bone fragments. This deposit produced ten sherds of pottery, including seven calcite-gritted sherds of probable late third- to fourth century date (below). Traces of a possible discrete cut (*116*) were noted at the base of the feature. This comprised a small, very shallow depression, containing a concentration of poorly preserved bone fragments (*112*), most of which disintegrated upon excavation and could not be recovered. It was not clear if *116* formed part of *115* or represented the remains of an earlier feature, possibly a small cremation burial, that had been truncated by it. The feature that had been dug through *115* (*103*) was an elongated oval, 2.3 m north to south by 1.4 m and 0.5 m deep. The primary fill of very mixed, dark yellow-brown silty clay (*107*) contained (*c* 5-10%) small fragments of charcoal and burnt bone, together with three sherds of pottery, whilst the upper fill, a dark yellow-brown sandy clay (*102*), yielded 22 sherds and further fragments of calcined bone. The pottery from deposit *107* was all in a calcite-gritted fabric of probable late third- to fourth century date, and included a rim datable to *c* AD 300-70 (below). Eleven calcite-gritted sherds also came from fill *102*, together with a small fragment from a third-century Nene Valley colour-coated beaker.

The significance of features *103* and *115* remains unclear; whilst it is conceivable that both were the remains of Roman inhumation burials, this could not be proven, since unburnt bone did not survive in the prevailing soil conditions (except for a few fragments in late post-medieval levels) and no trace of grave goods was found, the potsherds recovered from the fills seemingly representing redeposited material incorporated into the backfilling.

Features *103* and *115*, together with the early spreads of soil elsewhere on the site, were overlain by a further build-up of highly mixed, yellow-brown or orange-brown sandy or silty clays, 0.1-0.3 m thick (*72, 73, 79, 80, 87, 89, 100*; not illustrated). Layers *87*, *89* and *100* contained sparse charcoal flecking and a few small fragments and flecks of charcoal and burnt bone. In total, 49 sherds of Romano-British pottery were recovered from these levels; most are undiagnostic oxidised wares of second- to fourth-century date, but five late third- to fourth-century calcite-gritted sherds came from layer *100*, and a single sherd in the same fabric was recovered from deposit *87* (below).

Deposits *80* and *87* were cut by two small pits (*78*, *98*), possibly the remains of disturbed cremation burials (Fig 3). Feature *78* was oval, 0.5 x 0.39 m and 0.2 m deep, with sloping sides and a flattish base. It was filled with dark grey/black silty soil (*71*) containing charcoal (below) and some fragments of calcined bone, together with five sherds of undiagnostic Roman oxidised ware and grey ware. The eastern half of feature *98* lay outside the excavated area, but it measured 0.44 m by at least 0.26 m and was 0.22 m deep, with steeply sloping sides and a flat base. It was filled with a very mixed yellow-brown sandy clay (*94*), containing some charcoal and a few small fragments of burnt bone. In both burials, the bone was too poorly preserved for the age and sex of the cremated individuals to be established (below). Both of these features, together with all other Romano-British remains on the site, were overlain by post-medieval soils up to 0.5

m thick, which were in turn overlain by the remains of structures and surfaces of nineteenth-century and later date.

81 Penny Street

The investigated area at 81 Penny Street, excavated in 2003 following demolition of a building that had formerly occupied the site, straddled the line of the former boundary between the property and 77-79 immediately to the north, with the result that the two excavation areas actually overlapped slightly (Fig 3). A sub-rectangular area of *c* 45 m^2 was excavated to a maximum depth of 0.8 m below the modern surface.

In the centre of the northern part of the site, the natural clay was cut by what was probably a small oval pit (*152*; Fig 3), 1.2 m east to west, at least 0.6 m north to south (it extended beyond the limit of excavation to the north), and 0.2 m deep, with rounded sides and a slightly rounded base. The silty clay fill (*151*; Pl 1) contained a concentration of small cobbles that appeared to have been deliberately packed over a thin deposit of black, charcoal-rich humic material. No fragments of calcined bone were observed as the deposit was excavated, but subsequent analysis of a sample of the material recovered three small fragments of burnt bone. Two of these were certainly or probably human (below), whilst the other was a fragment of bird bone (below). The charcoal was mostly oak, and a few charred weed seeds were also recovered (below). The feature is not closely dated, since it contained only a single iron hobnail and a sherd of undiagnostic Roman grey ware, but it may have been the truncated remains of an un-urned Romano-British cremation burial. At the base of the pit was a stakehole (*163*), 0.1 m in diameter and 0.12 m deep (Pl 2). This did not cut through the fill of feature *152*, and had therefore either been removed before the pit was filled, or was the remains of an earlier feature that had been truncated by *152*.

No further evidence for Romano-British activity was recorded on the site; the putative cremation was directly sealed by modern demolition debris, and there was clear evidence that the entire site had suffered severe truncation in the late post-medieval period.

Streamline Garage, King Street

The Streamline Garage excavation, undertaken in 2001 following an evaluation the previous year, represented by far the largest archaeological investigation conducted in the Penny Street/King Street area. The development site as a whole comprised a roughly triangular plot of *c* 4336 m^2 (Fig 4), but evaluation demonstrated that the greater part of this area contained nothing of archaeological significance (LUAU 2000). Important remains were, however, located towards the northern end of the site, and it was there that an open area of *c* 600 m^2 was subjected to controlled excavation (Fig 4). The natural ground surface within the development area sloped gradually from south to north, from *c* 23 m OD to *c* 19 m OD, reflecting the general topography of this part of the city. Prior to the commencement of the excavation, the site had been largely occupied by the former Streamline Garage, which was cleared in 2000. The area examined by the watching brief

(*c* 130 m^2) lay *c* 25 m south of the main area of excavation, adjacent to Henry Street (Fig 4).

The natural subsoil, a yellow-brown silt overlying compacted, pinkish sandy clay, with occasional bands of gravel, was cut by numerous features of certain or probable Romano-British date (Phase 1). These included the remains of a rectilinear ditched enclosure (Phase 1a), and a number of certain and possible burials (Phase 1b), comprising both cremations and putative inhumations. Medieval activity was indicated by a single ditch or gully (Phase 2), possibly a field boundary.

The survival of archaeological remains was somewhat localised, with most of the surviving evidence being confined to the southern part of the excavated area, and largely consisting of truncated negative features cut into the underlying natural geology. It seems likely that this pattern of survival was the result of extensive erosion or truncation of deposits towards the northern end of the site, perhaps caused by post-Roman agricultural activity.

Phase 1a: the Romano-British ditched enclosure (early second century AD?)

The earliest activity on the site was represented principally by a rectilinear enclosure (*131*; Fig 5), defined on the south, east and west by a ditch (*144=165=168=171*) up to 1.65 m wide at the lip and 0.4-0.6 m deep. The profile of this feature was quite variable, but it was mostly roughly V-shaped, with a flattish base (Pl 3). The north side of the enclosure was not certainly located, although the poorly preserved remains of a probable linear feature (*169*), up to 1.1 m wide and 0.65 m deep, were noted, cutting the north end of the western arm (*168*) of the ditch. It is possible that this may have been a later recutting of the north ditch, and that it had removed all trace of the primary feature. However, *169* was quite different in character to the earlier ditch, being more trench-like in appearance, with vertical or near-vertical sides and a flat base. It was filled with mid-orange-brown sandy clay-silt (*170*).

If feature *169* did indeed represent a recut of the north ditch on the same line, enclosure *131* would have measured 14.1 m north-west to south-east and 11.7 m north-east to south-west, externally. For most of its excavated length, the perimeter ditch was filled with compacted brown or reddish-brown sandy clay-silt containing varying quantities of small, medium and large cobbles and a few charcoal flecks (*145*, *166*, *167, 172*). However, at one point, slightly east of the central axis on the south side of the enclosure, a deposit of large, water-worn cobbles (*163*; Fig 5; Pl 3; Pl 4), overlain by a compacted layer of redeposited natural subsoil, had been laid within the ditch. This was at least 1.4 m wide (its full width could not be determined, as the section of ditch immediately to the west had been destroyed) and filled the lower 0.3 m of the ditch cut, which at this point was 0.45 m deep. Its precise significance is unclear, but it might have been the remains of a causeway marking the position of an entrance inserted into the perimeter ditch, or a foundation for some other feature of unknown character and function. It was ultimately sealed by a layer of brown clay silt (*143*) that filled the top of the ditch cut; this was broadly equated with the soil that filled the rest of the enclosure ditch.

Nothing similar to *163* was found elsewhere within the ditch. However, at the southern end of the eastern arm, at the south-east corner of the enclosure, two rows of stakeholes (*161*) were noted. These were set towards the base of the ditch, parallel with its long axis, and were *c* 0.55 m apart, on either side of the cut, towards its base. The individual stakeholes were circular in plan, 50 mm in diameter and 0.1 m deep, and were filled with the same material as the ditch in this area. Their function is unclear, although, as they were not recorded elsewhere on the perimeter, a defensive purpose seems unlikely.

No trace of contemporary features or deposits was found inside enclosure *131*, despite the fact that almost the entire internal area was available for investigation, and its function therefore remains unclear. Fill *143* in the south arm of the perimeter ditch produced 15 abraded sherds of Romano-British pottery (no finds came from elsewhere in the ditch, or from feature *169*, the possible recut of the northern arm), together with six iron nails. Most of the ceramic assemblage is undiagnostic, but a few sherds of Black Burnished ware Fabric 1 were present, suggesting a Hadrianic or later date for its filling (below).

Phase 1b: the Romano-British cemetery (c mid-second century to third century AD)

Twelve certain or possible Romano-British cremations were recorded during the excavation. Some had been cut into the silted-up perimeter ditch of the Phase 1a enclosure, others were dug directly into the natural subsoil south of the enclosure's south-east corner; two were situated well to the south, within the area of watching brief. Additionally, six larger rectangular and sub-rectangular features were recorded. Like the cremations, some of these cut the Phase 1a enclosure ditch, whilst others lay to the south; one was situated in the area of watching brief in the southern part of the site. Very little direct evidence survived to shed light on the significance of these features, most of which had been truncated by post-Roman activity, but in view of the fact that this was clearly, on the evidence of the cremation burials, the site of a Romano-British cemetery during the second century AD (and perhaps into the third century and beyond), the most likely hypothesis is that some of these features at least represent the remains of inhumation burials. Whilst calcined bone survived reasonably well on this site, the local soil conditions were not conducive to the survival of unburnt bone, except that deriving from late post-medieval contexts, which had been in the ground for only a comparatively short period. For this reason, skeletal remains did not survive in any of the features tentatively interpreted as inhumation burials, which were identified largely on the basis of the morphology of the putative grave cuts.

For the most part, it did not prove possible to establish any kind of chronological sequence to the pattern of burial. In only one case, where two cremations were cut by a putative inhumation, could a direct stratigraphic relationship be demonstrated, and even there the precise character of the possible inhumation is open to question, since there is a possibility that it was in fact a cremation interred in an unusually large burial pit (*154*). Pottery associated with the cremation burials indicates that this burial rite was practised on the site from around the mid-second century AD to the late second-third century. Virtually no dating evidence was recovered from the putative inhumations, although one (*132*) produced part of a grey ware jar datable to *c* AD 250-340, which represents the

latest Romano-British pottery recovered from the site (below).

The cremation burials

At the south-east corner of enclosure *131*, the silted-up southern ditch and the south end of the eastern arm were cut by seven certain or possible cremations, four (*103*, *104, 156, 162*) in the eastern ditch and three more (*105*, *113*, *150*) in the southern ditch (Fig 6). One probable cremation (*112*) and another feature that might possibly have been the remains of a burial (*120*) were recorded immediately south of the enclosure's south-east corner. An isolated cremation was also excavated during the evaluation phase of the project, within what became the southern part of the main excavated area; this was also located south of the Phase 1a enclosure (*E112*). Another two cremations were found during the watching brief at the end of the project (*WB3*, *WB9*). All the features outside the enclosure had been dug directly through the natural subsoil. The spatial positioning of the graves cutting the enclosure ditch suggested that this feature was still visible, perhaps as little more than a linear hollow or depression, when the burials were deposited. Three of the twelve cremations had certainly been interred in ceramic urns set upright in the burial pits, and a further four were probably urned, although the remains of the vessels were too fragmentary for this to be certainly established; five burials appear to have been un-urned.

Cremation burial *103*, perhaps the best preserved of the graves in the Phase 1a enclosure ditch, was situated at the western edge of the eastern arm of the enclosure, close to its south-eastern corner (Fig 6). It comprised a steep-sided, sub-circular cut, *c* 0.5 m in diameter and 0.24 m deep (Pl 5), containing an upright, near-complete Wilderspool rough-cast beaker, of probable mid-late second-century date (Pottery 9; below), and the fragmentary remains of two mid-second century Black Burnished ware Fabric 1 jars (Pottery 2 and 3; below). Intense burning on the Black Burnished ware sherds suggested that these vessels may have been placed on the funeral pyre and a few fragments collected afterwards for burial. Slight traces of an unidentified carbonised deposit on the internal surface of the individual sherds further suggested that the jars may have contained food or some other form of offering. The beaker, which held the principal deposit of cremated bone, charcoal and other pyre material, showed no evidence of burning. It contained the remains of a possible female aged *c* 20-35 years (below), together with a group of 93 iron hobnails. These presumably derived either from shoes worn by the deceased, or a pair that had been placed on the pyre, since the beaker is too small to have held a pair of unburnt shoes. The fill of the grave-pit (*109*) also contained considerable amounts of charcoal and burnt bone, suggesting that additional pyre material was placed in the grave after deposition of the urn.

Less than 0.3 m north-east of *103*, towards the centre of the earlier ditch (Fig 6), was a grave (*156*) comprising a small, vertical-sided, sub-rectangular pit, 0.45 x 0.2 m and 0.3 m deep. The fill of the pit (*157*), a dark grey-brown sandy clay, contained small amounts of charcoal and some burnt bone, probably derived from two individuals, a sub-adult of *c* 16-18 years, and a possible immature individual, the latter represented only by a few skull fragments (below). A few sherds of pottery from two different vessels were recovered, including Black Burnished ware Fabric 1 dating to the Hadrianic period or later. It is not

clear if these represented the remains of a burial urn and/or grave goods, although this seems likely.

Immediately south of grave *103*, and also within the eastern arm of the enclosure ditch (Fig 6), was burial *104* (Pl 6), which comprised a small, steep-sided cut, *c* 0.3 x 0.2 m and 0.2 m deep. This had contained an upright grey ware jar of probable second-century date, most of which had been truncated or smashed. What remained of the vessel, together with the rest of the grave cut itself, were filled with a deposit of charcoal-rich material (*107*) containing fragments of cremated bone deriving from a possible female over 18 years of age; no other grave goods were present.

Some 0.5 m south of *104*, in the extreme south-east corner of the enclosure ditch, was an un-urned cremation (*162*), comprising a comparatively large oval cut, 0.85 x 0.6 m and 0.2 m deep. The fills of the pit (*160* overlain by *124*) contained much charcoal; interestingly, that from the upper fill (*124*) was predominantly oak (*Quercus*), whilst that from the primary fill (*160*) was mainly diffuse porous taxa, principally alder (below). Fill *160*, which yielded almost 90% of the bone assemblage from this burial, contained the remains of an adult, possibly a female, *c* 18-25 years old (probably less than 23 years of age), together with what was probably a young infant, whilst the bone from deposit *124* derived from an adult or sub-adult, *c* 16-20 years of age (below). It is not known if the remains from fill *124* and those of the adult ?female in *160* derived from the same body, although in view of the differences in the charcoal content of these deposits, it is conceivable that two individuals are represented. The presence of a roughly circular, vertical-sided and flat-bottomed void (*125*), 0.3 m in diameter and 0.15 m deep, within fill *160* suggested that the grave might have held an organic container, perhaps a round wooden box. A collection of 51 iron nails was recovered from the grave fill, although these are unlikely to have derived from such a small box, and it may be that they came from other objects placed on the pyre, or even from the pyre structure itself. A possible fragment of burnt animal bone found mixed with the cremated human remains might represent an offering of food deposited on the pyre.

