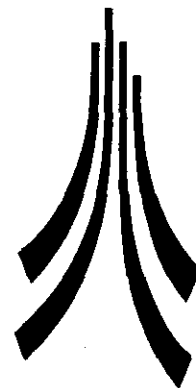


**LANCASTER CITY**  
**An Archaeological Assessment**  
**of Redevelopment Area**

**Phase II**  
**West of Damside Street**

**LANCASTER**  
**UNIVERSITY**  
**ARCHAEOLOGICAL**  
**UNIT**



**July 1992**

**AN ARCHAEOLOGICAL ASSESSMENT  
OF REDEVELOPMENT AREA  
PHASE II**

**PYE'S WAREHOUSE  
WEST OF DAMSIDE STREET**

Denise Drury

Lancaster University  
Archaeological Unit

July 1992

## **CONTENTS**

### **ACKNOWLEDGEMENTS**

### **LIST OF ILLUSTRATIONS**

#### **0 EXECUTIVE SUMMARY**

#### **1 INTRODUCTION**

#### **2 BACKGROUND**

#### **3 METHODOLOGY**

##### **3.1 Project Design**

##### **3.2 The Excavations**

#### **4 THE EXCAVATIONS**

##### **4.1 Trench 6**

##### **4.2 Trench 7**

##### **4.3 Trench 8**

##### **4.4 Trench 9**

#### **5 FINDS**

#### **6 DISCUSSION**

#### **7 ARCHAEOLOGICAL SIGNIFICANCE**

#### **8 RECOMMENDATIONS**

### **BIBLIOGRAPHY**

### **APPENDICES**

Appendix 1: 1991 Project Brief

Appendix 2: Project Proposals

Appendix 3: Reinstatement Specifications

## ACKNOWLEDGEMENTS

This report has been made possible by the hard work and support of many people. Thanks go to those who took part in all aspects of the fieldwork and post excavation work (listed below).

Harbour and General provided plant and technical advice; thanks go to Ian Thistlethwaite and the machine operator for their assistance on site. Thanks also to the mill manager, Mr Stark, and staff of W and J Pye for their forbearance during the excavations.

*Surveyor*

Mick Krupa

*Excavation assistant*

Ian Scott

*Illustration*

Richard Danks

*Finds manager*

Chris Howard-Davis

*Project manager and editor*

Rachel Newman

## **LIST OF ILLUSTRATIONS**

<b>Figure</b>	<b>1</b>	<b>Site Location Plan</b>
	<b>2</b>	<b>Trench Location Plan</b>
	<b>3</b>	<b>Mackreth's Map 1778</b>
	<b>4</b>	<b>Sections</b>
	<b>4.1</b>	<b>Trench 6 South facing section</b>
	<b>4.2</b>	<b>Trench 7 South facing section</b>

