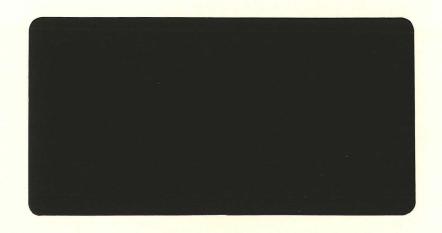


Lincolnshire County Council Archaeology Section

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# Report to Linpave Building Limited on behalf of University of Lincolnshire & Humberside Company

#### March 1998

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UNIVERSITY OF LINCOLNSHIRE & HUMBERSIDE, BRAYFORD, LINCOLN -Student Residences, Phase II 98/2

ARCHAEOLOGICAL WATCHING BRIEF

By K Wragg

CLAU ARCHAEOLOGICAL REPORT NO: 331

## UNIVERSITY OF LINCOLNSHIRE & HUMBERSIDE, BRAYFORD, LINCOLN Student Residences, Phase II

#### Archaeological Watching Brief

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UNIVERSITY OF LINCOLNSHIRE & HUMBERSIDE, BRAYFORD, LINCOLN -Student Residences, phase II

## ARCHAEOLOGICAL WATCHING BRIEF

#### NON-TECHNICAL SUMMARY

Phase II of the University development included the construction of a new Learning Resource Centre (LRC) building (see CLAU report no.330), and five student residence blocks (this report), on land to the west of the existing main university building. The proposed site of the new accommodation blocks was situated at the western end of the university site, to the west of the existing residential blocks and the access road connecting the site with the newly-constructed Ropewalk-Carholme Road link.

This area was formerly a scrap-yard, and extensive excavation of contaminated material, and replacement with 'clean fill' was required. Consequently it was unlikely that the groundworks would reveal important buried deposits. However, there was still scope for some unexpected discoveries, together with some opportunity for environmental sampling. Previous work had identified buried peat deposits, and these potentially held information about the prehistoric landscape.

In view of this archaeological potential of this area it was therefore decided, by the City of Lincoln Department of Planning, that an archaeological scheme of investigation should be undertaken, including a programme of environmental sampling.

While the majority of the proposed development area was unlikely to contain sufficient preserved deposits for viable sampling, the removal of the majority of the

railway sidings and diversion of the main running lines had released two areas of uninvestigated land (one area adjacent to each of the two Phase II developments).

It was therefore decided that the archaeological investigation of the site should take place in two stages. Stage 1 would comprise a series of seven trial pits spaced at regular intervals across proposed site of the student accommodation blocks (at approximately 25m centres), to allow recording of the strata and column sampling of any viable organic deposits. It was proposed that Stage 1 should be carried out prior to the commencement of construction groundworks. Stage 2 would comprise an intermittent watching brief, to be carried out on all enabling groundworks, and subsequent excavations.

However, it was later discovered that the areas earmarked for sampling lay within an 8m 'exclusion' zone immediately adjacent to Railtrack property. As a consequence, Stage 1 of the archaeological specification was held in abeyance, pending further discussions and negotiations between the client and the Department of Planning. At the time of publication of this report, CLAU is not aware of any decisions regarding this matter.

The City of Lincoln Archaeology Unit was therefore commissioned by Linpave Building Limited, on behalf of the University of Lincolnshire & Humberside, to carry out only an intermittent watching brief on the site (in accordance with Stage 2 of the original specification). Observation was carried out between the 29<sup>th</sup> of July and the 17<sup>th</sup> of September 1997.

Unfortunately, the groundworks encompassed by the watching brief were all contained within an area largely made up of landfill material imported on to the site during the decontamination works in 1995. As a result the revealed deposits were all of modern origin, and no new archaeological information was forthcoming from this project.

It should be considered extremely unfortunate that the opportunity for environmental sampling was not realised, given the lack of a controlled, systematic programme to date. The present state of development on the site probably means that this was the last chance of obtaining samples from a section across the site.

UNIVERSITY OF LINCOLNSHIRE & HUMBERSIDE, BRAYFORD, LINCOLN -Student Residences, phase II

## ARCHAEOLOGICAL WATCHING BRIEF

#### 1.0 INTRODUCTION

This report relates to elements associated with the construction of Phase II of the University of Lincolnshire & Humberside, Brayford, Lincoln.

