

September 2001

SCOTCH STREET, CARLISLE CUMBRIA

Assessment Report

Commissioned by:

D J Curtis and Associates Ltd

Scotch Street, Carlisle Cumbria

Archaeological Assessment Report

Report no 2000-2001/097/AUA8172

Checked by Project Manager.		
	Date	
Passed for submission to client.		
	Date	

© Lancaster University Archaeological Unit Storey Institute Meeting House Lane Lancaster LA1 1TF

September 2001

CONTENTS

SUMMARY		.3
ACKNOWLE	DGEMENTS	.4
1. INTRODU	CTION	.5
1.1	Circumstances of the Project	
2. Method	OLOGY	.6
2.1	Project Design	.6
2.2	Desk-Based Assessment	
2.3	Site Visit	
2.4	Archive	
3. BACKGRO)UND	.8
3.1	Topography and Geology	.8
3.2	Historical Background	
4. Assessmi	ENT RESULTS	.12
4.1	Sites and Monuments Record (SMR)	.12
4.2	Cumbria Record Office, Carlisle	.13
4.3	Lancaster University Library	.15
4.4	Archaeological Interventions	.15
5. GROUND	CONDITIONS	.21
5.1	Introduction	
5.2	Site Visit	.21
5.3	Borehole Data	.21
6. CONCLUS	IONS	.24
6.1	Archaeological Sensitivity	.24
	ND RECOMMENDATIONS	
7.1	Impact	
7.2	Recommendations	.25
8. BIBLIOGR	АРНҮ	
8.1	Primary Sources	
8.2	Secondary Sources	.27
		.30
Proje	ct Brief	
		.31
Proje	ct Design	
APPENDIX 3		.36

ILLUSTRATIONS
Figure 1: Location of study area
Figure 2: Anon <i>c</i> 1560 - Bird's eye view map of the City of Carlisle (British Museum)
Figure 3: Smith 1746 - Plan of the City of Carlisle (CRO(C))
Figure 4: Hodgkinson and Donald map of 1774 - inset plan of Carlisle City
Figure 5: Anon 1794 - Plan of the City of Carlisle showing area of investigation
Figure 6: Wood 1821 - Plan of the City of Carlisle, showing area of investigation
Figure 7: Asquith 1853 - Untitled Map, showing area of investigation
Figure 8: Location of Previous Archaeological Work
Figure 9: Location of boreholes and cellaring
PLATES
Plate 1: Aerial Photograph of the Lanes and Scotch Street (After McCarthy 2000)
Plate 2: 42 Scotch Street looking south-west

Plate 3: 42-48 Scotch Street looking north-west

SUMMARY

Following a request by Morris Clayton of DJ Curtis and Associates Ltd, Lancaster University Archaeological Unit (LUAU) undertook a desk-based assessment of a proposed retail and office development area at 42-48 Scotch Street, Carlisle (NGR NY 404 553) in August 2001. The site lies at the heart of medieval and Roman Carlisle, upon one of the main arterial routes into and out of the city, and has the potential to incorporate significant sub-surface archaeological remains.

The assessment highlighted the wealth of archaeological evidence, retrieved by excavation, for areas immediately adjacent to the site, and this would indicate that the site is likely to preserve archaeological evidence within its boundaries. A putative Roman bath-house or *mansio* was suggested by the finding of a hypocaust immediately adjacent to the north-west of the development site; there is a likelihood that part of such a structure or associated buildings extends within the present site. Rich waterlogged deposits and environmental evidence have been recovered from nearby excavations and there is a likelihood that similar remains will be found within the present site. Furthermore, the buildings on the northern part of the site are of Listed Grade II status, and will thus be subject to planning controls.

While the identification of surviving archaeological deposits in the adjacent areas highlights the potential for archaeological deposits within the study area, it does not prove that such deposits survive within the study area; in particular there is some possibility that cellaring will have removed any archaeological deposits. An investigation was therefore undertaken to identify evidence for below ground disturbance; this examined cellar plans and borehole evidence and established that a substantial part of the development area, comprising 210sqm, was cellared, and that archaeological deposits are unlikely to be preserved in this area. The remaining 680sqm of the site, however, had no evidence of cellaring.

It is recommended therefore that a programme of evaluation trenching be undertaken to investigate the below ground survival of archaeological remains. The listed buildings should also be recorded to at least RCHME Level 2 standard.

ACKNOWLEDGEMENTS

Lancaster University Archaeological Unit (LUAU) would like to thank Morris Clayton of DJ Curtis and Associates Ltd for his assistance in implementing the project. We would like to extend our thanks to Bette Hopkins, the SMR Officer for Cumbria County Council Archaeology Service, and to all the staff at the Cumbria Record Office in Carlisle and at Lancaster University library for their kind assistance. We are also indebted to John Zant and Philip Cracknell of Carlisle Archaeology Limited, and to Paul Flynn of Cumbria College, for giving us so much of their time and knowledge on the archaeology of Carlisle.

The desk-top assessment was undertaken by Matt Town and the drawings were produced by Andrea Scott and Emma Carter. The report was compiled by Matt Town, and was edited by Jamie Quartermaine and Rachel Newman. The project was managed by Jamie Quartermaine.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 A planning application has been submitted to Cumbria County Council by DJ Curtis and Associates Limited for a retail and office development on land at 42-48 Scotch Street, Carlisle, Cumbria (NY 404 553; Fig 1) in August 2001. The proposed development affects an area (*c*0.9ha) of archaeological potential as evidenced by recent excavation. Consequently, it was recommended by the Cumbria County Archaeology Service that an assessment of the site was necessary to inform the planning process. The work was undertaken in accordance with a project design (*Appendix 2*) which was prepared by Lancaster University Archaeological Unit (LUAU), in response to a brief (*Appendix 1*) from the Cumbria County Council Archaeology Service.
- 1.1.2 The desk-based study consisted of a search of both published and unpublished records held by the Cumbria Sites and Monuments Record (SMR) in Kendal, the Cumbria County Record Offices in Carlisle (CRO(C)), the library at LUAU, and the Lancaster University Library. Carlisle Archaeology Ltd was also consulted for unpublished results of interventions in the area of the proposed development.
- 1.1.3 This report sets out the results of the work in the form of a short document which outlines the findings, followed by a statement of the archaeological potential of the area, an assessment of the impact of the proposed development, and recommendations for further work.

2. METHODOLOGY

2.1 **PROJECT DESIGN**

2.1.1 A project design (*Appendix 2*) was submitted by LUAU in response to a request from Mr Morris Clayton of DJ Curtis and Associates Ltd, for an archaeological assessment of the study area, in accordance with a brief prepared by Cumbria County Archaeology Service (CCAS) (*Appendix 1*); following acceptance of the project design CCAS, LUAU was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 DESK-BASED ASSESSMENT

- 2.2.1 Several archives were visited, in accordance with the project brief and project design:
- 2.2.2 Sites and Monuments Record (SMR): the Cumbria Sites and Monuments Record, a database of archaeological sites within the county and maintained by the Cumbria County Council, in Kendal, was accessed. A brief record including grid reference and description was printed out for each site within the block of land bounded by Fisher Street and Market Street to the west, West Tower Street to the north, Scotch Street to the east and St Albans Row to the south. The area is an urban complex; therefore, no aerial photographs of the area were consulted as they would add little to the current study.
- 2.2.3 *County Record Office (Carlisle):* the County Record Office in Carlisle was visited primarily to consult historic maps of the study area, including any tithe maps and Ordnance Survey maps; particular emphasis was placed upon the early cartographic evidence which has the potential to inform medieval and post-medieval occupation and land-use of the area. A search was made for any relevant historical documentation, particularly regarding the use of the area, drawing on the knowledge of the archivists. Several secondary sources and archaeological or historical journals were also consulted.
- 2.2.4 *Carlisle Archaeology Limited:* much of the pertinent data for the site is a product of recent excavations which have either been fully published (eg McCarthy 2000), have been published as interim reports (eg Frere 1991), or are presently unpublished. Consultation was undertaken with representatives of Carlisle Archaeology Ltd in order to gain access to unpublished records relating to work in the area, particularly concentrating on the excavations at the Lanes, and 66-68 Scotch Street. Copies were made of any unpublished reports and plans.
- 2.2.5 *Lancaster University Library:* a search was conducted in the university library, for pertinent secondary sources, relating to the local history and the archaeology of the area.

2.3 SITE VISIT

- 2.3.1 A site visit was made on 10th August 2001, which examined the ground conditions over the site. No access could be gained into the standing buildings to examine the present ground surface or the extent and depth of any cellaring; however, discussion with present tenants and consultation of ground plans provided by the client succeeded in yielding information about the cellars. This information has been used to provide an indication of areas of anticipated below ground disturbance and thereby inform the programme for further investigation.
- 2.3.2 An assessment was undertaken of the above ground structures, and an examination was made of the date, and of the architectural significance, of the buildings in order to establish the requirements for any further recording.

2.4 ARCHIVE

- 2.4.1 A full professional archive has been compiled in accordance with the project design (*Appendix 2*), and in accordance with current IFA and English Heritage guidelines (English Heritage 1991).
- 2.4.2 The paper and digital archive will be deposited in the Cumbria Record Office, Carlisle.

3. BACKGROUND

3.1 TOPOGRAPHY AND GEOLOGY

- 3.1.1 Carlisle is located on the valley floor of the River Eden and the city developed between the river and its tributaries, the Caldew and the Petteril. The study area lies within the medieval walled city, the city walls on the west side being positioned along the top of the scarp slope above the Caldew. The Roman and medieval towns of Carlisle stand on raised boulder clay glacial drift deposits, which overlie the alluvial silts and clays of the Eden and Caldew rivers; the site lies upon these glacial drift deposits (Young 1990, 2-4).
- 3.1.2 The site lies at approximately 16m OD, and comprises a block of land, currently still built upon, on the western side of Scotch Street, immediately south-east of the Market Hall. The site is bounded to the north by an unnamed lane, once known as Old Blue Bell Lane or Butcher Market, to the west by Treasury Court, and to the south by the buildings of 50 Scotch Street. The development site contains within it a lane, Tower Lane, which runs west from Scotch Street and adjoins Treasury Court.

