ARCHAEOLOGICAL EVALUATION ON LAND ADJACENT TO THE WHITE HART HOTEL, MARKET PLACE, SPALDING, LINCOLNSHIRE (SPW 99)



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Work Undertaken For Carlight Limited

November 1999

Report Compiled by Paul Cope-Faulkner BA (Hons) AIFA

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# CONTENTS

List of Figures

List of Plates

| 1.  | Summary 1  |
|-----|--|
| 2.  | Introduction12.1Definition of an Archaeological Evaluation12.2Planning Background12.3Topography and Geology12.4Archaeological Setting2 |
| 3.  | Aims 2   |
| 4.  | Methods 2  |
| 5.  | Results  |
| 6.  | Discussion   |
| 7.  | Assessment of Significance   |
| 8.  | Conclusions  |
| 9.  | Acknowledgements   |
| 10. | Personnel  |
| 11. | References   |
| 12. | Abbreviations  |

# Appendices

- 1 Specification of Work
- 2 Context Descriptions
- 3 The Pottery and Clay-Pipes by Hilary Healey and Gary Taylor
- 4 The Ceramic Building Material by Phil Mills
- 5 The Metal and other Finds by Gary Taylor
- 6 The Glass by Rachael Hall
- 7 Environmental Archaeology Assessment by James Rackham
- 8 Extract from Criteria for the scheduling of ancient monuments

9 The Archive

10 Glossary

# List of Figures

1

J

1

and the second second

| Figure 1    | General Location Plan   |
|-------------|---|
| Figure 2    | Site Location   |
| Figure 3    | Location of Development   |
| Figure 4    | Trench Location Plan  |
| Figure 5    | All Masonry Features  |
| Figure 6    | Section 2   |
| Figure 7    | Section 1   |
| Figure 8    | Trench Plan overlain by 19 <sup>th</sup> century plan of the White Hart |
| List of Pla | tes   |

# List of Plates

| Plate 1 | General View of the proposed development area    |
|---------|--|
| Plate 2 | The trench following excavation of modern floors |
| Plate 3 | Section showing the general sequence of deposits |

# 1. SUMMARY

An archaeological evaluation was carried out in advance of development to the rear of the White Hart Hotel, Market Place, Spalding, Lincolnshire.

The centre of the medieval town was located in the present market place, to the south of which was Spalding Priory. North of the investigation area was the medieval commercial centre of the town.

The front of the Hotel preserves the remains of a 15<sup>th</sup> century timber framed building, and these may represent part of the original structure, which may have been partially affected by fire in 1714. A map dated to 1732 shows that the building had been rebuilt, and that stables were located at the rear.

The evaluation identified deposits of flood silts overlain by dumped layers containing domestic household refuse. Later deposits were related to buildings associated with the White Hart Hotel. Finds include local and imported pottery and clay pipes, animal bone, brick, tile and glass. Some finds, such as tankards, cups and glass vessels, can be directly associated with the White Hart.

# 2. INTRODUCTION

# 2.1 Definition of an Archaeological Evaluation

Archaeological evaluation is defined as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, and relative quality; and it enables an assessment of their worth in a local, regional, national or international context as appropriate.' (IFA 1997).

#### 2.2 Planning Background

Between the 14<sup>th</sup> and 21<sup>st</sup> September 1999, an archaeological evaluation was undertaken at the rear of the White Hart Hotel, Market Place, Spalding, Lincolnshire. The work was carried out to provide information about the archaeological deposits present on the site, and an assessment of such deposits, to assist in the determination of development proposals.

The archaeological investigation was commissioned by Carlight Ltd. and carried out in accordance with a specification prepared by Archaeological Project Services (Appendix 1).

# 2.3 Topography, Geology and Soils

Spalding is situated 23km southwest of Boston and 30km southeast of Sleaford, in South Holland District, Lincolnshire (Fig. 1).

The proposed development site is located at the town centre as defined by the Market Place (Figs. 2 and 3). Situated at a height of c. 7m OD, the investigation area comprises the former kitchen of the hotel, between the Market Place, and the car park at the rear of the property (National Grid Reference TF 2479 2270).

As an urban area, the soils have not been mapped. However, local soils are likely to belong to the Wisbech Series, typically coarse silty calcareous alluvial gley soils developed over marine alluvium (Robson 1990, 36). These soils overlie a solid geology of Jurassic Oxford Clay (BGS 1992).

# 2.4 Archaeological Setting

Spalding is first referred to in a Tribal Hideage of the 7<sup>th</sup> century wherein a tribe known as the *Spaldas* are recorded. The place name is derived from the Old English *Spaldingas*, 'descendants of *Spaldas*' (Ekwall 1974, 432). The first account of the town was in a charter to the monks of Crowland by King Ethelbald in AD 716 (Clark 1978).

Crowland had been given land in Spalding by Thorold of Buckenhale, sheriff of Lincoln, supposedly in 1051. Money was provided to build a chapel and for six brethren to maintain it (Page 1906, 118). However, the lands passed to Ivo Taillebois, William the Conqueror's nephew, who forced the Crowland monks out of the town and then invited the abbot of St. Nicholas of Angers to build a monastery in its place (*ibid*, 119).

The Domesday Book of 1086 records that Spalding was owned principally by Ivo Taillebois with land also belonging to Crowland Abbey and Guy of Craon (Foster and Longley 1976). The survey also mentions the existence of a market, six fisheries, salt-pans and a wood of alders. Although the name of the town is Saxon in derivation, numerous street-names in Spalding have a Danish origin (Hallam 1954, 8).

The White Horse Hotel possibly originated as a hostelry associated with Spalding Priory, in the 15<sup>th</sup> century. It is first mentioned in the Spalding Acre Book of 1619 where it is referred to as 'an inn called the White Hart, with three roods of land attached to it, situated between the Markett stead south and Crackpoole lane north, being the property of George Villiers, marquis of Buckingham' (Leveritt and Elsden 1989, 145). During 1714 a fire started in the Market Place which soon spread to engulf much of the town centre. The White Hart was affected and the hotel was refurbished c. 1720. The front facade, with the exception of the portico, dates from this refurbishment (Pevsner and Harris 1989, 674).

During 1988 a trench was excavated to the rear of the White Hart Hotel (Symonds 1988). Two cellars were found, one of which was dated to the late 16<sup>th</sup> century. Medieval layers were located upon which a wooden building had been constructed. Wood survived in the form of timbers with peg joints and postholes

# 3. AIMS

The aims of the archaeological evaluation, as outlined in the specification (Appendix 1), were to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits. This would permit the Archaeology Officer, Lincolnshire County Council, to formulate appropriate policies for the management of the archaeological resource present on the site.