Phase II of the University development included the construction of a new Learning Resource Centre (LRC) building (see CLAU report no.330), and five student residence blocks (this report), on land to the west of the existing main university building. The proposed site for the student residences measured approximately 80m (N-S) x 200m (E-W), and was situated at the western end of the university site, to the west of the existing residential blocks and the access road connecting the site with the Ropewalk-Carholme Road link (see Figs.1 & 2).

Groundworks for the LRC building included the insertion of reinforced concrete piles, which were then grouped to form pile-caps. A network of ground-beams was then established, founded on the grid of pile-caps (see Fig.3). Limited service trenching was also required, linking into the previously established Phase I main service runs.

Owing to the extent of the site remediation carried out on this part of the site (this area was formerly a scrap-yard, and extensive excavation of contaminated material, and replacement with 'clean fill' was required - see CLAU report 326), it was unlikely that the above groundworks would reveal important buried deposits. However, there was still scope

for some unexpected discoveries, together with some opportunity for environmental sampling. Previous work had identified buried peat deposits, and these potentially held information about the prehistoric landscape.

In view of this archaeological potential of this area it was therefore decided, by the City of Lincoln Department of Planning, that an archaeological scheme of investigation should be undertaken, including a programme of environmental sampling.

The City of Lincoln Archaeology Unit was approached in April 1997, by RMJM London Ltd., to formulate an archaeological strategy for the site that would satisfy the requirements of the Department of Planning.

The resulting archaeological specification noted that (based on the results of previous archaeological projects on the site) the approach of undertaking environmental sampling in conjunction with the contractors' groundworks was not effective. It was therefore proposed that any sampling should take place in advance of the contractors' groundworks, to be followed by an intermittent watching brief carried out during construction.

While the majority of the proposed development area was unlikely to contain sufficient preserved deposits for viable sampling, the removal of the majority of the railway sidings and diversion of the main running lines had released two areas of uninvestigated land (one area adjacent to each of the two Phase II developments). It was likely that modern disturbance in these areas would be relatively limited (the railway infrastructure appeared to have remained largely unchanged since the 19<sup>th</sup> century), which gave the possibility of encountering undisturbed stratified deposits.

It was therefore decided that the archaeological investigation of the site should take place in two stages. Stage 1 would comprise a series of seven trial pits spaced at regular intervals across proposed site of the student accommodation blocks (at approximately 25m centres), to allow recording of the strata and column sampling of any viable organic deposits. It was proposed that Stage 1 should be carried out prior to the commencement of construction groundworks. Stage 2 would comprise an intermittent watching brief, to be

carried out on all enabling groundworks, and subsequent excavations.

The archaeological specification was duly approved by the Lincoln City Archaeology Officer, Mr I.George, and adopted by the Department of Planning.

Unfortunately, it was later discovered that the areas earmarked for sampling lay within an 8m 'exclusion' zone previously unidentified (to CLAU), immediately adjacent to Railtrack property. It was considered unlikely that Railtrack would grant permission for excavation in this area (or that the cost of obtaining permission would be prohibitively high to the University/contractor). As a consequence, Stage 1 of the archaeological specification was held in abeyance, pending further discussions and negotiations between the client and Lincoln City Council Department of Planning. At the time of publication of this report, CLAU is not aware of any decisions regarding this matter.

The City of Lincoln Archaeology Unit was therefore commissioned by Linpave Building Limited, on behalf of the University of Lincolnshire & Humberside, to carry out only an intermittent watching brief on the site (in accordance with Stage 2 of the original specification). Observation was carried out between the 29<sup>th</sup> of July and the 17<sup>th</sup> of September 1997.

The information in this document is presented with the proviso that further data may yet emerge. The Unit, its members and employees cannot, therefore, be held responsible for any loss, delay or damage, material or otherwise, arising out of this report. The document has been prepared in accordance wit the terms of the Unit's Articles of Association, the Code of Conduct of the Institute of Field Archaeologists, and *The Management of Archaeological Projects 2* (English Heritage, 1991).

### 2.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 2.1 Historical Evidence

Lincoln is situated at the point where the Jurassic limestone ridge known as the Lincoln Edge is cut by a glacial gap, through which the River Witham now flows. At its junction with the River Till, canalised as the Fossdyke, flowing from the west, is a presumed natural lake, the Brayford Pool. Its extent was much greater in antiquity than at present, and it is known to have existed at the time of the Roman Conquest. The first syllable of the colloquial Roman name for the City of Lincoln, LINDUM, was derived from the Celtic word for "lake", "pool" or "marshy/water place" (Rivet & Smith, 1979).