3.2 HISTORICAL BACKGROUND

- 3.2.1 *Introduction:* this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments around the study area, emphasising the overall development of Carlisle.
- 3.2.2 **Prehistory**: Carlisle is 'seated upon an eminence, surrounded by a fertile plain of rich meadows' (Whellan 1860, 83). The town lies on the Solway Plain, an area that is characterised by a relatively large number of prehistoric settlement sites, many apparently dating to the Iron Age, which took advantage of the fertile soils (Bewley 1994). There is also some evidence of Bronze Age activity, as Bronze Age collared urns were found at the Garlands Hospital Site in 1861 (Perriam 1992, 3), and more recently a Bronze Age burnt mound has been identified at the same site (LUAU 1996). Flints of Neolithic and Bronze Age date have also been found, as have ard-marks which suggest early cultivation, though these have not been securely dated (McCarthy 1984). The promontory on which Carlisle stands has been used as a defended settlement probably since at least the Iron Age: the Victoria County History of the County of Cumberland suggests that the Castle site may have been a pre-Roman dun (Doubleday 1901, 285), though there is no excavated evidence for this.
- 3.2.2 **Roman:** Carlisle occupies a naturally well-defined promontory between the Eden and Caldew rivers and this topography was exploited by the establishment of a Roman fort in the early AD 70's under the governorship of Petilius Cerialis (Shotter 1993, 13); excavations on Annetwell Street uncovered a turf and timber rampart (McCarthy 1984), and more recent excavations at the Millennium site within the fort have revealed considerable evidence of the fort's internal layout, and the location of the headquarters building (*Principia*) (J Zant pers comm).
- 3.2.3 The town of *Luguvalium* grew up to the south of the fort, and the name was first attested on writing tablets dating from the AD 80's (McCarthy *et al* 1990, 4); excavations have identified extramural settlement from the Flavian period, which was centred on the line of the Roman road that extends south-east from the fort following

the line of Castle Street, Blackfriars Street and Botchergate (McCarthy 1990), and a north/south road that follows in part the line of present day Scotch Street and led towards a bridge over the river Eden (McCarthy 2000). It was assumed, until recently, that all the early identified Roman civilian settlement was situated on the promontory, occupying a similar extent to the later medieval town, with a cemetery extending south along Botchergate, beyond the edge of the settlement. Recent excavations, however, have shown this to be an erroneous assumption: a phase of early Roman timber buildings, predating a cremation cemetery, was uncovered in the area; subsequently, later planned buildings were aligned on the street frontage, with roads running off at 90° to Botchergate, dating to the Hadrianic period (Zant and Giecco 1999). These buildings show intensive multiple rebuilds and some possible industrial functions. Recent excavations by LUAU to the north of this site have shown considerable evidence of industrial activity, including secondary iron working and apparently lead processing (I Miller *pers comm*).

- 3.2.4 By the late Roman period *Luguvalium* acquired the status of a *Civitas* capital, as *Civitas Carvetiorum*, which demonstrates the importance and significance of this urban centre (Charlesworth 1978, 123). The fort remained in occupation in some fashion into the fifth century (J Zant pers comm) despite the fact that the defensive line of Hadrian's Wall remained in occupation, on the north bank of the Eden, and the largest fort on the wall, Stanwix, lay immediately to the north of the river on the road into Scotland (Daniels 1978, 236-8). The evidence, however, would suggest that civilian settlement decayed during the fourth century (McCarthy 1982), but McCarthy notes 'Roman' activity at Blackfriars Street (McCarthy 1990) which seems to extend beyond the traditional end of Roman government into the fifth centuries, and excavations on Scotch Street of a large Roman building also show continuation into the fifth century (Keevill forthcoming).
- 3.2.5 *Early Medieval:* as is the case throughout Cumbria, evidence for early medieval activity is extremely limited. At Blackfriars Street, the later 'Roman' layers were succeeded by features which have been identified as 'Anglian', although close dating is impossible (McCarthy 1990). Documentary evidence suggests that some elements of urban life were still in existence in the seventh century when, according to Bede (Colgrave 1940), St Cuthbert in AD 685 saw water systems in use. In addition, Bede records a nunnery and possibly a monastery within the town (*ibid*), which was perhaps associated with St Cuthbert's, a church that clearly precedes the development of the cathedral precinct (from the twelfth century) (McCarthy 1990). St Cuthbert's would seem to be aligned on the Roman road system, rather than a more exact east/west orientation, and it is notable that the limited indications of mainly artefactual evidence concentrate on the line of the former north-west/south-east Roman road (McCarthy *et al* 1990); this includes coins which date to between the eighth and eleventh centuries.
- 3.2.6 Nothing concrete is known of settlement in Carlisle from the ninth to the eleventh centuries, although metalwork of this period has been found to the west of the present cathedral (Gaimster *et al* 1989). The Danes, however, are recorded as having overrun the region in AD 876 under Halfdan (Earle and Plummer 1892).
- 3.2.7 *Medieval and Post-medieval:* by the eleventh century, Carlisle was in an area of dispute between the expanding kingdoms of England and Scotland; according to the Anglo-Saxon Chronicle, William Rufus in 1092 is said to have 'set up the walls', restoring the town and erecting the castle (Earle and Plummer 1892). Rufus garrisoned the town and 'sent a number of labourers from the south of England to settle in and

around Carlisle, to reclaim the neighbouring lands and to bring them into cultivation' (Whellan 1860, 84). In 1122, Henry I ordered the city to be fortified with 'castles and towers' (Arnold 1885, 267).

- 3.2.8 In 1135 the town was granted to the Scots as part of a wider political deal between England and Scotland, but Henry II re-established English control by 1157 (McCarthy *et al* 1990). Scottish kings continued to lay claim to many parts of Northern England throughout the rest of the twelfth century and, in 1173, William the Lion attempted to take the town (*op cit*, 126). In 1216 it fell to the Scots but in the following year was restored to English rule once more. It was not until the mid thirteenth century that the dispute between kingdoms was settled, with the Pope decreeing that Northumberland and Cumberland were part of England (McCarthy *et al* 1990).
- 3.2.9 The visit of Henry I in 1122 prompted not only a major period of building at the castle, but also the foundation in 1133 of an Augustinian Priory, which served as the seat of the newly created bishopric (McCarthy *et al* 1990). The thirteenth century saw the foundation of two further monastic establishments by the Dominicans (Blackfriars) and the Franciscans (Summerson 1993, 103).
- 3.2.10 In the fourteenth century, Carlisle was subject to numerous raids and skirmishes during the Wars of Independence, and in 1391 was sacked and burnt by the Scots. The impact of the attack was long felt: a late seventeenth century writer recounted that the city 'was never able to recover itselfe from soe many desolations and even at this day the scars of those dreadful wounds are yet apparent for ye town is so thin and empty of inhabitants that it looks like a country village well walld [sic] about rather than a citty [sic]' (Todd 1690, np).
- 3.2.11 Control over the area was attempted through the wardens of three marches defined along each side of the border, and Carlisle was the centre of the Wardenry of the West March (*ibid*). From the late fifteenth century onwards a state of anarchy developed along the border line, which led to the growth of the border reivers (Fraser 1971). Following the unification of the crowns in 1603, the border was forcibly pacified, and Carlisle's influence declined. The Civil War also affected the town, Carlisle being held for a time by the Royalists but was recaptured by Parliament in 1645 (McCarthy *et al* 1990).
- 3.2.12 Following disturbances caused by the Jacobite rebellions of 1715 and 1745, the later eighteenth and first half of the nineteenth centuries saw the development of industry in Carlisle, led by the 'first factory', a woollen mill, in 1724 (Whellan 1860, 97). Particularly important were textiles, mainly woollen manufacture, and a number of biscuit manufacturers also operated in the town (*ibid*). Industrial growth was steady rather than meteoric, as in some other cities Carlisle has been rightly cited as 'a good instance of what may be called the normal growth of an English town. It owes nothing to mineral wealth and has made no sudden stride, but merely responded to the industrial impulse in proportion to its position as a chief town of a large district and a place which was accessible as a centre of distribution' (Creighton 1889, 192). The latter role was helped by the arrival of the railway, which was laid in the 1840s (Asquith 1853).

4. ASSESSMENT RESULTS

4.1 INTRODUCTION

4.1.1 The assessment results are based on primary documents, notably maps, and excavation results and are presented according to the archive from which they were consulted.