In the southern arm of the Phase 1a enclosure ditch (Fig 6), burial *105* (Pl 7) comprised a sub-circular, steep-sided pit, 0.3 m in diameter and 0.25 m deep, containing a truncated Black Burnished ware Fabric 1 jar of late second- to late third-century date (Pottery 4; below). Evidence of intense burning on the vessel suggested that it may have been placed on the pyre and reused in the subsequent burial, although this is not certain; no other grave goods were noted. Both the vessel and the grave pit were filled with the same charcoal-rich material (*111*), which contained a very small amount of burnt bone from an unsexed adult over 18 years of age, together with two iron nails. The paucity of bone from this feature suggests that it may have served as a 'cenotaph' or memorial rather than a formal burial (below).

Immediately adjacent to the north-western edge of *105* was a very similar feature (*113*), comprising a roughly circular pit, *c* 0.25 m in diameter and 0.2 m deep. This had been very heavily disturbed, but was filled with dark brown silty clay (*115*), containing some charcoal and a very small amount of cremated bone, together with two fragments from a

Black Burnished ware Fabric 1 jar of mid-second- to mid-third-century date (Pottery 5; below). The bone derived from an unsexed adult at least 18 years of age. As with the adjacent feature (*105*), the absence of all but a few fragments of bone in this deposit suggests that this may have been a 'cenotaph' rather than a proper burial (below).

It was not clear if *113* intercut *105* (and, if so, which of the two features was the earlier), or if the two were in fact part of a single grave. The third feature identified as a possible cremation burial in the southern enclosure ditch (*150*) was located approximately 1.8 m west of these. This comprised a steep-sided, oval pit, *c* 0.5 x 0.45 m and 0.25 m deep, filled with a mid-brown sandy silt containing many charcoal flecks and mottles (*146*). However, as little or no burnt bone was present in the fill, the identification of this feature as a burial must remain uncertain; it produced no pottery or other artefactual material.

Of the two features located outside the south-east corner of the enclosure, only one (*112*) could be certainly identified as a cremation. This comprised a shallow, sub-square cut, *c* 1 x 0.8 m and 50-100 mm deep (Fig 6), filled with a mixed, charcoal-rich silty clay (*123=130*) containing numerous fragments of burnt bone, the remains of an adult over 18 years of age (below), together with two iron nails. Fragments from a Black Burnished ware Fabric 1 jar, datable to *c* AD 120-60, were recovered from this feature (Pottery 6; below); whilst these sherds probably represented the remains of a burial urn, this is not absolutely certain. The second feature in this area (*120*) could not be confidently interpreted as a burial, for its grey-brown sandy loam fill (*121*) contained some charcoal but no burnt bone, and at least half of the feature lay outside the excavated area. It comprised a small, possibly circular cut, 0.25 m deep, with a U-shaped profile, and may in fact have been a posthole rather than a cremation pit.

The single burial recorded during the evaluation phase of the project comprised a sub-circular pit (*E112*), *c* 0.5 m in diameter and 0.17 m deep (Fig 6; Pl 8). The primary fill of dark grey-brown clay loam (*E111*) contained numerous small fragments and flecks of oak charcoal and numerous small fragments of burnt bone, which were concentrated particularly towards the base of the pit. The secondary fill (*E116*) was similar, but appeared to have been disturbed and contained less charcoal and bone. The cremated remains were those of a probable adult of indeterminate sex (below), though some fragments of animal bone were also present (below). It was cut by a large stakehole (*E118*), 0.13 m in diameter and 0.25 m deep. This feature was not certainly associated with the burial, but it is conceivable that it represented the remains of a wooden grave marker. With the exception of two corroded nails and a very small fragment of a Black Burnished ware Fabric 1 vessel of Hadrianic or later date, all of which came from deposit *E111*, no artefacts were recovered from this burial, which appears to have been un-urned.

The two cremations discovered during the watching brief (*WB3*, *WB9*; Fig 7) were located *c* 30 m south of the enclosure. Burial *WB3* (Pl 9) comprised a sub-square pit, 0.9 x 0.8 m and 0.11 m deep, the base of which was filled with a deposit (*WB2*) composed largely of a concentrated mass of calcined bone fragments, mixed with some charcoal. The bones proved to be those of an adult, possibly a female, *c* 20-40 years of age (below). The upper fill (*WB1*) of dark grey/black sandy silt contained small amounts of charcoal

and calcined bone. A number of nails (six in total) recovered from both fills might have derived either from items placed on the funeral pyre or from the pyre structure itself, whilst a burnt fragment of animal bone (of immature pig/sheep size) mixed with the cremated human remains may represent food placed on the pyre. The second burial (*WB9*) comprised a rectangular pit, 0.45 m in diameter and 0.19 m deep. The single fill (*WB8*) contained small amounts of charcoal and calcined bone, 11 iron nails, and four fragments from a Black Burnished ware Fabric 1 jar, probably of second-century date, that may have been the remains of a truncated and badly disturbed burial urn.

The possible inhumation burials

In total, six possible inhumation burials were recorded; two (*142*, *147*) were located in the eastern arm of the Phase 1a enclosure ditch, and two (*152*, *154*) were placed in the southern ditch, in all cases close to the enclosure's south-east corner (Fig 8). One (*132*) was also recorded in the area immediately south of the enclosure, whilst another (*WB5*, Fig 7) was found further south still during the watching brief.

North of cremation burials *103*, *104*, *156* and *162*, the eastern arm of the Phase 1a enclosure ditch was cut by a large, sub-rectangular feature, aligned north-east to south-west (*142*), that seemed to have been deliberately located within what remained of the earlier ditch (Fig 8). This feature had steeply sloping sides and a flat base, measuring at least 1.5 m in length, up to 0.66 m wide and 0.3 m deep. It was filled with a mid-dark brown sandy clay silt (*141*) that did not yield any finds. In common with several of the other putative inhumation burials found on the site, it is not entirely clear whether this feature was a grave or not, as it produced no evidence of a coffin, shroud, grave goods or other funerary material.

Also cutting the eastern arm of the Phase 1a enclosure ditch was feature *147* (Fig 8; Pl 10). This was located in the eastern arm of the enclosure ditch, between possible inhumation burial *142* to the north and cremations *103*, *104*. *156* and *162* to the south, and comprised a north to south-aligned rectangular cut, *c* 3.7 m long, 1.1 m wide, and up to 0.89 m deep, with vertical sides, a flat base, and an apparent step at its southern end. It was filled with a fairly clean, mid-dark brown sandy clay-silt (*148*) that produced 34 iron hobnails and 84 sherds of pottery, by far the largest collection of pottery from any Romano-British feature on the site. The assemblage includes 40 sherds from a small, near-complete Widerspool flagon, datable to the late first-second century, or perhaps later, a fragment of a North Gaulish colour-coated indented beaker (Pottery 11; below), of late first-early second-century date, and part of a cornice-rim beaker of *c* AD 80-130 (Pottery 12; below). This material is amongst the earliest pottery recovered from the site, but a Hadrianic or later date for the filling of feature *147* is indicated by the presence of a Black Burnished ware Fabric 1 jar (Pottery 8; below). The purpose of this feature is not certainly known; superficially it had the appearance of a particularly well-preserved, if rather long, grave cut, and this remains a likely interpretation, particularly in view of the concentration of hobnails and the near-complete flagon within its fill. It was not, however, interpreted as such during the course of the excavation, when it was thought to represent a partial recutting of the eastern arm of the Phase 1a enclosure ditch.

In the southern arm of the enclosure ditch, cremations/ 'cenotaphs' *105* and *113* were cut by an east to west-aligned rectangular feature (*154*), *c* 1.4 x 0.6 m and 0.53 m deep. This was filled with mixed, dark brown silty clay (*155*) containing small amounts of cremated bone and charcoal, two iron nails, and a number of sherds of pottery, including part of a late second-century Black Burnished ware Fabric 1 jar (Pottery 7; below). Although the burnt material was thought likely to have derived from the earlier cremations, the identifiable bone was that of an adult or sub-adult over 13 years of age (below), whereas the very small amounts of bone associated with cremations *105* and *113* represented the remains of adults (or possibly only one adult?) over 18 years of age (see above). It is therefore unclear whether feature *154* was itself a cremation, albeit placed in a very large pit, or whether the calcined bone found within it derived from *105* or *113*, or even from another burial that had been completely destroyed when *154* was dug. It is also unclear whether the pottery in fill *155* was associated with this putative burial, perhaps the remains of a vessel deposited as grave goods (or even an urn, if *154* was in fact a cremation), or was residual as found. No evidence for a coffin, shroud, or other grave furniture was noted. Immediately east of *154* was another sub-rectangular feature of similar size (*152*), in this case orientated north to south, *c* 1.6 x 0.7 m and 0.45 m deep. The northern end of this feature cut the southern arm of the Phase 1a enclosure ditch. Its fill (*153*) produced nine iron nails, several abraded sherds of Black Burnished ware Fabric 1, and a small amount of burnt bone, representing an adult over 18 years of age (below), although this material was probably residual.

South of enclosure *131*, two possible inhumation burials were recorded, one (*132*) during the main excavation phase and another (*WB5*) during the watching brief. Feature *132* (Pl 11) comprised a roughly north to south-aligned, sub-rectangular cut, 1.2 x 0.7 m, and 0.22 m deep. The principal fill (*133*), a mixed orange-brown sandy clay, contained three iron nails. Around the south-eastern edge of the cut was a slightly different deposit (*137*) that appeared to represent backfill between the edge of the grave cut and something, perhaps a coffin, that had once occupied the space subsequently filled by *133*. Deposit *137* yielded fragments of a small grey ware jar datable to *c* AD 250-340 (Pottery 10; below), which represents the latest Romano-British ceramic material recovered from the site. Feature *WB5* was located *c* 27 m south of *132*, and was rectangular in plan, *c* 2 m north to south, 0.82 m wide and 0.11 m deep (Fig 7; Pl 12). It was filled with mid-grey silty clay (*WB4*), containing sub-rounded sandstone fragments, seven iron nails, and small amounts of charcoal.

Phase 2: medieval and later activity

With the exception of three residual sherds of medieval pottery recovered during the evaluation, the only evidence for medieval activity on the site was provided by an east to west-aligned gully or narrow ditch (*119/135*) that extended into the south-east corner of the excavated area from the east for 9 m before terminating in a rounded butt end (Fig 9). This feature, which directly cut the natural subsoil and had no stratigraphic link with any of the earlier features on the site, was 0.6-0.9 m wide and 0.25 m deep, with steeply sloping sides and a flat base, although it had doubtless been truncated by later activity. It was filled with mid-dark orange-brown or yellow-brown sandy clay (*118*, *134, 136*),

which yielded a range of residual Romano-British pottery, in addition to six sherds of medieval or early post-medieval date, the latest probably datable to the fifteenth-seventeenth century (see below).

Feature *119/135*, together with all the Romano-British features recorded on the site, was sealed by a homogeneous layer of pale/mid-orange-brown clay-silt (*102*, not illustrated), up to 0.35 m thick, that covered the southern part of the excavated area, except where it had been removed by later features; to the north it had been removed by late post-medieval truncation. With the exception of residual Roman pottery, this deposit produced no datable artefactual material, but it may represent an agricultural or horticultural soil of medieval origin that continued to accumulate for much of the post-medieval period. It was directly cut by late post-medieval features of nineteenth- and twentieth-century date.

The Roman pottery, *by Christine Howard-Davis*

Roman pottery was recovered from the 1995 evaluation and 1996 excavation at 77-79 Penny Street, and from the various phases of archaeological investigation undertaken at the Streamline Garage site in 2000-1. Only a single sherd of undiagnostic Roman grey ware was found at 81 Penny Street, in fill *151* of possible cremation *152* (see above).

The pottery from 77-79 Penny Street

The assemblage from the 1995 evaluation (Salisbury and Coupe 1995) comprises one near-complete vessel, which had been utilised as a cremation urn, and a few other sherds that are assumed to have come from the fill of the cremation pit. The subsequent excavations yielded 142 sherds from 19 contexts. Many are severely abraded, often less than 10 mm in length, and several show signs of secondary burning, although the cause of this is not clear.

The burial urn (Pottery 1; Fig 10; Pl 13) had been smashed at some stage, and the sherds scattered (it was reconstructed from 35 separate fragments), but it appears to have been the primary funerary vessel containing the principal deposit of cremated material. It is a Black Burnished ware Fabric 1 jar, probably Gillam form 145 (Gillam 1970), with a narrow band of obtuse, burnished lattice decoration on the upper part of the body, and can be dated to *c* AD 230-300. There is considerable abrasion at the maximum girth of the jar and some evidence for secondary burning. Whilst it is possible that the burning resulted from the vessel being placed on the funeral pyre, this seems unlikely in view of the fact that it was clearly intact at the time of burial. More probably, both the burning and the abrasion may indicate that the vessel had been used for other purposes before being selected as a burial urn.

The small number of other Romano-British sherds present in the evaluation archive include five fragments in a very hard, pale grey calcite-gritted fabric with burnished decoration, similar to the late third- to fourth-century material that was recovered in some quantity from the subsequent excavation (see below), and a single, very abraded late first-early second-century jar rim in a fine, sandy grey fabric. The latter, at least, seems likely

to be residual.

Of the 19 contexts from the 1996 excavations which produced Romano-British pottery (Table 1), only five yielded ten or more fragments. Layer *100* and fill *102* (of cut 1030 produced 26 and 22 sherds respectively, although in the case of layer *100* it is likely that most, if not all, of the oxidised orange ware fragments are from a single vessel. There were very few sherds diagnostic of form or date, and only two rims were represented. It seems likely, however, that forms were dominated by jars and flagons.

Context No	Samian	BB1	Calcite-gritted	Oxidised white	Colour-coated	Oxidised orange	Grey ware	Total
*12**	1		2	3		2	1	**9**
*64**						1		**1**
*66**		2	4			2		**8**
71				3			2	**5**
72			3			3	1	**7**
73	1	1		1				**3**
79						11		**11**
80		1						**1**
82			1					**1**
86						3		**3**
87		1	1			4		**6**
88				7				**7**
89						2		**2**
90				14		1		**15**
100	2		5			16	3	**26**
101						1		**1**
102	1	1	11	4	1	2	2	**22**
104	1		7			2		**10**
107			3					**3**
unstratified						1		**1**
Total	**6**	**6**	**37**	**32**	**1**	**51**	**9**	**142**

*Note: BB1=Black Burnished ware Fabric 1; *= post-Roman deposit*

Table 1: Summary of Roman pottery from 77-79 Penny Street

The assemblage can only be dated in general terms, but the quantity of calcite-gritted fabrics seems to suggest a late third- to fourth-century date for many contexts. A tiny fragment of a Nene Valley colour-coated indented beaker with scale decoration from fill *102* points to a third-century date (Tyers 1999, 173), although calcite-gritted fabrics in the same context are probably later. One of the two rims, recovered from fill *107* (also of cut *103*), derives from a calcite-gritted jar, probably Gillam type 161 (Gillam 1970), datable to *c* AD 300-70. The other, a heavily abraded beaded rim from layer *72*, cannot be dated with precision, but seems most likely to be of second-century date. However, the presence of calcite-gritted fabrics in the same context would suggest that it was probably residual.

The six fragments of samian ware are in extremely poor condition, the surface finish either being badly damaged or absent. Only one fragment, from a decorated Central Gaulish Dr 37 bowl, can be attributed to a production centre (Lezoux), and even this sherd was so heavily abraded that it was not attributable to a specific potter. However, the flowing freestyle decoration is suggestive of a later second-century date (Webster 1996, 48). The fragment also shows clear signs of repair, in the form of two rivet holes, suggesting that it may have been in circulation for some time prior to deposition.

The pottery from Streamline Garage, King Street

In total, 491 fragments of Roman pottery were recovered from the Streamline Garage site, representing approximately 21 vessels, several of which had originally been deposited in their complete form, as burial urns for cremated human remains. The range of fabrics and vessel types present is not extensive, with only nine fabrics recognised, including a small amphora sherd. The majority of the vessels are jars, although some flagons and beakers are also present.