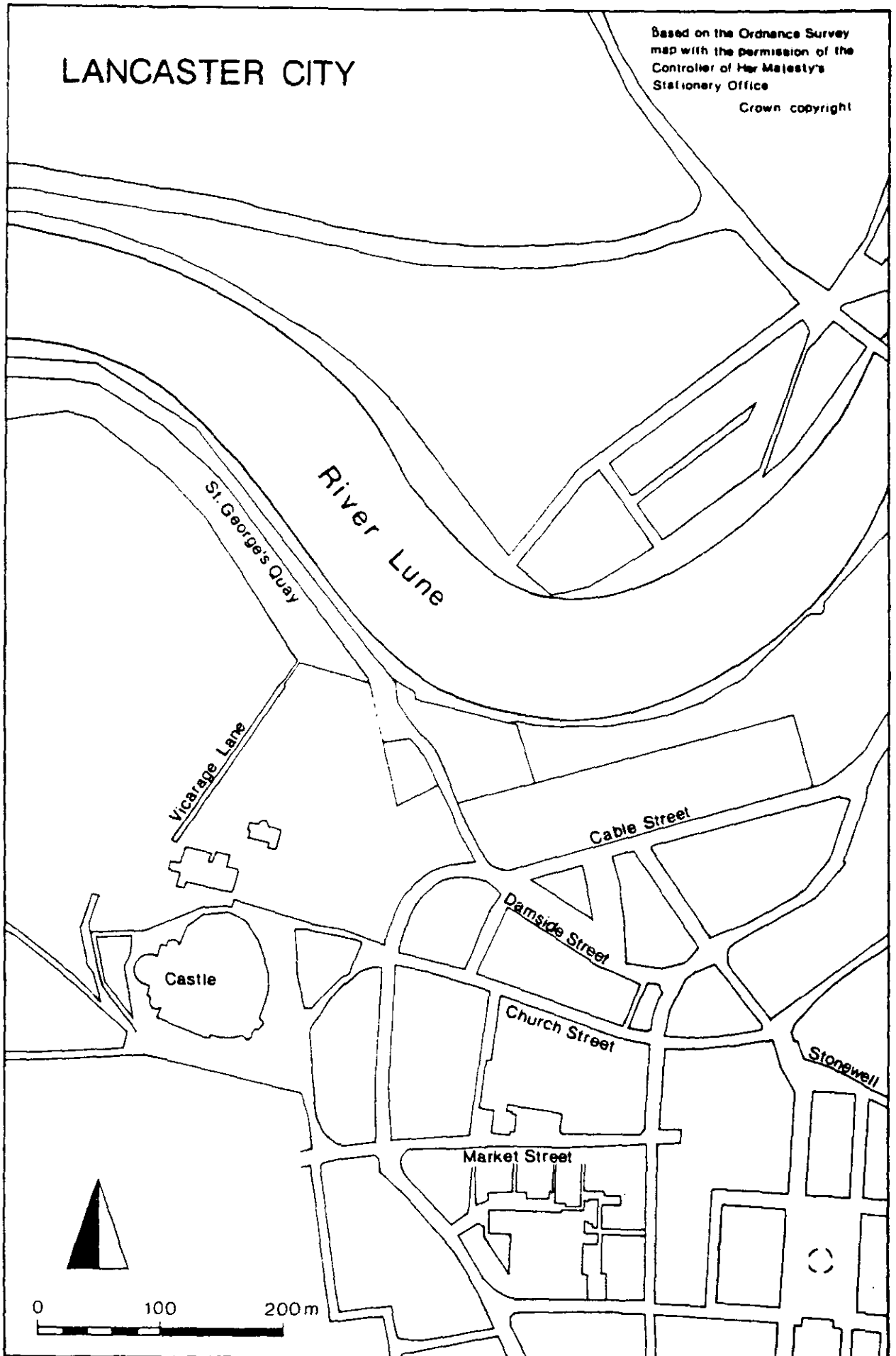


Fig. 1

# LANCASTER : PYE'S WAREHOUSE

## TRENCH LOCATION PLAN

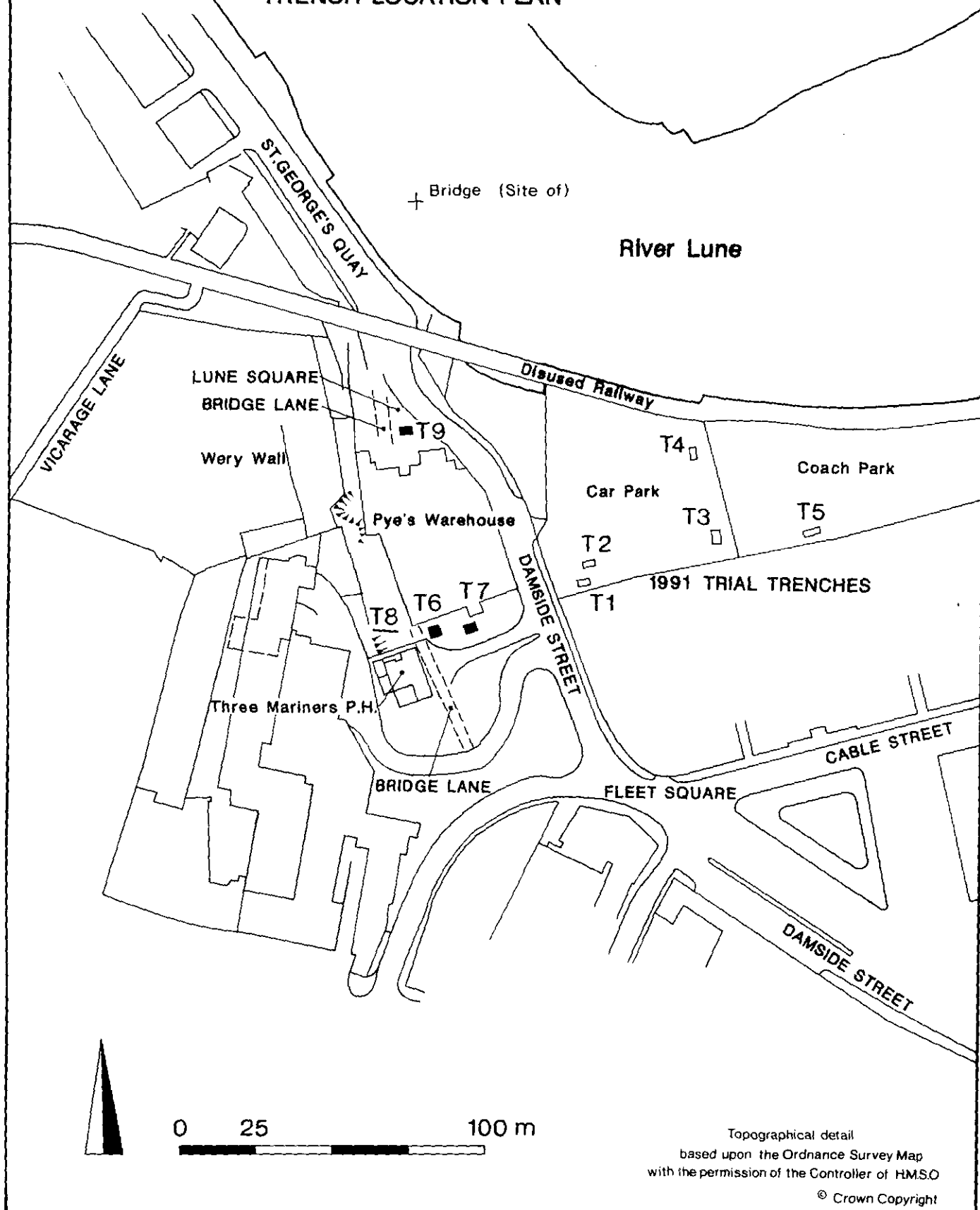


Fig.2

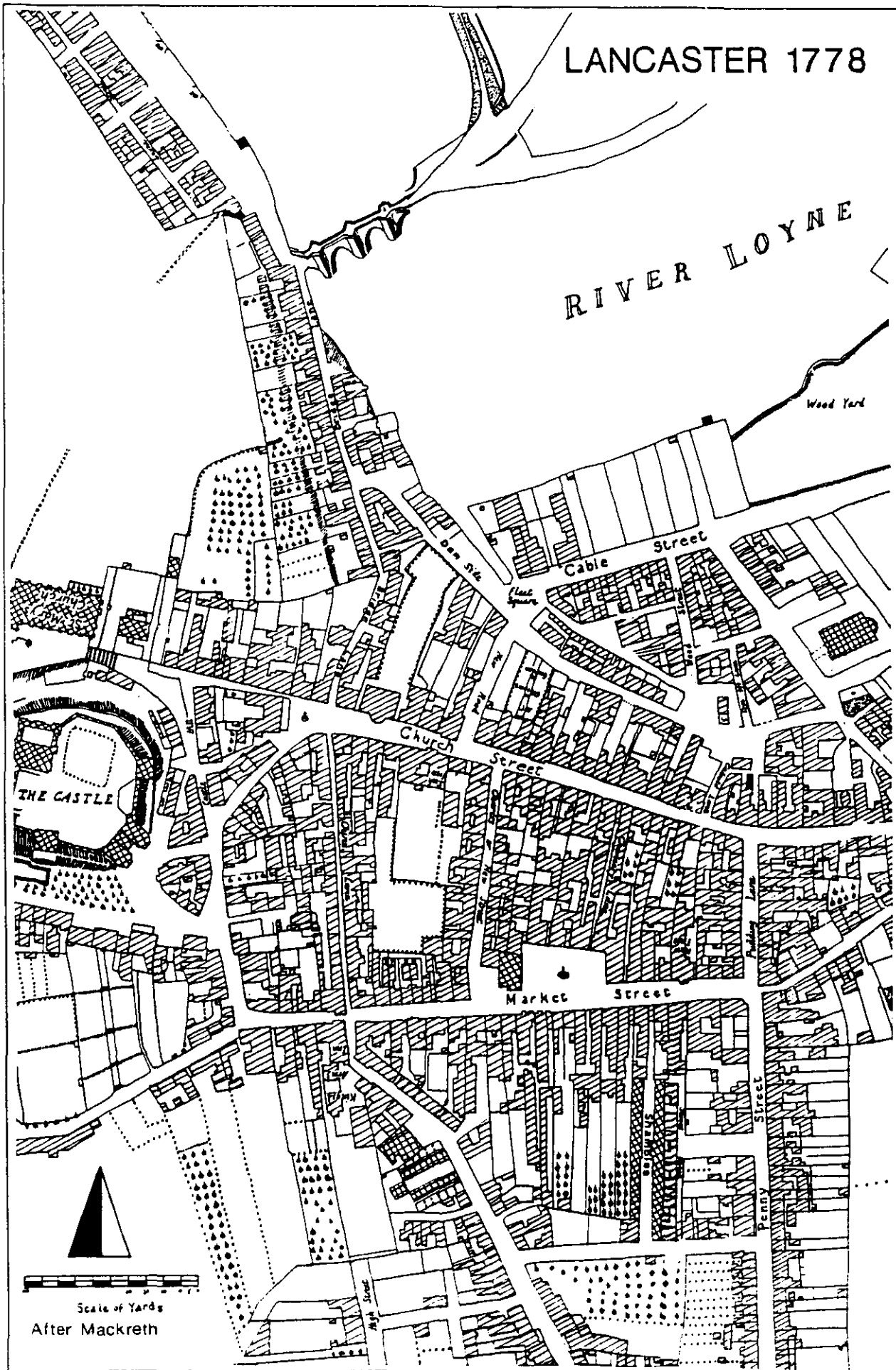


Fig. 3



# LANCASTER ; PYE'S WAREHOUSE

TRENCH 6 S.FACING SECTION

TRENCH 7 S.FACING SECTION

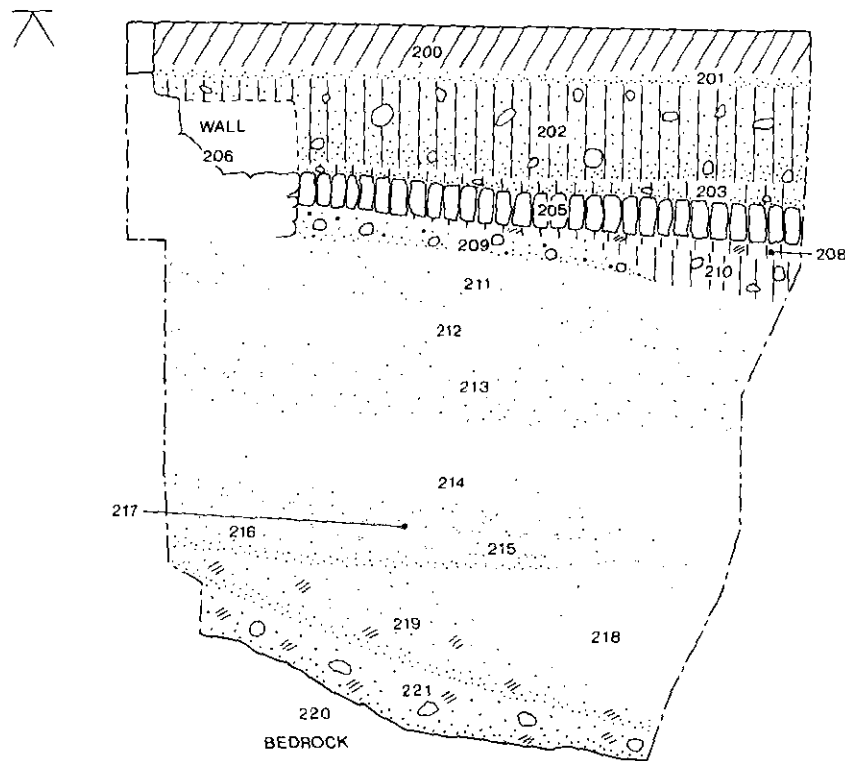


Fig.4.1

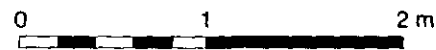
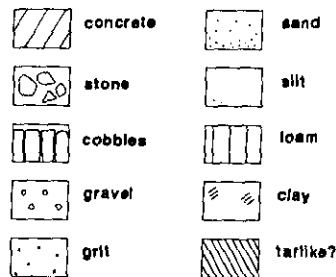