4.2 SITES AND MONUMENTS RECORD (SMR)

- 4.2.1 Three SMR records were available for the documentary study area, which is defined by Scotch Street to the east, West Tower Street to the north, Market Street and Fisher Street to the west, and St Albans Row to the south; two listed building records were also identified, and summary descriptions of archival material, relating to the Market Hall excavations (MKT A, MKT C and MKT D), 66-68 Scotch Street excavations (SCO C), St Mary's Gate watching brief (SMG), Castle Street excavation (CBS) and Fisher Street watching brief (FIS C) were also provided. Aerial photographs of the site were not consulted since the urban status of the area meant that these would add little evidence of use. The summary descriptions provided by the SMR relate to the excavations or watching briefs within the environs of the development area and are in part duplicated by records held by Carlisle Archaeology Ltd therefore, this information has been incorporated into the section on archaeological interventions (Section 4.4 and Appendix 3).
- 4.2.2 *SMR Summary Descriptions:* SMR 5065 (NY 4007 5601): this entry relates to excavations at 58-62 Scotch Street (SCO A) and has been incorporated into the archaeological intervention section (*Section 4.4*).
- 4.2.3 **SMR 17955 (NY 4011 5603):** four sherds of Samian pottery, from building works at 41-43 Scotch Street, were found in July 1977. These were from the opposite side of the street to the study area, in an area later excavated as part of the Lanes project (Zant forthcoming).
- 4.2.4 **SMR 19111 (NY 4007 5600):** this isolated find spot was of a Roman coin of Septimius Severus (AD 193-211).
- 4.2.5 *Listed Building Records:* the listed building records relate to the buildings which are within the area of development and area all of Grade II status. The records, compiled on 17th June 1988, are coded 671-1/8/262-263:
- 4.2.6 **42-44 Scotch Street:** these premises are simple build presently occupied by three shops with offices above. There is a date of 1889 on the pediment; they were built by George Dale Oliver the original design was published in *The Builder*, 3rd August 1889. The building has three and an half storeys, with three bays on Scotch Street and a three-bay return on Old Blue Bell Lane, and has a round angled tower on the north-eastern corner; all constructed in a Jacobean style. It is constructed of red sandstone ashlar, with tiered pilasters, and there are string courses, a solid parapet, and full pedimented dormers at intervals oneacg facade. The roof is of Welsh slate with decorative ridge tiles, and there is a lead cupola on the angle-tower. Chimney stacks are set on the ridge and comprise ashlar and brick. The ground floor has twentieth century doors and shop windows, although these are within the original dividing pilasters. The corner shop retains its overall signboard and the original illuminating scrolled metal gas-lamp brackets. The first-floor has cross-mullioned windows of two and three lights, with a

single light on the angle and all have blind round arches; there are similar windows above on the second floor but without transoms. Below the parapet of the tower is the painted lettering 'TOWER BUILDINGS'. The shop window of the adjoining building (No 46), projects one bay into No 44 on the ground floor. The interiors were not inspected.

4.2.7 **46-48 Scotch Street:** these were built as two houses, although of a single build but are now two shops with storage accommodation over. They are of early nineteenth century construction but have seen later alterations. They are constructed in a plain classical style, with three storeys, and five bays, set within a double-depth plan and are calciferous sandstone ashlar with a sill band and an eaves cornice. The slate roof is not visible from street, but has original brick chimney stacks on the ridge and at the end. The ground floor has twentieth century shop doors and windows, flanking a flat archway into Treasury Court. On the first floor are sash windows in plain stone reveals, and there are internal panelled shutters. Faded lettering, painted onto the front of No 48, between first and second floors, says 'GRAMOPHONE & WIRELESS SHOWROOMS'. The shop window of No 46 extends into No 44 on the ground floor. The interiors were not inspected.

4.3 CUMBRIA RECORD OFFICE (CARLISLE)

- 4.3.1 The Cumbria Record Office at Carlisle (CRO(C)) was consulted to collate maps for a regression analysis of the study area. A wealth of cartographic material available for the city was available, dating from 1560 onwards, and is an important source of information regarding the site's later development. An intensive study of the cartographic sources is not the remit of the present assessment, but one or two maps have been selected from approximately every century on the grounds that they clearly depicted the study area, for discussion here. Information from secondary sources and archaeological or historical journals has also been incorporated into the historical background (*Section 3.2*).
- 4.3.2 Anon c1560 Bird's eye view map of the City of Carlisle (British Museum BLCotton Ms AugI,i,13) (Fig 2): this map is one of the clearest of the area in the sixteenth century, and is the earliest known map of Carlisle. Scotch Street is clearly shown, with a stylised double-row of houses extending along the street frontage, and three blocks extending westwards from the street. No lanes are visible, other than Rosemary Lane to the south; to the rear of the buildings, the land is shown as small garden plots, with some trees along the boundaries. St Alban's Chapel is depicted at the southern end of Scotch Street; the town hall is clearly marked, as is Rickergate, the city's northern entrance ('Ricargate').
- 4.3.3 Smith 1746 Plan of the City of Carlisle (CRO(C)) (Fig 3): Smith's plan of 1746 is also exceptionally clear; drawn during the Jacobite rebellion, it shows the positions of the gun batteries used by the government forces against the rebels. Little further detail is shown of Scotch Street than that on the c1560 map, with houses still ranged along the street frontage. Rosemary Lane was still the only lane shown, with garden plots extending from the back of the building. On the opposite side, the Lanes can be seen to be beginning to develop, running east between Scotch Street and the city wall.
- 4.3.4 Hodgkinson and Donald 1774 Inset Plan of Carlisle City (CRO(C) D/LONS/L) (Fig 4): this map forms an inset to a larger map of Cumberland, and shows a very similar layout to that of Smith's map of 30 years earlier, but with some further development.

The block of land defined by Rosemary Lane is depicted as entirely built over, and further buildings had, by this date, encroached onto the garden plots to the rear of Scotch Street, some radiating from the frontage, whilst others are shown as free-standing buildings. The Lanes were by then mostly developed, with only a small section adjacent to Scotch Gate which were shown as gardens.

- 4.3.5 Anon 1794 Plan of the City of Carlisle and Places Adjacent (CRO(C) D/LONS/L/CARLISLE/13) (Fig 5): this map provides the highest level of detail for the area; houses are shown extending back in irregular blocks from the street frontage, with buildings ranged around a courtyard to the west of the street. Rosemary Lane is still shown, and a new lane, Old Blue Bell Lane, extended west- south-west from Scotch Street, forming the north boundary of the site as it is today (though most of the lane is now enclosed in the nineteenth century Market Hall). The main use of the land to the rear of the houses was then still as gardens, though several are shown as formal gardens rather than as small plots. The Lanes by then are shown as fully developed.
- 4.3.6 *Wood 1821 Plan of the City of Carlisle (CRO(C))* (Fig 6): this map provides further detail of the area. Large blocks of houses and other premises by then occupied most of the gardens to the rear of the street frontages, south of Old Blue Bell Lane, with access provided by a street that would later become Tower Lane; a Mr Hodgson is named as owning some of these premises. Old Blue Bell Lane is shown as Butcher Market, which gives some indication of the activities being carried out in that area. The city walls and Scotch Gate were by then entirely demolished, with Scotch Street continuing on into Rickergate as a continuous road. Most of the Lanes are named on this map.
- 4.3.7 Asquith 1853 Untitled Map, CRO(C) (Fig 7): this map is very detailed, being drawn at ten feet to one statute mile. The buildings shown were by this date almost entirely as they are today, particularly in the area south of Butcher Market. Tower Lane is shown as it is today, with Nos 46 and 48 Scotch Street having the same layout. Nos 42 and 44 were slightly different, as the large office block (Tower Buildings) on the corner of Butcher Market was not built until 1889, as attested by a datestone. A further lane is shown running parallel to and north of Tower Lane, with a number of small sheds in the rear yard; this was later swallowed by the construction of the office block.
- 4.3.8 The sequence shows a steady development of the area, which appears to accelerate in the late eighteenth and early nineteenth centuries, culminating in the buildings as they are today. It is likely that, for most of the later medieval period, the houses only extended along the street frontage, and that most of the rear area was used for cultivation.

4.4 LANCASTER UNIVERSITY LIBRARY

4.4.1 Several secondary sources were consulted in the university library, particularly the volumes of the *Victoria County History for Cumberland*, and relevant editions of *Britannia* and *Medieval Archaeology*. Local history books were also consulted and the information from these has been incorporated into the historical background (*Section* 3.2).

4.5 ARCHAEOLOGICAL INTERVENTIONS

- 4.5.1 A wealth of evidence for the study area exists from previous archaeological interventions (excavations and watching briefs) in the vicinity. This section provides only a brief summary of the results obtained from these interventions; most of which have not as yet been published; some may never be. A summary gazetteer of interventions in the area is incorporated as *Appendix 3* and their extent is shown on Figure 8.
- 4.5.2 The Lanes, Scotch Street (excavation and watching briefs) (KLA-G; LALA-D; LEL B; OBLBOGL A-C and J) (NY 4012 5608): investigations by the former Carlisle Archaeological Unit in The Lanes (1979-83) included over 30 separate excavations and watching briefs (McCarthy *et al* 1982; McCarthy 1984; Webster and Cherry 1980; the South Lanes excavations are published in McCarthy 2000, the North Lanes remain unpublished, but phasing is summarised in Zant and Padley 1996, and Zant 1996a; 1996b; the archive resides in Shaddon Mill, Carlisle. Every intervention encountered buildings or other deposits of Roman date, with a full sequence of deposits up to the post-medieval period. The largest excavation took place in the former Keays and Laws Lanes and Union Court, opposite the present development area (Zant 1996a; Zant and Padley 1996).
- 4.5.3 *Prehistoric Periods:* no pre-Roman structures were confirmed, though a metalled trackway (OGL J) crossing the site may be prehistoric, associated with plough-marks attesting agricultural activity; these remains were aligned north-west/south-east, and are contrary to the present road alignments which run north/south. A circular structure was found at Old Grapes Lane (OGL A), but dating appears to place this within the earliest part of the Roman sequence, probably in the late first century. Isolated finds, including barb-and-tanged arrowheads, attest to prehistoric activity within the area (McCarthy 2000).
- 4.5.4 *Early Roman Period:* the earliest evidence for activity is a putative *praetorium*, dating from the first century, and set within a ditched enclosure, and a possible temple complex to the east which post-dates it (LAL D, KLA F and KLA G) (Zant 1996a). The putative *praetorium* is arguably the finest piece of Roman timber architecture to be recognised in Carlisle. A shallow, but carefully levelled, foundation trench contained large oak sill beams, two of which were linked by a combination of a scarf and dovetail joint, perhaps to provide additional strength at a point of weakness. The sills had substantial posts mortised into the upper face at regular intervals. A double thickness of panels, with vertically orientated wattling, was sprung into slots cut into the uprights, and the whole structure was coated with a thick layer of whitewashed or plastered daub (McCarthy 1984, 68). These building techniques are characteristic of Roman legionary construction and are most clearly paralleled at Valkenburg, close to the mouth of the Rhine in the Netherlands (*ibid*).
- 4.5.5 The floors in some rooms were of earth, but in others there were the impressions of squared joists indicating a boarded floor (*ibid*). Some parts of the building, perhaps the roof or drains, were made of lead on the evidence of many misshapen fragments found in the destruction deposits. The building was 10.25m wide and at least 55m long. Fragments of *opus signinum* and large stone *pilae* almost certainly indicate the presence of a building containing a hypocaust close by. The whole complex was set within a ditched enclosure, although the ditch was clearly not defensive and no signs of an accompanying rampart were recognised. The ditch and the building excavated probably belong to the same complex, but the spatial arrangement suggests that they may not be strictly contemporary. The buildings were deliberately demolished, with the

walls covered with thick deposits of burnt material, containing molten and shapeless lumps of lead, attesting to a destruction phase (Zant forthcoming).