Fabric Series

Fabric 1: samian; Central Gaulish, probably Lezoux.

Fabric 2: rusticated ware; fine, slightly sandy, mid-grey fabric, *c* AD 80-130 (Swan 1975, 12).

Fabric 3: Black Burnished ware Fabric 1. Appears on northern sites with military links after *c* AD 120 (Williams 1977; Tomber and Dore 1998, 127).

Fabric 4: oxidised ware; sandy, orange fabric with a darker red slip. Possibly a Wilderspool product (Hartley 1981). A single large flagon is represented.

Fabric 5: oxidised ware; sandy, white fabric. A single large flagon is represented.

Fabric 6: Wilderspool products; sandy oxidised, pinkish-orange fabrics. Forms include a rough-cast beaker and a white-slipped flagon (Hartley and Webster 1973; Tomber and Dore 1998, 122).

Fabric 7: grey wares; sandy, relatively hard-fired, mid-grey fabric. Probably locally made, from a range of sources.

Fabric 8: colour-coated ware; grey fabric with pinkish surfaces and patchy brownish colour-coat. Possibly Anderson's North Gaulish fabric 2 (Anderson 1980).

Fabric 9: amphora.

Discussion

Two fragments of samian ware (Fabric 1) were recovered, a badly degraded body

fragment from a Dr 37 bowl from the fill (*WB4*) of cremation *WB3* (Phase 1b), and a plain rim from a late post-medieval context recorded during the evaluation. Both are probably from the Lezoux production centre in Central Gaul, and can be dated to the mid-late second century AD.

Rusticated ware (Fabric 2) was represented only by two small sherds, one from the fill (*WB4*) of cremation burial *WB3* (Phase 1b), the other from late medieval/post-medieval soil layer *102* (Phase 2). Both sherds were residual, but could conceivably have been associated with the use of the Phase 1a enclosure (*131*), the perimeter ditch for which was silting up during the second century AD.

The bulk of the Romano-British pottery assemblage (215 sherds) comprises Black Burnished ware Fabric 1 (Fabric 3); all the identifiable sherds derived from jars. This fabric was present in fill *143* of the perimeter ditch of the Phase 1a enclosure (*131*), and Black Burnished ware jars had been deposited as certain or possible burial urns and/or grave goods in several of the Phase 1b cremations (Pottery 2, 3, 4, 5, 6; Fig 10). The fabric was also recovered from the fills of putative inhumation burials *152*, *154* (Pottery 7; Fig 10) and *147* (Pottery 8; Fig 10). Many fragments appeared to have been burnt, and were consequently extremely friable and easily abraded. Whilst it is possible that such burning reflects the reuse of old cooking vessels as urns and for other funerary purposes (the vessel from burial *WB9*, for example, has soot on its outer surface but is otherwise not extensively burnt), in many cases the sherds appear to have been subjected to very intense heat, resulting in widespread oxidisation of the surfaces. In these cases, the vessels may well have been placed on the funeral pyre and collected later for incorporation in the burial deposit. Although most of the Black Burnished ware Fabric 1 from the site appears to be of mid-late second-century date, forms that could extend into the third century (Pottery 4 and 5; Fig 10) are also present (Gillam 1970, figs 1 and 2).

Only a single large flagon was noted in Fabric 4, from the fill (*148*) of possible inhumation *147* (Phase 1b). This has not been further identified, but seems closely related to the vessels in 'Raetian' red-slipped fabric produced at Wilderspool (Hartley 1981). Likewise, only a single large flagon was noted in Fabric 5, residual in post-Roman ploughsoil *102* (Phase 2). This seems likely to be second century in date.

Wilderspool products (Fabric 6) are represented by a large rough-cast beaker, utilised as an urn in Phase 1b cremation burial *103* (Pottery 9; Fig 10), and a small flagon (Hartley and Webster 1973, fig 2.3) from putative inhumation *147*. Wilderspool products are generally dated to the late first-second century AD, but evidence from excavations at Walton-le-Dale (Evans in prep) seems to point towards production of Wilderspool-type wares continuing there into the third century.

Surprisingly little grey ware (Fabric 7) was present on the site, the 45 fragments recovered probably representing only two vessels. It is likely that these were locally made, as was much of the grey ware from sites elsewhere in the Lancaster settlement (Hird and Howard-Davis in prep). Although fragmentary and truncated, the vessel utilised as an urn in cremation burial *104* was unburnt, and had clearly originally stood upright.

The vessel from putative inhumation burial *132* was amongst the latest from the site, dated to *c* AD 250-340 (Pottery 10; Fig 10).

Colour-coated ware (Fabric 8) was represented by only four fragments, all from fill *148* of possible inhumation *147* (Phase 1b). These probably represent two vessels, a late first to early second-century indented beaker (Pottery 11; Fig 10), probably of North Gaulish origin and possibly Anderson's North Gaulish fabric 2 (1980, 34), and a cornice-rim beaker (Pottery 12; Fig 10), possibly Gillam type 72 (Gillam 1970), datable to *c* AD 80-130. A small fragment of amphora (Fabric 9) was recovered from cremation burial *WB3*. In view of its size, it seems unlikely that this was deliberately deposited within the grave, although it might possibly have derived from feasting associated with the funeral ceremony. Alternatively, like the two small fragments of pre-Hadrianic rusticated ware (Fabric 2), it might have been associated with occupation prior to the establishment of the cemetery in this area.

Catalogue of illustrated vessels

With the exception of Pottery 1, the burial urn discovered during the evaluation at 77-79 Penny Street (see above), all the illustrated vessels are from the Roman cemetery phase (Phase 1b) on the Streamline Garage site.

Catalogue No	Context/IRF Nos	Description	Feature
1	-	Fabric 3: Black Burnished ware Fabric 1 jar, probably Gillam form 145 (Gillam 1970). *c* AD 230-300 (Fig 10/1)	None recorded
2	*109*/1005	Fabric 3; Black Burnished ware Fabric 1 jar. Mid-second century AD (Fig 10/2)	Cremation *103*
3	*109*/1005	Fabric 3; Black Burnished ware Fabric 1 jar. Mid-second century AD (Fig 10/3)	Cremation *103*
4	*111*/1010	Fabric 3; Black Burnished ware Fabric 1 jar. *c* AD 180-280 (Fig 10/4)	Cremation *105*
5	*115*/1045	Fabric 3; Black Burnished ware Fabric 1 jar, perhaps Gillam 138 or 139 (Gillam 1970). *c* AD 150-250 (Fig 10/5)	Cremation *113*
6	*112*/1047	Fabric 3; Black Burnished ware Fabric 1 jar, perhaps Gillam 168 (Gillam 1970). *c* AD 120-60 (Fig 10/6)	Cremation *112*
7	*155*/1059	Fabric 3; Black Burnished ware Fabric 1 jar. Late second century AD (Fig 10/7)	Inhumation(?) *154*
8	*148*/1031	Fabric 3; Black Burnished ware Fabric 1 jar. Second century AD (Fig 10/8)	Inhumation(?) *147*
9	*109*/1003	Fabric 6; Wilderspool rough-cast beaker. Mid-late second century AD (Fig 10/9)	Cremation *103*
10	*137*/1049	Fabric 7; Grey ware, small jar, possibly Gillam 172 (Gillam 1970). *c* AD 250-340 (Fig 10/10)	Inhumation(?) *132*
11	*148*/1024	Fabric 8; indented beaker. Late first-early second century AD (Fig 10/11)	Inhumation(?) *147*
12	*148*/1032	Fabric 8; cornice-rim beaker, possibly Gillam 72 (Gillam 1970). *c* AD 80-130 (Fig 10/12)	Inhumation(?) *147*

The medieval pottery, *by Christine Howard-Davis*

Six fragments of medieval pottery were recovered from ditch *119/135* on the Streamline Garage site (Phase 2). These represent at least two vessels, one of which was green-glazed. Three more medieval fragments were recovered as residual material from late post-medieval contexts during the evaluation. Three distinct fabrics are represented: a coarse, gritty oxidised fabric with occasional large and distinctive red grits; a medium gritty fabric, incompletely reduced and with a patchy green glaze; and a fine, fully reduced fabric with thick olive to dark green glaze. The latter is probably Silverdale ware, produced in the later part of the medieval period and into the early post-medieval period White 2000).

The ironwork, *by Christine Howard-Davis*

Some 237 small fragments of iron were recovered from the Streamline Garage site, 12 from the evaluation, 201 from the excavation, and 24 from the watching brief. Although none of the material was subject to x-radiography, most fragments could be readily identified as small nails and hobnails. Almost all of the nails were recovered from Phase 1 (Romano-British) contexts (Table 2), the great majority being associated with the Phase 1b cemetery.

Phase	Context	Feature	Number of nails/hobnails
1a	*143*	Perimeter ditch *144* of enclosure *131*	6
1b	*109*	Cremation *103*	93
1b	*111*	Cremation *105*	2
1b	*123*	Cremation *112*	2
1b	*124* and *160*	Cremation *162*	51
1b	*WB1* and *WB2*	Cremation *WB3*	6
1b	*WB8*	Cremation *WB9*	11
1b	*133*	Possible inhumation *132*	3
1b	*153*	Possible inhumation *152*	9
1b	*155*	Possible inhumation *154*	2
1b	*WB4*	Possible inhumation *WB5*	7
1b	*148*	Possible inhumation *147*	34
2	*102*	Medieval/post-medieval soil	1
-	-	Modern contexts	10
Total			**237**

Table 2: Provenance of iron nails and hobnails

The correlation between nails and hobnails and the Romano-British burials of Phase 1b is striking; the hobnails clearly indicate the presence of shoes, or more likely the cremated remains of shoes, in several of the grave deposits, either worn by the deceased or placed separately on the funeral pyre. The association of shoes with burial deposits was

widespread during the Romano-British period, and was presumably intended to equip the deceased for their journey to the afterlife (Philpott 1991, 173; Howard-Davis 1996, 114). The presence of 34 hobnails in fill *148* of feature *147* lends support to the idea that this was an inhumation burial (see above).

The human bone, *by Jacqueline I McKinley and Stephen Rowland*

The principal assemblage of cremated human remains was recovered from the Streamline Garage site, where the greatest number of Roman burials was recorded. However, the archaeological investigations at 77-79 and 81 Penny Street also yielded small groups of material, both from discrete cremation burials and, at 77-79 Penny Street, from other Romano-British (and post-Roman) contexts, principally soil spreads. The latter, although presumably residual, probably derived either from disturbed burials or, more speculatively, from pyre sites situated somewhere in the vicinity.

The human bone from 77-79 and 81 Penny Street, by Stephen Rowland

Small assemblages of calcined human bone were recovered from the sites at 77-79 and 81 Penny Street. The material was identified and recorded using standard reference works, including Bass (1995), Brothwell (1972), and Buikstra and Ubelaker (1994), as well as osteological reference material.

The assemblage recovered from the main phase of excavation at 77-79 Penny Street came from a wide range of Roman and post-Roman contexts. The bulk of the material comprised very small, undiagnostic fragments scattered through Roman and post-Roman soil deposits, presumably derived either from disturbed Roman cremation burials or (possibly) from a pyre site located outside the excavated area. Only a few fragments were present in any single deposit. Small amounts of calcined bone were also recovered from the fills of probable Roman cremation burials *78* and *98*, and as residual material from the fills of possible inhumation burials *103* and *115*. A few fragments were also apparently associated with the burial urn found during the 1995 evaluation (Salisbury and Coupe 1995).

Irrespective of the context of origin, the bone was generally in a fair state of preservation, though fully calcined to a uniform white colour and highly fragmented, to the extent that very few pieces exceeded 20 mm in length; many were considerably smaller. This fragmentation is likely to relate in part to the friable condition of the bone, but also to the fact that much had been redeposited, disturbed, or had undergone some degree of bioturbation. It is thus unsurprising that the assemblage was largely composed of cortical fragments of the more robust limb bones, whilst those parts of the bone useful for ageing and sexing, together with the more delicate elements, such as the pelvis and vertebrae, were largely absent. As such, whilst many of the bones could be identified as likely to be those of human adults on the basis of their shape and texture, they provided very little additional analytical information.

Of those contexts directly associated with funerary activity, fill *71* of cremation *78*

contained almost 50 small fragments of human bone, including parts of the mandible and the major and minor limb bones, whilst the 35 equally small fragments from fill *94* of cremation *98* included pieces of skull and long bone. Neither the age nor sex of either individual could be determined. The few small fragments recovered from putative inhumations *103* and *115* were little different; fill *107* in feature *103* yielded a few fragments of long bone and rib, probably from an adult. This material is, however, of some interest, since its presence demonstrates that cremation was being practised somewhere in the vicinity before features *103* and *115* were dug, although no early cremations were found on the site itself. With the exception of a fragment of a radius, thought to derive from a mature adult (*op cit*, 4), the few small pieces of calcined bone found in association with the burial urn recovered during the 1995 evaluation were too poorly preserved to permit further identification.

Elsewhere on the 1996 site, layer *89*, which post-dated features *103* and *115* but pre-dated the deposition of cremations *78* and *98*, yielded a fully-formed upper third molar; although the enamel had flaked-off during the process of cremation, there was no obvious wear to the dentine, implying that the owner of the tooth may have died in early adulthood. The only other material of note came from the fill (*76*) of a post-medieval gully. The assemblage comprised approximately 20 g of poorly-preserved and fragmented bone, including identifiable fragments of the left tibia and ulna. The proximal epiphysis of the tibia was fused, leaving no trace of the line of union, indicating that it derived from an adult individual.

At 81 Penny Street, only three small pieces of calcined bone were recovered from fill *151* of possible cremation pit *152*, although the entire contents of the excavated portion of this feature were sieved. The remains comprise a fragment of human rib, another tiny piece that is probably of human origin, and a probable fragment of bird bone (see below).

The human bone from Streamline Garage, King Street, by Jacqueline I McKinley with Stephen Rowland

Cremated bone from 13 Romano-British deposits was analysed, including material from nine features interpreted on excavation as the remains of cremation burials. With one exception, the fill of each putative grave cut was recovered as a single whole-earth deposit. These fills were wet-sieved to 2 mm fraction, and bone separated from the >4 mm fraction residues for specialist analysis. All the material was analysed by Jacqueline McKinley, with the exception of the assemblage from cremation *E112*, recovered during the evaluation phase of the project, which was studied by Stephen Rowland.

Osteological analysis followed the standard procedure for the examination of cremated bone (McKinley 1994a, 5-21; 2000a). Age was assessed from the stage of skeletal and tooth development (van Beek 1983; McMinn and Hutchings 1985) and the general degree of age-related changes to the bone. Sex was ascertained from the sexually dimorphic traits of the skeleton (Buikstra and Ubelaker 1994).

Results

The interpretations of deposit type have been based on the primary field records and the evidence derived from the osteological analysis. It has been assumed that the single fills of features containing cremation-related deposits had a relatively even distribution of all the archaeological components (for example, cremated bone and fuel ash). Given the size of most deposits, and the relatively small quantities of bone and fuel ash recovered in many cases, it is suggested that there had been at least some degree of bioturbation within most deposits. Each fill was excavated and lifted *en masse*, with no sub-division by spits and/or quadrant, although it should be noted that cremated bone has sometimes been found to be highly concentrated in one part of the fill (*pers obs*).

The presence of three possible types of deposit is implied, all of which have been recognised amongst cremation-related deposits of most periods in Britain and previously defined (McKinley 1996; 1997, 56-57; 2000b; 2000c; 2004). Most correspond to similarly varied types of mortuary deposits recorded across a wide geographic range in the rest of Europe (Todd 1977; Flouest 1993; Witteyer 2000, figs 13 and 14). These types comprise burials, either urned or un-urned but otherwise 'contained', with or without redeposited pyre debris in the grave fills; discrete, formal deposits of pyre debris; and cenotaphs or memorials.

Urned burials are where the bone has been buried within a vessel. Un-urned burials comprise a discrete concentration of cremated bone, probably originally contained in some form of organic container which, in Romano-British features, were usually placed at the base of the grave. The burial may have been preceded or succeeded by the deposition of pyre debris within the grave. Where pyre debris is deposited subsequent to burial, particularly in an un-urned burial, the fuel ash can filter in between bone fragments over time, and create the impression of a mixed deposit.

