# An Archaeological Excavation on the site of the former Merlin Works, Bath Lane, Leicester (NGR SK 580 045) Interim Report

**Dr. Roger Kipling**

For: Westbridge Living Ltd

**Checked by Project Manager**

**Signed:** .  **..Date: 18/2/2008**

**Name:** ....R.J. Buckley.....

**University of Leicester**
**Archaeological Services**
University Rd., Leicester, LE1 7RH
Tel: (0116) 2522848 Fax: (0116) 2522614

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University of Leicester Archaeological Services

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**1: Introduction** (Plates 1&2)

1.1: An archaeological excavation was undertaken by staff of University of Leicester Archaeological Services (ULAS) on behalf of Westbridge Living Ltd between July and November 2007 on the site of the former Merlin Dye Works on Bath Lane, Leicester, in advance of a proposed residential development. The area had previously been the subject of a two-stage archaeological evaluation, commencing with two trial trenches in 2003, followed by the stripping and characterisation of the area of archaeological interest identified in January 2007.

1.2: The area stripped in the characterisation phase was machined further in July 2007 in order to encompass the majority of the footprint of the basements of the proposed building. This resulted in a substantial trench totalling *c.*1031m² between Bath Lane to the east and the canalised River Soar to the west in order to expose uppermost archaeological deposits in preparation for excavation. A second, smaller trench targeting the possible ditch(es) of the town defences, measured 38.8m², producing a total excavated area of *c.*1070m². Proceeding from stripping by 360° mechanical excavator and hand-cleaning of the site, detailed measured and levelled plans were initially undertaken of archaeological deposits at a scale of 1:20. Excavation of the archaeological sequence followed, utilising a single-context recording system.

Plate 1: General view of excavation looking northeast

**2: Results**

***2.1: The Prehistoric Period***

The earliest evidence of activity occurring on or near the site was in the form of a number of prehistoric flint tools and associated waste flakes. Most significantly, a probable buried soil occupying the eastern edge of the excavation contained blades of Upper Palaeolithic type the first such material to be found in Leicester, together with some possibly of the Mesolithic period. Later flint of the Neolithic and Bronze Age was recovered from a possible tree bole and an overlying layer of alluvium.


Figure 1: General Phase Plan of Merlin Works, Bath Lane

***2.2: The Late Iron Age/Conquest Period*** (Plates 3-6)

The eastern sector of the excavation, flanking Bath Lane, produced the earliest securely-dated occupation from the excavation, with features and occupation deposits dating to the late pre-Roman Iron Age or the early Roman Conquest period found in association with large quantities of charcoal and ceramic 'flan tray' fragments, the latter linked to the production of coin blanks (Plates 3 & 4). The discovery of high-status imported Gallo-Belgic pottery dates this activity to between the late first century BC and first century AD. The north-east corner of the excavation was occupied by a steeply-cambered bank or slope, orientated broadly south-east/north-west and overlain by a series of metalled gravel surfaces, the latest of which overlay a wider area and may represent a yard area (Plate 6). A shallow ditch or gully ran parallel with the bank at its foot, and contained substantial quantities of flan tray fragments – including a near-complete example – in combination with further 1st-century pottery, suggesting a later Iron Age date for bank and ditch.

Plate 2: General view of the excavation, viewed west

Plate 3: Flan tray mould fragment

The gully had subsequently been cut by a substantial post hole. Two further smaller gullies traversed the area to the south of the possible road, their heavily sandy fills indicative of drains heading west towards the River Soar. The metalled surface had suffered major slumping into a series of four earlier inter-cutting roughly square shallow Roman features, most likely gravel quarry pits associated with construction of the adjoining bank. These features had subsequently been overlain by a loamy soil layer, probably representative of a levelling episode prior to the subsequent early Roman timber phase (see below).