- 4.5.6 The temple stood in isolation beyond the ditched enclosure, and is thought to post-date the putative *praetorium*, though phasing is difficult, and it is likely to be of roughly the same period. The central feature consisted of an almost square *cella* or shrine with very deep foundations and opposed doors. Column bases on the eastern and western sides indicate the presence of porticos, whilst on the other two sides there were apparently identical ranges of rooms with shallower foundations (*ibid*).
- 4.5.7 Second to Third Centuries: overlying the open areas succeeding the putative *praetorium*, a simple rectangular building with stone walls was progressively enlarged by the addition of rooms, including one with a channelled hypocaust, in the second and third centuries (KLA-D) (Zant 1996a). Another wooden building, yards, and a stone-lined well belonged to this property, which was defined to north and south by narrow metalled lanes and to the east by open land (KLA C). The neighbouring land to the south appears to have been open and contained a tree, the root system of which was clearly identified (Zant and Padley 1996). On the northern side another property built on large pad stones was associated with minor ancillary buildings, yards, and a stone-lined well (LAL D). This was found to contain a skeleton, which was probably the victim of a violent death, and a large quantity of leather shoes (McCarthy 1984).
- 4.5.8 Elsewhere, on the line of Crown and Anchor Lane, a major Roman road was identified (OGL J). This was probably the principal access into Carlisle from the east and became the main east/west axis within the settlement as far as the east end of the Cathedral; after this it turned north-west and was aligned on the gate of the fort (McCarthy 2000). Within The Lanes, however, this road probably formed a right-angled junction with Scotch Street, the Roman equivalent of which was seen in a watching brief (SCO B) (*op cit*, 55). It is not clear when these roads were first laid out, though it seems likely that they were relatively early features of the settlement.
- 4.5.9 The frontage along Roman Scotch Street was not excavated, although there is no reason to suppose that it was not relatively densely occupied, perhaps from the early Roman period. Buildings, initially of timber and later with clay and cobble foundations, clustered in the angle of Scotch Street and Crown and Anchor Lane (CAL B), and extended back about half way to Lowther Street, on the evidence of excavations along the Grapes Lanes (OGL A) (McCarthy 2000). A section exposed behind cellars on the north side of Crown and Anchor Lane contained several hearths and areas of burning, hinting perhaps at some form of industrial activity (CAL B). Otherwise most of the buildings exposed were probably largely domestic in character (*ibid*).
- 4.5.10 *Later Roman Period:* buildings excavated in the Keays and Laws Lanes areas may have continued to function through the first half of the fourth century, and conceivably as late as the reign of Valentinian I (364-375), but the quantities of pottery and coins recovered are not such as to suggest a flourishing community, and it may well be that many buildings in this area were abandoned well before the end of the fourth century (McCarthy *et al* 1982; McCarthy 1984). Two sections across the Roman roads of Scotch Street and Crown and Anchor Lane (OGL J) appear to show an unbroken sequence of metallings from Roman through to more recent times. It is possible, therefore, that they continued in use (*ibid*).

- 4.5.11 Medieval: following the Roman period, the site appears to have been largely abandoned, or at least evidence of activity becomes less archaeologically visible. Black soil deposits were found across the site, with some ephemeral structural features noted within these deposits (Zant 1996b; McCarthy 2000, 64). These included post-holes, a line of river cobbles (potentially a wall) and surfaces, associated with two Northumbrian stycas, north-east of a Roman house (KLA C). A late Saxon two-piece clay mould for casting strap-ends was found within a pit at the excavations on Crown and Anchor Lane, decorated in the Trewhiddle style and assigned to the ninth century (Taylor and Webster 1984). Also found was a tenth century enamel disc brooch from Old Grapes Lane (OGL A) (McCarthy 2000, 47). Pits, post-holes and gullies cutting the soil were identified as possible agricultural activity. Following this, metalled road surfaces were laid out along lines formerly established by pit alignments; these surfaces followed the present alignments of known lanes, such as Keays Lane and Hodgsons Court (Zant forthcoming). From the thirteenth century or earlier, insubstantial buildings were built, fronting onto these lanes (KLA B; Zant 1996b), comprising two-bay structures incorporating stone pads, ground sill beams, earthfast posts and hearths; they appear to have continued in use, possibly into the seventeenth century. A three-bay medieval hall occupied Lewthwaites Lane Trench A around this time (LEL A; McCarthy 2000, 51).
- 4.5.12 *Post-Medieval Period:* from the seventeenth century onwards, medieval buildings appear to have been cleared, particularly from the frontages onto Scotch Street, to make way for later development. Between 1690 and 1750, most timber buildings were cleared to make way for brick structures, embellished with decorative sandstone features displaying social standing (McCarthy 2000, 66). Most of these buildings survived into the twentieth century, when they were removed to build The Lanes shopping centre.
- 4.5.13 *Vaseys, 58-62 Scotch Street (SCO A) (excavation NY 4007 5601):* this area has seen a rescue excavation by Tom Clare in 1976 at 58-62 Scotch Street and an earlier rescue excavation by Redfearn in 1920 at 62 Scotch Street; Redfearns' excavations were published the following year (Redfearn 1921) and Clare's excavations are unpublished but summarised within SMR 5065. Much of the 1976 investigation involved small areas only, these being dictated by building operations, and consequently much of the evidence is difficult to interpret. Only one layer was distinguished across the whole site and its date was unclear. The earliest dateable feature would seem to be a turf-built bank, dated to between the late first and mid second century AD, with a probable associated ditch on the north side (SMR 5065). This appears to relate to a late first century ditch identified during the Lanes excavations at Keays Lane, Laws Lane and Globe Lane (KLA D/C/G; LAL C; and GLL A), which is thought to be the return of a ditched enclosure around the putative *praetorium* (Zant and Padley 1996).
- 4.5.14 At some time in the second century, the bank was demolished and timber buildings erected (SMR 5065). Other late second century buildings, possibly of stone, may have been associated with a gravel floor or road. Timber Roman buildings were identified as being roughly parallel to Scotch Street, suggesting the existence of a Roman road on a similar line to the present road. A minor road with ditches, the surface of which was overlain by mid second to third century pottery, may have been contemporary with the above wooden structures, but almost certainly went out of use in the Roman period; Clare suggests that most of the site formed part of a back street *insula* (SMR 5065). Much of the Roman pottery is of late second/early third century date, and there were

also three Roman coins recovered, including one of Hadrian (118-138), but another of Constantine II (337-340).

- 4.5.15 The medieval pottery recovered was mostly thin-walled, well-fired cooking vessels with no more than 10% being jugs or pitchers. The 1920 excavation recorded a well, which was published as being of Roman date (Redfearn 1921), but the description finds suggest a later date. It was rectangular, lined with rough red sandstone rubble in large stones, and measured 3ft x 2ft l0in (0.91m x 0.86m) at the top, and was 41ft (12.49m) deep below yard level. There was a 6in thick stone slab at the bottom with a 4in diameter hole in the centre. The well had been backfilled with loose stones and earth. Three pump-trees were recovered one of larch, and two of oak; one tree was fitted with an iron collar and two pieces of chain. Other finds included a piece of very thin sheet glass (semi-opaque and iridescent); one segment of a glass bottle, 114mm in diameter (green and iridescent); two sherds of earthenware, and one sherd of samian. After excavation the well was backfilled with concrete.
- 4.5.16 Market Hall (MKT C) (watching brief NY 4003 5607): this was a watching brief undertaken by Paul Flynn, then of Carlisle Archaeological Unit, on works being undertaken in the Market Hall in 1990. The results have not been published in detail, although a very brief summary has been included in Britannia (Frere 1991); the present description is based on the primary archive held at Shaddon Mill, Carlisle. A Roman metalled street was uncovered running east/west, adjacent to a large stone building, thought to be a bath-house or *mansio*, since it contained hypocaust systems. The street dates to the mid-Roman period, and appears to have linked street-lines previously noted at St Mary's Gate, Market Street and within Scotch Street. The building contained several rooms, two of which appear to have been a tepidarium and caldarium, and a third which was possibly a cold plunge bath (ibid). The works involved the watching of the stripping of existing floor surfaces, which revealed that most of the archaeology lay directly below ground level (P Flynn pers comm). This building lay immediately north-west of, and adjacent to, the present study area, and it would appear that some part of the building will extend within the boundaries of the present development.
- 4.5.17 St Alban's Chapel, 66-68 Scotch Street (SCO C) (excavation NY 4006 5598): these excavations, directed by GD Keevill and funded by Cordwell Property Ltd in 1988, have been summarily published (Gaimster *et al* 1989) and a forthcoming publication text (Keevill forthcoming) is held, along with the archive in Shaddon Mill, Carlisle. The excavations revealed the foundations of the medieval chapel of St Alban, which was in existence by 1201 but disappeared at the Dissolution. It had at least three constructional phases, and ultimately was at least 17m long. Surrounding it was a cemetery, of which 40 graves were excavated.
- 4.5.18 The earliest activity on the site appears to be Roman; minimally sampled deposits, where medieval features had cut the Roman layers, attested to a date range around the fourth and fifth centuries, with one coin recovered from the third century. A Roman building is known on the site, though the exact plan is unclear; it is thought to have had east and west wings ranged around a courtyard. A hypocaust associated with the building held within it a gold solidus of Valentinian II, dated to AD 380-90, which was probably an accidental loss; three subsequent floors overlay the hypocaust sealing the coin, which suggest a continued use for the hypocaust into the fifth century, though it does not appear that the rest of the building continued in use. The earliest floor above the hypocaust was of *opus signinum*, indicating a continued high status for the

building. The final collapse of the building has not been dated, but it appears the site gradually decayed after the fifth century.