#### 4. METHODS

#### Excavation

A single trench was excavated within a building to the rear of the White Hart Hotel (Fig. 4). The position of the trench was determined by its proximity to standing walls and measured 3m by 2.8m to facilitate the possibility of deepening the trench beyond 1.2m, the maximum safe depth of unshored trenches as recommended by the Health and Safety Executive.

Once the former floors had been removed, all deposits and features were excavated by

hand. Sections and the sides of the trenches were rendered vertical and cleaned. Upon reaching a depth of 1m from the present ground surface, each trench was stepped in by 1m and excavated a further 1m down to the limit of excavation. A single auger core was taken through the deposits beneath the excavated area.

Environmental sampling was undertaken at the discretion of the site supervisor using guidelines established by Murphy and Wiltshire (1994).

Recording was undertaken based on the single context approach developed by the Museum of London (MoLAS 1994) with minor unit modifications. Each deposit or feature was given a unique reference number (context number) with an individual written description. All plans were drawn at a scale of 1:20 and all sections and elevations at a scale of 1:10. A photographic record was compiled using colour slide and monochrome formats.

### **Post-excavation**

Following excavation, all records were checked and ordered to ensure that they constituted a complete Level II archive and a stratigraphic matrix of all identified deposits was produced. Finds recovered from those deposits excavated were examined and a period date assigned where possible. A list of all contexts and interpretations appears as Appendix 2. Phasing was based on artefact dating and the nature of the deposits and recognisable relationships between them.

# 5. **RESULTS**

Following post-excavation analysis, a total of three phases were identified:

Phase 1: Undated Deposits

Phase 2: Post-medieval Deposits Phase 3: Recent Deposits

Archaeological contexts are listed below and described. The numbers in brackets are the context numbers assigned during the evaluation.

### **Phase 1: Undated Deposits**

The earliest recorded layers comprised dark grey silts (015 and 017) and brownish grey silts (016), together measuring 0.95m thick (Figs. 6 and 7). Interpreted as flood deposits, these layers were recorded by augering the base of the trench. As such, no dating evidence could be retrieved.

#### **Phase 2: Post-medieval Deposits**

Overlying the flood deposits was a dumped layer of reddish yellow silt (012). The reddish colour was derived from a quantity of burnt daub within the layer (Appendix 7). This layer was 0.34m thick and contained a quantity of 17<sup>th</sup> century artefacts. Environmental sampling identified burnt cereal grains, fish and amphibian bones present amongst the refuse material.

Cut into this dumped layer was a subcircular feature (013) measuring 0.3m by 0.26m and 0.12m deep. Identified as a posthole, it contained a single fill of light grey silt (014).

Sealing the posthole was a series of dumped deposits comprising predominantly grey silts (008, 009, 010, 011, 031 and 043). The lowest of these layers (009, 010 and 011) contained 17<sup>th</sup> century material with late 18<sup>th</sup> century pottery in the uppermost of this sequence which also produced a George III halfpenny dating to 1775 (008). The dumped layers had a total thickness of 0.6m.

Cut into these dumped silt deposits was a vertical sided feature (040), possibly a pit (Fig. 6). Only partially excavated, this feature was 0.8m wide and contained a minimum of three fills. The lowest (038) was dark grey sandy silt, overlain by light brown silt with limestone (037) and sealed by dark grey silt (039). No function could be determined for this pit.

# Phase 3: Recent Deposits

Truncating pit (040) was an east-west aligned linear feature (036). A length of 2.55m was recorded within the trench and a width of 0.74m was recorded (Fig. 5). Within this cut was a single course of handmade brick foundations (033) and four courses of a brick wall (032). The foundation trench had been backfilled with dark grey silt (035). Although no clear cut was recorded, this wall appears to have been truncated by later 19<sup>th</sup> century activity.

Cut into the the post-medieval dump deposit (031) were two rectangular postholes (004 and 005). Both were 100mm by 60mm in size and 0.15m deep and were filled with grey sandy silt and decayed wood fragments (006 and 007). A third, possibly circular, posthole (042) was located to the west of the rectangular postholes and was 0.4m wide by 0.31m deep. A single fill of loose dark grey silt (041) was recorded.

Overlying wall (032) were two further walls (034) and (024, 025 and 026). Wall (034) was a single north-south course of bricks measuring 0.67m in length. Located to the south was another north-south aligned course (024) with a return to the west. This bonded to a north-south wall (025 and 026), visible in section only (Fig. 7).

Contained within walls (024, 025 and 026) were dumped deposits of loose dark grey silts (028 and 029). Greyish brown silt had

also been dumped outside of the structure (027). Sealing the central part of the trench was a dumped layer of grey sandy silt with brick and tile fragments (002) and redeposited pottery of  $16^{\text{th}} - 19^{\text{th}}$  century date.

Upon the dumped surface (002) a brick and limestone structure had been built (003). This was 0.76m long by 0.4m wide and may have been part of a surface or a drain. This was in turn sealed by an extensive dumped deposit of dark brown silt (001).

Walls (024, 025 and 026) appear to have then been truncated before a tarmac and bitumen surface (023) was laid across the site. Sealing this surface was a make-up layer of dark grey silt (046) for a concrete surface (022). Brick joists (021) were then built upon this surface for a second concrete surface (020). This was sealed by a further make-up deposit of cement (019) upon which red quarry tiles were laid (018).

# 6. **DISCUSSION**

The earliest deposits (Phase 1) encountered during the evaluation was a sequence of flood deposits. Similar flood deposits were also encountered in 1988 and were consistently of 14<sup>th</sup> to 15<sup>th</sup> century date and continued to a depth of c. 4m OD (Symonds 2). Elsewhere in Spalding, 1988, waterlogged flood silts contained pottery of 11<sup>th</sup> century date at heights of 3.5m OD (ibid. 7). However, it has been suggested that Broad Street may have been a sea bank to protect the town from flooding (Sumner 1987, 1). If this is so, these deposits may represent an attempt to heighten the land and may have utilised flood silts from elsewhere.

Post-medieval activity (Phase 2) is typified by deposits probably associated with backyard activities of a functioning inn. Typical are the dumped layers often associated with refuse material up to 1.2m thick. Although a posthole and a pit are associated with this phase, no purpose could be determined for either feature. Sampling of the earliest of these layers recovered a quantity of burnt daub, which suggests the destruction of a structure by fire or the location of a hearth or oven. Other remains from the sample indicate a high quantity of domestic food rubbish, although not in their primary context but reworked through trampling or redeposition.

The latest phase (Recent deposits) is represented by three separate buildings, all built of brick, the last associated with the 1950s rebuild at the back of the White Hart. It is uncertain as to which of the two earlier walls corresponds to walls depicted on the late 19<sup>th</sup> century plan of the White Hart, although the earlier wall (032) may be the best candidate (Fig. 8).