To the west, the excavation was traversed broadly north-west/south-east by a shallow, open U-shaped profile ditch measuring *c.*3m wide and *c.*1m deep (Plate 5). The western edge appeared very open, although this may have been due to a subsequent recut. The primary fill of the feature contained pottery dating to AD50/60. The absence of further earlier activity to the west of this feature may be significant. The same feature was observed a short distance to the north in the side of a 19th-century pipe trench; this was not excavated. The orientation and open profile of the ditch suggests that it could represent the same feature observed to the south on Bath Lane in 1992 and in the 1939 excavations in the garden of Newarke Houses Museum, namely the western boundary ditch to the pre-Roman civilian settlement. The long section across the feature revealed three ditches, the earliest of which is likely to date to the late Iron Age period and the latest pertain to the late 2nd century AD defences. The middle ditch is of unknown date.

Plate 4: View south-east across possible Late Iron Age workshop area

Plate 5: Possible Iron Age settlement boundary ditch, viewed southeast

Plate 6: View north across Late Iron Age bank and ditch

### *2.3: The Early Roman Period*

*2.3.1: The Early Roman Timber Phase*

In the north-east corner of the trench, levelling of the general area previously occupied by the quarry pits, bank and ditch, of the previous phase was followed by construction of timber building(s). These comprised timber beam-slots, aligned on the Roman street grid, and associated floors of yellow and green sandy clay. These were late 1st century in date.

*2.3.2: The Early Roman Masonry Building* (Plates 7-9)

The site appears to have undergone fundamental change during the later 1st or early 2nd century AD, involving construction of a substantial masonry building or building complex, work which initially necessitated the dumping of material on the riverward side of the site in order to reclaim lower-lying land. The structure occupied much of the excavated area and clearly extended north and east beyond the limits of the excavation trench. Its core consisted of a slightly sub-rectangular building orientated south-west to north-east, its walls measuring 1.20m-1.30m wide and defining an internal area of *c.*149.20m². An apsidal west end comprised an additional space of *c.*11.60m² with an internal span of *c.*6.30m and depth of *c.*2.6m, defined by a wall measuring *c.*1.30m thick. The apse was of the same build as the main structure, although later it seems to have been divided from the nave by the insertion of a *c.*0.70m wide internal partition wall. The apse had suffered heavy damage during the 19th century, and there were no indications of surviving internal structural or flooring arrangements. The main building interior had similarly suffered, although a sequence of thin mortar floor surfaces surmounted by a small area of rough, undecorated tessellated pavement survived in a narrow strip at the north-east corner. Pottery from a mortar floor within this sequence dated to the late first or early second century AD. It seems unlikely that there was originally a hypocaust in this room as the difference between the uppermost surviving floor level and the top of underlying deposits is insufficient to accommodate the substructure required.