- 4.5.19 Dark earth deposits covered the site and three stycas, a glass bead, and a pair of tweezers were recovered from them, with a strap-end and mould found in later deposits. The dark earth deposits were possibly deliberately dumped in the ninth century to provide gardens, or possibly were laid to facilitate grave-digging in the cemetery of a timber pre-Conquest chapel; one of the graves was cut by the earliest phase of thirteenth century stone building, which would indicate that it pre-dated the chapel (*ibid*). Although the stone-built chapel is known to have existed by 1201, all pottery found associated with the building was of twelfth century date or even slightly earlier, and would therefore suggest an earlier foundation (ibid). The building consisted of a possible tower to the west and the corner of a simple chapel to the east. The chapel was subsequently enlarged to join the tower, with two sub-dividing walls radiating north to form three cells, tentatively identified as the nave, chantry chapel and chancel; the tower may have opened into the nave. Following reorganisation, the wall between the chancel and chantry chapel was removed, possibly being replaced by a screen. The cemetery is known to have extended for some distance, probably beyond Rosemary Lane to the north, and as far as the town hall to the south; the dog-leg on Rosemary Lane probably represents encroachment of properties onto the western edge of the cemetery, and burials recovered from the Town Hall suggest that it too encroached onto the site from the south.
- 4.5.20 Following the Suppression of the Chantries in 1549, the land passed to Thomas Dalton and William Denton (Gaimster *et al* 1989). The west tower was probably retained while the rest was demolished or partly-demolished, and the area was cobbled. Infilling of the area behind the street frontages began in the eighteenth century with the building of cellared stores. The land was shared out with properties on Scotch Street and St Albans Row, with passages built back from the streets and also from Rosemary Lane.

5. GROUND CONDITIONS

5.1 INTRODUCTION

5.1.1 A site visit was made on 10th August 2001, which investigated the ground conditions over the site. No access could be gained to the standing buildings to examine the present ground surface and the extent and depth of any cellaring; however, discussion with the present tenants and examination of ground plans provided by the client, has enabled the extent of cellaring to be established (Fig 9). The information is used, in conjunction with the desk-based study of site conditions, to provide an indication of areas of anticipated below ground disturbance and thus to allow for recommendations of where any evaluation trenching should be located. An assessment was undertaken of the above ground structures, and an examination was made of the date, and of the architectural significance, of the buildings in order to establish the requirements for any further recording.

5.2 SITE VISIT

- 5.2.1 The site visit showed that the buildings presently occupying the site are the same as those originally identified during the survey of buildings of architectural importance in 1988 (*Section 4.1.3*). At present, only two of the four premises are tenanted (Nos 44 and 46), and the other two are presently empty (Nos 42 and 48). Nos 46 and 48 have offices ranging back along Tower Lane as far as Treasury Court; these offices also appeared to be empty. The buildings were seen to be as described in the listed buildings records, though no mention is made in these records of the buildings along Tower Lane; these are brick-built, low, two-storey buildings, probably of nineteenth century date or earlier.
- 5.2.2 Access to the cellars was impossible during the visit, though the tenants did kindly take time to discuss the approximate layouts of the basement levels. The client has also provided a digital drawing of the basement and first floor layouts which has greatly assisted in the interpretation of existing below-ground disturbance (Fig 9). As far as can be assessed, the only cellaring known on the site relates to the north-east corner of the block, and relates to the imprint of the 1889 Tower Buildings. This forms a rectangular area in the immediate corner of the block, encompassing Nos 42 44 Scotch Street, with some further small cellars extending west and south from this block. Evidence from the site visit appeared to confirm this, showing cellar-lights only within the pavements in front of these two premises. The rest of the block appears to be uncellared, and forms approximately two-thirds of the survey area.

5.3 BOREHOLE DATA

- 5.3.1 Following a request by the client, Terence E Dudley and Associates helpfully supplied a report by Aitken Laboratories Limited on their ground investigations on the site of 42-48 Scotch Street (Aitken Laboratories Ltd 1999). The investigations involved the sinking of nine boreholes and the excavation of four hand-dug test-pits around the site (see Fig 9 for borehole positions). The interventions were located as follows:
 - Borehole 1: immediately in front of 48 Scotch Street, in the pavement.

- Borehole 2: on the corner of Old Blue Bell Lane and Scotch Street, adjacent to 42 Scotch Street.
- Boreholes 3 to 5: equally spaced along the open section of Tower Lane.
- Borehole 6 and Test-pit 3: in Old Blue Bell Lane in the corner between the Market Hall and the rear of 42 Scotch Street.
- Borehole 7 and Test-pit 1: in the very rear of 44 Scotch Street.
- Borehole 8 and Test-pit 2: to the rear of 44 Scotch Street, adjacent to Market Hall Wall.
- Borehole R1 and Test-pit 4 are not located on the accompanying plan.
- 5.3.2 The results are summarised as follows:

'Ground conditions revealed by the fieldwork were broadly similar, consisting of made ground overlying soft then firm to stiff sandy gravelly clay with bedrock beneath.

Made ground was found at all locations and consisted of brick setts or concrete overlying sand, gravel and clay fill to depths ranging from 0.60 metres to 2.70 metres and generally around 2.00 metres. This made ground was generally underlain by soft locally very soft sandy very silty clay although at some locations (TP 3 and 4 and BH 4) a lower fill material, considered representative of an old topsoil layer was encountered.

The underlying material was generally soft to firm very silty clay with gravel and in places the upper zones of this material were very soft to soft. This clay graded into firm then firm to stiff sandy very silty clay with gravel with depth and this lower material is considered representative of the Glacial Till (Boulder Clay) of the area. Many of the boreholes terminated either within this material or the overlying made ground. Suspected bedrock was found at some locations at depths ranging from 5.55 metres to 6.50 metres. Bedrock was proven at one location (BH RI) by rotary coring methods from 6.00 metres to 12.00 metres and has been recorded as marl' (Aitken Laboratories Limited 1999, 2).

5.3.3 The results of the boreholes are encouraging, though some confusion exists as to the position of some of the interventions (eg Test-pit 4 is not located on the plan provided). Though interpretation of borehole data is difficult, it would appear that most of the initial made ground deposits comprise modern overburden, with all subsequent made ground deposits down to the natural Glacial Till (at depths varying between 1.5m and 2.85m) being of archaeological derivation (though the term 'archaeological derivation' is used with caution as the deposits could date anywhere from the prehistoric through to the post-medieval periods). The presence of 'an old topsoil layer' in Test-pits 3 and 4, and Borehole 4, is also very encouraging. The interpretation of some of the 'natural' deposits; the true depth of 'made ground' may therefore be greater. The depths of these are summarised below:

Intervention:	'Modern' Deposits (m)	'Archaeological' Deposits (m)	Notes on 'Archaeological Deposits'
BH1	0.00 - 0.16	0.16 - 1.90	Presence of glass, which is undated.

BH2	0.00 - 0.45	0.45 - 1.50	
BH3	0.00 - 0.18	0.18 - 1.90	Presence of brick, which is undated.
BH4	0.00 - 0.42	0.42 - 2.70	Main deposit described as 'fill' – contains brick traces and could be archaeological feature.
BH5	0.00 - 0.55	0.55 - 2.85	'Pockets of peat and decomposing timber' between 2.70m and 2.85m.
BH6	0.00 - 1.65	-	Lowest deposits show traces of brick and mortar – probably nineteenth century foundation disturbance.
BH7	0.00 - 0.25	0.25 - 2.40	Presence of brick, which is undated.
BH8	0.00 - 0.18	0.18 - 2.15	Presence of brick, which is undated. Obstruction to borehole at base depth.
BHR1	-	-	'Made ground' to 1.60m; borehole not located.
TP1-4	-	-	The test-pits were generally too shallow to allow conclusivley analysis of the results; broadly speaking archaeological deposits may extend from 0.25m down to approximately 1.5m in depth.

5.3.4 **Contaminants:** several shallow samples were tested for possible contaminants. These were based on ICRL guidelines for the designated end use as 'Domestic Gardens or Allotments'. A number also fall below the designated end use as 'Parks, Playing Fields and Open Spaces' and are marked (#). The samples were also tested against Dutch guidelines which are more rigorous, and these results are marked with an asterisk. The following table lists those above target level, and highlights the concentrations, the locations and depth.