Pottery from the earliest levels comprise locally made wares from centres at Bourne and Boston produced during the 16<sup>th</sup> and 17<sup>th</sup> centuries. By the 18<sup>th</sup> century pottery was being imported from Holland and Frechen (Germany) while English wares were predominantly coming from Staffordshire. The reverse is true for the clay pipes (Fig. 9), with the earliest examples either originating in London or Holland and later pipes made locally in Spalding.

Pottery types include tankards and a small quantity of cups and the glassware includes two drinking vessels. Such finds accord well with the function of the White Horse as an inn or public house.

Diet is evidenced from the earlier dumped deposits in the form of animal bone and shell. Animal bones include sheep, cattle, bird and small fish (including stickleback). Shellfish includes fragmentary shells of oysters, cockles and mussels.

Sampling also retrieved a small quantity of slag and hammerscale which indicates the possibility of a smithy within the vicinity, though not on the site.

Overall, there appears to be a higher than normal degree of residuality of the finds and some intrusive artefacts were also noted. It is not possible to elucidate further, although this probably represents a high degree of ground disturbance at the site.

# 7. ASSESSMENT OF SIGNIFICANCE

For assessment of significance the *Secretary* of *State's criteria for scheduling ancient* monuments has been used (DoE 1990, Annex; See Appendix 8).

### Period

Post-medieval and recent deposits were encountered during the investigation. Medieval flood deposits were also potentially identified, although the possibility exists that these are redeposited.

#### Rarity

The deposits encountered represent stabling and backyard activity associated with the White Hart Hotel. As such, these remains are not particularly scarce but may possess rare or unusual features.

#### **Documentation**

Records of archaeological sites and finds made in the Spalding area are held in the Lincolnshire Sites and Monuments Record.

A desk-top assessment was carried out on the site prior to this investigation (Cope-Faulkner 1999) which summarised the archaeological and historical aspects of the development area. This report details the buried remains encountered during the investigation and compliments previous reports of investigation in the area, notably the work carried out by Symonds (1988).

There is some contemporary documentation regarding the White Hart Hotel. This could be enhanced further by more detailed archival research.

# Group value

Only moderate group value can be awarded as many deposits are associated with activities of the White Hart Hotel. In general, most deposits appear to be disturbed dumped layers.

# Survival/Condition

The deposits show a sequence through the post-medieval and recent periods. Only limited recent disturbance was noted during the current investigation although cellars and services are known from the site. However, deposits may have been extensively reworked as indicated by a high degree of residuality and isolated cases of intrusive material. Deposits survive in generally good condition.

### Fragility/Vulnerability

The impact of the proposed development is not expected to exceed a metre depth. Therefore, post-medieval and recent deposits are vulnerable. Medieval deposits probably survive at greater depths and would only be affected by piling, if this was undertaken.

#### Diversity

Dumped deposits and later structural remains have low diversity.

## Potential

There is high potential that remains of the former outbuildings of the White Hart Hotel lie within the proposed development area.

Potential for medieval deposits surviving at depth is also considered high and is further enhanced by the possibility of these deposits being waterlogged. Waterlogged deposits enhance the survival of environmental evidence and organic artefactual remains.

# 8. CONCLUSIONS

Archaeological evaluation on land to the rear of the White Hart Hotel, Spalding was undertaken as the site was associated with the late medieval and later structure of the White Hart.

The earliest deposits encountered are flood deposits of a late medieval date, though this date is based on association with previous work in the vicinity.

Overlying the flood deposits are a series of post-medieval dumped layers containing quantities of domestic household refuse. The dumped layers have been significantly reworked through trampling or postmedieval disturbance. No structures were identified, although burnt daub, nails and a posthole may suggest the proximity of a building.

Recent layers are associated with 19<sup>th</sup> and 20<sup>th</sup> century buildings associated with the White Hart Hotel.

Quantities of finds were made which include locally made and imported pottery, clay pipes, glass, bricks, tile and animal bone. Representing domestic refuse, a few finds, such as glass table ware, tankards, cups and perhaps the clay pipes are significant in their association with the use of the White Hart as an inn.

Overall, deposits were well preserved and potential exists for further associated deposits, including the possibility of postmedieval buildings, to be found within the area of the proposed development.

# 9. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr Robert Hodgson of Carlight Limited who commissioned the fieldwork and postexcavation analysis. The work was coordinated by Gary Taylor and Denise Drury and edited by Tom Lane. Access to the County Sites and Monuments Record was kindly provided by Mark Bennet and Sarah Grundy of the Archaeology Section, Lincolnshire County Council. Thanks are also due to the staff of the Lincolnshire Archives Office and Lincoln Central Library. Dave Start allowed access to the parish files maintained by Heritage Lincolnshire.

# 10. PERSONNEL

Project Coordinators: Gary Taylor and Denise Drury Site Supervisor: Mark Dymond Site Assistants: Rachael Hall, Graham Prue, Gary Taylor, Fiona Walker Finds Processing: Denise Buckley Illustration: Paul Cope-Faulkner, Mark Dymond Finds Illustration: Gary Taylor Photographic Reproduction: Sue Unsworth Post-excavation Analysts: Paul Cope-Faulkner, Mark Dymond

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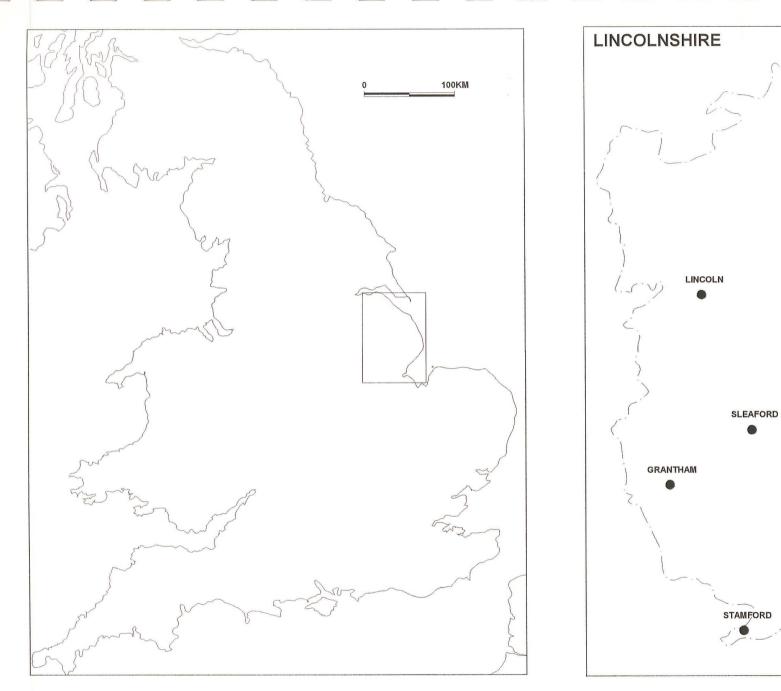
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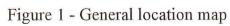
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# 12. ABBREVIATIONS