Fig.4

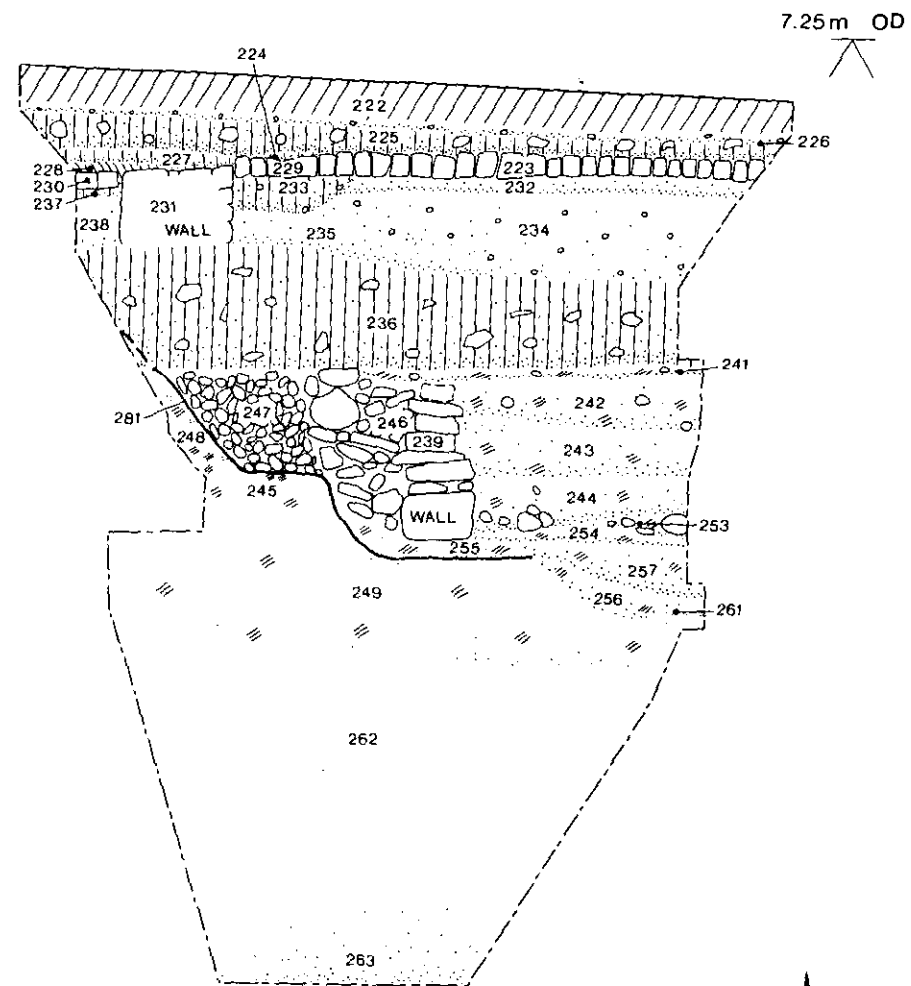


Fig.4.2

## **0. EXECUTIVE SUMMARY**

### ***Introduction***

The archaeological assessment of the redevelopment area was commissioned by W and J Pye Limited in response to a request from Lancaster City Council for an evaluation prior to outline planning consent.

### ***Aims***

The purpose of this archaeological investigation was to evaluate the areas immediately to the north and south of W and J Pye's, in order to assess the presence of archaeological remains, their date, nature, and depth. The trial trenches were located with respect to the continued operation of the warehouse and the location of the underground services.

### ***Background***

The warehouse is situated at the foot of Castle Hill, the site of a series of Roman forts which date from the first century AD onwards. The River Lune, to the north, almost certainly flowed closer to the site of the forts than it does today and it has been suggested that a harbour may have existed in this area, protected by the fourth century fort, which was aligned parallel to the river. The present warehouse structure overlies the course of Bridge Lane, a thoroughfare which led from China Lane to Lune Square and was associated with the bridge over the Lune which was referred to from the thirteenth century onward.

The area lies within an Area of Archaeological Potential and is regarded as being of archaeological interest due to the proximity of known Roman archaeology, and possible waterfront activity of this and subsequent periods. The location of any archaeological remains and the nature of the former topography of the area will add to the understanding of the changing course of the river Lune and how this has affected the use of the area. The potential for waterlogged deposits would greatly contribute to the preservation and quality of archaeological levels.

### ***The Excavations***

Two trenches were excavated to the south of the warehouse, one on the slope adjacent to the Three Mariner's public house, and the fourth to the north of the warehouse, in Lune Square.

Two of the trenches produced a range of finds which fall into four broad categories: Romano-British, late medieval to eighteenth century, late eighteenth to early nineteenth century and twentieth century. In one trench the Roman and late medieval artefacts were found in association with stratified archaeological deposits and structures.

### ***Conclusions***

The archaeological evaluation has confirmed the presence of archaeological deposits. To the south of the present warehouse the excavations revealed activity in the form of archaeological features and yielded a small but well preserved assemblage of Romano-British and late medieval to eighteenth century objects. The contexts producing these materials were waterlogged which enhances structural and artefact survival and increases the range of palaeoenvironmental evidence. The survival of archaeological levels and objects of Roman and late medieval date in these conditions is extremely unusual in Lancaster; therefore the high archaeological potential of the site certainly warrants further investigation.

Whilst deposits of high archaeological value were found on the site there would be no objection to the plans for redevelopment proceeding providing certain archaeological considerations are incorporated in the development plans. In order to determine the extent of the surviving archaeology, trial excavations should be undertaken, when the site is vacant, to establish the full extent of the archaeological remains. The results of this work would form the basis of a strategy of mitigation measures, to protect and preserve archaeological deposits where possible and to record in full any archaeological remains that would be adversely affected by construction.

Reference should be made to the relevant section for full details of the recommendations.

## 1. INTRODUCTION

In February 1991, W and J Pye Limited submitted a planning application (01/91/0168C) to Lancaster City Council for a proposed redevelopment at Damside Street (North). This proposed redevelopment lies within the Area of Archaeological Potential as indicated in the current Local Plan, although no conformation of archaeological stratigraphy has been practicable to date. Having taken advice on the quality of the archaeology in the vicinity and in the view of the recommendations of Planning Policy Guidance Note 16 (Department of the Environment, November 1990) that

"where early discussions with local planning authorities or the developer's own research indicates that important archaeological remains may exist, it is reasonable for the planning authority to request the prospective developer to arrange for an archaeological field evaluation to be carried out before any decision on the planning application is taken",

Lancaster City Council have requested an archaeological evaluation of the area prior to outline planning consent being given.

The present report documents the second phase of the archaeological assessment of the redevelopment area undertaken by Lancaster University Archaeological Unit (LUAU), on behalf of W and J Pye Limited. The first phase of the investigation took place in the car park and coach park (SD 47620 62020) to the east side of Damside Street, in November 1991 and is reported in *Lancaster City: An Archaeological Assessment of Redevelopment Area, Phase I, East of Damside Street* Lancaster University Archaeological Unit, December 1991.(fig.2).

The second phase of work comprised a series of trial trenches to the north and south of the present warehouse in order to evaluate the character, depth and date of archaeological deposits. The excavation and reinstatement of the trial trenches was completed in a period of twelve working days (15th-26th June 1992 inclusive). This work was scheduled in consultation with W and J Pye, to cause the minimum amount of inconvenience to the continued operation of the warehouse.

A full archive of the excavations has been produced to a professional standard in accordance with current English Heritage guidelines (*The Management of Archaeological Projects*, 2nd edition, 1991). The archive will be deposited with Lancashire Record Office, Preston, and a copy, together with the finds, will be deposited in Lancaster City Museum with the agreement of W and J Pye Limited.

## 2. BACKGROUND

The development of the settlement of Lancaster is known from the time of the Roman military exploitation of its strategic position in the end of the first century AD. A series of forts were situated on Castle Hill throughout the Roman occupation, which afforded a commanding position, overlooking the lowest fording point of the River Lune. The river almost certainly flowed further to the south and closer to the site of the forts than it does today, possibly along, or near the line of North Road and Damside Street.

Excavation has identified several phases of fort construction and in the mid fourth century the area was redesigned with one wall, known as the Wery Wall, aligned parallel to the Lune. It has been tentatively suggested that the wall may have protected a harbour. This final fort appears to have architectural parallels with the Saxon Shore forts of the south coast which were established in the fourth century as a defence against sea-borne attack. It may have been that Lancaster was part of a similar defence system for the northwest coast and was perhaps a naval supply base serving the Irish Sea. Lancaster is well positioned, and its navigable waters contributed to its survival as a settlement beyond its importance during the Roman occupation. The principal development of the extra-mural settlement (*vicus*) of Roman Lancaster was primarily to the east of Castle Hill, along Church Street to Penny Street; however, the full extent of the settlement has yet to be established.

Following the Roman occupation little is known of Lancaster apart from isolated archaeological finds and place name evidence. Early medieval Lancaster may have developed from two dependent villas of the manor of Halton mentioned in the Domesday Survey, one based on the Castle Hill area (*Chercalonastre* or Church Lancaster) and

the other (*Loncastre*) perhaps in the Stonewell area to the east. Calkeld Lane had certainly been established by the thirteenth century, the name is derived from the Old Norse words *kald* and *kelda* meaning cold well suggesting the area was of some significance in the earlier medieval period. Knowledge of later medieval development has been largely derived from documentary sources, the archaeological record for this period in Lancaster being limited. By the seventeenth century there were cartographic representations which add another dimension to the understanding of the development of the town.

Recent excavation has added to the archaeological picture of the development of Lancaster. A trial trench on the south side of Damside Street was undertaken by LUAU in November 1990. The excavations revealed that the Roman levels of activity were separated from the medieval by an accumulation of silts. The silts were deposited by the river either as it changed its course, or the river may have been enhanced during the post-Roman period by a marked rise in sea level. Evidence for marine transgression has been found elsewhere along the Fylde coastline, for example at Pilling, where Roman pottery has been recovered from beneath marine silts.

It is known that a mill was in existence from the twelfth century, occupying a site opposite Calkeld Lane on a low lying area of marshy wasteland known as Green Ayre. This area was bounded by the Lune to the north and the mill leat to the south. The alignment of the mill leat, on the line of present day Damside Street and North Road, may reflect the line of an earlier course of the Lune. The course of the old mill race survives, indeed its northern extent, beyond Fleet Square was open at the beginning of the nineteenth century.

The first reference to a bridge over the River Lune concerns the supply of wood for repairs in 1215. A stone structure was built during the fifteenth century and is depicted on John Speed's sketch map of the town in 1610. The bridge was situated to the north of Lune Square and was eventually demolished during the nineteenth century. Bridge Lane, which led from China Lane, past the Carpenter's Arms (now the Three Mariner's public house) and under Pye's warehouse to Lune Square, presumably developed in association with the earliest bridge although there are no early references to the lane. It has been assumed that the bridge was constructed on the site of a Roman bridge but there is no actual evidence for this.