	BH1	BH5	TP2	TP3	TP4
Arsenic				0.60m	
Lead		1.00m # *			0.50m
Copper	0.70m # *				
Sulphate			0.70m #		

5.3.5 The report states: 'overall it can be concluded that the samples tested showed elevated concentrations of a number of potential contaminants. These contaminants are generally phytotoxic and/or toxic via ingestion [...]. Due to the elevated levels of various contaminants within the ground suitable Health and Safety measures should be put in place to protect site workers and others during the construction phase' (Aitken Laboratories Ltd 1999, 4). These contaminants need to be borne in mind when considering any future work upon the site.

6. CONCLUSIONS

6.1 ARCHAEOLOGICAL SENSITIVITY

- The results of the assessment have shown unequivocally that the likelihood of the 6.1.1 survival of archaeological deposits upon the site is strong, to the point of certainty. The site lies within the heart of Roman and medieval Carlisle, adjacent to one of the main historic arteries into and out of the city - Scotch Street. The evidence from previous excavations within the area points overwhelmingly to the likelihood of deposits surviving to some depth within the study area; the site lies directly opposite the North Lanes, where the greatest concentration of Roman archaeology was found (Zant forthcoming), and immediately adjacent to the Market Hall site, which produced tentative evidence of a bath-house or *mansio*, a building which probably extends into the study area. Further south, evidence has also been discovered of the medieval chapel of St Albans, which had an extensive cemetery associated; there is little chance of this site extending as far north as the proposed development, but the exact size of the chapel complex is unknown, and evidence of further ancillary buildings or burials could survive within the area. Furthermore, the nature of the deposits encountered within all excavations, which has included vast quantities of waterlogged timbers and a wealth of environmental evidence (particularly from the Lanes site), makes this site potentially a very important resource for a future understanding of Carlisle's development.
- 6.1.2 The condition study has demonstrated that part of the site has been cellared (Fig 9), and on the evidence of the survey data provided by the client the cellars are approximately 2.2m deep beneath current ground floor levels. In these areas of cellaring it is probable that archaeological deposits will have either been removed completely or very severely truncated, leaving only perhaps the earliest stratified deposits. The western and southern parts of the site, however, do not appear to have been cellared and there is great potential there for the survival of archaeological deposits in a relatively intact condition.
- 6.1.3 On the evidence of the borehole results it would appear that natural sub soils were identified at depths between 1.5m and 2.6m below the present surface, and, varying depths of the clearly modern overburden, ranging from 0.16m to 1.65m were also identified. In some trenches the modern overburden (eg Borehole 6) seems to lie directly on the natural deposits, but in the majority archaeological deposits are apparently present, although some of these include 'fragments of brick' and may in part be of relatively recent deposition. In at least one borehole (No 5) there was evidence of organic deposits, including decayed peat or timber, which may indicate anaerobic preservation.

7. IMPACT AND RECOMMENDATIONS

7.1 IMPACT

- In the development proposal, the northernmost building (42-44 Scotch Street) on the 7.1.1 site, a Grade II Listed building, is to be preserved, although subject to improvement. This northernmost building also coincides with the extent of the identified cellars and consequently the archaeological deposits in this area are likely to have been severely truncated and, on the present understanding, it is anticipated that any below ground disturbance within the footprint of this building will be limited. The rest of the site will be cleared to allow for the construction of a piled building. The groundworks will involve the insertion of deep piles, which will cause a localised but considerable disturbance through all archaeological deposits. In addition, ground beams will be inserted, set into narrow trenches extending over a greater area, in comparison to the piles. Such beams can be relatively shallow, however, and may not cause deep disturbance to the archaeological deposits. In addition to the direct impact of the development, there is also a considerable potential that the insertion of piles will alter the drainage pattern of the sub-surface deposits and result in the decay of anv waterlogged organic deposits.
- 7.1.2 On the evidence presented above there is a great potential for the survival of archaeological deposits on the site; however, the precise impact that the development will have upon them can not be established on the present evidence as the nature of the deposits is not known, and neither is the significance of the archaeological resource or the depth of such deposits.
- 7.1.3 The proposed improvement of Nos 42-44 Scotch Street will have some impact upon the fabric of the building, which has a Grade II listed building status, although the extent of the disturbance cannot be ascertained at present. The development will involve the demolition of the buildings (Nos 46 and 48) in the southern part of the site.

7.2 **Recommendations**

- 7.2.1 As it is not possible to ascertain the impact of the proposed development upon the archaeological deposits at this stage, it is recommended that a programme of evaluation trenching be undertaken to assess survival and depth of such archaeological deposits. Trenches should be positioned in all areas of the site where there will be an impact on the ground from the proposed development. Following that programme, the requirements for any further recording and/or the implementation of engineering solutions will be established.
- 7.2.2 The buildings themselves should be subject to a programme of building recording, and, considering their relatively recent date, this should be to Royal Commission on Historic Buildings in England (RCHME) Level 2 standard. This will involve an examination of the extant fabric of the buildings, a summary assessment of the period and significance of the structure, and a plan of the internal layout, recording all significant, extant structural elements. A general oblique photographic survey should also be undertaken.

8. BIBLIOGRAPHY

8.1 **PRIMARY SOURCES**

Anon, c1560 Bird's eye view map of the City of Carlisle (British Museum, BLCotton Ms AugI, i,13)

Anon, 1794 Plan of the City of Carlisle and Places Adjacent ((CRO(C) D/LONS/L/CARLISLE/13)

Asquith, R, 1853 Untitled Map (CRO(C))

Board of Ordnance map ,1749 (CRO(C) DX 452)

Buck, S and N, 1744 A south-west prospect of the City of Carlisle (CRO(C))

Hodgkinson and Donald, 1774 Inset Plan of Carlisle City ((CRO(C) D/LONS/L)

Ordnance Survey First Edition (1865) 25" to 1 mile

Ordnance Survey Second Edition (1901) 25" to 1 mile

Ordnance Survey Third Edition (1925) 25" to 1 mile

Smith, G, 1746 Plan of the City of Carlisle (CRO(C))

Wood, J, 1821 Plan of the City of Carlisle (CRO(C))

8.2 SECONDARY SOURCES

Aitken Laboratories Ltd, 1999 Report on Ground Investigation at 42-48 Scotch Street, Carlisle, unpubl rep

Arnold, T, 1885 Symeonis Monachi Opera Omni (Rolls Series), Vols 1-2, London

Bewley, RH, 1994 *Prehistoric and Romano-British Settlement in the Solway Plain, Cumbria,* Oxbow monog **36**, Oxford

Charlesworth, D, 1978 Roman Carlisle, Archaeol J, 135, 115-37

Colgrave, B, 1940 Two lives of St Cuthbert, Oxford

Creighton, M, 1889 Historic Towns: Carlisle, London

Daniels, C, 1978 Handbook to the Roman Wall, with the Cumbrian coast and outpost forts, Newcastle upon Tyne

Doubleday, HA (ed), 1901 Victoria History of the County of Cumberland, 3 vols, London

Earle, J, and Plummer, C (eds), 1892 Two of the Saxon Chronicles, Oxford

English Heritage, 1991 Management of Archaeological Projects, 2nd edn, London

Ferguson, RS, 1890 A History of Cumberland, London

Fraser, G, MacDonald 1971 The Steel Bonnets, London

Frere, SS, 1991 Roman Britain in 1990, Britannia, 22, 221-292

Gaimster, DCM, Margeson, S, and Barry, T, 1989 Medieval Britain and Ireland in 1989, *Med Archaeol*, **33**, 167-241

Hutchinson, W, 1794 The History of the County of Cumberland, Carlisle

Keevill, GD, forthcoming Excavations at 66-68 Scotch Street, Carlisle 1988, unpubl rep

LUAU, 1996 Garlands Hospital, Carlisle: Evaluation Report, unpubl rep

McCarthy, MR, 1982 Thomas Chadwick and post-Roman Carlisle, in S Pearce (ed) *The early* church in Western Britain and Ireland, BAR Brit Ser, **102**, 241-56, Oxford

McCarthy, MR, 1984 Roman Carlisle, in Wilson, PR, Jones, RFC, and Evans, DM, (eds) *Settlement and Society in the Roman North*, 65-74, Bradford

McCarthy, MR, 1987 Excavations at Carlisle Cathedral, Trans Cumberland Westmorland Archaeol Antiq Soc, n ser, 87, 270-1

McCarthy, MR, 1990 A Roman, Anglian and Medieval Site at Blackfriars Street, Carlisle, Trans Cumberland Westmorland Archaeol Antiq Soc, Res Ser, 4, Kendal

McCarthy, MR, 2000 Roman and Medieval Carlisle: The Southern Lanes, Carlisle Archaeology Limited Res Rep, 1, Carlisle

McCarthy, MR, Padley, TG, and Henig, M, 1982 Excavations and Finds from The Lanes, Carlisle, *Britannia*, **13**, 79-90

McCarthy, M, Summerson, H, and Annis, R, 1990 *Carlisle Castle: a survey and documentary history*, English Heritage Archaeol Rep, **18**, London

Nicolson, J, and Burn, R, 1777 The History and Antiquities of the Counties of Westmorland and Cumberland, 2 vols, Carlisle

Perriam, DR, 1987 The demolition of the Priory of St Mary, Carlisle, *Trans Cumberland* Westmorland Archaeol Antiq Soc, n ser, 87, 127-57

Perriam, DR, 1992 Carlisle, An Illustrated History, Carlisle

Redfearn, H, 1921 Notes on a Roman well discovered in the courtyard of the Blue Bell Inn, Scotch Street, Carlisle, *Trans Cumberland Westmorland Archaeol Antiq Soc n ser*, **21**, 253-56

Shotter, D, 1993 Romans and Britains in North Wst England, Lancaster

Summerson, H, 1993 *Medieval Carlisle*, 2 vols, Cumberland Westmorland Antiq Archaeol Soc Extra Ser, **25**, Stroud