- APSArchaeological Project ServicesBGSBritish Geological SurveyCBACouncil for British ArchaeologyDoEDepartment of the EnvironmentHMSOHer Majesty's Stationary OfficeIFAInstitute of Field ArchaeologistsMoLASMuseum of London Archaeology
- TLA Trust for Lincolnshire Archaeology





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SKEGNESS

THE WASH

LOUTH

HORNCASTLE

SPALDING

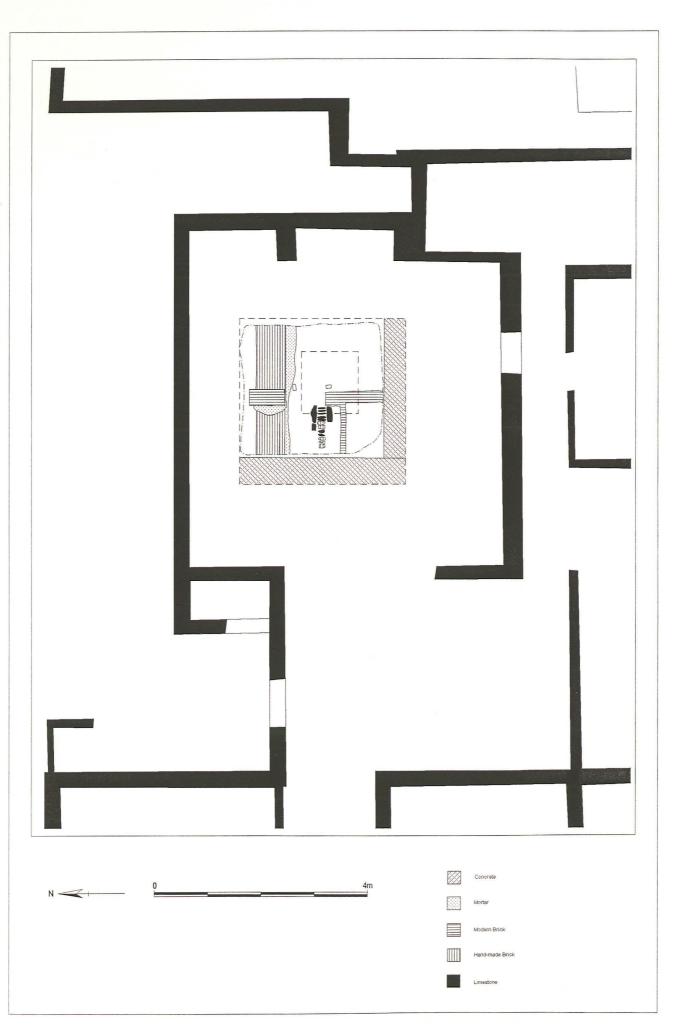
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Figure 2 - Site Location Plan

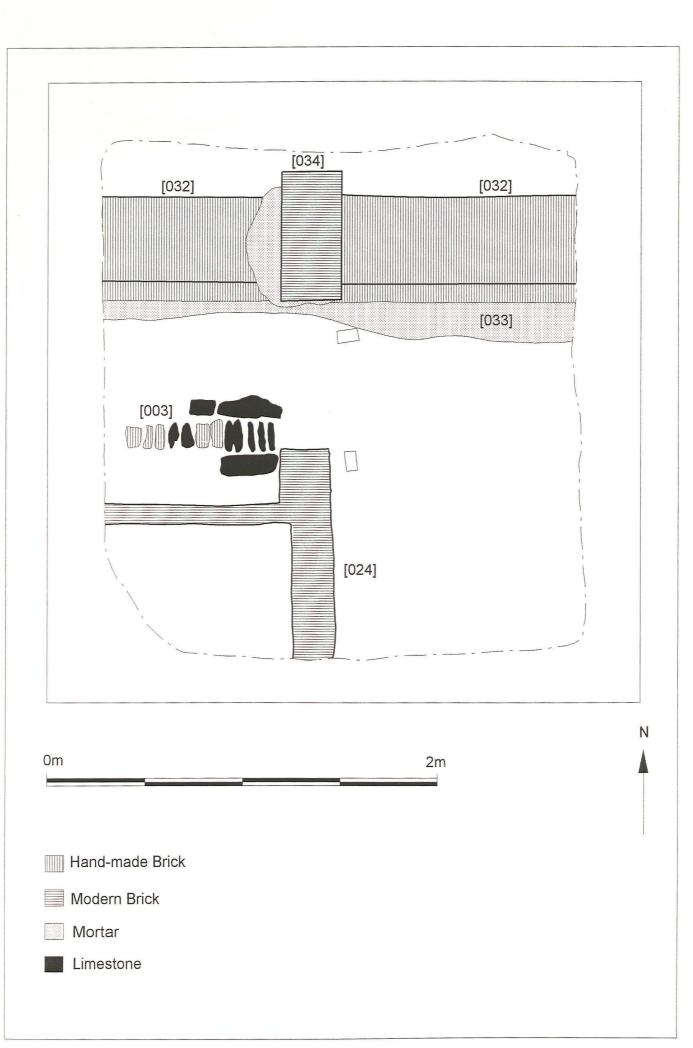


Figure 3 - Location of Development



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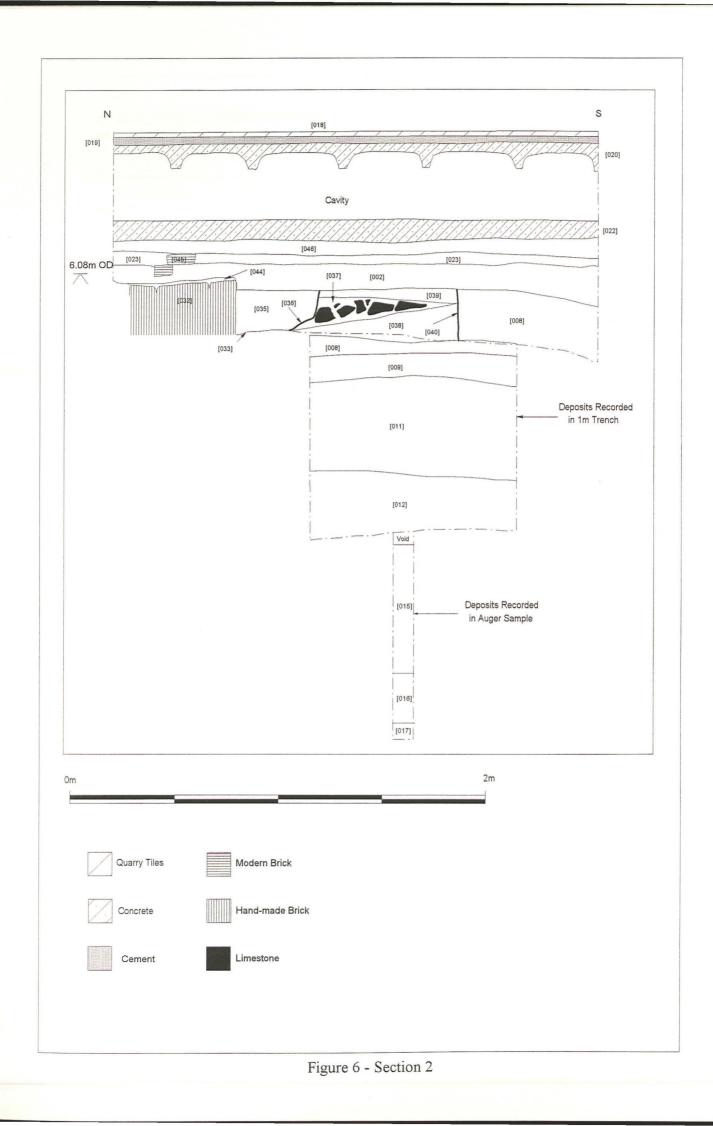