There are records of a port at Lancaster during the medieval period although there are no details concerning the position or nature of early wharves. Both Kenneth Docton's reconstructed map of 1684 and Stephen Mackreth's map of 1778 (fig.3) show an unnatural bend in the river immediately upstream from the bridge; the course of the river may in part have been affected by the position of the bridge or perhaps have reflected the use of the area as a quay.

It would seem that Lancaster passed through a period of stagnation during the sixteenth and seventeenth centuries. However, during the eighteenth century there was a change in the fortunes of the town marked by an increasing trade with the West Indies; the port took a significant share of this trade after Liverpool, Bristol and London. The end of the previous century had seen the beginnings of the growth of trade via the port with the establishment of the first sugar refinery on the site now known as Sugar House Alley. As the town prospered there was an increase in population and a subsequent increase in property development, particularly in the area of Green Ayre and St George's Quay.

Mackreth's map of 1778 illustrates the expansion of the town (fig.3). Most of the redevelopment was accommodated by infilling previously open land and the early property boundaries largely survived. Associated with this was the building of new roads such as Damside Street, Cable Street and Chapel Street. At this time Bridge Lane is shown as the main thoroughfare leading to the bridge.

The site of the second phase work lies at the foot of Castle Hill, to the west of Damside Street and spans the course of Bridge Lane.

### 3. METHODOLOGY

#### 3.1 Project Design

A copy of the 1991 project brief has been provided in appendix 1 and the proposals for the second phase of work are given in appendix 2. There have been no deviations from the phase II proposals.

#### 3.2 The Excavations

Four trenches were excavated, recorded and backfilled in sequence to facilitate the continued working of the warehouse. The trenches were located to the north (Lune Square) and to the south of Pye's Warehouse on the west side of Damside Street. The positioning of the trenches (fig.2) was severely constrained by the location of underground services.

The proper statutory bodies were consulted to obtain relevant information concerning the location of underground services and additional on-site service information was provided by W and J Pye Limited.

The trenches were excavated mainly by machine: a Hitachi FH150LC, 360 degree mechanical excavator fitted with either a 1.15m wide bucket with teeth or a 0.54m wide bucket without teeth as appropriate. Breaking or cutting tools were used as required to penetrate the ground surface. The trenches were shored using preformed trench box sections 3.50m in length and 2.60m deep with 1.30m deep extensions. Excavation by hand was carried out in order to examine archaeological detail.

The trenches were backfilled and the surfaces reinstated in accordance with the specifications supplied by J Moore and Partners (appendix 3).

The recording of the excavations comprised the compilation of context and object records, accurate scale plan and section drawings and a photographic record, in line with current English Heritage Central Archaeological Services procedures. Bulk soil samples were retrieved for future analysis. The position of the trenches were accurately plotted using a Carl Zeiss ELTA 4 total station and a Husky Rec 50 datalogger.

### 4. THE EXCAVATIONS

The trench, context, finds and record numbering has been continued from phase I of the assessment. In the following text the context numbers are given in parentheses [] and the Munsell notation for soil colour is shown thus (e.g. 10YR 4/3).

#### 4.1 Trench 6 (fig.4.1)

Trench 6 was located to the south of the warehouse, adjacent and orientated at right angles to Bridge Lane. The trench measured 3.57m by 2.92m and was excavated to a maximum depth of 3.80m.

At the base of the trench grey shale bedrock [220] was observed; it was recorded at a depth of 3.22m below present ground surface, at the western end of the trench, with a marked slope down to the east (over a distance of 2.35m the profile of the bedrock dropped 0.66m). Lying above the bedrock was a sticky, very dark grey (2.5Y N3/) gritty clay with 15% small to medium sized stones and many small fragments of black decayed shale. This was overlain by a greyish brown (10YR 5/2) sandy clay containing angular and rounded stones [219], which reflected the slope of the material below. Above this deposit there was a depth (2m) of mainly grey silts, with sand silt, and silty sand lenses [211-218 inclusive]; these contexts produced finds and were sampled. They had the appearance of riverine deposits, frequently the boundaries of colour and texture change were not clearly defined, rather there was a gradual merging between the layers.

In the upper portion of the trench there was a distinct change in the deposits and in the dating evidence. Above the silts a structure and a cobbled surface were recorded. Two walls were revealed, at right angles, parallel to and

adjacent with the western and northern extents of the excavation; the walls were keyed into one another at the northwestern corner of the trench. The walls [204 and 206] were constructed directly on to the uppermost of the silting layers [211], with only patchy indications of any basal stones or stone footings; there was no observable foundation cut for these walls. The construction of the east-west wall [204] compensated for the slope of the silt deposit, which dropped down to the east, and the base of the wall was wider at the eastern end. The full lengths of the walls could not be observed within the confines of the trench. The walls were constructed in courses of roughly dressed sandstone blocks or slabs bonded by a hard grey mortar. The walls survived to a maximum height of 0.96m at the eastern end of the trench. The north-south wall, which fronted onto the line of Bridge Lane, was 0.78m wide and continued to the south; it may have continued to the north beyond the east-west wall, although this was not clear in excavation. The east-west wall was 0.61m wide and this wall remained *in situ*.

Between the two walls there were make up layers and a bedding layer for a well set cobble surface [205], which also showed a pronounced slope down to the east. The surface comprised closely packed rounded cobbles, up to 0.15m across and 0.20m depth set in a dark brown silty loam matrix.

Lying above the cobble surface was a shallow layer of sandy loam which was sealed by a rubble layer [202] 0.50m deep. The rubble layer was not observed to the west, below the line of Bridge Lane. Above the rubble layer the present day surface of reinforced concrete [200] was bedded on sand [201].

Finds were retrieved from this trench which included glass, ceramics, animal bone, and wood. Paleoenviromental samples were taken from the silting layers. The artefacts, ranging in date from Romano-British to the twentieth century, were well stratified.

### Conclusions

The trench revealed the depth of bedrock, immediately to the east of Bridge Lane, sealed by a depth of silting. The silt deposits yielded several Romano-British sherds of pottery which indicated activity in the vicinity. The finds associated with the structure and cobble surface were of eighteenth to nineteenth century date and the material post-dating the structure included twentieth century artefacts.

## 4.2 Trench 7 (fig.4.2)

Trench 7 was located 8m to the east of Trench 6 and measured 4m by 3m. It was orientated east-west, and was excavated to a depth of 4.78m.

At the base of the trench there was a depth (1.72m) of grey silt which became darker toward the base of the profile [262, 263], this may be similar to the silts in Trench 6 [218]. Bedrock was not reached in this trench.

Lying above the silt was a grey silty clay [249]. This material had been disturbed by the construction [281] of a retaining wall [239], which cut steeply and was apparently stepped. This level marked a pronounced change in the type of deposit, the material below appearing to be sterile silt whilst the layers associated with the wall yielded finds. The wall was aligned northwest-southeast and may reflect the natural contours of the topography. The wall was constructed with the outer face to the east and set against layers of silt to the west. The face stones were set on a step, over a shallow layer of grey (10YR 5/1) plastic silty clay which contained a high proportion of small fragments of decayed wood [255]; this material was also observed immediately in front (to the east) of the base course of the wall and may have been associated with its construction. A single skin of large roughly dressed sandstone blocks formed the outer (eastern) face of the wall, with frequently placed throughs, measuring 0.25 x 0.25m by 0.90m in length keyed into the closely packed stones to the rear of the wall. Immediately behind the face stones were medium to large stones (up to 0.22m across) [246], and to the west the cut was infilled with densely packed smaller angular stones (up to 0.14m across) in a matrix of brown (10YR 4/3) sticky sandy clay [247]. This layer was wider at the top of the profile, again probably reflecting the natural gradient prior to the construction of the retaining wall.

To the east of the wall was a series of deposits lying above the sterile silts, presumably make-up layers to form level surfaces, which would compensate for the natural slope. The basal layer of activity, 257, appeared to be later than the material [255] recorded at the base of the wall cut [281], and contained both Roman and medieval

artefacts. The upper portion of the layer was stained black, possibly as a result of water action. Lying above this were two shallow layers; a grey (10YR 4/1) sandy clay containing 10% mainly small rounded stones [254] and a layer with 30% medium sized angular stones in a silty clay matrix with evidence of iron panning around the stones. Sealing these layers was a depth (0.24m) of dark grey (10YR 4/1) sandy clay containing 15% angular and rounded stones [244]. The upper boundary of this context was marked by its compact nature and a blackened sandy silt with traces of organic material. The black staining and iron panning may be the result of water action and perhaps of this level being exposed to the atmosphere for a period of time. Above this was a mottled layer [243] of dark greyish brown and brown sandy clay containing a few stones.

A stone built drain or culvert [240] was cut from this level, the construction cut post dating the retaining wall. The relationship of the wall and the drain was obscured by the box shoring, but the drain was orientated at right angles to the wall, and it appeared to have been keyed into the wall face. The drain was well constructed, placed in a steep sided, stepped cut, the base was stone lined with mainly flat angular slabs and the sides were formed with small angular stones, with clay packing between the stones and the construction trench. The drain capping stones were flat angular slabs sitting level with the top of the mottled layer 243. The drain was partially filled by a dark brown (10YR 3/3) soft silt [258] which yielded finds of a broad date range, the upper 0.17m of the drain was void. Only the northern edge of the drain was visible within the confines of the trench.