The earliest evidence recorded for settlement around the Brayford Pool dates to the 1<sup>st</sup> century BC, but there is a possibility of earlier Prehistoric occupation in this area. Evidence for any such occupation may be provided by study of environmental remains.

Occupation along the fringes of the Brayford Pool continued during the Roman period and, by the end of the 2<sup>nd</sup> Century AD, the colonia wall had been extended almost down to the river front. Excavations have indicated that the south wall was probably close to the then riverline, c.50m north of the present Brayford Pool.

It is believed that the Foss Dyke canal connecting the Brayford Pool with the river Trent at Torksey was formed during the period of Roman occupation. The cutting of a channel for the first four miles from Lincoln was probably achieved by straightening the course of the river Till.

In addition extensive reclamation has taken place along the banks of both the Witham and Brayford Pool since the Roman period.

Many Lincoln place names are of Scandinavian origin. Of particular interest is "Carholme" (derived from Old Norse, Kiarr - "marshground", and Holms - "islands in the land" near the river, which flooded in winter), and Brayford whose early form "Braytheford" and the associated "Braedmere" has origins in the Old English "Brad" or the Scandinavian "Breit" or "Breior" meaning broad (the broad ford or broad mere), the pool being much

larger in the Middle Ages than now (Cameron, 1985).

During the Medieval period a new suburb of Newland (="newly reclaimed" or "newly settled" land) occupied land to the north of Brayford Pool and the Foss Dyke beyond. There were probably several periods of reclamation as the waterfront was advanced, and these operations may have commenced before the Norman Conquest.

By the end of the 13<sup>th</sup> century the west wall of the city incorporating the Newland Gate had been extended southward beyond the earlier south wall to Brayford Pool, terminating at a round stone tower on the Brayford bank which became known as the "Lucy Tower".

The later recorded history of the area is most closely linked with the efforts to reopen the Foss Dyke and the further development of Brayford Pool from Newland along Carholme Road.

Following the reopening of the Dyke in 1744, the Brayford Pool was rapidly turned into an inland port, and by 1817 substantial wharves, warehouses and coalyards had been established on both north and east banks where gardens had earlier stood.

The 19<sup>th</sup> century saw further development of the wider area resultant from the raising of the south bank of the Foss Dyke, related drainage works, the coming in mid-century of two railway companies, and further expansion of industry.

South of Brayford Pool, a low-lying area of land called the Holmes Common was probably waterlogged and marshy until the early 19<sup>th</sup> century drainage works, and the raising of the south bank of the Foss Dyke, which, together with associated drainage works, formed the Delph.

Following mid-19<sup>th</sup> century acquisition of the area south of the Brayford Pool by the Great Northern Railway, the Foss Dyke ceased to be Lincoln's commercial highway, as waterborne trade gradually gave way to the age of steam. The acceleration of industrial development in the late 19<sup>th</sup> century led to rapid expansion of the railways with sidings and goods yards being constructed on land progressively reclaimed across Holmes Common south of the Brayford Pool.

The south bank of the Brayford was pushed further north by reclamation with new railway wharves and a boat-building yard being developed along the southwest bank early in the 20<sup>th</sup> century.

Changes in the use of this area of land up to the present day have been largely superficial, being principally allied to industrial/commercial development and the changing fortunes of local railway services in the East Midlands.

#### 2.2 Archaeological Evidence

All of the archaeological projects to have taken place across the development area were prompted by the construction of the new University campus, and the Ropewalk-Carholme Road link. The results are summarised as follows:

1) Geotechnical trial pits excavated during February 1992 for the Highways and Planning Department of the Lincolnshire County Council (during the planning phase of the Ropewalk-Carholme Link road).

Nine trial pits were excavated, revealing a general stratigraphic sequence comprising sands, overlain by an organic horizon, which was in turn sealed by reclamation landfill and modern occupation layers (Hockley, 1992).

Environmental samples recovered from several trial pits suggested a partially forested wetland/swamp. Some very slight evidence for cereals (possibly indicative of farming/human activity on or close to the site) including cereal pollen and Hemp (cannabis) was also recorded.

2) Further geotechnical trial pits excavated in 1994, as part of the Lincoln City Council site investigations to assess the extent of contamination across the site.

During this evaluation the earliest deposits recorded appeared to be associated with the neighbouring Brayford Pool and the areas of marshland to the west, including layers of peat, and other organic horizons, overlying natural sands and clays. The remainder of the deposits seemed to be a result of industrial and railway activity dating from the mid 19<sup>th</sup> century,

together with more modern land-fill dumping seen in the south-western quadrant of the development area. In the areas previously occupied by the railway engine shed, and its associated installations, considerable amounts of ash and clinker (a by-product of steam engine operation) were present together with areas of contamination caused by oils and fuels.