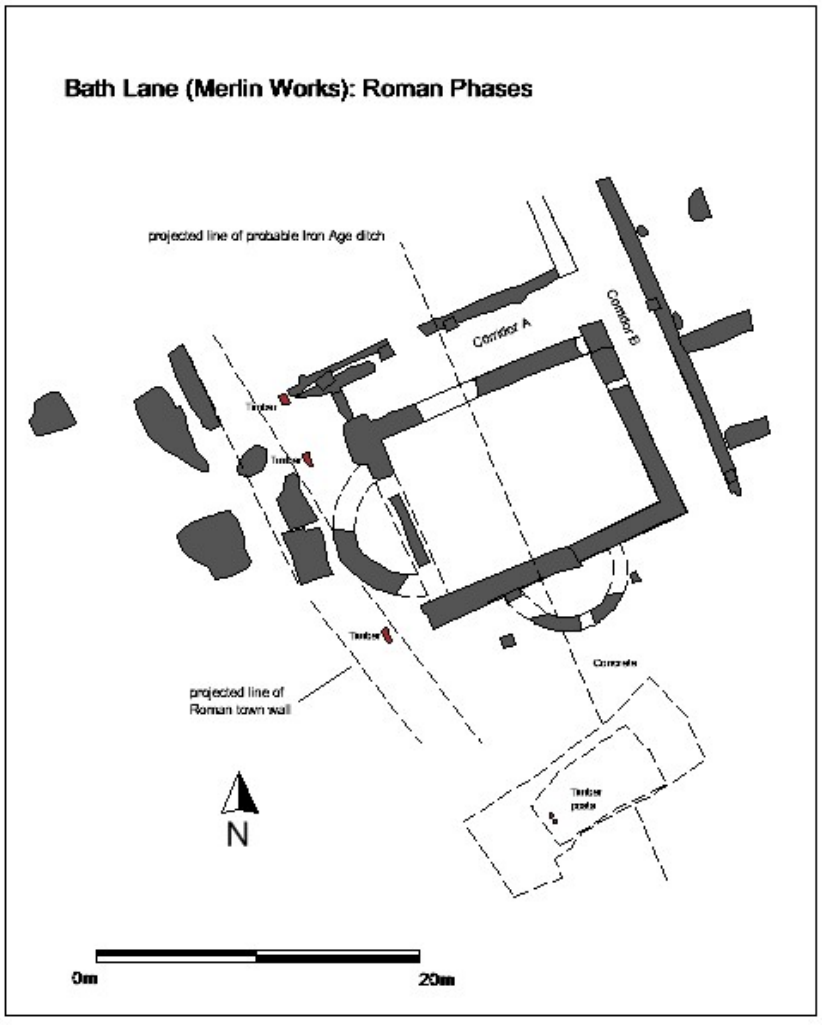


Figure 2: General Plan of Roman Phases, Merlin Works, Bath Lane

A second, smaller apse was attached to the southern wall, also seemingly integral to the main build and measuring *c.*6m wide and *c.*3m deep internally, forming an internal space of *c.*13.8m². There were indications of its having been heated via a hypocaust system, with fragmentary traces of an *opus*

*signinum* floor built over raked, unbonded granite footings supporting two badly damaged *pilae* tile stacks; there were no traces of a supporting floor. Hot air appears to have been channelled into the wall and constructed from roof tile *tegulae*. The roof had not survived, but is likely to have consisted of a tile-built arch.

The main core of the building was flanked to the north and east by ancillary rooms and/or structures, seemingly linked in a corridor arrangement (A & B). Hence, a wall measuring *c.*18.3m and *c.*0.70m wide ran parallel to the main north wall, forming a 3.30m wide space and floored with a sequence of fragmentary mortar floor surfaces and preparatory make-up layers (Corridor A). The wall appeared to have undergone a complete rebuild during the Roman period consisting of its complete removal and substitution with a series of square masonry plinths; four were identified, placed at *c.*3.0m-3.5m intervals. If, as is likely, these represent pier bases, this would suggest substitution of the solid wall for an open arcade arrangement. A deep accumulation of Roman demolition deposits and an absence of floors immediately to the north of this wall may suggest it was open ground, possibly a courtyard.

Plate 7: General view of the early Roman building, viewed west

The structural arrangement and sequence to the east of the central building appeared more complex. A 3.20m wide corridor ran south from the north-east corner of the building in a continuation of the arrangement to the north. There were indications of a comparable two-phase construction history, although it was unclear as to whether the continuous wall or the arcading constituted the earlier arrangement. Alternatively, the suggestion of a two-phase walling sequence may be a misinterpretation of the evidence and, rather, indicative of underpinning of an arcade wall by connecting the piers with unmortared sections of wall. These may subsequently have been robbed first due to their having been unmortared.

The eastern corridor (B) measured a minimum length of 21m, extending north into the main trench section. Combined with a robbed, flanking western wall, this would suggest further rooms to the north-east and, possibly, the start of another corridor, forming a T-shaped arrangement with the other two. Two walls, represented by robber trenches, projected north-west from the eastern side of the corridor wall and butt ending to the latter; this suggests a later construction date, but whilst the corridor wall was still standing. Hence this may suggest a westward extension of the building complex.

Constructional Details

A detailed structural study of the walls of the core building revealed a number of features associated with its construction. The presence of several small vertical circular voids in the outer faces of the wall mortar suggests a shuttered wall construction, with the voids having housed vertical timbers. In

addition, small square recesses observed in the upper faces of two of the possible pier bases with iron staining may indicate the employment of some form of vertical reinforcement. The presence of earlier ditches appears to have been known to the builders of this structure; it is possible that these were still open features at the time of construction. Attempts had been made to compensate for the unstable ground in the form of considerably deeper and more substantial wall foundations along the principal northern and southern walls.