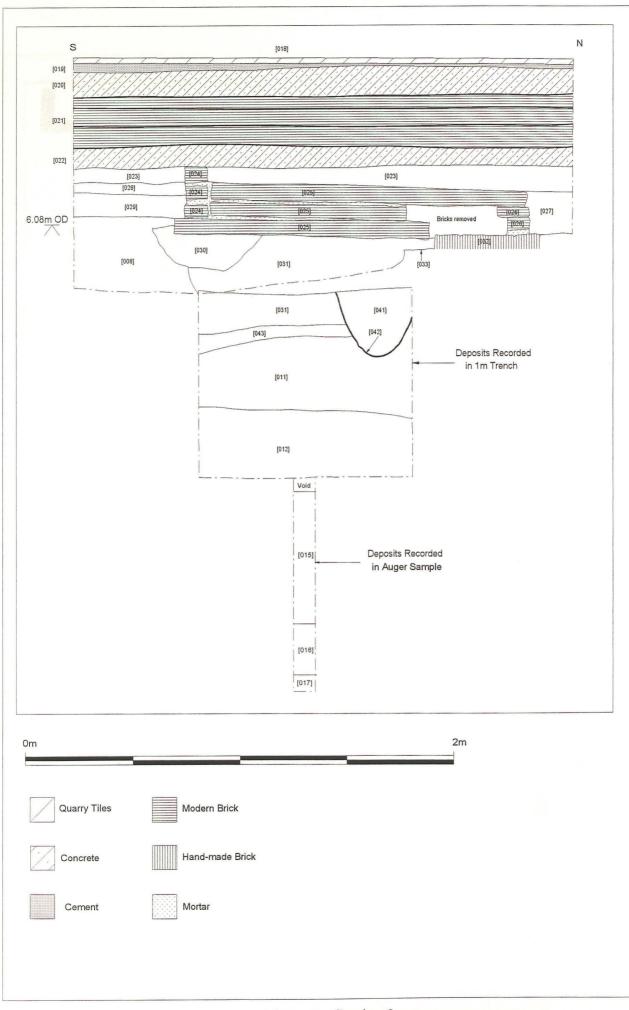
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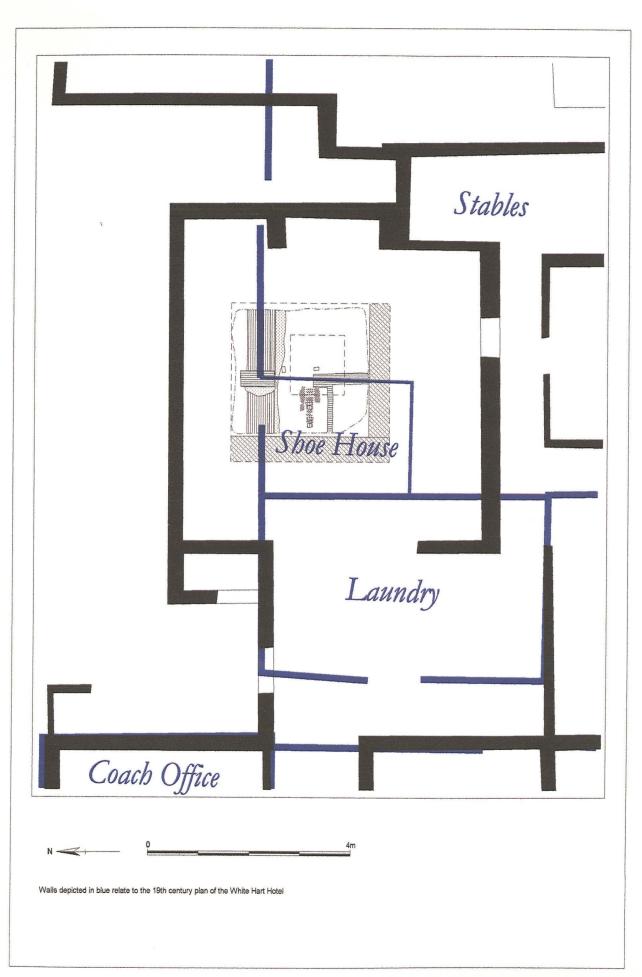
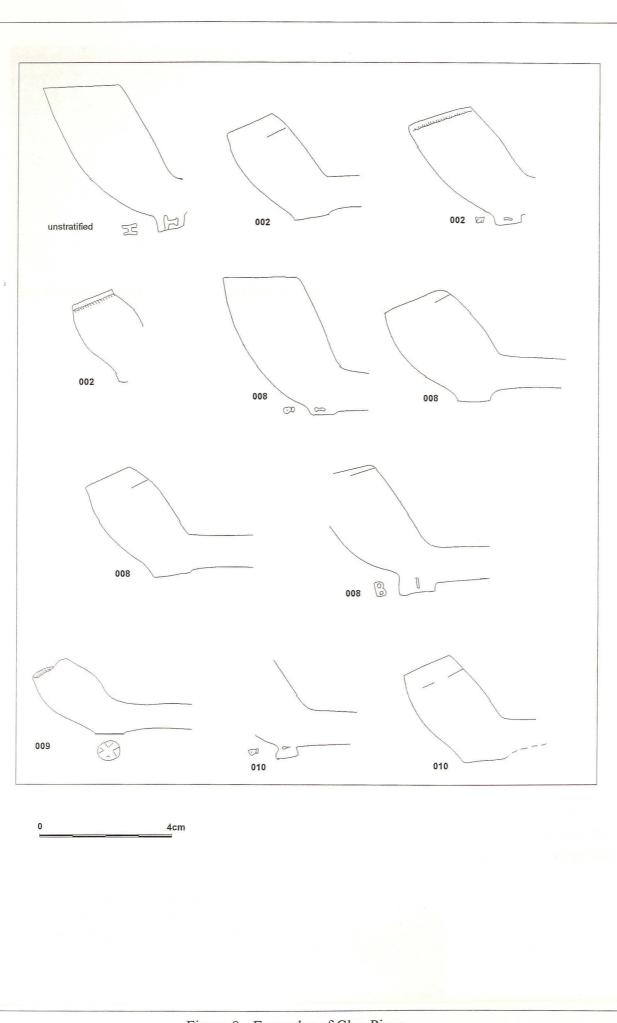