The drain was sealed by a brown (7.5YR 5/4) slightly sticky sandy clay containing 20% small to medium sized rounded stones [242]. This context and the wall were overlain by a dark greyish brown sandy clay containing some small rounded stones [241], probably indicating a change in deposition and also the top of the wall. Above this, and observed across the whole trench, was a greyish brown (10YR 5/2) sandy loam containing 25% small, medium, and occasionally large angular stones [236]. This may result from demolition or be a disturbed layer and appeared to provide a distinct horizon in the sequence of layers.

A second wall [231] was constructed on this compact rubble layer [236], on a similar alignment to the retaining wall below [239], but set 1m to the west. The wall comprised medium to large sandstone blocks (up to 0.40 x 0.30 x 0.20m), set in courses. It survived to a height of 0.59m and was 0.53m wide, the upper courses having been disturbed. The east face of the wall was fairly regular, the western face was not observed in full in excavation.

To the east of the wall there was a cobble surface [223] comprising well set rounded stones with a slight camber, on a northwest-southeast alignment. Along the wall, cobbles [229] were set lengthways, parallel to the wall [231]; these stones probably formed a drain from the main surface. Water draining from the cambered surface to the shallow gully may have caused the discolouration of the material below the cobbles and immediately adjacent to the east side of the wall. The lengthways placed cobbles may have been separately laid but there was no conclusive evidence for this. The cobbles were bedded on sand [232] above sandy silt and sand make up levels [234 and 235].

To the west of the wall, below the level of the cobble surface, there were well set large stone flags (0.62 x 0.30 x 0.10m deep) fitted closely to and post dating the wall. These were set on a sandy loam bedding layer [237], over a yellowish brown sandy silt make up layer [238]. Lying above the flags were two shallow compacted layers of sandy loam and a black tar-like substance [227 and 228]. Sealing all the structural features was a layer of rubble in a yellowish brown sandy loam matrix [225]. Above the rubble was the present day surface of 0.20m deep reinforced concrete [222], similar to the surface at Trench 6, bedded on a shallow layer of sandy gravel [226].

Finds were retrieved from the levels above the silts and included ceramic, glass, metal, animal bone, shell, leather, and wood fragments. The silts were sampled for paleoenvironmental evidence. The artefacts associated with the earlier retaining wall were of Roman and late medieval date; the Roman finds indicate Roman deposits in the vicinity of the wall which may have been disturbed by its construction and the levelling process to the east of the wall.

### Conclusions

The profile of Trench 7 reflected the general slope in silts down towards the river. Bedrock was not reached in this trench, indicating a sharp drop in its level from east to west. Changes in the level of bedrock and the nature of the silt deposits may well reflect the alterations in the course of the River Lune and subsequent silting or scouring of that course. Therefore the sterile silts could infill an earlier river channel.

The finds indicate early deposits in the vicinity of the trench whilst the retaining wall demonstrates actual activity on the site. The finds associated with the earlier evidence of activity range from Romano-British to the eighteenth century in date, with a distinct break in the chronology between the Roman and late medieval periods. There is no secure dating evidence for the construction of the retaining wall, but it may well have been in use for a period of time. Investigation of the full extent of the levelling and make-up deposits to the east of the wall may indicate the location of water front activity. The rubble layer, sealing the retaining wall, marked a change in the use of the site and in the dating evidence. The later structure was associated with finds ranging from the eighteenth to twentieth centuries. It is probably no coincidence that the later wall and road was built on a similar alignment, where surfaces had already been established. Cartographic evidence shows that the area to the east (Damside Street) was a later (eighteenth century) development.

#### 4.3 Trench 8

Trench 8 was cut to investigate part of the steep hill slope to the west of Bridge Lane, adjacent to the Three Mariner's public house. It was possible to excavate only a narrow trench (in two sections) which revealed a profile over a distance of 5.90m. At the base of the western, upslope end of the trench there was a light brown (10YR 4/4) friable sandy silt [252]. Immediately above this there were shallow lenses of sand and loam [251], which were tipping down to the east. The main depth (up to 0.92m) of the profile was a fairly uniform layer of sandy loam [250] with the upper 0.15m of the section containing modern refuse.

The eastern portion of the trench was excavated separately; this revealed a compacted layer of 40% small rounded stones in a matrix of grey clay silt [285] at the base of the excavated trench. To the west of this material there was a quantity of sandstone blocks, possibly forming a face, at the western edge of the downslope portion (of Trench 8), which may indicate part of a structure. Overlying the compacted surface there was a layer of silty sand [284] which contained large sandstone fragments (perhaps associated with a structure). Lying over these were tipping deposits of stony sandy clay [283] sealed by a sandy loam [282], similar to the material at the top of the profile at the west end of the trench.

One fragment of glass dated to the late nineteenth century was retrieved from the upper portion of the trench.

#### Conclusion

Given the severe limitations on the depth and position of the trench, the profile revealed that a depth of material had slipped from the hillside and may well mask earlier deposits. The excavations gave an indication of structural remains at approximately the same level as Bridge Lane and on a similar alignment to the Three Mariner's public house (formerly the Carpenter's Arms). There may well be a depth of deposits below structures on the west side of Bridge Lane given the depth of bedrock immediately to the east of the lane (Trench 6). Any structural remains fronting the lane could be of a similar date to the public house, certainly buildings are shown on the west and east side of this portion of Bridge Lane from the late seventeenth century onward, followed by plot infilling from the eighteenth century. More recent maps show that buildings fronted onto Bridge Lane up to the development of the present warehouse.

#### 4.4 Trench 9

Trench 9 was located to the north of the warehouse, in Lune Square, between Bridge Lane and Damside Street. The trench was aligned east-west and measured 3.80m by 2.10m and was excavated to a depth of 4.30m.

The base of the trench revealed a depth (0.60m) of grey (2.5y N5/) silt [279], which was overlain by a deposit of dark grey (10YR 3/1-4/1) sandy silt with 30%, mostly medium sized rounded stones. Lying above this was a very mottled layer (reddish yellow, brown and brownish yellow) of sandy clay with 15% small to medium sized rounded stones [277].

The materials overlying these layers comprised a sequence of deposits which sloped down towards the east. These appeared to be make-up deposits, although the identified contexts were not uniform across the width of the



trench and appeared in large pockets, so that each of the long sections was different in particular, but the general nature and deposition of the material was broadly similar. These deposits [269 to 276 inclusive] varied in colour from dark greyish brown to light yellowish brown and brown (10YR 4/2 to 10YR 6/4 and 7.5YR 4/2) and contained differing amounts of coarse components. Whilst deposition of the layers was irregular the individual contexts were quite distinct and readily distinguished: for example 271 contained a notable amount of fragments of handmade red brick.

The make-up deposits were sealed by a compacted, mottled layer (0.13m deep) of brown gritty loam [268] containing lenses of black to dark grey ash with small, crushed fragments of clinker which formed a bedding layer for a well set cobble surface. This surface [265] comprised small (0.06-0.12m across) rounded stones. The present surface [264] sloped down from the level of the road (that is from east to west) and was made of tarmac, up to 0.10m deep, which was either bedded on compacted small angular stones or laid directly over the cobble surface.

### **Conclusions**

No datable finds were retrieved from the make-up layers or the deposits below. The artefacts retrieved from the bedding layer [268] for the cobble surface ranged in date from the eighteenth to twentieth century. It appeared that the area to the east of Bridge Lane in Lune Square had remained unoccupied until reclaimed and surfaced. Mackreth's map of 1778 shows some infilling, which may be a natural silting, of this area. Lune Square was probably established as this area developed in the nineteenth century.

## 5. FINDS

Finds were retrieved from all four trenches and this material has been treated in accordance with LUAU finds policy, to the minimum archive level. In order to produce the appraisal detailed below the material has been catalogued and recorded as a computerised database.

A total of 141 fragments of ceramic, glass, bone, leather and metal were recovered from the excavations, along with a number of fragments of waterlogged wood. This represents a wide range of materials and reflects an appreciable amount of activity on, or near, the site over a long, but not unbroken, period.

It proved possible to divide the assemblage broadly into four chronological groups, here called Phases I, II, III, and IV.

### **Phase I: Late second to third centuries AD.**

There is a small but well-preserved assemblage of datable Romano-British objects, largely ceramic vessel fragments. The date range is suggested by the presence of Central Gaulish samian, colour-coated wares and the nature of the glass fragments.

The ceramics and glass are in very good condition, mainly relatively large, unabraded fragments, suggesting that they are likely to be close to their original point of deposition. The contexts producing material of this date appear to be extensively waterlogged which is extremely unusual in Lancaster, and the level of organic preservation is excellent. *Thus bone survives in good condition and is likewise unabraded and wood survives in medium to good condition.*

### **Phase II: Late medieval to eighteenth centuries AD.**

There is a small assemblage of broadly datable ceramic vessel fragments and one fragment of glass. The date range cannot be refined on such a small assemblage.

The contexts producing material of this date appear to be at least partially waterlogged. Thus the level of organic preservation is good, with both bone and wood surviving in good condition. It is unfortunate that anaerobic conditions can have a deleterious effect on green lead glazes of the kind used on medieval pottery and the material from these excavations has lost its colour and is now a uniform dark grey.