Pyre debris represents all the material remaining at the pyre site after the bone and pyre goods intended for formal burial have been removed. If redeposited, pyre debris tends to comprise a mix of fuel ash (charcoal), often including varying quantities of cremated bone and pyre goods, burnt clay/soil, and fuel ash slag. The nature of such a deposit generally implies that there was a formal burial to which it related somewhere in close proximity to the deposition site.

Cenotaphs appear to represent substitutes for formal burials, the bulk of the cremated remains of the individual having been disposed of elsewhere. They share many of the characteristics of formal burials (including the deposition of vessels), but contain only very small quantities of bone. It is misleading to refer to such deposits as 'token burials' since all archaeological cremation burials could be described as such, in that they very rarely, if ever, contain the total quantity of bone which would remain after cremation (McKinley 1997; 2000c). Where it is clear that more than 99% of the expected minimum weight of bone is absent from an undisturbed or relatively intact deposit, it obviously does not represent a burial in the same way as others containing more representative amounts of the available cremated bone.

Two deposits, *107* in burial *104* and *109* in burial *103*, may have comprised a mix of partly urned and partly un-urned burials, a deposit type seen, for example, in the cemetery associated with the Roman fort at Brougham, Cumbria (Cool 2004). Although both deposits appeared to comprise a mix of bone and charcoal, it is felt they are most likely to represent the remains of burials with subsequent deposits of pyre debris. Similarly, deposits *157* (burial *156*), *160* (burial *162*) and *WB2* (burial *WB3*) are also most likely to represent the remains of burials with subsequent debris deposits, although in all cases, the possibility of their representing formal deposits of pyre debris cannot be conclusively excluded. Deposit *123* (burial *112*) survived to such a shallow depth (*c* 50-100 mm) that it is not possible to interpret the type of deposit with any security. At least one, and probably two, of the deposits, *111* (burial *105*) and *115* (burial *113*), appear to have the characteristics of cenotaphs; perhaps significantly, these burials were located side-by-side, and may even have been part of a single grave.

Disturbance and condition

All the features and deposits appeared to have been truncated, the surviving depths ranging from 50 mm to 300 mm, although most were more than 0.20 m deep. As the bone in Romano-British cremation burials tends to be concentrated towards the base of grave cuts (in urned burials the vessel rarely being filled to capacity), there is unlikely to have been substantial (if any) loss of bone from the deposits examined, other than in the case of deposit *123* (burial *112*).

Visual inspection showed the bone to be in good condition, with no evidence for surface erosion or abrasion. Trabecular bone is also relatively well represented, suggesting the burial microenvironment was not adverse to good preservation of burnt bone. The commonly noted inclusion of fuel ash within the burial matrix is also likely to have assisted in this.

Demographic data

A minimum of eight, and possibly nine, individuals were identified from the remains, including seven adults (four most likely to be females), one sub-adult, and probably one young infant from a dual cremation (fill *160* of burial *162*). These figures include individuals identified from the possible 'cenotaph' deposits (burials *105* and *113*) as, by their nature, these are likely to be the only remains of these individuals buried within the confines of the cemetery.

Demographic comment is limited both by the small size of the assemblage, and by the likelihood that the burials surviving in the south-east part of the excavated area are unlikely to represent the whole cemetery. In addition, evidence from elsewhere in Lancaster suggests that this was not the only cemetery serving the settlement. The apparent lack of males amongst the burials from this site could be misleading, as the remains of several individuals could not be sexed.

Pathology

There was very little evidence for pathological lesions, with minor changes being observed in the remains of only two individuals, both adult females (burials *103* and *104*; Table 3). The development of both osteophytes (new bone growth at joint margins) and exostoses (new bone growth at ligament/tendon insertions) are generally considered to reflect age-related stress or degenerative processes, though there might be other predisposing factors (Rogers and Waldron 1995).

Deposit/burial	Deposit type	Weight (g)	Age/sex	Pathology	Pyre goods
107/104	u burial + rpd	121.3	adult >18 yr ??female	exostoses – femur	-
109/103	u burial + rpd	211.6	adult *c* 20-35 yr ??female	osteophytes – atlas	-
111/105	?cenotaph (with urn) + ?rpd	9.3	adult >18 yr	-	-
115/113	?cenotaph (?with urn)	8.9	adult >18 yr	-	-
123/112	?u burial + rpd, or rpd	23.5	adult >18 yr	-	-
124/162	un burial + rpd, or rpd?	49.7	sub-adult/adult *c* 16-20 yr	-	-
153/152	Redeposited in possible inhumation burial	2.2	adult >18 yr	-	-
155/154	Redeposited in possible inhumation burial	9.6	sub-adult/adult >13 yr	-	-
157/156	?u burial + rpd, or rpd	151.9	sub-adult *c* 16-18 yr + ?other immature vault	-	-
160/162	un burial + rpd, or rpd?	407.7	adult *c* 18-25 yr (<23yr) ??female + ?some infant	-	possible animal bone
WB2/WB3	un burial + rpd	255.4	adult *c* 20-40 yr ??female	-	animal bone: immature sheep/pig size
E111 and E116/ /E112	un burial + rpd	240.5	Adult > 18 yr	-	Animal bone; pig, caprovid or roe deer, and large mammal

Note: u burial = urned burial; un burial = un-urned burial; rpd = redeposited pyre debris

Table 3: Summary of cremated human bone (Phase 1b)

Pyre technology and cremation ritual

The surviving bone is almost uniformly white in colour, indicative of full oxidation

during the cremation process (Holden *et al* 1995a; 1995b). The surviving weights of bone from individual deposits is generally low (Table 3), with the maximum recorded being 437.4 g (burial *162*; fills *124* and *160*), representing a maximum of 43.7% (or average 27.3%) of the total weight of bone expected from an adult cremation (McKinley 1993). Some small fraction (<2 mm) of bone was not available for quantification/analysis, but this is unlikely to have added substantially to the overall weight of bone. The weight of bone from two cremation burials excavated at the Mitchell's Brewery site on Church Street in 1999 (McKinley in prep; see below) was also low, at 270.6 g and 434.6 g, although both may have lost some bone as a result of disturbance. It has been observed (McKinley 2004, 297) that the average weight of bone from Romano-British urned burials appears to be consistently lower in cemeteries associated with military establishments in the 'frontier zones' of the North and West, for example at Low Borrowbridge (McKinley 1996), Brougham (McKinley 2004), and Caerleon (Wilkinson 1997), than in urned burials from other Romano-British cemeteries (McKinley 2004), and it is possible that this reflects a genuine variation in burial rite between the two types of cemetery (*op cit*, 297).

The largest recorded bone fragment from the Streamline Garage site was *c* 64 mm, with the maximum dimension from most deposits being relatively low, at 30-40 mm. Most fragments were recovered from the 10 mm sieve fraction (50-81% of the total from burials), though the 2 mm fraction was not scanned and the figures might thus be slightly misleading. There are several factors which can affect the size of cremated bone fragments, the majority of which are independent of any deliberate human action other than cremation itself (McKinley 1994b). There is no conclusive indication of deliberate fragmentation within the bone from this site.

With the exception of one heavily disturbed context (*123*, burial *112*), all the burials included some identifiable elements from all areas of the skeleton and, as is commonly the case, there is no evidence to suggested deliberate selection of specific skeletal elements for burial. There are relatively few small bones, with only one tooth root, few phalanges, and even fewer carpals. A similar observation was made with respect to the burials from the cemetery at Brougham, where it was suggested that the scarcity of small bones might reflect the manner of collection from the pyre site at the end of cremation (McKinley 2004), possibly indicating hand recovery of individual fragments. The two possible cenotaph burials (*105* and *113*), with their very small quantities of bone (<10 g), only contained identifiable fragments of skull and upper limb, although in view of the fact that only 40-50% of the bone was identified to skeletal element, this might present a distorted view.

Pyre goods, in the form of cremated animal bone, were recovered from burials *WB3* (*WB2*; 46.9g), *162* (*160*; 0.9g) and *E112* (*E111*, *E116*; 42.5 g). The tradition of placing bones, or joints of meat, upon the pyre was common and widespread in the Romano-British period, with 3.5% to 47% of burials from a range of cemeteries having been found to contain cremated animal remains (McKinley 2004). The difference in the charcoal assemblages recovered from the upper and lower fills of cremation *162*, the former (*124*) dominated by oak (*Quercus*), the latter (*160*) comprising principally alder (below),

suggests that these deposits may have come either from separate pyres, or from different parts of the same pyre.

Conclusion

The apparent variations between Romano-British cemeteries in the northern frontier zone and those throughout the rest of the country have been the subject of recent discussion (McKinley 2004), and the material from the Streamline Garage site shares some of the traits identified. These include uniformity of oxidation, low bone weights, lack of small bones, and character of deposit types. The notion of a cenotaph deposit is not as unusual as it may at first appear (McKinley 2000c; 2004), and it has been proposed that, in some cases at least, these features may represent individuals foreign to the area who were cremated in the vicinity of the site but whose remains were returned to their place of origin for formal burial (McKinley 1996; 2000c; 2004).

The animal bone, *by Stephen Rowland and Andrew Bates*

The small assemblages of animal bones recovered from the excavations were identified using Halstead and Collins (1995), Hillson (1992) and Schmid (1972). All the material was calcined and extremely fragmentary, and certainly or probably derived from Roman funerary contexts; unburnt bone did not survive the inimical soil conditions, except for a few comparatively recent pieces from late post-medieval contexts, which were not analysed.

At 81 Penny Street, fill *151* of cremation *152* yielded a fragment of a bird long bone shaft, and another fragment from a similar bone came from the fill (*76*) of a post-medieval feature recorded at 77-79 Penny Street. The latter could have derived from a Roman funerary context, since this late deposit also contained several fragments of calcined human bone (see above). Both bones could conceivably represent the remains of food consumed during a funerary feast, or a food offering placed on the funeral pyre. Also at 77-79 Penny Street, some small fragments of medium mammal (pig/sheep/roe deer-sized) bones came from fill *107* of possible inhumation *103*, and a single piece from a medium mammal bone was recovered from fill *104* of putative inhumation *115*.

However, the best evidence for the deposition of animal bones with cremated human remains came from the Streamline Garage site. There, cremation burial *E112* yielded several small fragments of pig bones (including skull fragments, a piece of tibia and a metacarpal) and some of caprovid/roe deer (including a tibia which had clearly been broken prior to burning); there was also a fragment from a large mammal (cow/horse-sized) tibia. Additionally, a small assemblage of burnt animal bone, including material of immature sheep/goat-size, came from the fill of cremation *160*, and a single small fragment was recovered from cremation *WB3*.

Charcoal and charred plant remains, *by Elizabeth Huckerby*

A brief assessment was made of the charcoal and charred plant remains recovered from probable cremation *152* at 81 Penny Street, and from a number of cremations and other deposits excavated at the Streamline Garage site. No material from 77-79 Penny Street was appropriate for analysis.

Methodology

The sample from 81 Penny Street was hand-floated and the flot was collected on a 250 micron mesh and air dried. The flot was then scanned with a Leica MZ6 stereo microscope and the plant material was recorded and provisionally identified. With one exception, the samples from Streamline Garage were wet sieved to 2mm and air dried. The exception, from deposit *130*, was floated and the flot retained on a 250 micron mesh and air dried. The charcoal was scanned with a Leica MZ6 stereo microscope and 100% of the fragments from the smaller samples were examined; however, only a representative sample of the larger assemblages was assessed (Table 4). The charcoal was identified as mostly oak (*Quercus*), with some diffuse porous or other (alder and *Prunus* sp, possibly blackthorn), and the relative proportions were noted. Plant remains were scored on a scale of abundance of 1-4 (shown as + to ++++ in Table 4), where 1 is rare (up to five items) and 4 is abundant (>100 items). The components of the matrix were also noted. Botanical nomenclature follows Stace (2001).

Results

At 81 Penny Street, the flot recovered from fill (*151*) of cremation *152* was rich in charcoal fragments (>2 mm) and charred stems, the latter possibly of rushes (*Juncus*) and mosses, and included stem bases and rhizomes (Table 4). There were also occasional fragments of possible heather (*cf Calluna*) stems. Most of the charcoal was oak (*Quercus*), but there were also some diffuse porous fragments, alder and *Prunus* sp, possibly blackthorn, which would have derived from short-lived taxa. Occasional charred weed seeds were identified, including blinks (*Montia* sp) and sorrels (*Rumex* sp).

The number of charcoal fragments in the Streamline Garage samples was relatively low, except from deposits *123=130* and *160*, the fills of cremations *112* and *162* respectively. Oak charcoal dominated the fills of cremations *103*, *104* and *112* (fills *107*, *109* and *123=130* respectively), whilst diffuse porous charcoal was dominant in fill *115* of burial *113*. The charcoal from the upper fill (*124*) of cremation *162* was mainly oak, but that from the lower fill (*160*) was principally alder. The remaining four assessed deposits, fills *111* and *157* of cremations *105* and *156*, and fills *153* and *155* of possible inhumations *152* and *154*, were more mixed.

Site	Context	Deposit type	Oak	Diffuse porous	Other
81 Penny St					
	151	Fill of cremation *152*	Mainly	++	Charred stems and rhizomes, possible heather; few charred weed seeds
Streamline Garage					
	107	Fill of cremation *103*	+	One fragment	
	109	Fill of cremation *104*	+		
	111	Fill of cremation *105*	+	Mainly	
	115	Fill of cremation *113*	+	Mainly	
	123 **	Fill of cremation *112* (same as *130*)	+++		
	130	Fill of cremation *112* (same as *123*)	Mainly	+	Roundwood; grass/rush stems; tuber fragment
	153	Fill of ?inhumation *152*	50%	50%	
	155	Fill of ?inhumation *154*	One fragment		One indeterminate
	157	Fill of cremation *156*	+	+	Diffuse roundwood
	124	Upper fill of cremation *162*	Mainly	+	One fragment pine
	160 **	Lower fill of cremation *162*	+	Mainly	

** indicates that only a representative sample of the charcoal from these contexts was examined

Table 4: Summary of charcoal and charred plant remains from 81 Penny Street and Streamline Garage, King Street

Discussion

At 81 Penny Street, the presence of *Montia* seeds and possible rush/moss stems in fill *151* of cremation *152* suggests that some of the charred material in this feature may have come from a damp environment, as does the evidence of alder charcoal. The assessment of the charcoal from the Streamline Garage site revealed differences in the charcoal assemblages recovered from some of the excavated features. Perhaps the most notable is the apparent difference between the fills (*111*, *115*) of the two cremation burials identified as possible cenotaphs (*105* and *113*; above), which are dominated by diffuse porous taxa, probably alder/hazel (*Alnus/Corylus*), and most of the other cremations, where oak charcoal dominates (although deposit *160*, the lower fill of cremation *162*, also contained mostly alder charcoal).

Since the sample from deposit *130*, the fill of cremation *112*, was processed in a different way to the other samples, charred plant materials in addition to charcoal were identified in the flot. These included grass/rush stems (Poaceae/*Juncus*) and a small fragment of plant tuber, identified (D Druce *pers comm*) as *cf* onion-grass (*Arrhenatherum elatius* ssp *Bulbosum*). It is conceivable that these materials had been used as kindling.

The charcoal assemblage from deposits *124* and *160*, the upper and lower fills of

cremation *162*, are markedly different from each other, *124* being dominated by oak and *160* by alder taxa. The precise significance of this remains unclear, but it may be of relevance that the cremated human remains from these deposits also exhibit some differences (above). The bone from *124* was identified as that of a sub-adult or adult, *c* 16-20 years of age, whilst the material from *160* represents the remains of a possible female, *c* 18-25 years of age, together with some possible infant bones. This, taken together with the charcoal evidence, makes it conceivable that the two deposits derived from different funeral pyres (or different parts of the same pyre?), although the possibility that the sub-adult/adult bones from fill *124* actually derive from the putative adult female represented by the material in deposit *160* cannot be ruled out.