Figure 8 - Trench plan overlain by 19th century plan of the White Hart



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Figure 9 - Examples of Clay Pipes



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Plate 1 General view of the proposed development area, the Trench is located in the first building in the left

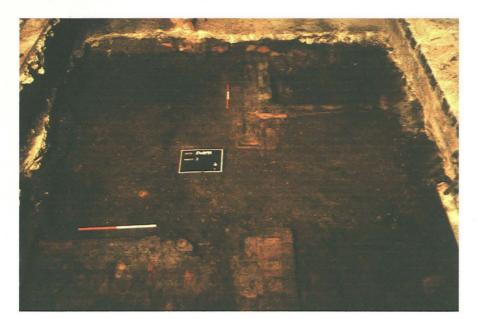


Plate 2 The Trench following excavation of modern floors, showing 19th Century stable walls



Plate 3 Section showing the general sequence of deposits

### Appendix 1

# SPECIFICATION FOR THE ARCHAEOLOGICAL EVALUATION OF LAND AT THE WHITE HART, MARKET PLACE, SPALDING

#### 1. SUMMARY

- a. This document comprises a specification for the archaeological field evaluation of land at the White Hart, Market Place, Spalding.
- b. The site is in the core of the medieval town, near to the site of Spalding Priory which was established by AD 1074. Carved medieval masonry has previously been found at the site and is thought to relate to the priory. The hotel contains the remains of a 15th century timber-framed building and maps dating from as earl as 1732 showing the White Hart and a rear range, the location of the present investigation site.
- *c.* A planning application has been made for development of the area. The archaeological works are being undertaking to provide information to assist the determination of the application.
- d. The archaeological work will consist of a programme of trial trenching of the site. On completion of the fieldwork a report will be prepared detailing the results of the investigation. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by line drawings and photographs.

#### 2. INTRODUCTION

- a. This document comprises a specification for the archaeological field evaluation of land at The White Hart, Spalding, Lincolnshire, national grid reference TF 248 227.
- b. The document contains the following parts:
  - i. Overview
  - ii. The archaeological and natural setting
  - iii. Stages of work and methodologies to be used
  - iv. List of specialists
  - v. Programme of works and staffing structure of the project

#### 3. SITE DESCRIPTION

- a. Spalding is located 23km southwest of Boston in South Holland district, Lincolnshire. Situated in the town centre, the site is on the north side of Market Place, at national grid reference TF 248 227.
- b. The site is a roughly rectangular block of land. Currently the site is partially occupied by buildings.

#### 4. PLANNING BACKGROUND

a. Proposals have been made to develop the area to the rear of the hotel. The Assistant Archaeology Officer, Lincolnshire County Council, requested additional information to assist determination of the proposals. A desk-top study was undertaken and indicated the site had historical and archaeological significance. As a result, the Assistant Archaeology Officer, Lincolnshire County Council, has requested further information about the archaeological remains present on site, to be obtained by trial excavations. This document provides a specification for such a scheme of investigations.

#### 5. SOILS AND TOPOGRAPHY

a. The site lies at approximately 7m OD at the crest of a very gentle rise in the local landscape. As an urban area the soils have not been mapped but are likely to be Wisbech Association calcareous alluvial gleys (Hodge *et al.* 1984 319; 361). The soils are developed in marine alluvium which in turn overlies Oxford Clays.

#### 6. ARCHAEOLOGICAL OVERVIEW

- a. Evidence of prehistoric activity has not been located in the vicinity of the site but may be deeply buried beneath alluvium. Similarly, Roman activity is unknown in the immediate vicinity of the site, though much evidence for activity of the period is located in the vicinity of Spalding and it is possible that the town was a significant settlement in the Roman period.
- b. Spalding is indirectly referred to in the 7th century AD but there are no known archaeological remains of Anglo-Saxon date in the area in support of this reference.
- c. The White Hart is in the core of the medieval town and pottery and wooden structural remains of the period has been found nearby. These wooden remains indicate that there is good organic preservation at depth. Spalding Priory, established by AD 1074, was located just to the south and the associated cemetery is also close by, on the south side of the Market Place. Medieval dressed masonry, thought to be from the priory, has previously been found in the garden of the White Hart. The hotel itself incorporates a building of late medieval date.
- d. Post-medieval remains dating from the 16th century and later have been found in immediate proximity. The White Hart, and its rear range, the area of investigation, is recorded on maps from as early as 1732. Certain of the buildings of the hotel and its rear range had cellars. The main, street frontage, part of the White Hart is a listed building (Grade II\*).

### 7. AIMS AND OBJECTIVES

- a. The aim of the work will be to gather sufficient information for the archaeological curator to be able to formulate a policy for the management of the archaeological resources present on the site.
- b. The objectives of the work will be to:
  - i. Establish the presence or absence of archaeological remains at the site.
  - ii. Establish the type of archaeological activity that may be present within the site.
  - iii. Determine the likely extent of archaeological activity present within the site.
  - iv. Determine the spatial arrangement of the archaeological features present within the site.
  - v. Determine the extent to which the surrounding archaeological features extend into the application area.
  - vi. Establish the way in which the archaeological features identified fit into the pattern of occupation and land-use in the surrounding landscape.
  - vii. Determine the date and function of the archaeological features present on the site

#### 8. LIAISON WITH THE ARCHAEOLOGICAL CURATOR

a. Prior to the commencement of the evaluation the arrangement of the trial trenches will be agreed with the archaeological curator to ensure that the proposed scheme of works fulfils their requirements.

### 9. TRIAL TRENCHING

a. Reasoning for this technique

- i. Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.
- ii. Subject to the requirements of the Local Planning Authority's archaeological advisor, the trial trenching may consist of the excavation of a single trench measuring 3m x 3m. Should archaeological deposits extend below 1.2m depth then the trench sides will be stepped in, though the trench will be at least 1m wide at the lowest levels of excavation. Augering may be used to determine the depth of the sequence of deposits present. Alternatively, the trenching may be reduced in depth comparable to the existing, and proposed, footings (maximum 1m). In which case, two trenches, each notionally 3m x 1.5m may be excavated.
- iii. In addition to the main trenching, the extents of cellars will be established, as far as practicable. A 1m wide vertical strip of cellar wall be removed to permit examination of a section of deposits cut through by the cellars. If this reveals archaeological deposits all the way down to the base then a 1m square trench will be excavated, to a maximum depth of 1m, in the cellar floor.