### **Phase III: Late eighteenth to early nineteenth centuries AD.**

There is a broad range of datable ceramic vessels and glass. The date range cannot be refined without further study.

The contexts producing material of this date appear to be largely dry. The range of survival is what would normally be expected for post-medieval material within the City of Lancaster and is comparable with that from recent excavations in Church Street (LUAU, 1988).

### **Phase IV: Twentieth century AD.**

The latest phase of activity on the site is twentieth century.

The presence of waterlogged wood on the site is of interest, the small assemblage, which was largely derived from a silting layer in Trench 6, containing both roundwood and wood-working debris. It is difficult to draw conclusions on such a limited assemblage but it is possible to suggest wood-working activity on or near the site. The roundwood bears some indication of woodland management, cut surfaces and possible coppicing and is partially burned, suggesting its use as fuel. The wood-working debris comprises a small number of chips typically generated by the use of an axe to dress timber and/or to cut mortise joints, suggesting large-scale carpentry. This is likely to be structural carpentry but the location of the site means that the possibility of ship-building cannot be ruled out. Added interest derives from the presence of this class of material from both the Roman and the late medieval phases (I and II).

## 6. DISCUSSION

This second phase of archaeological assessment has confirmed the presence of archaeological deposits on the warehouse site, west of Damside Street. The excavations, in combination with borehole information from inside the present warehouse, have also indicated the nature of the local topography which further contributes to the assessment of the redevelopment area.

The first phase of excavations in the car and coach parks, east of Damside Street, revealed a depth of river silts, masked by nineteenth century landfill material deposited during reclamation of the area. The course of the River Lune clearly flowed further to the south than it does today, and the area of the former railway goods yard had remained undeveloped until the last century. Evidence from excavations on the south side of Damside Street, adjacent to the bus station (LUAU, 1991), revealed an accumulation of silts masking Roman levels yet predating the medieval activity on the site, thus reflecting either a change in the course of the river and/or a rise in sea level in the early medieval period. Establishing the erstwhile course of the river would therefore be an important factor in this evaluation to determine the areas where archaeological remains may survive associated with water front activity.

On the west side of Damside Street borehole information, taken prior to the development of, and inside, the present day warehouse, had indicated a marked drop in the level of bedrock from west to east, that is from the foot of Castle Hill down toward the river, from 16'6" (c.5m) to 29'6" (c.9m) below ground level over a distance of approximately 14m. In this evaluation, the bedrock, a hard, very dark grey, shale, was reached in Trench 6 (to the south of the warehouse) at a depth of 3.22m below present ground surface and was observed to drop sharply to the east. The silt deposits lying immediately above the bedrock also reflected the general slope. Trench 6 was located at the eastern edge of Bridge Lane and therefore was further west (or upslope) than the westernmost borehole. Trench 7, located 8m to the east of Trench 6, was excavated to a depth of 4.78m but did not reach bedrock.

Two of the trenches (6 and 7) excavated on the south side of the warehouse revealed archaeological activity on the site and yielded a datable assemblage of finds. The artefacts from the site fall into four broad date ranges (see Finds) and these have been utilised here for ease of reference. Phase I finds, late second to third century AD, were mostly found in association with artefacts of phase II (late medieval to eighteenth century) and occasionally with phase III (late eighteenth to early nineteenth century) finds. The date ranges for the finds reflect the nature of the deposits and archaeological activity on the site. It appeared that earlier deposits in the vicinity were being disturbed by later activity, as indicated by the break in dating between phase I and phase II. Phase III finds clearly relate to the main development of the area from the eighteenth century as the population increased and the town expanded.

Bedrock was revealed in Trench 6, but the natural profile then dropped sharply to the east and was not reached in Trench 7 where apparently sterile silts were observed at the base of the trench. In Trench 6 the sloping deposits overlying the bedrock were sealed by a depth of horizontal silt layers which produced finds. Only two artefacts have been dated, these were Romano-British (phase I) vessel fragments. The pottery sherds were not abraded, suggesting that they were probably close to their original point of deposition. The silts also yielded well preserved bone and waterlogged wood fragments. The wood comprised both roundwood and wood-working debris. This may indicate that wood-working activity, either structural or perhaps boat building, had taken place on, or near the site.

To the east, in Trench 7, the silt deposits had been partially truncated by the construction of a well made retaining wall, aligned across the general slope from west to east. Artefacts retrieved from the made-up levels immediately to the east of the wall were of Romano-British and medieval to eighteenth century date (phases I and II). A later addition of a stone drain disturbed the earlier deposits and yielded finds from its construction and fill ranging in date from Roman to post medieval. The deposits which mask the wall and the surfaces to the east include artefacts from phases I to III. The range of finds from these stratified layers strongly suggests that the construction of the retaining wall and its associated surfaces disturbed earlier deposits in the vicinity. Finds from these levels were also unabraded and most probably derived from deposits in the immediate vicinity. A depth of sandstone rubble (the result of demolition or levelling) masked the retaining wall and also marked a clear break in the dating evidence.

It appeared that construction of the later structure observed in Trench 7 utilised this solid rubble layer, masking the retaining wall, as a base for the wall and a cobble surface, as there was no evidence of any other foundations. The wall and the adjoining surface were aligned northwest-southeast, and may be associated with Back Street which followed the same alignment. The finds from the upper levels of the trench reflect dates from the eighteenth to the twentieth centuries (phases III and IV).

The structure observed in Trench 6 was constructed directly on the silt levels and marked a definite change in activity and dating evidence. The artefacts associated with the building and cobbled surface also dated from the eighteenth century onward.

In Trench 7 it is most interesting that the later wall [231] was set one metre to the west of, and reflected the alignment of, the earlier retaining wall [239]. The retaining wall indicated activity, probably during the late medieval period, the construction of which disturbed Roman archaeological remains in the vicinity. Unfortunately it was not possible to test the extent and purpose of the surfaces to the east of the retaining wall, which may well provide evidence of an earlier river edge and therefore of any water front activity. It may be that this alignment indicated the eastern extent of the use of the site for some time until the development of Damside Street. Docton's reconstructed map of 1684 shows few buildings to the east of Bridge Lane, with a certain amount of development of the area shown on Mackreth's map of 1778.

Trench 8 was located on the hill slope adjacent to the Three Mariner's public house, and it was clear from the limited amount of excavation possible in the circumstances that a depth of material has slipped down the hillside, which may well mask earlier activity. There was some indication that there is the remains of structural evidence at the level of Bridge Lane in line with the extant public house which dates to the eighteenth century. It may also be presumed that there would be some depth of deposit (perhaps up to a metre) beneath the ground floor level of any structure, given the general rise of the bedrock observed elsewhere on the site.

Trench 9, to the north of the warehouse in Lune Square, revealed a somewhat different sequence of events. The trench was again located to the east of the line of Bridge Lane (as were Trenches 6 and 7) but here the only evidence of activity on the site was immediately below the present surface, where a well made cobble surface was revealed. Below this there was a considerable depth of make-up deposits lying over a stony, possibly river deposited, layer which sealed a grey silt, similar to the riverine silts observed elsewhere. It appeared that this site had remained open and undeveloped until reclaimed, probably during the eighteenth century. Only the upper portion of the trench yielded artefacts which were entirely of eighteenth to twentieth century date.

It is clear from the trial trenches that archaeology does survive on the site, although its full extent cannot be ascertained from the present excavations alone as, has been already stated, it was not feasible to examine certain parts of the site (for example the actual line of Bridge Lane). It appears that some parts of the site were not utilised or developed until relatively recently, for example the area to the east of Bridge Lane in Lune Square. Yet to the south of the warehouse there are earlier archaeological deposits on the eastern side of Bridge Lane with possible water front activity and potential waterlogged deposits.

## 7. ARCHAEOLOGICAL SIGNIFICANCE

The presence of archaeological deposits on the site has been confirmed, although the full extent of the deposits across the site cannot be defined from the evidence of the trial trenches. The deposits, artefacts, and ecofacts revealed in the second phase of excavations indicate a high archaeological potential for the site, which is greatly enhanced by the existence of waterlogged levels.

Anaerobic conditions have produced a good level of organic preservation so that both wood and bone have survived and the latter in particular is well preserved. The waterlogging of archaeological levels produces a larger range of paleoenvironmental evidence than on a dry site. The waterlogged deposits produced ceramic and glass fragments that can be dated to the Romano-British period and partially waterlogged levels produced finds of a broad date range from late medieval to the eighteenth century. The majority of the wood was found in horizontal silt deposits and was sufficiently well preserved for the identification of evidence of wood working, such as cut surfaces and tool marks.

The artefacts of Romano-British date (phase I) were in good condition and the relatively large fragments were unabraded suggesting that they were likely to be close to the point of their original deposition. Finds from phase I were frequently found in association with artefacts from phase II and occasionally from phase III indicating that activity on the site had disturbed earlier deposits in the vicinity, thus reinforcing the likelihood of stratified Roman deposits within the development area.

The structural remains of the retaining wall, in Trench 7, and the associated level surfaces to the east indicate the use of the area, possibly as a water frontage, certainly from the medieval period, with potential for its earlier use during the Roman period. That the alignment of the retaining wall was a landmark for some period of time may well be reflected by the reuse of the unusual alignment of Back Street, at an angle to Bridge Lane, prior to the development of Damside Street and the area to east, Green Ayre, in the eighteenth century.