General discussion

The Streamline Garage excavations of 2000-1 recovered evidence for two main phases of Romano-British occupation on the site. The earliest (Phase 1a) was represented by a rectilinear ditched enclosure (*131*) of uncertain purpose, which had gone out of use by the time a cemetery was established (Phase 1b), probably around the mid-second century AD. The 17 certain and possible burials recorded on the site comprised 12 cremations and five putative inhumations. A further six possible graves, four cremations and two features tentatively interpreted as inhumations, were found at 77-79 and 81 Penny Street, bringing the total number of burials for the three sites to 23. Structural evidence for medieval activity was limited to a single ditch or gully at the Streamline Garage site (Phase 2). This was sealed by a probable ploughsoil of late medieval/post-medieval date, which was in turn overlain by modern (nineteenth-twentieth-century) deposits. At 77-79 Penny Street, post-Roman deposits comprised a post-medieval agricultural or horticultural soil overlain by nineteenth-century and later deposits, whilst the Romano-British cremation at 81 Penny Street was directly overlain by modern debris.

*The Romano-British enclosure (*131*)*

Enclosure *131* was probably rectangular in plan, 14.1 m by at least 11.7 m, and was defined by a reasonably substantial ditch, up to 1.65 m wide and 0.6 m deep. It was located a little over 20 m west of modern Penny Street, which is thought to follow the line of a Roman road leading north to a crossing of the River Lune (Shotter 2001, 8, 20), and appears to have broadly shared the road alignment. The presence of Black Burnished ware Fabric 1 in one of the fills of the perimeter ditch indicates that this feature was silting-up in the second quarter of the second century AD, or later, but the date at which the ditch was dug, and when the enclosure was in use, is not known. A date in the early Romano-British period (late first-early second century AD) is presumed, but a late pre-Roman Iron Age origin cannot be completely discounted, since the ditch could, in theory, have been kept clean for many years before being allowed to silt up when the enclosure finally went out of use.

In view of the subsequent use of the site as a Romano-British cemetery, when cremation burials and other features were dug into the fills of its perimeter ditch, it is tempting to

suggest that enclosure *131* may itself have been associated with funerary activity. Rectilinear funerary enclosures defined by ditches are known from the cemetery outside the fort at Low Borrowbridge in Cumbria (Hair and Howard-Davis 1996), although these were far smaller (only *c* 1.5-4.5 m wide, externally) than the Lancaster example, and most enclosed one or more burials. In the case of enclosure *131*, there is no evidence to support such an hypothesis, and it seems more likely, in view of the lack of associated features, that it had some other purpose. One possibility is that it was associated with occupation within the settlement; excavations and (particularly) geophysical surveys undertaken at a number of military *vici* in the North, including those at Maryport, on the Cumbrian coast (Biggins and Taylor 2004), and at Haltonchesters and Birdoswald on Hadrian's Wall (Breeze 2006, 182-3, 306-7), have demonstrated the existence of ditched enclosures on the periphery of the settled area, normally adjacent to the main roads. However, in view of its position, over 800 m south of the centre of the settlement on Church Street, and well beyond it's likely southern extent, together with the lack of evidence for internal features (despite the fact that most of the interior lay within the excavated area), and the paucity of associated artefactual material (only 15 sherds of pottery and six iron nails were recovered from the perimeter ditch fills), a domestic association seems unlikely. In the absence of any other evidence, it seems more probable that *131* had some kind of agricultural function, possibly as a pen for livestock.

The cemeteries of Roman Lancaster

Since Roman law forbade human burial within settlements, cemeteries were located outside the settled area, usually adjacent to the major approach roads (Macdonald 1977, 36). The burials excavated at the Streamline Garage site occupied a typical position, well to the south of the settlement and some 20 m west of the presumed major Roman road beneath modern Penny Street, leading south from the settlement. The graves recorded at the 77-79 and 81 Penny Street sites were also located in close proximity to the eastern side of this road.

Evidence for Romano-British funerary activity at various locations within modern Lancaster provides some indication of the limits of the settlement, although boundaries could, and frequently did, change through time. Most of the evidence for Roman burial comes from the south side of the modern city centre, in the Penny Street/King Street area. Scattered evidence from a number of locations in this area suggest that this is likely to have been the principal cemetery for the settlement. However, an extensive burial ground containing many graves has not yet been uncovered, the 17 certain or possible burials from the Streamline Garage site representing the largest group recorded to date.

In addition to these burials, two or three urned cremations are known from antiquarian observations in the southern part of Penny Street (Ellis 1987, 32; Shotter and White 1990, 37, 44), although some of these were thought to be of Bronze Age date (*op cit*, 37). A cremation burial interred in a second-century Black Burnished ware Fabric 1 vessel was also found in 1987 during a watching brief to the rear of premises at 90 Penny Street (Ellis 1987). No evidence of funerary activity was found during an

evaluation conducted in 2003 at 99-101 Penny Street, which was little more than 30 m south-east of the 1987 discovery (OA North 2003b). However, almost the entire site had been truncated to the level of the natural subsoil in the late post-medieval period (*op cit*, 3), which is likely to have resulted in the destruction of burials, should any once have existed on the site. Nor were any burials recorded during excavations at the west end of Spring Garden Street in 2006 (Schofield and Zant in prep), *c* 35 m north of the 1987 site. There, a few very small flecks of burnt material were seen residually in soil spreads and later features, although it is not known whether this is of human or animal origin. The most recent discovery in this area, and the most southerly to date, was that of the tombstone of Insus, a trooper of the *ala Augusta* in the late first-early second century AD, which was found in 2005 on Aldcliffe Road (Bull 2007), adjacent to the main Roman road leading south and approximately 300 m south of the Streamline Garage site.

Further north, and immediately east of the main area of Roman settlement on Church Street, two skeletons and Roman pottery were found during nineteenth-century sewerage excavations on St Nicholas Street (Shotter and White 1990, 45). However, the pottery was not, so far as it is possible to tell, certainly associated with the human remains, so it is not clear if these burials were of Roman date. The tombstone (now lost) of another trooper of the *ala Augusta*, Lucius Julius Apollinaris, discovered on Cheapside in 1772 and long taken as evidence for an eastern cemetery, has more recently been dismissed as a 'carry' from elsewhere in the town (*op cit*, 33). However, during excavations in 1999 on the former Mitchell's Brewery site towards the eastern end of Church Street (Howard-Davis *et al* in prep), two urned burials of adult females were found (McKinley in prep), suggesting that funerary activity did indeed take place in this area. Whilst this may provide an indication of the eastern limit of the settlement, the discovery of a Roman road and the remains of burnt timber buildings at the north end of Penny Street (White 1975), the earliest phases of which were seemingly of Antonine date, suggested that the settlement may have been extended eastwards, perhaps over an area previously used for burial, in the mid-late second century (*ibid*). The existence of another cemetery west of the fort on Castle Hill is suggested by the discovery in 1934-5 of a number of inhumation burials of likely Romano-British date west of the modern railway station, in a small gravel quarry adjacent to the Westfield Memorial Village (Chandler 1982, 11-12).

The burials at Streamline Garage, 77-79 Penny Street and 81 Penny Street

On the evidence recovered from recent excavations, and from the very limited data available from earlier discoveries in the Penny Street/King Street area, it would appear that the cemetery south of the Roman settlement at Lancaster was established during the second century AD. The seemingly widespread use of Black Burnished ware Fabric 1 jars as burial urns or grave goods in many of the recorded cremations, including up to six of those at the Streamline Garage site and the burial found in 1987 to the rear of 90 Penny Street (Ellis 1987), indicates that these graves must date to the Hadrianic period or later. In fact, the ceramic evidence from the Streamline Garage site suggests that the *floruit* of the cremation cemetery, in this area at least, was during the mid-late second century.

It is possible that the two cremation burials found on the Mitchell's Brewery site at the east end of Church Street (Howard-Davis *et al* in prep) represent part of an early cemetery that was abandoned following the putative eastwards extension of the settlement in the second half of the second century (White 1975), and this could conceivably provide a context for the establishment of the southern cemetery. However, the tombstone of Insus from Aldcliffe Road (Bull 2007) demonstrates that burials were already taking place well to the south of the settlement, adjacent to the main road south, by the late first-early second century, so it may be that the second half of the second century saw the intensified use and/or expansion of an existing burial ground.

The latest vessel associated with a cremation at the Streamline Garage site dates from the period *c* AD 180-280, whilst the urned cremation found during the 1995 evaluation at 77-79 Penny Street, *c* 60 m to the north-east, was interred in a Black Burnished ware Fabric 1 jar datable to *c* AD 230-300 (above). That burial in the southern cemetery continued into the fourth century is, however, indicated by the 1996 excavation at 77-79 Penny Street. There, both of the possible inhumation burials (Penny Street features *103* and *115*) produced calcite-gritted pottery of probable late third- to fourth-century date; furthermore, the uppermost fill (*107*) of the stratigraphically latest putative grave (*103*) yielded a calcite-gritted rim datable to *c* AD 300-70. These features were overlain by a build-up of soils, some of which also yielded fragments of late third- to fourth-century calcite-gritted pottery, which were in turn cut by two probable un-urned cremations (*78* and *98*) placed in small pits.

The presence of seemingly fourth-century cremation and inhumation burials at Lancaster is consistent with the evidence from elsewhere in the region. Across the Roman Empire as a whole, inhumation replaced cremation as the principal burial rite between the late second century and late third century AD (Simmonds *et al* 2008, 130), but in northern England, cremation appears to have been practised throughout the Roman period, being attested during the fourth century (and in some cases into the second half of the century) at several cemeteries in the North West, including those associated with the forts at Birdoswald (Wilmott 1993), Beckfoot (Caruana 2004, 154-5), Brough under Stainmore (Jones 1977), and Low Borrowbridge (Hair and Howard-Davis 1996, 99-101), and a probable rural settlement located *c* 0.75 km north of the fort at Old Carlisle (Grahame 1999, 3-4; Giecco 2000, 3).

The seven possible inhumation burials recorded during the investigations of 1995-2003 could only be tentatively identified as graves, since local soil conditions were not conducive to the preservation of unburnt bone, no grave goods were present, and little or no evidence for coffins, shrouds, or other grave furniture was recovered. The interpretation was, therefore, based principally on the fact that these were 'grave-like' features situated in what was clearly, on the evidence of the cremation burials, a Romano-British cemetery.

Of the seven putative burials, one (Streamline Garage burial *152*) produced only a few abraded sherds of Black Burnished ware Fabric 1, indicating a Hadrianic or later date, whilst another (Streamline Garage burial *154*) yielded late second-century pottery of the

same fabric. Streamline Garage burial *132* produced part of a grey ware vessel datable to the period *c* AD 250-340; this was the latest Roman pottery recovered from that site. Burial at 77-79 Penny Street also continued into the late third-fourth century, with both cremation and inhumation rites seemingly being practised at this time. In the case of the burials at 77-79 Penny Street, it was possible to demonstrate stratigraphically that the two cremations were later in date than the two putative inhumations. At the Streamline Garage site, one of the possible inhumation burials (*154*) cut two cremations (*105*, *113*). There, however, it was not entirely clear whether feature *154* was indeed an inhumation, or was in fact a cremation placed in an unusually large pit. It has been suggested (above) that the two earlier cremations may have been cenotaphs rather than proper graves, since both contained extremely small quantities of bone.

The 16 certain or possible cremation burials from the three sites were all of broadly similar type, comprising quite small, sub-circular or oval pits containing small fragments of calcined human bone and pyre debris, either deposited in a container (normally a ceramic urn) or placed directly into the burial pit. The majority of the urned burials contained only one pottery vessel, namely the burial urn itself. In cases where fragments of other vessels were present, they appeared to have been smashed and/or heavily burnt. It seems likely that the burnt sherds represent the remains of vessels that had been placed on the funeral pyre, presumably to hold food or other material intended to accompany the deceased to the afterlife. Nails found in some of the graves hinted at the possible use of wooden boxes as containers, although it is possible that some or all of the nails derived from other funerary goods that had been placed on the pyre, or even from the pyre structure itself. Some of the un-urned burials could also have been provided with containers fashioned from other forms of organic materials, such as leather or cloth, which would have left no trace in the archaeological record. Perhaps the best evidence for the use of a wooden container came from burial *162*, where a roughly circular, vertical-sided and flat-bottomed void, 0.3 m in diameter, was visible within the fill of the burial pit. It seems quite likely that this marked the position of a round box similar to an oak example, 0.4 m in diameter, found in association with a cremation in the Roman cemetery at Brough under Stainmore (Jones 1977, 19).

It was a consistent feature of all the excavated cremations that only a small proportion of the bone generated by the cremation process was actually deposited in the grave. This is a common feature of Romano-British cremations (Simmonds *et al* 2008, 128-9), and may reflect a belief that the ritual of internment was of greater significance than ensuring that all the remains of the deceased were collected and placed in the grave. It has been suggested (Barber and Bowsher 2000, 80) that it was the pyre site, and not the grave itself, which was the main focus for the funerary rite. This possible lack of concern for the physical remains of the dead, providing the appropriate rituals were performed, is also reflected in instances of urned burials where some of the collected bone was not placed within the container, but was deposited in the grave pit, mixed with other pyre debris. This phenomenon was noted on the Streamline Garage site, and is known from many other Romano-Britsh cemeteries, including Brougham (Cool 2004), Low Borrowbridge (Hair and Howard-Davis 1996), Trentholme Drive in York (RCHME 1962), Derby racecourse (Wheeler 1985) and in London (Barber and Bowsher 2000).

Other possible grave/pyre goods recorded on the site were confined to collections of hobnails, probably representing the remains of shoes that had been placed either on the funeral pyre (perhaps being worn by the deceased) or in the grave, and, in two cases only, fragments of animal bone. There is a considerable amount of evidence from Roman Britain that the provision of footwear was a symbolic gesture, presumably intended to facilitate the deceased's journey to the afterlife (Barber and Bowsher 2000, 137; Philpott 1991, 173). Animal bones, presumably derived from joints of meat provided for consumption in the afterlife, are also often found in Romano-British burials (Worley 2008, 121). The three examples from the Streamline Garage site were burnt, suggesting that they derived from offerings placed on the funeral pyre, although it is possible they were the remains of a meal consumed by the mourners at the graveside.

The vessels found within the graves were restricted to jars, flagons and beakers. Most of the jars had been utilised as burial urns, although in some cases heavily burnt, broken sherds may have derived from vessels placed on the funeral pyre, which had perhaps held food for consumption by the deceased. The inclusion of flagons and beakers, both forms associated with drinking, within the grave assemblages might also have been of significance (Wheeler 1985, 266-7), perhaps being associated with ritual meals or the provision of drink for the deceased.

The post-Roman period

That the area in which the Streamline Garage and Penny Street sites lay was peripheral to the medieval and early post-medieval town seems clear. At 81 Penny Street, Roman levels lay directly beneath modern debris, a consequence of late post-medieval truncation, but at the other two sites extensive deposits of probable ploughsoil were recorded, sealing Roman levels and in turn overlain by late post-medieval (nineteenth-twentieth-century) remains. The only medieval feature recorded, a gully or narrow ditch at the south-east corner of the Streamline Garage site, was aligned roughly perpendicular to modern King Street, and was most probably the remains of a field boundary. At all three sites, intensive occupation does not appear to have commenced before the nineteenth century, although in some areas earlier deposits may have been removed by nineteenth-twentieth-century levelling, cellaring, and other modern disturbances.