Taylor, J, and Webster, L, 1984 A Late Saxon Strap-End Mould From Carlisle, *Med Archaeol*, 28, 179-80

Todd, H, 1890 Account of the City and Diocese of Carlisle, *Trans Cumberland and Westmorland Archaeol Antiq Soc Tract Ser*, **5**, Kendal

Webster, LE, and Cherry, J, 1980 Medieval Britain in 1979, Med Archaeol, 24, 216-58

Whellan, W, 1860 The History and Topography of the Counties of Cumberland and Westmorland, Pontefract

Young, B, 1990 The geology of the castle, in McCarthy M Summerson H and Annis R 1990, 2-4

Zant, J, 1996a *The Lanes 2/3 Site Phasing, Part 2: Concordance of Trench Phases – Roman,* Carlisle Archaeological Unit, unpubl rep

Zant, J, 1996b *The Lanes 2/3 Site Phasing, Part 2: Concordance of Trench Phases – Medieval to Modern*, Carlisle Archaeological Unit, unpubl rep

Zant, J, forthcoming Roman and Medieval Carlisle: The Northern Lanes

Zant, J, and Giecco, F, 1999 Recent Work in Carlisle, Current Archaeology, 164, 306-9

Zant, J, and Padley, T, 1996 The Lanes Carlisle Volume 2: Notes circulated following the Fourth Lanes Plenary Meeting 30.10.1995, unpubl rep

APPENDIX 1 PROJECT BRIEF

Lancaster University Archaeological Unit

August 2001

42-48 SCOTCH STREET, CARLISLE CUMBRIA

ARCHAEOLOGICAL ASSESSMENT

Proposals

The following project design is offered in response to a request from D J Curtis and Associates Ltd for an archaeological assessment at 42-48 Scotch Street, Carlisle.

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Lancaster University Archaeological Unit (LUAU) has been invited by D J Curtis and Associates Ltd to submit a project design and costs for an archaeological assessment of land at 42-48 Scotch Street, Carlisle, Cumbria, in advance of a retail and office development. The archaeological work is undertaken to inform a planning application, and is line with Planning Policy Guidance Note 16; the project design has been prepared in accordance with a project brief prepared by the Assistant Archaeologist, Cumbria County Council.
- 1.1.2 **Archaeological Background:** Carlisle became a major settlement in the Roman period, with a fort, occupied from the early AD70s onwards, located to the north of the development site. A large settlement developed outside the fort, which, at its greatest extent, was approximately the same size as the medieval town; it extended south along Botchergate, which runs parallel to the Viaduct Estate road, with evidence for cemeteries beyond the settlement in the area of St Nicholas Street. The Roman settlement had achieved the status of a *Civitas Capital* (regional administrative centre) by the third century AD, despite the proximity of Hadrian's Wall. There is some evidence for continued occupation beyond the end of formal Roman rule, and the Venerable Bede recorded that during a visit by St Cuthbert, in AD685, running fountains were seen. Following the Norman Conquest of the area in 1092, a castle was built at the western extent of the Roman fort, and a town grew in the same area as that occupied by the Roman town, centred on the Augustinian Abbey, the seat of the bishop from 1133.
- 1.1.3 The development site is within the heart of historic Carlisle, falling within the extent of the large Roman civilian settlement, and is also within the core of the medieval city. Excavations from area of the adjacent market revealed a possible Roman bath house or *mansio*, which has the potential to extend into the area of the proposed development. Excavations both within the market area and the adjacent Lanes complex have revealed deeply stratified archaeological remains and there is a likelihood that similar remains will be discovered within the proposed development area.

1.3 LANCASTER UNIVERSITY ARCHAEOLOGICAL UNIT

- 1.3.1 LUAU has considerable experience of the evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects during the past 18 years. Evaluations and assessments have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. LUAU has undertaken a major archaeological excavation of the of the leper hospital site at St Nicholas Street, Carlisle and LUAU, along with the Archaeological Practice, undertook a large excavation at the Cumbria College of Art and Design, Carlisle, which is on the line of Hadrian's Wall, adjacent to Stanwix Roman Fort. LUAU has also recently undertaken excavations at Botchergate in the southern part of Carlisle.
- 1.3.2 LUAU has the professional expertise and resource to undertake the project detailed below to a high level of quality and efficiency. LUAU and all its members of staff operate subject to the Institute of Field Archaeologists (IFA) Code of Conduct, and LUAU is a registered organisation with the IFA (No 27).

2. **OBJECTIVES**

2.1 The following programme has been designed in accordance with a brief provided by Helena Smith of Cumbria County Council to provide an accurate archaeological evaluation of the designated area, within its broader context. The principal purpose of the evaluation is to collate information about the archaeology of the site, and to investigate the quality, extent and significance of sub-surface remains. This will enable an assessment of the significance of the identified archaeological resource and from this recommendations for any further archaeological investigation will be made. The required stages to achieve these ends are as follows:

2.2 Desk Top Survey

To accrue an organised body of data to inform the evaluation.

2.3 Site Visit

A site inspection will be made to establish the ground conditions and the potential for below ground impact of archaeological deposits. of the development area.

2.4 Assessment Report

A written assessment report will assess the significance of the data generated by this programme within a local and regional context. It will advise on the requirements for further recording.

3. METHODS STATEMENT

3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

3.2 DESK- BASED STUDY

- 3.2.1 The following will be undertaken as appropriate, depending on the availability of source material. The level of such work will be dictated by the timescale of the project.
- 3.2.2 **Documentary and cartographic material:** this work will rapidly address the full range of potential sources of information. It will include an appraisal of the Cumbria Sites and Monuments Record, as well as appropriate sections of County histories, early maps, and such primary documentation (tithe and estate plans etc.) as may be reasonably available. Particular emphasis will be upon the early cartographic evidence which has the potential to inform post-medieval occupation and land-use of the area. Any photographic material lodged in either the County Sites and Monuments Record or the County Record Offices will also be studied. Published documentary sources will also be examined and assessed. This work will involve visits to the County Record Office in Carlisle.
- 3.2.3 Much of the pertinent data for the site is a product of recent excavations which are either published in full (McCarthy 2000), or is published as interim reports, or is presently unpublished. A full examination of the secondary sources (defined within the project brief) will be undertaken, which will include the results of work undertaken on Fisher Street, Scotch Street and the Lanes. In addition consultation will be undertaken with representatives of Carlisle Archaeology Ltd in order to gain access to unpublished records.
- 3.2.4 The study will assess evidence for the survival of below ground deposits. It will examine records of cellaring within the extent of the study area, to be provided by the client, and will examine bore-hole information also to be provided by the client.
- 3.2.5 **Physical environment:** a rapid desk-based compilation of geological (both solid and drift), pedological, topographical and palaeoenvironmental information will be undertaken. This will not only set the archaeological features in context but also serves to provide predictive data, that will increase the efficiency of the field inspection.

3.3 SITE INSPECTION

- 3.3.1 A site inspection will be undertaken, which will concentrate on the ground conditions over the site. Where possible access will be gained into the standing buildings to examine the present ground surface and the extent and depth of any cellaring. The information will be used, in conjunction with the deskbased study of site conditions, to provide an indication of areas of anticipated below ground disturbance and allow for recommendations for where any evaluation trenching should be located.
- 3.3.2 An assessment will be undertaken of the above ground structures, and examine the date, and architectural significance in order to establish the requirements for any further recording.

3.4 ASSESSMENT REPORT

3.4.1 **Archive:** The results of Stages 3.2-3.3 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The Management of Archaeological Projects, 2nd edition, 1991*). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. It will include summary processing and analysis of any features and finds recovered during fieldwork. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

- 3.4.2 This archive can be provided in the English Heritage Centre for Archaeology format, both as a printed document and on computer disks as ASCii files (as appropriate), and a synthesis (in the form of the index to the archive and the report) will be deposited with the Cumbria Sites and Monuments Record. A copy of the archive will also be available for deposition in the National Archaeological Record in London. LUAU practice is to deposit the original record archive of projects (paper, magnetic, and plastic media) with the appropriate County Record Office, and a full copy of the record archive, should any material be recovered, with the material archive (artefacts, ecofacts, and samples, at this stage from surface collections) with an appropriate museum.
- 3.4.3 **Collation of data:** the data generated by 3.2 and 3.3 (above) will be collated and analysed in order to provide an assessment of the nature and significance of the known surface and subsurface remains within the designated area. It will also serve as a guide to the archaeological potential of the area to be investigated, and the basis for the formulation of any detailed field programme and associated sampling strategy, should these be required in the future.
- 3.4.4 Assessment Report: one bound and one unbound copy of a written synthetic report will be submitted to the Client, and a further copy submitted to the Cumbria County Archaeologist. The report will include a copy of the project brief, this project design, and indications of any agreed departure from that design. It will present, summarise, and interpret the results of the programme detailed above and will include a full index of archaeological features identified in the course of the project, together with appropriate illustrations, including a map and gazetteer of known or suspected sites identified within or immediately adjacent to the study area. It will also include a complete bibliography of sources from which the data has been derived, and a list of further sources identified during the programme of work, but not examined in detail. The report will also include a complete bibliography of sources from which data has been derived, and a list of further sources identified during the programme of work, but not examined in detail.
- 3.4.5 This report will identify areas of defined archaeology, an assessment and statement of the actual and potential archaeological significance of any features within the broader context of regional and national archaeological priorities will be made. Illustrative material will include a location map, which can be tailored to the specific requests of the client (eg particular scales etc), subject to discussion.
- 3.4.6 **Proposals:** The report will make a clear statement of the likely archaeological implications of the intended development. It will also make recommendations for any further evaluation of the identified archaeological potential deemed necessary or desirable. It will seek to achieve, as a first option, the preservation *in situ* of all significant archaeological features, and possible strategies for the mitigation of the development, including design modifications, will be considered. Where conservation is neither possible, nor practical, it may be appropriate to recommend a further stage of more intensive archaeological work in order to mitigate the effects of development.
- 3.4.7 **Confidentiality:** The assessment report is designed as a document for the specific use of the client, for the particular purpose as defined in the project brief and this project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

3.6 GENERAL CONDITIONS

- 3.6.1 *Access:* it is understood that there will be limited access to the site.
- 3.6.2 *Health and Safety:* full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The LUAU Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual. Risk assessments are undertaken as a matter of course for all projects. The Unit Safety Policy Statement will be provided to the client, if required. Trenches will be excavated up to one metre away from any standing walls to present any risk of destabilisation of structures.
- 3.6.4 *Confidentiality:* The report is designed as a document for the specific use of the client for the particular purpose as defined in this project design, and should be treated as such. Any requirement to revise or reorder the material for submission or presentation to third parties or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.