Waterlogged timbers located directly west of the building appeared to be linked to its construction and/or maintenance (Plates 8 & 9). The three reused oak timbers had been sawn to approximately rectangular shape but presented rough upper surfaces, and had been placed in shallow cuts in the river gravels. Their placement at the ends of the main wall axes suggests that they may have acted as bases for some form of scaffolding arrangement.

Plate 8: Recording timber associated with the early Roman building

Plate 9: The same timber cleaned

*2.3.3: The Roman Defences* (Plates 10-12)

The Timber Phase

The western line of the Roman town defences were identified as traversing the excavation on an approximate north-north-west/south-south-east alignment. The probable earth rampart associated with the initial timber defensive phase was identified overlying the north-west corner of the early Roman apsidal building; the latter appears to have been demolished prior to construction of the earth bank (Plate 11). The earthen defensive phase is thought to date to the late 2nd or early 3rd century AD. It was not possible to gauge the width or extent of the rampart. Two substantial timber stakes identified *c.*15m to the south-east of the apsidal building in association with a possible linear cut feature may constitute evidence for timber revetment of the rampart and an associated external defensive ditch, namely the latest ditch in the sequence of three observed in the long section..

The Masonry Phase (Plates 10 & 12)

The timber and earth rampart is believed to have been supplemented with the construction of a masonry facing wall during the 3rd century, and was identified at Bath Lane on the same alignment as its predecessor. Notably, however, the wall appears to have been constructed in such a way as to 'dog-leg' around the western apse of the early Roman building, presenting a slight kink in its line. The footings of the wall consisted of substantial unmortared granite fragments accommodated at a raked angle in a construction trench. A surviving 6.6m length of in situ superstructure, measuring *c.*3.2m wide and of predominately sandstone and granite build, was observed projecting north from beneath the medieval Blackfriars enclosure wall. Two substantial fragments of fallen masonry were situated close by to the north, one of which appeared to include surviving facing stones of the external wall face. A sondage to the west of the wall line appeared to establish that the substantial spreads of predominately granite rubble observed beyond the external wall face represented medieval attempts at land consolidation and/or ground levelling using Roman material rather than, as was first supposed, the remains of an associated structure, such as a tower. There were hints of the material having infilled a cut feature, possibly the aforementioned putative external defensive ditch.

Plate 10: View east across the Roman town defences and the Blackfriars wall (right)

Plate 11: Section viewed north across structural timber (left) and rampart material (right, above)

Plate 12: View across Roman town wall (left) and the Blackfriars wall

***2.4: The Medieval Period*** (Plates 12-16)

***2.4.1: The Blackfriars Wall***

The most prominent feature of medieval date was the southern precinct wall to the Blackfriars friary (Plates 12 & 15), a substantial structure extending a minimum of 11.5m across the line of the Roman defences on a broadly west-southwest - east-northeast alignment. It extended west beyond the limits of the excavation and to the east had suffered truncation and destruction by nineteenth-century cellarage. The wall, excavated down to the level of its footings, was well-constructed from roughly-dressed

blocks of mixed material and measured 1.35m wide at its base; the largely sandstone superstructure survived to a maximum height of *c.*1.5m. There were also indications of two possible door or window blockings. The wall appeared to have used both the Roman defensive wall and a substantial and extensive yard surface as constructional bases. It is possible that the wall was subsequently partially removed in order to provide access to the town latrine from the Waterlaggs area. Cartographic evidence suggests that the northern wall represents the southern boundary of the Blackfriars monastic precinct, known to date to before 1538. The Blackfriars wall appeared to represent a boundary defining two distinctly different sequences of medieval activity in terms of character and density. With the notable exception of a possible latrine and associated well and drain, there was a complete absence of any later activity in the area of the trench north of the wall, probably explained by its likely inclusion within the medieval Blackfriars monastic precinct (see below).