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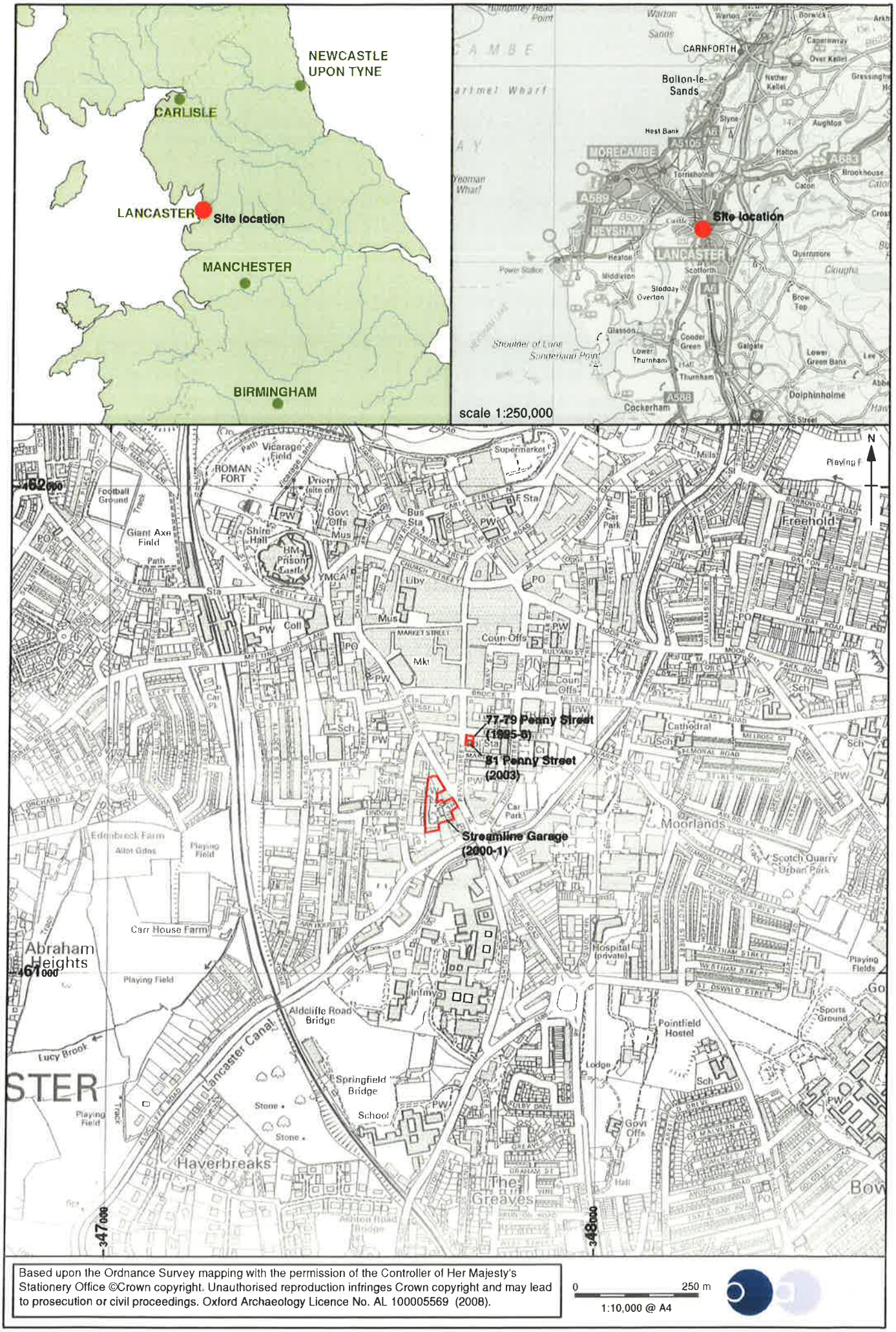

Figure 1: Site location

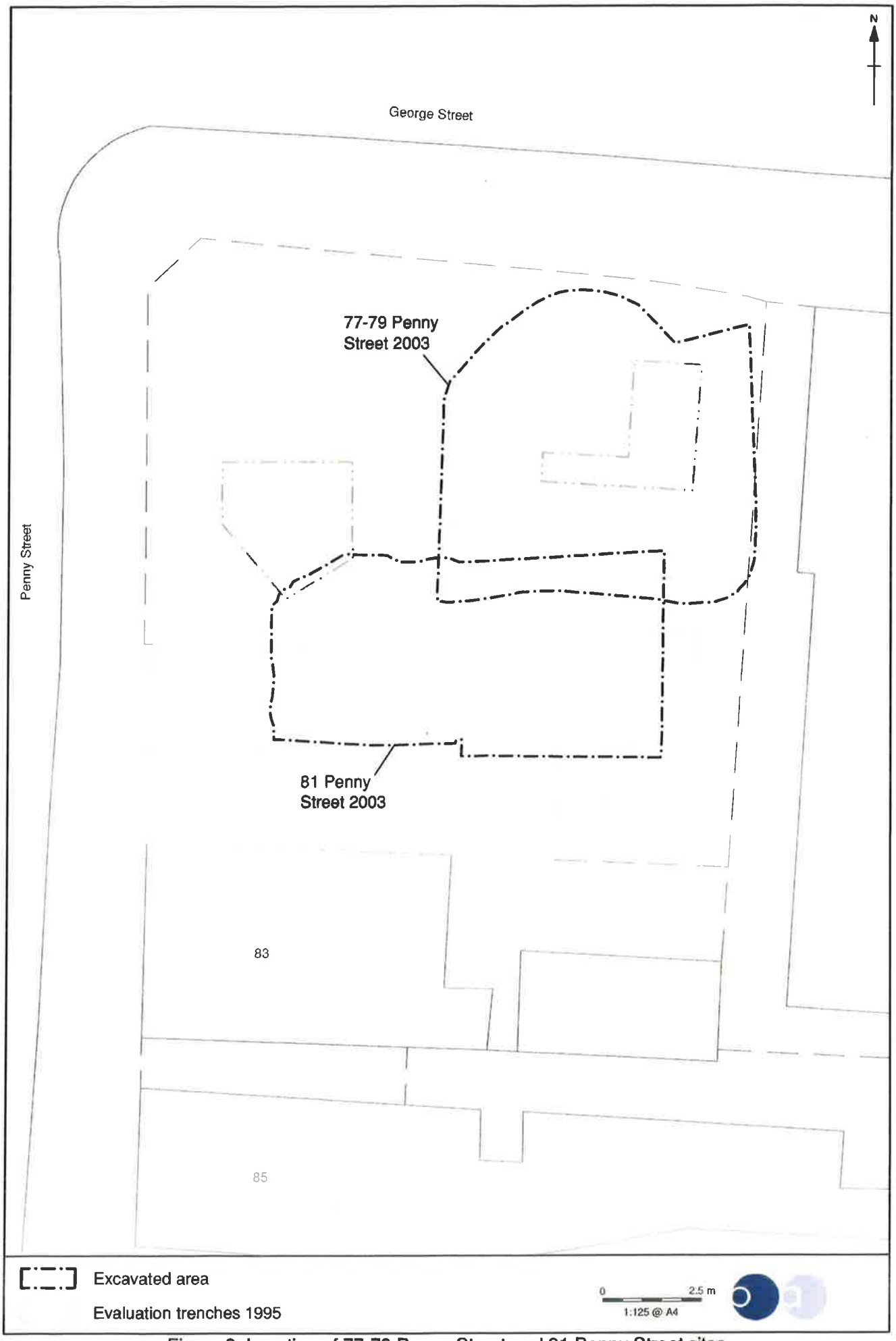

Figure 2: Location of 77-79 Penny Street and 81 Penny Street sites

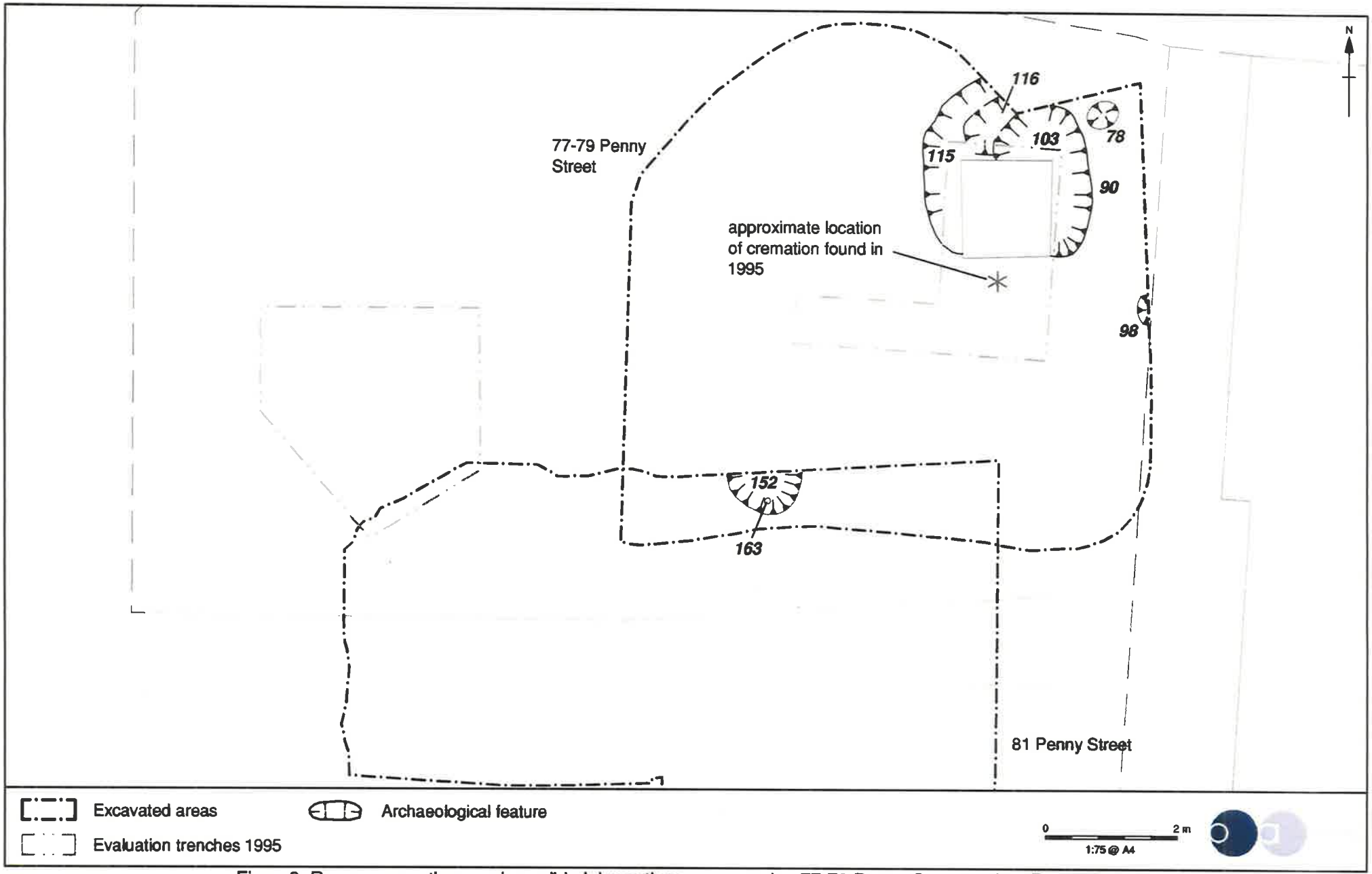

Figure3: Roman cremations and possible inhumations excavated at 77-79 Penny Street and 81 Penny Street

Figure 4: Location of Streamline Garage development site and areas of archaeological investigation