From an environmental point of view, while the initial results showed very promising biological conditions on the site relating to the fauna and flora surrounding the Brayford Pool and its attendant marsh/woodland environment, no evidence for prehistoric human occupation was recorded.

Peat found in some samples, mainly concentrated in the more northerly areas of the site, appeared to have been laid down in reed marsh and wet alder woodland, and radiocarbon dating of two deposits revealed close to the southern edge of the Brayford Pool indicate that these deposits may have accumulated during the period covering 2850 B.C. to 1150 B.C., i.e. late Neolithic to Bronze Ages (Wragg 1994, Hockley & Wragg 1994).

3) The watching brief carried out during the University phase I construction groundworks, and the works associated with the Ropewalk-Carholme Road link.

The earliest deposits recorded again appeared to be largely associated with the areas of marshland to the west, including layers of peat, and other organic horizons, overlying the natural sands.

Close to the Brayford Pool, the organic deposits were again revealed, but in this instance at a much greater depth, probably indicating the wider extent of the original lake, although this could not be positively confirmed.

Above this level, multiple bands of sand were present, either representing naturally occurring alluvial deposits, or later reclamation deposits associated with 18<sup>th</sup> and 19<sup>th</sup> century land-use.

The remaining deposits revealed during the groundworks all appear to relate to industrial and railway land-use (dating from the mid 19<sup>th</sup> century).

No evidence for ancient human occupation was recorded (Wragg 1998).

#### 3.0 RESULTS

At the outset it was assumed that any important findings from this archaeological project were most likely to come from the programme of controlled environmental sampling and subsequent analysis of the recovered material.

Unfortunately, the opportunity to obtain deeply stratified, and probably undisturbed, environmental samples was lost due to unforeseen on-site circumstances.

The remaining groundworks were all contained within an area largely made up of landfill material imported on to the site during the decontamination works in 1995. As a result the revealed deposits were all of modern origin, and no new archaeological information was forthcoming from this project.

The very basic stratigraphic sequence revealed was as follows:

The earliest deposit comprised a 300mm+thick layer of moderately compacted, midbrown sandy silt containing no obvious inclusions ([701]), this deposit was revealed in the base of the excavations and was overlain by a layer of limestone hardcore [700]. This latter deposit was up to 1.0m thick and formed the existing surface for the development area.

No evidence for ancient archaeological occupation was revealed.

#### 4.0 DISCUSSION OF RESULTS AND CONCLUSIONS

As mentioned above, the main potential source of archaeological information on this site was the programme of controlled environmental sampling proposed in the original specification, and approved by the Lincoln City Council Archaeological Officer and the Department of Planning.

Once this element of the work had been ruled out, the chances of important archaeological remains being revealed by the watching brief on the contractors groundworks was virtually nil (given that the excavations were almost wholly contained within material laid down during 1995). The results, shown above, illustrate this.

It should be considered extremely unfortunate that the opportunity for environmental sampling was not realised, given the lack of a controlled, systematic programme to date. The present state of development on the site means that this was probably one of the last chances for obtaining samples from a section across the site, however some potential might still exist to the south of the railway line.

#### 5.0 ACKNOWLEDGEMENTS

The City of Lincoln Archaeology Unit would like to thank the following for their assistance during this project: Messrs K.Forth & N.Stevenson of the University of Lincolnshire & Humberside, Campus Way, Brayford, Lincoln; Department of Planning, Lincoln City Council, City Hall, Beaumont Fee, Lincoln LN1 1DH; Mr Ian George, Lincoln City Council Archaeology Officer; Ms J.Gorst, Messrs A.Salt & B.Chamberlain of RMJM London Ltd., 83 Paul Street, London, EC2A 4NQ; Mr I.Sharpe of Linpave Building Ltd., High Street, Saxilby, LN1 2JQ; Mr S.Clark and all on-site staff of UCS, Lincoln.

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Wragg, K 1998 University of Lincolnshire & Humberside, Brayford, Lincoln - LRC Building. CLAU archaeological report 330, City of Lincoln Archaeology Unit, Lincoln

#### 7.0 LHA NOTE/ARCHIVE DETAILS

#### 7.1 LHA NOTE DETAILS

CLAU CODE: UCLD97

PLANNING APPLICATION NO.:

FIELD OFFICER: K. Wragg

NGR: SK 9695/7135

CIVIL PARISH: Lincoln

SMR No.: N/A

DATE OF INTERVENTION: 29/07/97 -

17/09/97

TYPE OF INTERVENTION: Watching Brief

UNDERTAKEN FOR: Linpave Building Limited, High Street, Saxilby, Lincs., LN12JQ, on behalf of the University of Lincolnshire & Humberside Company.