It is equally important to determine the areas that have not been utilised in order to chart the potential earlier course of the river to gain an indication of the more likely sites of water front activity.

Identification of Roman archaeological levels in association with the nearby fort and possible water front activity would make a great contribution to, and expand the archaeological record of Lancaster. The survival of medieval contexts (which may also be associated with a water front) is of great interest and unusual in the City of Lancaster where medieval deposits have frequently been destroyed by cellaring.

## 8. RECOMMENDATIONS

The trial investigations to the west of Damside Street have demonstrated the presence of archaeological remains on the site and have indicated a high archaeological potential for the area both in terms of the presence of archaeological levels and the quality and good state of preservation of both the artefacts and the ecofacts. Whilst the findings of the present assessment are that the site is of regional importance there would be no objection to the plans for redevelopment proceeding as long as certain archaeological provisions are included in the development plans.

Given that archaeology has already been identified, it becomes necessary to establish the extent of the archaeological remains before a proper strategy can be developed to protect or record the archaeology as appropriate. The second phase of site investigations was severely limited by the constraints of the continued operation of the warehouse and the location of underground services; consequently it was not possible to examine certain areas such as Bridge Lane, the area currently occupied by the warehouse, the hillside and the area to the west of Bridge Lane, or to investigate the eastern extent of the archaeological levels revealed in Trench 7.

Any further investigation of the site must be undertaken when the site is vacant to facilitate excavation in deep or difficult areas, which poses problems of ground or structural stability and public safety. The aim of further trial excavations will be to establish areas of archaeological interest and the depth of the deposits and in this process it should be possible to exclude certain areas from the need for subsequent archaeological consideration. Some parts of the site have already been affected by earlier development; for example the current warehouse was built on deep piles down to the bedrock, which will have destroyed any archaeological remains. However, islands of archaeology may survive between the grid pattern of the piles. Trial trenches, strategically placed, would allow an assessment of the full extent, nature and depth of archaeology on the site.

Any future development should consider the proven archaeological potential and high value of the site and timetabling for archaeological work should be built into any schedule. Towards this end the archaeological element should be considered at all stages in conjunction with the development plans so that strategies may be devised, to preserve and protect the archaeological remains where possible, and where damage to archaeological features is unavoidable, to record the archaeology in full. Mitigation measures may be considered to limit the amount or extent of the damage which may be caused. For example, (and in the absence of knowledge of the nature of the construction plans) it may be that certain areas would not require deep piling or that piles may be situated in an area that is not archaeologically sensitive or in an area that has already been damaged by previous construction. Should an area prove to be archaeologically sensitive and of high archaeological interest and value, as described above, then it must be considered in terms of possible damage from all construction processes that would impinge on those levels and not simply in terms of deep piles which are cited here as an example.

In brief the following recommendations are made as a result of the present archaeological assessment of the redevelopment area to the west of Damside Street.

- 1) that whilst archaeological deposits of value were revealed there is no objection to the plans for redevelopment proceeding as long as certain archaeological provisions are included in detailed development plans
- 2) any future development plans should take into account the archaeological provisions in terms of the design and timetabling of the overall project.

Archaeological provisions for further development plans should include:

- a) further trial investigation of the vacant site to establish the extent of archaeology and identify areas where there are no archaeological deposits or the remains have been destroyed by later development
- b) the development of an archaeological strategy based on (a) in conjunction with construction/development plans for the site
- c) appraisal of possible mitigation measures based on (b)

It is likely that mitigation measures considered in conjunction with construction plans may include full excavation and recording of archaeological deposits that would be unavoidably damaged or destroyed by the construction process. In this case full provision should be made for post excavation and archive, up to publication level, resulting from any excavation work.

It should be borne in mind that the second phase of the assessment applies only to the redevelopment area to the west of Damside Street. The recommendations made in phase I of the archaeological assessment still stand and should be considered in conjunction with the present recommendations.

## BIBLIOGRAPHY

Baines, E., 1836, *History of the County Palatine and Duchy of Lancaster*.

Docton, K. H., 1954, *A Directory of Lancaster, 1684*.

Mackreth, S., 1778, *Map of Lancaster*.

Penny, S. H., 1981, *Lancaster: The Evolution of its Townscape to 1800*.

Shotton, D., 1984, *Roman North-West England*.



## **APPENDIX 1**

### **LANCASTER UNIVERSITY ARCHAEOLOGICAL UNIT**

*10/09/91*

#### **DAMSIDE STREET/FLEET SQUARE - PROPOSED DEVELOPMENT**

##### **Archaeological evaluation: summary project brief**

###### ***Background***

The application is for large scale development of an area sited within the Area of Archaeological Potential as indicated in the current Local Plan. It is of considerable archaeological importance and may well contain irreplaceable evidence of the past development of the city.

Whilst the precise development of Lancaster cannot be completely understood, a brief summary of the historical evidence, particularly of remains around the proposed development area, can be provided.

In the Roman period the town appears to have occupied a pivotal position in the organisation of the North West with military occupation on Castle Hill from the end of the first century right through to the early fifth century. Alongside the fort was a civilian settlement or Vicus, one of whose main streets lies beneath the present Church Street. The fort in its latest form has certain affinities with the Saxon Shore forts of the South East which were clearly linked with the Roman fleet, and its position adjacent to the navigable waters of the Lune may well be significant. It is thought likely that the Green Ayre/waterfront area may have been developed as a waterfront during the late Roman period, perhaps associated with the fort represented by the Wery Wall. A recent trial excavation at 15 Damside Street confirmed that the river has not flowed immediately below the bluff of Church Street since before Roman times and that any formal waterfront may be encountered between this site and the present course of the Lune.

The greatest depth of silting on the Damside Street site (above) appears to have occurred after the Roman occupation had ceased; this accords with a growing body of evidence from the Fylde which implies a rise in sea level during the post-Roman period. This marine incursion may have been a major factor in the Saxon and early Medieval development of Lancaster, but its precise effect cannot, as yet, be established. The area of land between Damside Street and the present course of the Lune is, therefore, likely to be of major importance in the interpretation of this part of the city's history.

The chronology and topographical development of Lancaster within the early medieval period is not well understood, and Lancaster is one of the most important places in England about which little is known of that date. The few items of early medieval material found seem to indicate an Anglian ecclesiastical foundation of some importance and the entry in the Domesday Book for Lancaster indicates the presence here of two dependent vills of Earl Tostig's great lordship of Halton, namely Chercaloncastre (situated around the castle) and Loncastre (probably to the east). Count Roger of Poitou, however, on receiving the district from William II, moved the centre of his lordship from Halton to Lancaster and the foundation of the castle, the priory and possibly the establishment of the borough may be ascribed to him.

The town developed in the later medieval period, following the destruction of the city by the Scots in 1322, close to the descent from the castle, probably in the Church Street area. From there the pattern of main streets, as shown on Speed's map of 1610, developed. The medieval bridge, originally built of wood but later rebuilt in stone, was located opposite the first row of houses on St George's Quay. Bridge Street, which ran from China Lane and under the present Pye's warehouse to Lune Square and the site of the bridge (demolished in the 19th century) is presumably a medieval thoroughfare, though no early references to it survive.

A Franciscan friary is said to have been situated near the old bridge during this period and some of its precinct walls were apparently still standing in 1726; its exact location is, however, unknown.

### *Archaeological implications of development*

The importance and high archaeological potential of the Damside Street/Fleet Square area in this planning application, which includes the possibility of waterlogged and therefore well preserved organic deposits dating from the Roman period and later, make it essential that any development be preceded by a programme of appropriate archaeological work. Initially an archaeological evaluation of the area should be undertaken in order to establish the likely presence and extent of any surviving archaeological deposits in this area. In addition it is essential to establish the nature and character of any such deposits so that any more extensive archaeological work made necessary by the proposed development may be properly carried out in advance of development.

A phased programme of work beginning with evaluation, and only leading, if necessary, to larger scale excavation, is designed to avoid unexpected discoveries during building works, and the associated costly delays to development. In addition, the results of evaluation may be utilised to effect design changes, with the purpose of avoiding destruction of surviving *in situ* archaeological deposits, and thereby obviating the need for further archaeological excavation. The presence of archaeological deposits at a site is now considered to be material to planning considerations, and archaeological field evaluations are normally undertaken before any planning decision is made. The implications of a development on archaeological deposits, together with the appropriate mitigating action, cannot be quantified until the location, extent, and importance of any remains is known. These procedures are outlined in the Department of the Environment's recently published **Planning Policy Guidance Note 16, Planning and Archaeology**, published in November 1990.

The developer is normally expected to cover the costs of all necessary archaeological work (including the cost of post-excavation work and publication). The developer is free to approach English Heritage for grant aid towards the cost of this work, but it should be noted that current policy is for developers to be responsible for the funding any necessary archaeological work resulting from the development of areas containing archaeological deposits.

### *Evaluation programme*

#### *Lune Square/W.J.Pye Warehouse*

The area to the west of Damside Street lies closest to known archaeological deposits of the Roman and early medieval period. In addition the line of Bridge Street runs under the present warehouse to the site of the (demolished) medieval bridge; medieval houses presumably fronted this road.