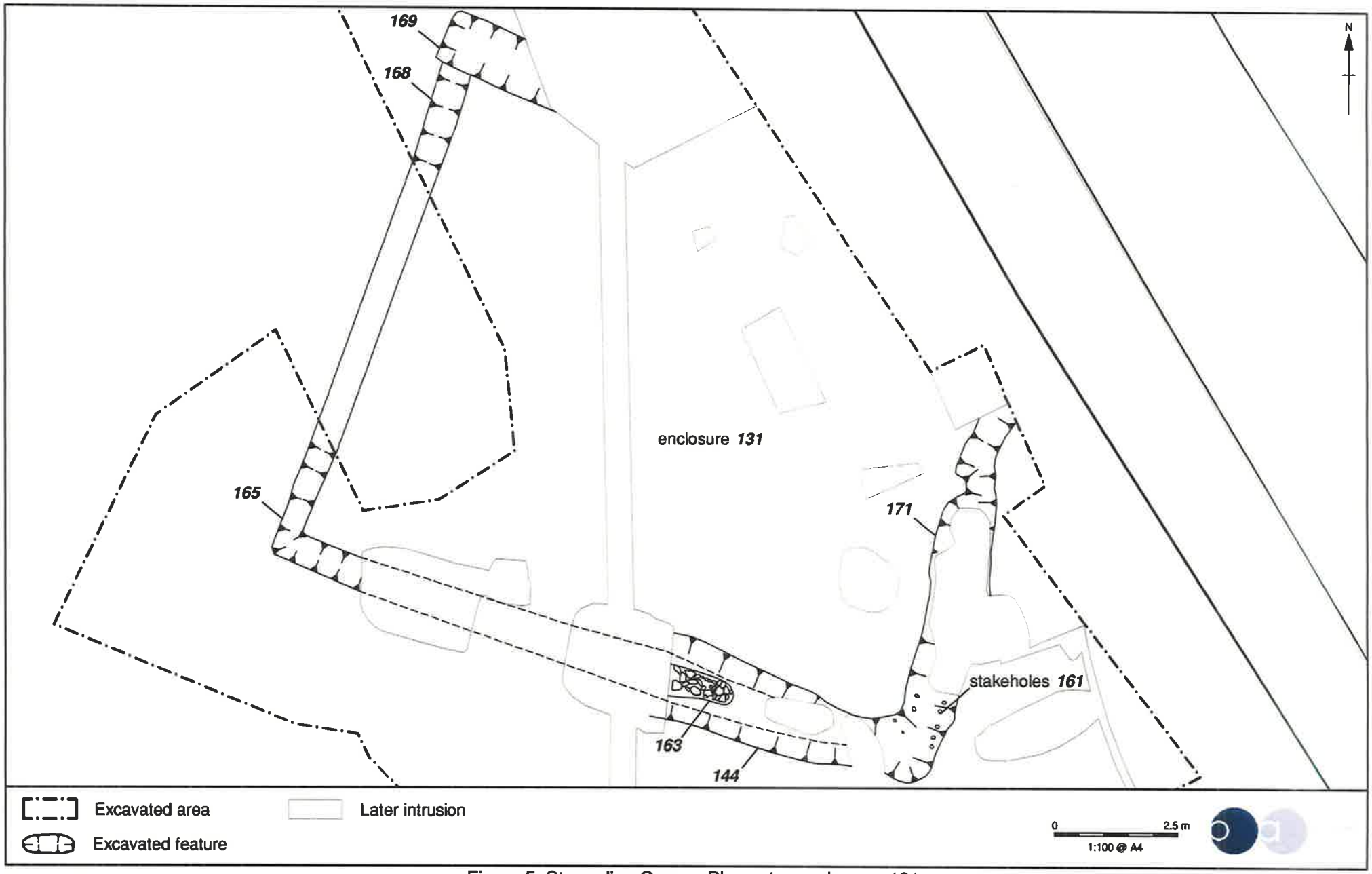

Figure 5: Streamline Garage Phase 1a; enclosure *131*

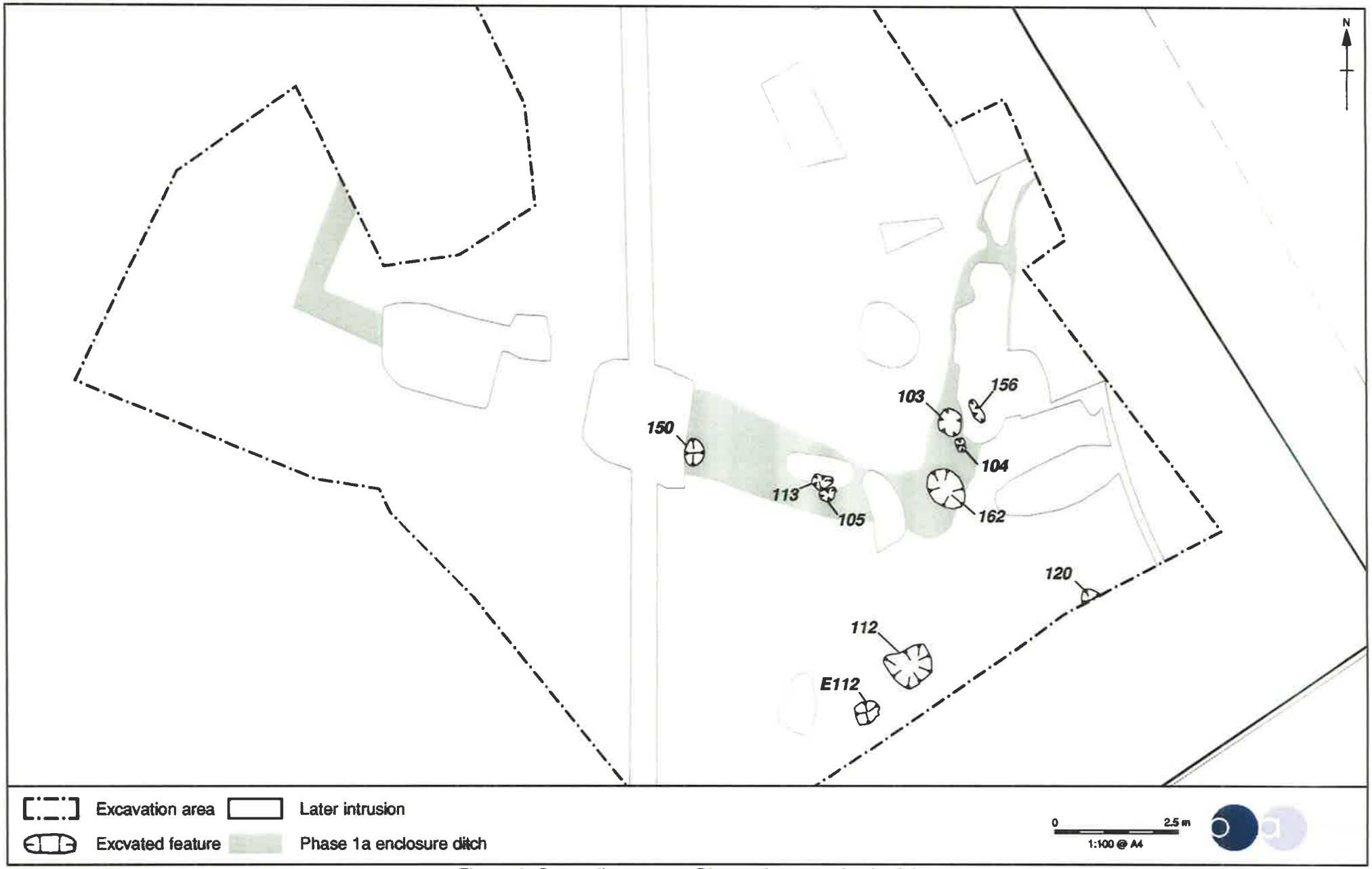

Figure 6: Streamline garage Phase 1b; cremation burials

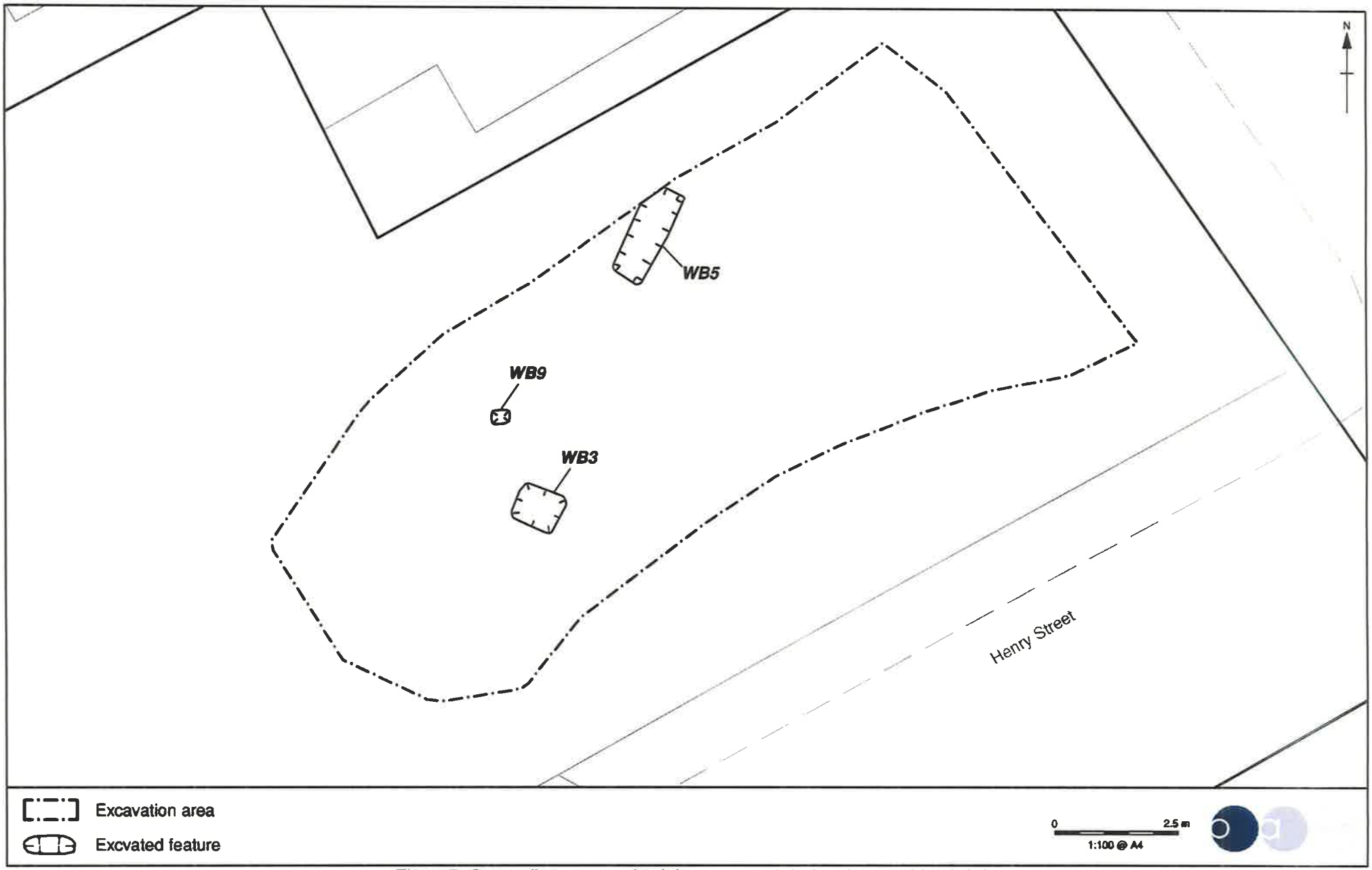

Figure7: Streamline garage; burials excavated during the watching brief

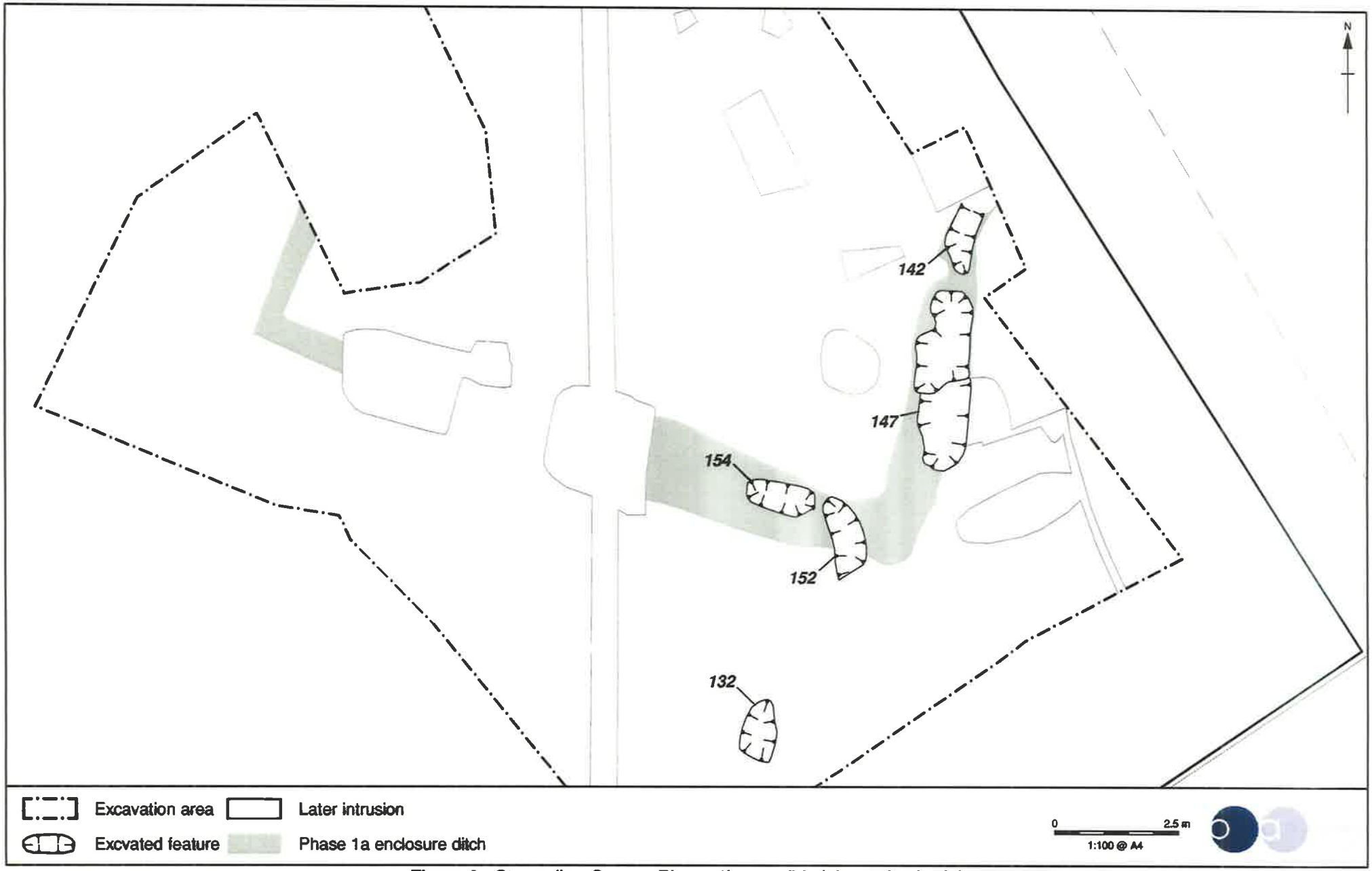

Figure 8 : Streamline Garage Phase 1b; possible inhumation burials

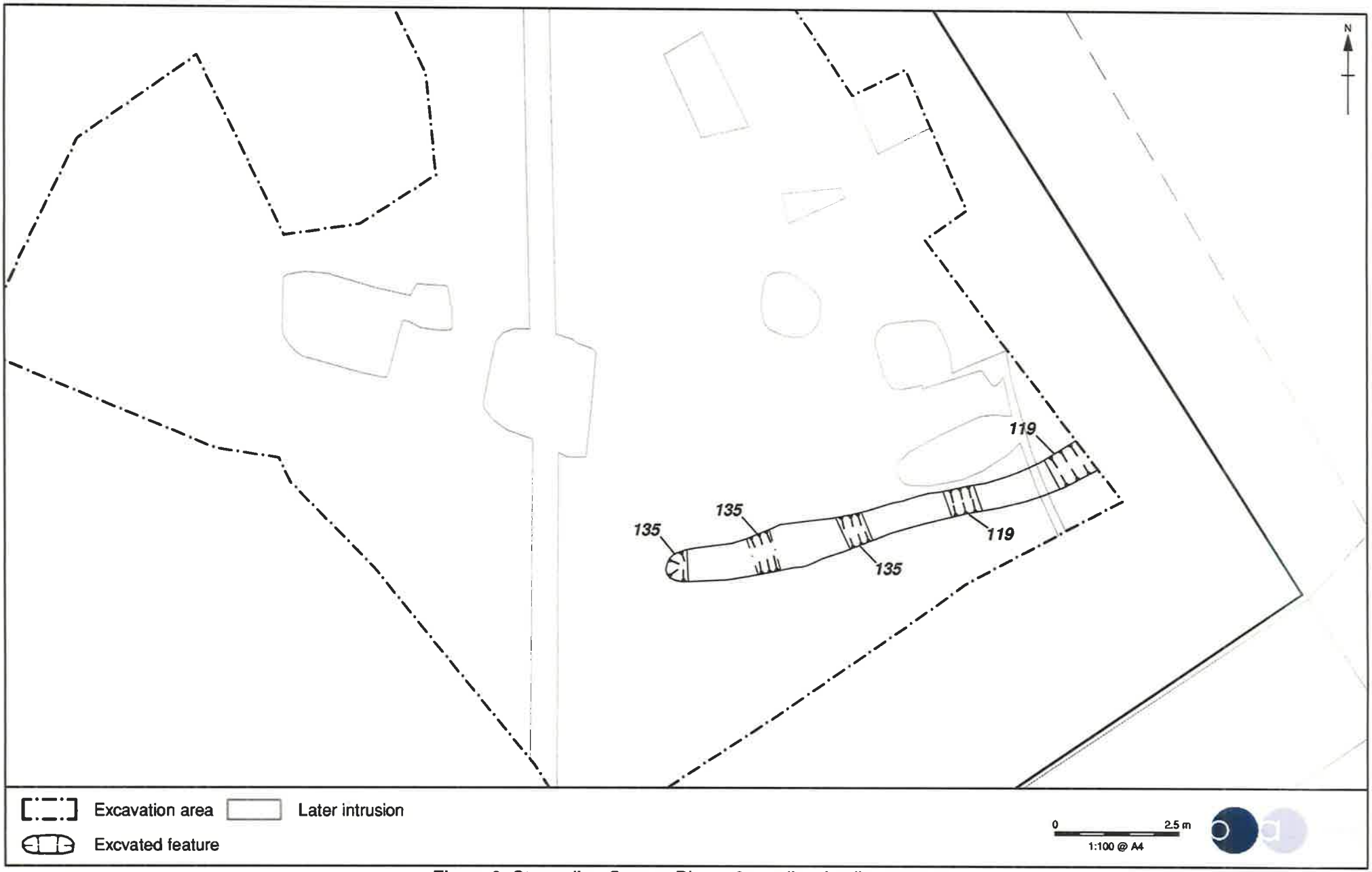

Figure 9: Streamline Garage Phase 2; medieval gully *119/135*

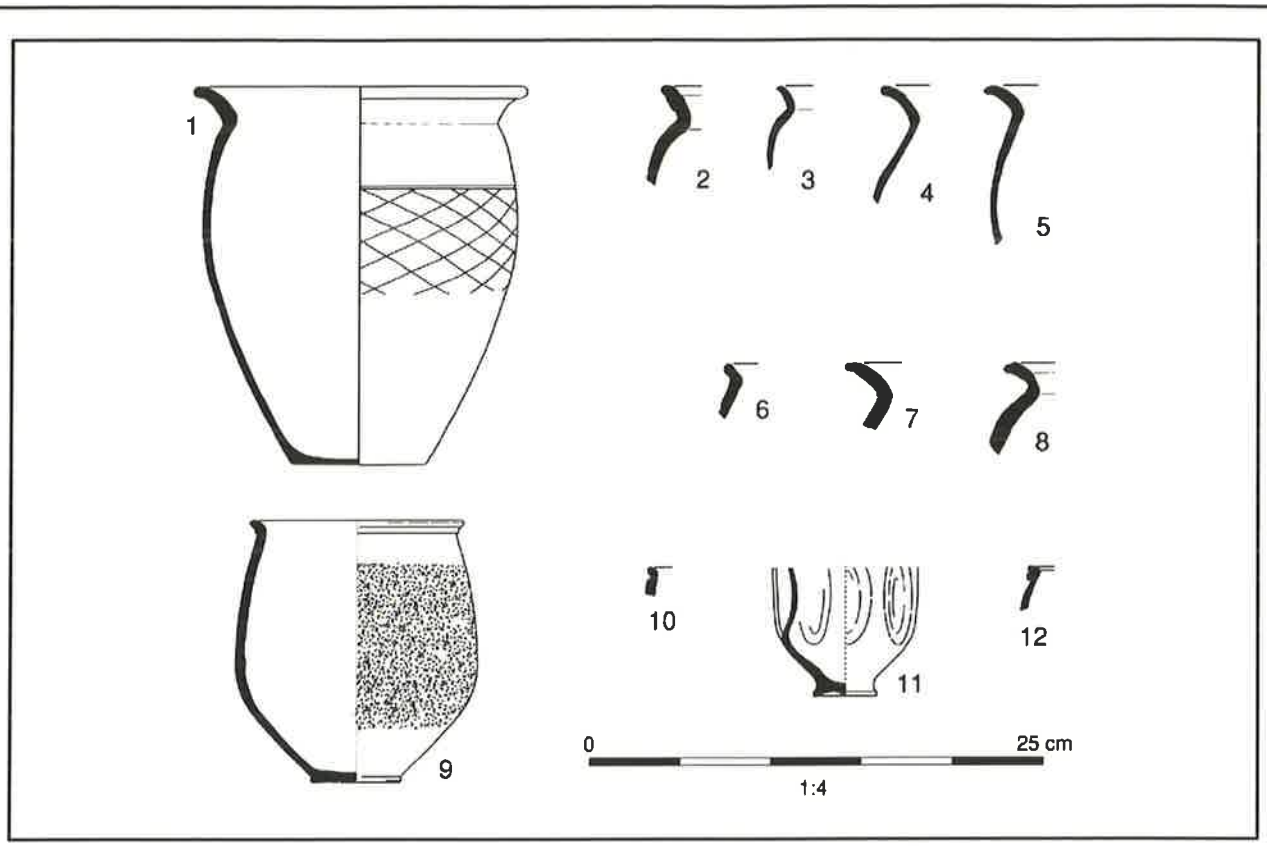

Figure 10: Roman pottery from 77-79 Penny Street (1) and Streamline Garage (2-12)