*2.4.2: The Industrial Activity*

Conversely, the southern zone was characterised by substantial and dense activity of a distinctly industrial nature, characterised by a number of small square clay- and clay-bonded granite-lined tanks set within a crude metalled yard area (Plate 14). A number of these features contained degraded lime, a material traditionally associated with fellmongering activity which formed the preliminary stage of the leather making process, consisting of the removal of hair and wool from animal skins and hides prior to tanning. This activity appears to have been delineated by a series of short walls running broadly south-west to north-east, most prominent of which was a substantial structure of granite and ceramic building material build which survived to a height of over a metre. The wall extended north-east across the robber trench targeting the Roman town defences, its line carried further by three additional discontinuous short wall lengths. A further wall ran in parallel *c.*5m to the south, defining a narrow but long space, presumably running south-west back from the Bath Lane frontage, and which served to define the yard surface and tank features.

The archaeological evidence accords well with historical records, which state that this plot of land was called Water Laggs and was owned by the Austen Friars. A late medieval building was built against the precinct wall and appears from cartographic evidence to have continued well into the post-medieval period. The Water Laggs yard was walled in the late 17th century and was given over to intensive industrial activity. A fell monger's business is known to have occupied the site during the eighteenth century, likely represented by the aforementioned clay- and granite-lined tank features identified in this area of the site. The apparent intensity of industrial activity within this zone may account for the complete absence of Roman activity.

Plate 13: Excavation of medieval well in progress

Plate 14: Excavated medieval tank feature

Removal of the tanks features and occupational material/accumulation in to which these were cut revealed a sequence of substantial cobbled yard surfaces extending over much of the general area south of the projected line of the precinct wall. The earliest phase appeared to consist of a crudely cobbled lane extending west from Friars Causeway/Blackfriars Street towards the river. This feature may have formed the boundary subsequently used for the setting out of the Blackfriars monastic precinct, the southern wall of which was constructed directly upon this surface. Contemporary with or possibly later than this, a metalled yard was laid down over the western end of the apsidal Roman building, the wall tops of which were incorporated into its surface construction (Plates 15 & 16). The yard area to the south of the Blackfriars wall was overlain by a thick accumulation of organically rich material containing considerable quantities of animal bone, including butchery waste. It was into this substantial deposit that the industrial features were cut during the late medieval/early post-medieval period.

The north-western corner of the excavation proved one of the most problematic in terms of determining its structural sequence. The area was dominated by a sizeable feature of square or rectangular plan measuring *c.*9.50m north-east/south-west and a minimum of 5m north-west/south-east. Partial excavation of the feature revealed a vertical cut to a substantial mortar floor base which became increasingly patchy and degraded towards the west. The floor was Roman in date and had been overlain by the town wall. It had been truncated in order to accommodate unbonded granite dry stone walling, forming a lining along the northern and eastern faces of the cut. The western end of the feature was defined by a markedly different 1.2m-wide wall of buff mortar-bonded diorite construction, seemingly of Roman build, its western (outer?) face abutted by the footings of the town wall.

The feature produced medieval pottery and its fills were highly organic or 'cess' like in character. Coupled with the Roman character of the mortar floor base and western, possibly retaining wall, it would appear that this represents a medieval reuse of a relict sub-surface Roman feature as a cess pit. Wear to the flooring may suggest cleaning via scouring. The presence of the Roman wall may, however, be misleading in the sense that the latrine may have in fact extended as far west as the 'river wall', a feature unexcavated on this occasion but investigated in the evaluation stage of the project in 2002. It is tempting to link a reference in the Leicester borough records to the transfer of land from the Blackfriars monastic community to the corporation for the construction of a communal toilet in 1342/3. The theory of this having functioned as some form of latrine is supported by a stone-based open drain linking it with a stone lined well *c.*6m to the east (Plate 13); however, pottery from its fill was dated to the late thirteenth century. It is possible that well water was utilised to periodically clear the feature.

Plate 15: View west across yard surface; Blackfriars wall to right

Plate 16: View north-east across medieval yard surface and underlying Roman building