#### b. General Considerations

- i. All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation.
- ii. The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). *Archaeological Project Services* is an IFA Registered Archaeological Organisation (No. 21).
- iii. Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.
- iv. Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. Not all archaeological features exposed will be excavated. However, the evaluation will, as far as is reasonably practicable, determine the level of the natural deposits to ensure that the depth of the archaeological sequence present on the site is established.
- v. Open trenches will be marked by hazard tape attached to road irons or similar poles. Subject to the consent of the archaeological curator, and following the appropriate recording, the trenches, particularly those of any depth, will be backfilled as soon as possible to minimise any health and safety risks.

#### c. Methodology

- i. Removal of the topsoil and any other overburden will be undertaken manually, possibly using mechanical digging tools. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be carried out or supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed and the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.
- ii. Investigation of the features will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should features be located which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the features.
- iii. The archaeological features encountered will be recorded on Archaeological Project Services proforma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.
- iv. Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual

features merit it, they will be drawn at a larger scale.

- v. Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:
  - (1) the site before the commencement of field operations.
  - (2) the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
  - (3) individual features and, where appropriate, their sections.
  - (4) groups of features where their relationship is important.
  - (5) the site on completion of field work
- vi. Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. The appropriate Home Office licences will be obtained and the local environmental health department and the police informed.
- vii. Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.
- viii. The spoil generated during the evaluation will be mounded along the edges of the trial trenches for subsequent backfilling.
- ix. The precise location of the trenches within the site and the location of site recording grid will be established by tape survey to features mapped by the Ordnance Survey.

#### 10. ENVIRONMENTAL ASSESSMENT

a. If necessary, during the evaluation specialist advice will be obtained from an environmental archaeologist. The specialist may visit the site and advise or prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. The results of the specialists assessment will be incorporated into the final report

## 11. POST-EXCAVATION AND REPORT

- a. Stage 1
  - i. On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.
  - ii. All finds recovered during the trial trenching will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

#### b. Stage 2

- i. Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.
- ii. Finds will be sent to specialists for identification and dating.

c. Stage 3

- i. On completion of stage 2, a report detailing the findings of the evaluation will be prepared. This will consist of:
  - (1) A non-technical summary of the findings of the evaluation.
  - (2) A description of the archaeological setting of the site with reference to the desk-top assessment.
  - (3) Description of the topography and geology of the evaluation area
  - (4) Description of the methodologies used during the evaluation and discussion of their effectiveness in the light of the findings of the investigation.
  - (5) A text describing the findings of the evaluation.
  - (6) Plans of the trench showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
  - (7) Sections of the archaeological features.
  - (8) Interpretation of the archaeological features exposed and their context within the surrounding landscape.
  - (9) Specialist reports on the finds from the site.
  - (10) Appropriate photographs of specific archaeological features.

#### 12. ARCHIVE

a. The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long term storage and curation.

#### 13. REPORT DEPOSITION

 Copies of the evaluation report will be sent to: the client, R Hodgson, Carlight Ltd; South Holland District Council Planning Department; and the Lincolnshire County Sites and Monuments Record.

# 14. PUBLICATION

a. A report of the findings of the evaluation will be published in Heritage Lincolnshire's annual report and an article of appropriate content will be submitted for inclusion in the journal of the Society for Lincolnshire History and Archaeology. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.

#### 15. CURATORIAL MONITORING

a. Curatorial responsibility for the project lies with Assistant Archaeology Officer, Lincolnshire County Council. As much written notice as possible, ideally at least seven days, will be given to the archaeological curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

## 16. VARIATIONS TO THE PROPOSED SCHEME OF WORKS

- a. Variations to the scheme of works will only be made following written confirmation from archaeological curator.
- b. Should the archaeological curator require any additional investigation beyond the scope of this

specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

# 17. SPECIALISTS TO BE USED DURING THE PROJECT

a. The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

| Task                    | Body to be undertaking the work   |
|-------------------------|---|
| Conservation            | Conservation Laboratory, City and County Museum, Lincoln.                 |
| Pottery Analysis        | Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust             |
|                         | Roman: B Precious, independent specialist                                 |
|                         | Anglo-Saxon: J Young, independent specialist                              |
|                         | Medieval and later: H Healey, independent archaeologist; or G Taylor, APS |
| Other Artefacts         | J Cowgill, independent specialist; or G Taylor, APS                       |
| Human Remains Analysis  | R Gowland, independent specialist   |
| Animal Remains Analysis | Environmental Archaeology Consultancy                                     |
| Environmental Analysis  | Environmental Archaeology Consultancy                                     |
| Radiocarbon dating      | Beta Analytic Inc., Florida, USA  |
| Dendrochronology dating | University of Sheffield Dendrochronology Laboratory                       |

#### 18. PROGRAMME OF WORKS

a. Refer to enclosure.

#### 19. BIBLIOGRAPHY

Cope-Faulkner, P, 1999 Desk-top Assessment of the Archaeological Implications of Proposed Development of land to the rear of the White Hart Hotel, Market Place, Spalding, Lincolnshire (SWH99), unpublished APS report no. 19/99

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 Soils and their use in Eastern England, Soil Survey of England and Wales 13

# Appendix 2

# CONTEXT DESCRIPTIONS

Context numbers in **bold** type denote cut features.