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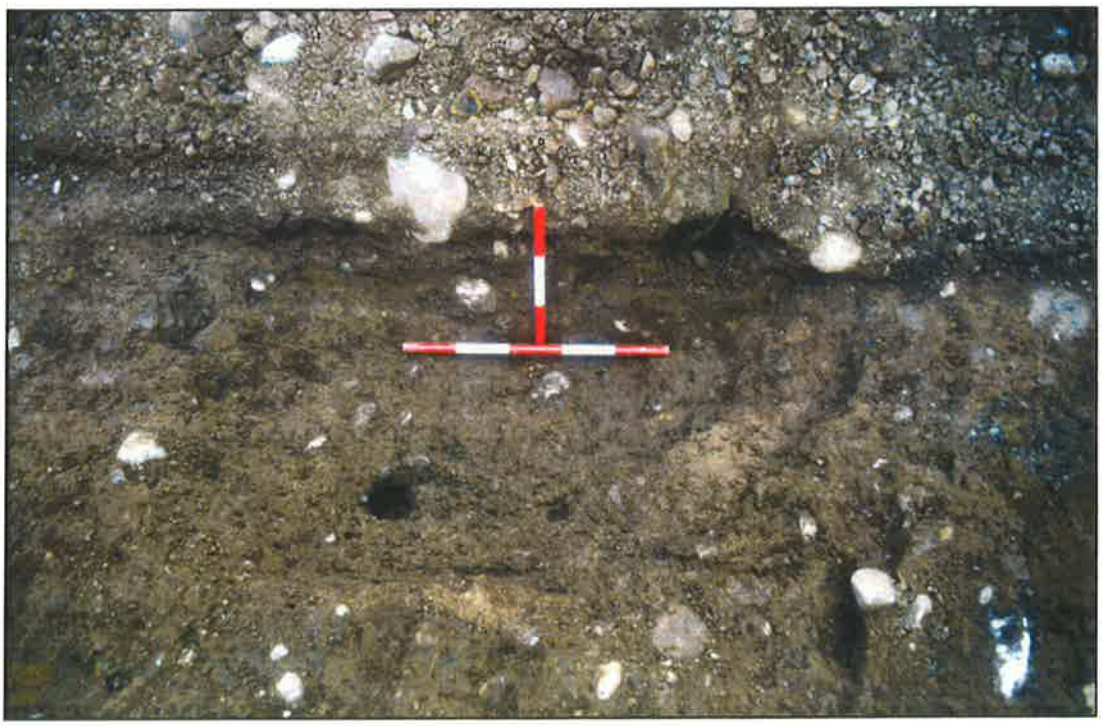

Plate 2: 81 Penny Street: possible cremation *152* after excavation, showing stakehole *163* at base of cut

Plate 3: Streamline Garage Phase 1a; section of ditch *144*, the southern arm of the perimeter ditch of enclosure *131*, showing cobble feature *163*

Plate 4: Streamline Garage Phase 1a; south-east corner of enclosure *131*, showing perimeter ditch *144/171* and cobble feature *163* at the base of *144*

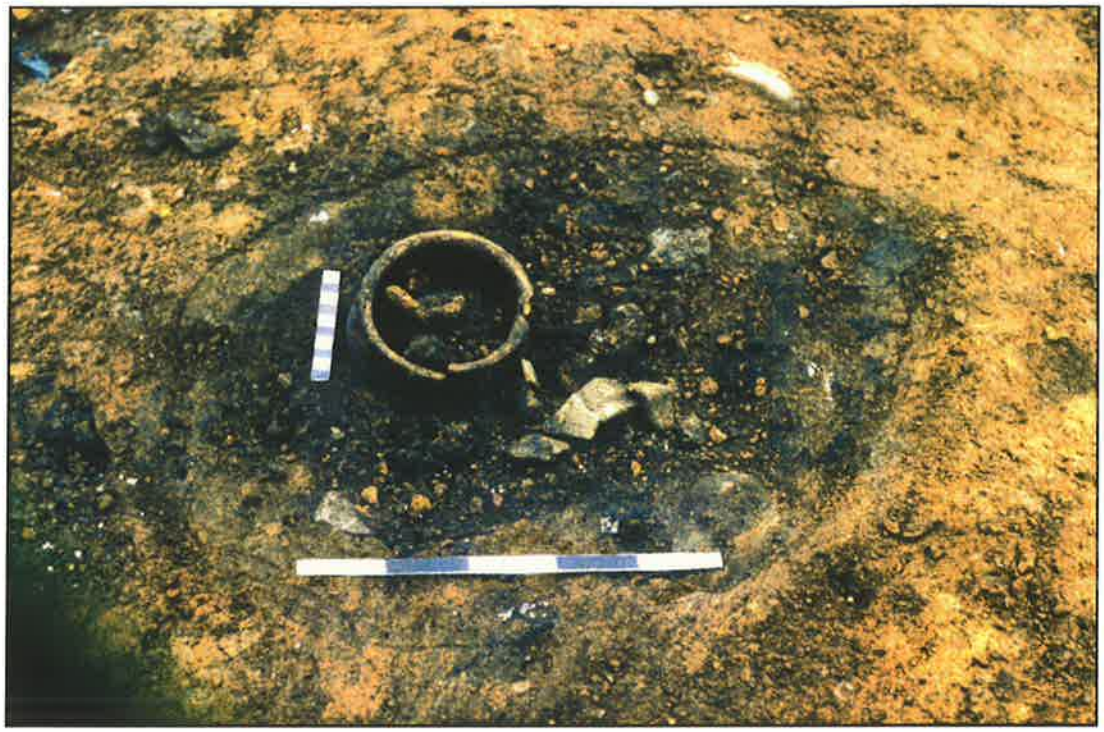

Plate 5: Streamline Garage Phase 1b; cremation *103*

Plate 6: Streamline Garage Phase 1b; cremation *104*

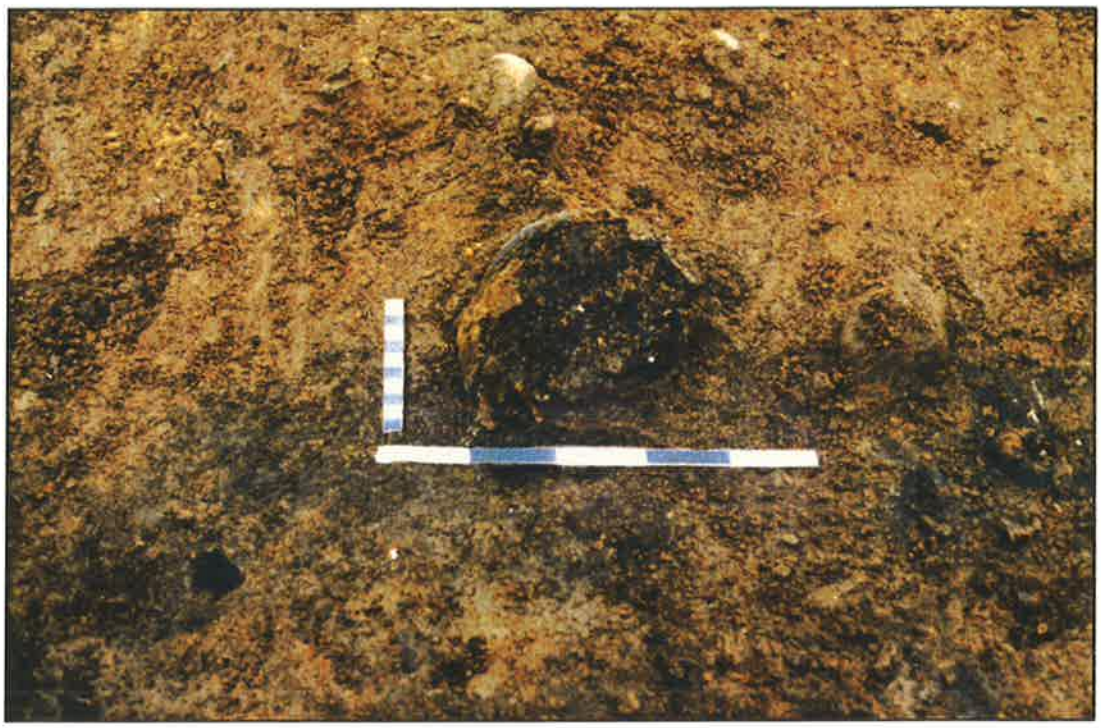

Plate 7: Streamline Garage Phase 1b; cremation *105*

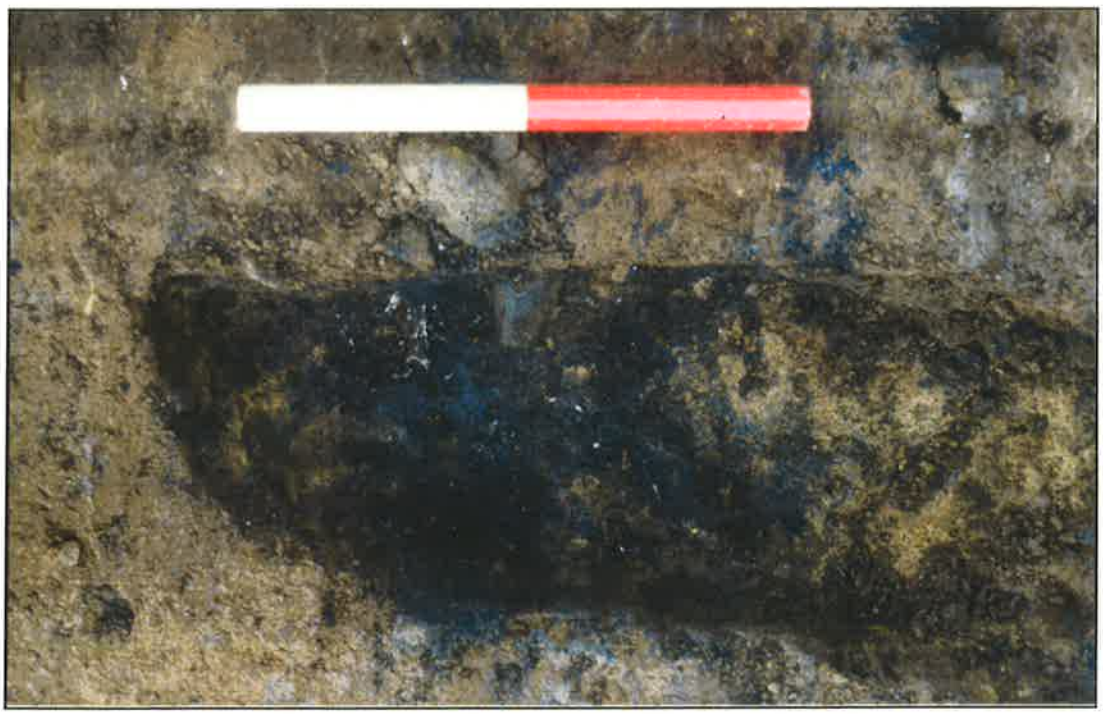

Plate 8: Streamline Garage Phase 1b; cremation *E112*

Plate 9: Streamline Garage Phase 1b: cremation *WB3*

Plate 10: Streamline Garage Phase 1b: possible inhumation *147*

Plate 11: Streamline Garage Phase 1b: possible inhumation *132*, prior to excavation

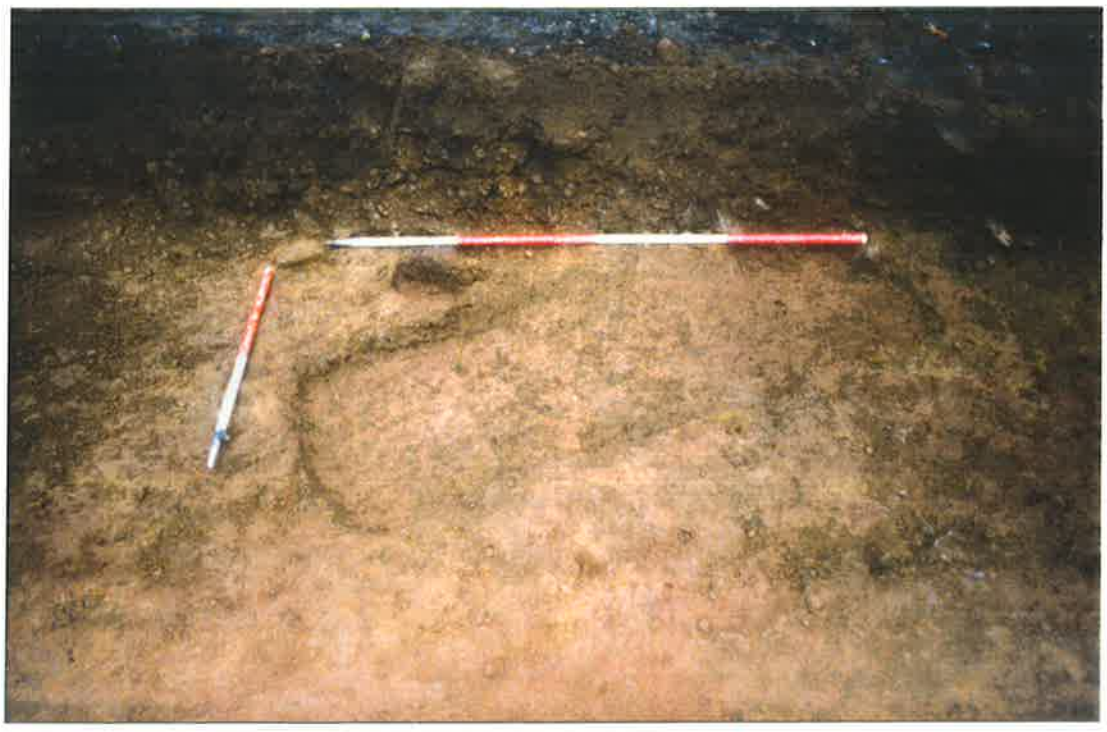

Plate 12: Streamline Garage Phase 1b: possible truncated inhumation *WB5*

Plate 13: 77-79 Penny Street: burial urn (Pottery 1)
found during the 1995 evaluation

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