Parts of this area have been landscaped, and archaeological deposits may have been affected by this work as well as the construction of foundations for the warehouse. Nevertheless investigations further south along the southern edge of Damside Street opposite the Bus Station have revealed important Roman deposits surviving below the river silts, as well as early Medieval deposits cut into the surface of the silts. It is therefore considered likely that the area of Lune Square and the Warehouse contained significant archaeological features of the Roman and Medieval period, and consequently has a high archaeological potential. It is considered essential that this area be subject to an archaeological evaluation at an early stage in order to define the nature and extent of any such surviving deposits, so that any further necessary archaeological work may be undertaken prior to development.

The evaluation of this area would comprise the excavation (by hand and machine) of a number of trial trenches. The depth of the trenches would be dependent on the depth of archaeological deposits, and may be as much as c.2.0-3.0m in places. The trenches should be located to the south, west, and north of the present warehouse, and in particular should examine the slope of Castle Hill as it runs down to the warehouse site. In addition it would be important to excavate one or two trenches in the basement of the warehouse to establish the actual depth of disturbance of post-Medieval activity in this area, as well of course to examine the centre of the proposed development area.

#### *Car park/Coach park area*

The area to the east of Damside Street is considered to be less significant archaeologically, and therefore to have a lower archaeological potential. This area is thought to comprise the earlier course of the River Lune, now made up of natural and extensive silt deposits. It is thought unlikely that Roman and early Medieval occupation extended to this area.

Nevertheless, in view of its proximity to areas of known archaeological potential, it is important that the land east of Damside Street should also be subject to archaeological evaluation in order to establish the absence of significant archaeological deposits, by the excavation of a small number of trial trenches.

#### **Procedures and timetable**

It is important that any evaluation be undertaken at as early an opportunity as possible, in order to allow the formulation of any further necessary work in advance of development.

The evaluation would comprise the excavation of a number of trial trenches on both parts of the site (Lune Square/Warehouse c.6-9; Car/Coach park c.2-4). Trenches would be excavated by a combination of machine and hand digging, and any archaeological deposits recorded to full professional standards. A full report of the results of the evaluation would be submitted to the client shortly after completion of the fieldwork, making any necessary recommendations for further work, including mitigation of the effects of proposed development. Depending on the time of year, the full process of evaluation (including writing and submission of report) should take c.2-3 months.

It would of course be possible to stage the evaluation for the two separate areas, although it should be noted that such an option would prove more expensive, as there would be no economies of scale, but rather additional set-up costs.

## **APPENDIX 2**

### **DAMSIDE STREET/FLEET SQUARE REDEVELOPMENT ARCHAEOLOGICAL EVALUATION PHASE 2**

#### **PROPOSALS AND COSTING**

The following project brief regarding an archaeological evaluation of Pyes Warehouse, to the west of Damside Street, Lancaster, is offered in response to a meeting held on 3rd March 1992 between Lancaster University Archaeological Unit, Mr JH Moore of John Moore and Partners, and Mr JA Pye of W and J Pye Limited.

#### **PROPOSED WORK**

The area under consideration is the second phase of evaluation arising from the proposed Damside Street/Fleet Square redevelopment. This lies under and immediately adjacent to the warehouse of W and J Pye Limited. Parts of this area have been landscaped, and archaeological deposits may have been affected by this work as well as the construction of foundations for the warehouse. Nevertheless investigations further south along the southern edge of Damside Street opposite the Bus Station have revealed important Roman deposits surviving below the river silts, as well as early Medieval deposits cut into the surface of the silts.

The site is thought to lie above the bank of an earlier course of the River Lune, beneath the bluff on which the Roman forts stood. The siting of the forts, particularly the later Roman fort associated with the Wery Wall, has led to academic speculation, supported by the proximity of finds of Roman material, that the area of Bridge Lane may have been occupied by wharfage in the Roman period. In addition, the warehouse is constructed directly over the line of Bridge Lane, a known medieval street, which survives as a cobbled area to the south of the warehouse.

#### **FIELDWORK**

The evaluation of this area will comprise the excavation of trial trenches of varying length in three areas (marked on the accompanying plan), although the actual number of trenches is dependent on the availability of the site for evaluation, since it is understood that the warehouse remains active and at least two of the areas may need to be excavated in a number of short lengths in order to accommodate the client. An element of disruption is almost certainly inevitable, unfortunately, in order that sufficient information is recovered to enable a considered opinion of the true archaeological potential of the site to be formulated for submission to the local planning authority. Detailed discussion with the client is therefore essential to ensure the most cost effective and least disrupting schedule of excavation.

The excavations will be undertaken primarily by machine, although some hand-digging may be necessary, if sensitive archaeological deposits are identified. The depth of the trenches will be dependent on the depth of archaeological deposits, and may be as much as c3m+ in places, which will necessitate box shoring to ensure safety. Due regard will be given to all safety matters, and trenches will always be placed at an adequate distance from structures to prevent the undermining of foundations and interference with services. All areas will be temporarily fenced whilst excavation is in progress.

The trenches should be located to the south, south-west, and north of the present warehouse. That to the south-west would examine the slope of Castle Hill as it runs down to the site, by means of cutting into the hillside between the warehouse and the Three Mariners. This will not be an easy operation, due to the proximity of extant structures and services and, by necessity, is likely to be extremely limited in area.

The trench(es) to the south of the warehouse will be aligned approximately east-west in order to examine the continued slope from Castle Hill into the earlier course of the Lune, and in particular the possibility of an earlier, formal, river frontage. This again will be constrained by services and also by traffic into the warehouse. It is therefore likely that this trench will have to be cut in a number of short stretches, with each stretch being backfilled before the next is begun, perhaps timetabled for the end of a week and over a weekend.

The trench(es) to the north of the hill are likely to be aligned at a greater angle, either north-east - south-west or north-west - south-east, depending on the services in the vicinity and to suit the client. This acuteness of angle is designed to evaluate the greatest extent of the area available. Again, the trench will be constrained by services and by traffic to the warehouse and will therefore almost certainly be excavated in a number of lengths at the end of a week and over a weekend.

The foundations for the newer element of the warehouse have been piled on a 15 foot mesh and therefore, although it would be important to understand whether archaeological stratigraphy survives in the basement of the warehouse and to establish the actual depth of disturbance of post-Medieval activity in this area, it is not thought to be cost-effective at this stage, given the fact that the warehouse is still operational.

If the trenches to the north and south of the warehouse are to be excavated at least partly over weekends, the evaluatory fieldwork is likely to take between two to three weeks to complete, although in this time there are likely to be some days when no excavation takes place, to accommodate the client.

#### Recording

All trenches will be recorded using a computerised system, based on that used by English Heritage's Central Excavation Unit, together with photography and accurate scale planning and section drawing, and will be surveyed into the National Grid using a data-logging total station. All artefacts and ecofacts will be recorded using the computerised system described above and will be stored in a professional manner that will avoid unnecessary deterioration. It is recommended that any such material should be deposited with Lancaster City Museum at the end of the project.

#### **WRITTEN ASSESSMENT**

The results of the trial excavations will be collated to produce an archive of a professional standard, in accordance with current English Heritage guidelines (The Management of Archaeological Projects 1991). This will be provided as a printed document and on computer disk for inclusion in the Lancashire Sites and Monuments Record (held by the Lancaster University Archaeological Unit). A copy of this archive will also be deposited with the National Monuments Record in London.

A written report assessing the archaeological significance of the site and summarising the results of the trial excavations will be submitted to W and J Pye Limited and John Moore and Partners. This will identify the precise location of the trial trenches and the nature and depth of any areas of defined archaeological deposits. The report will make recommendations of all further work required in order to record and report in an adequate manner archaeological stratigraphy to be destroyed by the redevelopment of the area. This will include proposals for a programme of work necessary to attain this goal.

#### **WORK TIMETABLE**

It is felt that the following amounts of time and personnel will be adequate to achieve the evaluation of this site.

- i) Trial Excavations  
10-15 man-days project officer  
10-15 man-days project assistant
- ii) Written Assessment  
10 man-days project officer  
5 man-days draughtsperson

It is envisaged that the trial excavations will begin in either the week beginning 15th June 1992 or that beginning 22nd June 1992, to suit the client. The fieldwork will have terminated at the latest by 12th July 1992, allowing

slippage time to accommodate the client. The full written assessment will be submitted to W and J Pye Limited and John Moore and Partners by 27th July 1992.

## **COSTINGS**

The costs submitted take into account the different possibilities regarding machine hire and shoring. At this stage, the costs for machine hire and shoring are an estimate; only the actual costs of this element will be passed on to the client, as in Phase 1 of the evaluation. The level of reinstatement is subject to detailed discussion with the client, as it is understood that the areas must withstand heavy goods vehicles, and the full costs of this operation have not been included in this document.

### **APPENDIX 3**

#### **SPECIFICATION FOR REINSTATEMENT WORKS AT W & J PYE LTD. FEED MILL, DAMSIDE STREET, LANCASTER.**

- 1        Specification applies to areas where existing slab broken out to give access to trench.
- 2        All trenches to be backfilled with sub-base subgrade type III and laid in well compacted layers not exceeding 150mm in depth each compacted with a wacher plate/jumping jack rammer.
- 3        Cut back existing slab 500mm all round new trench and lay new 200mm concrete Grade C30/20 slab with aggregate size of 20mm with A142 mesh reinforcement with a minimum 50mm cover underside. New construction joint shall be straight and truly vertical and the slab shall be thickened to a depth of 450mm and 450mm in width all round the perimeter of the new slab.

John Moore & Partners  
8 June 1992