#### 7.2 ARCHIVE DETAILS

PRESENT LOCATION: City of Lincoln Archaeology Unit, Charlotte House, The Lawn, Union Road, Lincoln, LN1 3BL.

FINAL LOCATION: The City and County Museum, Friars Lane, Lincoln.

MUSEUM ACCESSION No.: 189.97

ACCESSION DATE: -

## APPENDIX A - ARCHIVE DEPOSITION

The archive consists of:

No.	Description
1	Site diary
1	Report
2	Context records
3	Plan & Section drawings

The primary archive material, as detailed above, is currently held by :

The City of Lincoln Archaeology Unit, Charlotte House, The Lawn, Union Road, Lincoln, Lincolnshire, LN1 3BL.

It is intended that transfer to the City and County Museum, Friars Lane, Lincoln, in accordance with current published requirements, under Museum Accession Number 189.97, will be undertaken following completion of this project.



**KEY** 

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Location of Site

CITY OF LINCOLN ARCHAEOLOGY UNIT
SITE CODE:UCLD97 PLAN/ELEV/SECTION NO:

CLIENT: Linpave Building Ltd on behalf of The University of Lincolnshire and Humberside

DESCRIPTION:

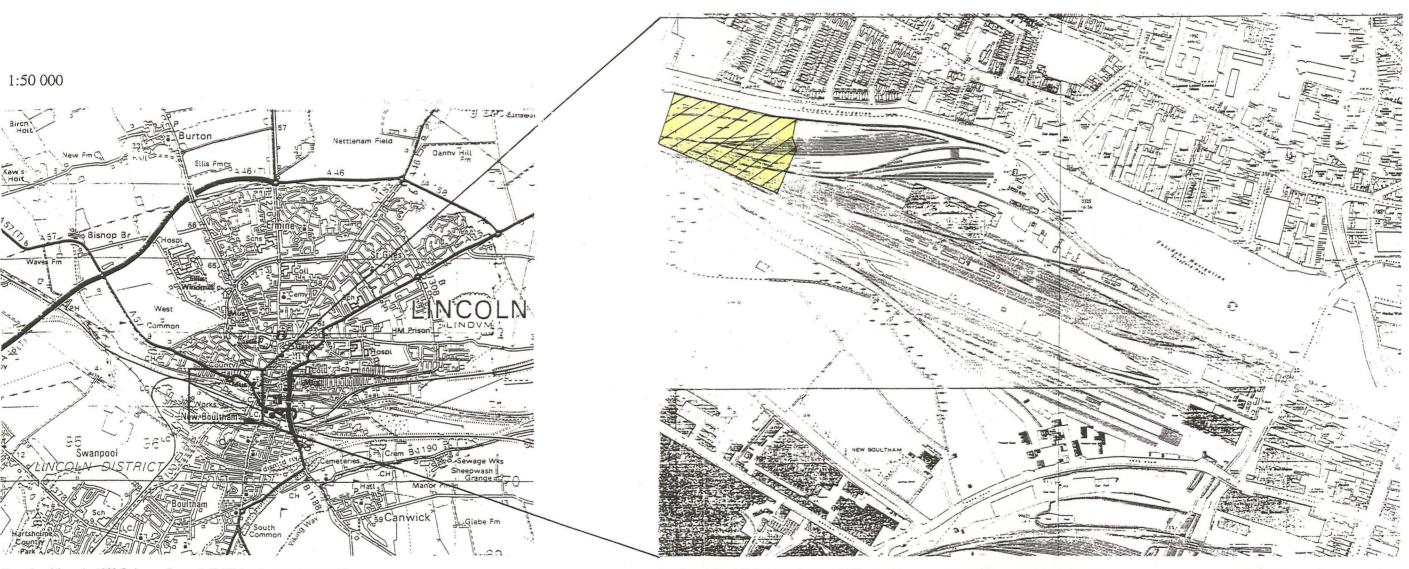
Site Location Plan

SCALE: ARCHIVE NO:

DRAWN BY: CHECKED: DATE:

MUSEUM ACCESSION NO: 189.97

1:5000



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