- 3.6.5 *Project Monitoring:* any proposed changes to this project design will be agreed with the client, and the Assistant Archaeologist, Cumbria County Council.
- 3.6.6 **Insurance:** the insurance in respect of claims for personal injury to or the death of any person under a contract of service with the unit and arising out of an in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of LUAU, in respect of personal injury or damage to property by negligence of LUAU or any of its employees, there applies the insurance cover of £2m for any one occurrence or series of occurrences arising out of one event.

4. WORK TIMETABLE

4.1 It is envisaged that the various stages of the project outlined above would follow on consecutively, where appropriate. The phases of work would comprise:

i	Desk-Based Assessment
	4 days (on site)

ii Assessment Report 3 days (desk-based).

- 4.2 LUAU can execute projects at very short notice once an agreement has been signed with the client. The desk-based study is scheduled for completion within three weeks from the completion of the field work. The times assume that modern made up ground will be identified; if significant archaeology is identified then there will be a requirement for an additional eight days on site.
- 4.3 The project will be under the project management of **Jamie Quartermaine**, **BA Surv Dip MIFA** (LUAU Project Manager) to whom all correspondence should be addressed. All Unit staff are experienced, qualified archaeologists, each with several years professional expertise.

APPENDIX 3 GAZETTEER OF PRINCIPAL INTERVENTIONS

Intervention Site name NGR Intervention Type Directed by Source Comment	CAL A Lanes Project; Crown and Anchor Lanes Excavation NY 4011 5596 Excavation CAU McCarthy 2000, 28-30 Buildings, initially of timber and later with clay and cobble foundations (first / second centuries).
Intervention Site name NGR Intervention Type Directed by Source Comment	CBS 63-67 Castle Street, 1997 NY 3999 5598 Excavation David Neal SMR Site Summary; McCarthy 1984, 68 Early timber buildings dated by dendrochronology to the mid 80's. By about AD 105 a more substantial structure was erected. The work produced 720 sherds of Roman pottery and <i>c</i> 5000 sherds of medieval pottery.
Intervention Site name NGR Intervention Type Directed by Source Comment	FIS C Fisher Street, 1998 NY 3998 5604 Watching Brief I Caruana SMR Site Summary Roman, medieval and post-medieval remains.
Intervention Site name NGR Intervention Type Directed by Source Comment	KLA G Lanes 2 Project; Keay's Lane Watching Brief NY 4012 5607 Watching Brief CAU Zant and Padley 1996 Large timber building (so-called <i>praetorium</i>) early second century; complex of rectilinear timber buildings (Hadrianic / Antonine).
Intervention Site name NGR Intervention Type Directed by Source Comment	LAL B/C/D; KLA A/B/C/D/E/F Lanes 2 Project; Law's Lane and Keay's Lane Open Area Excavation NY 4012 5608 Excavation CAU Zant and Padley 1996; Zant 1996a Possible pre-Roman plough marks; V-shaped ditch, possibly of military enclosure (late first century); large timber building (so-called <i>praetorium</i>) early second century; complex of rectilinear timber buildings (Hadrianic / Antonine); clay-floored timber building (Hadrianic / Antonine); large timber building at east of site (so called <i>mansio</i>) (Hadrianic / Antonine); strip building on north side of Keay's Lane (Antonine); building constructed on top of strip building (Antonine / early third century); rectangular stone building, including later hypocaust, in Keay's Lane (early third century); barrel-lined well (Antonine); timber building in Law's Lane (late third / early fourth centuries).

Intervention Site name NGR Intervention Type Directed by Source Comment	LEL A Lanes Project; Lewthwaite's Lane Excavation NY 4011 5605 Excavation CAU McCarthy 2000, 28-30, 50-21 L-shaped drain (first / second century); large timber building (mid second century); three- bayed medieval hall.
Intervention Site name NGR Intervention Type Directed by Source Comment	MKT A Market Hall, 1983 NY 4007 5610 Watching Brief I Caruana SMR Site Summary Roman material, 134 sherds of Roman coarseware and 22 sherds of Samian. No medieval or post-medieval pottery was recorded.
Intervention Site name NGR Intervention Type Directed by Source Comment	MKT C Market Hall Watching Brief, 1990 NY 4003 5607 Watching Brief P Flynn Frere 1991 East/west metalled road (mid Roman); large stone building with hypocaust.
Intervention Site name NGR Intervention Type Directed by Source Comment	MKT D Market Hall NY 4004 5610 Watching Brief MR McCarthy SMR Site Summary Watching brief undertaken in 1990.
Intervention Site name NGR Intervention Type Directed by Source Comment	OBL B Lanes Project; Old Bush Lane Excavation NY 4011 5605 Excavation CAU McCarthy 2000, 27-28 Most deposits destroyed by cellarage; Roman north/south building (first / second centuries ?).
Intervention	OGL A; OGL B

Intervention	OGL A; OGL B
Site name	Lanes Project; Old Grapes Lane Excavation
NGR	NY 4013 5602
Intervention Type	Excavation
Directed by	CAU
Source	McCarthy 2000, 17-27; 32-38; 47-52
Comment Prehistoric plough marks; early Roman circular structure; early metalled road; second century rectangular building; later buildings (late second / early third centuries); timber-lined well (eighth/ ninth centuries).

Intervention Site name NGR Intervention Type Directed by	OGL C; OGL J Lanes Project; Old Grapes Lane Excavation NY 4014 5603 Excavation CAU McCarthy 2000, 44, 47
Directed by Source	McCarthy 2000, 44-47
Comment	North/south rampart (second century).

Intervention	SCO A
Site name	58-62 Scotch Street
NGR	NY 4007 5601
Intervention Type	Excavation
Directed by	T Clare and H Redfearn
Source	SMR 5065; Redfearn 1921
Comment	Excavations by Tom Clare in 1976 involved small interventions within the area of development, the positions being determined by the development. A small excavation was undertaken by H Redfearn at No 62 Scotch Street. A turf-built bank, possibly part of a ditched enclosure around the putative <i>praetorium</i> (LAL B/C/D) (first to mid second century); timber building (second century); minor road (second to third centuries).

Intervention	SCO B
Site name	Scotch Street
NGR	NY 4009 5600
Intervention Type	Excavation
Directed by	CAU
Source	McCarthy 2000, 55
Comment	Watching brief in the centre of Scotch Street, revealed metalling but the alignment of the road was not evident.

Intervention	SCO C
Site name	66-68 Scotch Street
NGR	NY 4007 5599
Intervention Type	Excavation
Directed by	GD Keevill
Source	Keevill forthcoming
Comment	Foundations of the medieval chapel of St Alban, which was in existence by 1201 but was suppressed at the Dissolution. It had three recognisable constructional phases, and was at least 17m long. Surrounding it was a cemetery, of which 40 graves were excavated.

Intervention	SMG
Site name	St Mary's Gate, 1978
NGR	NY 4001 5601
Intervention Type	Watching Brief
Directed by	I Caruana
Source	SMR Site Summary
Comment	Roman and medieval remains.

Figure 1: Location of study area

Figure 2: Anon *c*1560 - Bird's eye view map of the City of Carlisle (British Museum)

Figure 3: Smith 1746 - Plan of the City of Carlisle (CRO(C))

Figure 4: Hodgkinson and Donald map of 1774 - inset plan of Carlisle City

Figure 5: Anon 1794 - Plan of the City of Carlisle showing area of investigation

Figure 6: Wood 1821 - Plan of the City of Carlisle, showing area of investigation

Figure 7: Asquith 1853 - Untitled Map, showing area of investigation

Figure 8: Location of Previous Archaeological Work

Figure 9: Location of boreholes and cellaring

PLATES

- Plate 1: Aerial Photograph of the Lanes and Scotch Street (After McCarthy 2000)
- Plate 2: 42 Scotch Street looking south-west
- Plate 3: 42-48 Scotch Street looking north-west



Plate 1: Aerial photograph of the Lanes and Scotch Street (After McCarthy 2000)



Plate 2: 42 Scotch Street looking south-west



Plate 3: 42-48 Scotch Street looking north-west



Figure 1: Location of Study Area



Figure 2: Anon about 1560 - Bird's eye view map of the city of Carlisle (British Museum)



Figure 3: Smith, G, 1746 - Plan of the City of Carlisle (CRO(C))



Figure 4: Hodgkinson and Donald map of 1774 - inset plan of Carlisle City



Figure 5 : Anon 1794 - Plan of the City of Carlisle (D/Lons/L/Carlisle/13), showing area of investigation



Figure 6: Wood 1821, plan of the city of Carlisle, showing area of investigation



Figure 7: Asquith 1853 - untitled map, showing area of investigation



Figure 8: Location of Previous Archaeological Work



4

Figure 9: Location of Boreholes and Cellaring