| No. | Section | Description  | Dimension                                 | Interpretation                |
|-----|---------|--|---|-------------------------------|
| 001 |         | Loose dark brown silt, frequent CBM fragments                                  | 20mm thick by 1.20m wide                  | Dumped deposit                |
| 002 | 2       | Loose dark grey sandy silt, frequent CBM and mortar fragments                  | 1.90m long by 1.70m wide by 0.20m thick   | Dumped deposit                |
| 003 | 3       | E-W aligned hand-made brick and roughly hewn limestone blocks, some set at 45° | 0.76m long by 0.40m<br>wide               | Foundation                    |
| 004 |         | Rectangular feature with vertical sides and flat base                          | 0.10m long by 60mm<br>wide by 0.15m deep  | Post hole                     |
| 005 |         | Rectangular feature with vertical sides and flat base                          | 0.10m long by 60mm<br>wide by 0.15m deep  | Post hole                     |
| 006 |         | Loose dark grey sandy silt and decayed wood fragments                          | 0.10m long by 60mm<br>wide by 0.15m thick | Primary fill of post hole 004 |
| 007 |         | Loose dark grey sandy silt and decayed wood fragments                          | 0.10m long by 60mm<br>wide by 0.15m thick | Primary fill of post hole 005 |
| 008 | 2, 3    | Loose dark grey silt, frequent CBM fragments                                   | 2.44m long by 0.68m wide by 0.26m thick   | Dumped deposit                |
| 009 | 2       | Loose grey silt  | 1m by 1m by 0.15m thick                   | Dumped deposit                |
| 010 |         | Same as 009  |   | Dumped deposit                |
| 011 | 2, 3    | Loose light greyish brown silt   | 1m by 1m by 0.46m<br>thick                | Dumped deposit                |
| 012 | 2, 3    | Loose reddish yellow silt  | 1m by 1m by 0.34m thick                   | Dumped deposit                |
| 013 |         | Sub-circular feature with steep sides and tapered point                        | 0.30m long by 0.26m wide by 0.12m deep    | Post hole                     |
| 014 |         | Loose light grey silt  | 0.30m long by 0.26m wide by 0.12m thick   | Primary fill of post hole 013 |
| 015 | 1       | Loose dark grey silt   | 0.63m thick                               | Dumped deposit                |
| 016 | 1       | Loose brownish grey silt   | 0.24m thick                               | Flood silt?                   |
| 017 | 1       | Loose dark grey silt   | 80mm thick                                | Natural/dumped deposit?       |
| 018 | 2, 3    | Red quarry tiles   | 150mm by 150mm by 25mm                    | Present floor                 |
| 019 | 2, 3    | Cement   | 40mm thick                                | Make-up for 018               |

| No. | Section | Description   | Dimension                                  | Interpretation                                    |
|-----|---------|---|--|---|
| 020 | 2, 3    | Concrete  | 0.14m thick                                | Floor   |
| 021 | 3       | N-S brick wall, three courses, English<br>bond, bricks:230mm by 110mm by 75mm                 | 0.24m high                                 | Brick 'joist'<br>supporting<br>concrete floor 020 |
| 022 | 2, 3    | Concrete  | 0.10m thick                                | Floor   |
| 023 | 2, 3    | Tarmac and bitumen  | 0.12m thick                                | Internal/external surface                         |
| 024 | 3       | Brick wall, 'L' shaped, 3 courses, bricks:<br>220mm by 105mm by 69mm                          | 1.20m long by 0.80m<br>wide by 0.24m high  | Indeterminate structure                           |
| 025 | 3       | N-S brick wall, 3 courses, bricks:220mm<br>by 105mm by 62mm                                   | 1.65m wide by 0.24m<br>high                | Wall  |
| 026 | 3       | Brick wall, bricks:106mm by 69mm  | 0.15m by 0.15m                             | Wall  |
| 027 | 3       | Loose greyish brown gritty silt   | 0.21m wide by 0.20m thick                  | Dumped deposit                                    |
| 028 | 3       | Loose dark grey sandy silt, frequent CBM and mortar fragments                                 | 0.98m long by 0.52m<br>wide by 60mm thick  | Dumped deposit<br>contained within<br>024         |
| 029 | 3       | Loose dark grey sandy silt, frequent shell flecks   | 0.98m long by 0.52<br>wide by 0.11m thick  | Dumped deposit<br>contained within<br>024         |
| 030 | 3       | Brick fragments bonded by mortar  | 1.20m long by 0.52m<br>wide by 0.19m thick | Foundation for 024                                |
| 031 | 3       | Loose dark grey silt, frequent CBM, charcoal and mortar flecks and fragments                  | 1.16m wide by 0.24m thick                  | Dumped deposit                                    |
| 032 | 2, 3    | E-W aligned, four courses hand-made<br>bricks, English bond, bricks:240mm by<br>120mm by 55mm | 2.55m long by 0.51m<br>wide by 0.26m high  | Wall  |
| 033 | 2, 3    | Hand-made bricks laid on edge bounded by mortar   | 2.55m long by 0.74m wide                   | Foundation for wall 032                           |
| 034 |         | N-S single course of bricks, bricks:220mm<br>by 105mm by 60mm                                 | 0.67m long by 0.33m<br>wide by 60mm high   | Indeterminate<br>structure                        |
| 035 | 2       | Loose dark grey silt, frequent CBM flecks and fragments                                       | 0.40m wide by 0.21m thick                  | Tertiary fill of 036                              |
| 036 | 2       | E-W linear feature, unexcavated, contains wall 032  | 2.55m long by 0.74m wide                   | Construction cut                                  |
| 037 | 2       | Loose light brown silt and limestone  | 0.81m wide by 0.15m thick                  | Secondary fill of 040                             |
| 038 | 2       | Loose dark grey sandy silt  | 0.80m wide by 0.19m thick                  | Primary fill of 040                               |
| 039 | 2       | Loose dark grey silt  | 0.68m wide by 70mm thick                   | Tertiary fill of 040                              |

| No. | Section | Description  | Dimension                   | Interpretation                        |
|-----|---------|--|-----------------------------|---------------------------------------|
| 040 | 2       | Vertical sided feature, unexcavated                      | 0.80m wide by 0.25m deep    | Indeterminate feature                 |
| 041 | 3       | Loose dark grey silt, frequent mortar fragments and sand | 0.40m wide by 0.31m thick   | Dumped fill of 042                    |
| 042 | 3       | Steep sided feature with concave base                    | 0.40m wide by 0.31m<br>deep | Post hole                             |
| 043 | 3       | Loose grey clayey silt                                   | 0.72m wide by 90mm thick    | Dumped deposit                        |
| 044 | 2       | Slate fragments  | 0.51m wide by 20mm<br>thick | Damp proof<br>course over wall<br>032 |
| 045 | 2       | Two bricks   | 0.19m wide by 0.11m<br>high | Remnant of wall                       |
| 046 | 2       | Loose dark grey silt, frequent CBM and coal fragments    | 2.33m wide by 0.10m thick   | Make-up for 022                       |

Abbreviations:

CBM Ceramic building material (brick and tile)

# Appendix 3

# THE POTTERY AND CLAY PIPES Hilary Healey MPhil and Gary Taylor MA

#### Provenance

Most of the material was recovered from Post-medieval dumped deposits.

Most of the pottery fragments are products of kilns in Staffordshire in the Midlands, though there are pieces from Nottingham, Germany and Holland. The older pottery sherds are generally more local and were made in kilns at Boston, 20km to the northeast of Spalding, and Bourne, 15km to the west. It is probable that the majority of the clay pipes were made in the Spalding area, though the two earliest examples are almost certainly imported, probably from London or Holland.

#### Range

The range of material is detailed in the tables. In addition to these pottery fragments and clay pipes, glass, metal, brick/tiles, animal bones and shells were also recovered.

#### Table 1: Pottery

| Context      | Description  | Date   |
|--------------|--|--|
| unstratified | 2 x salt-glazed stoneware, 1 Nottingham, 1 ?London<br>1x pearlware<br>1x white salt-glazed stoneware<br>2x white glazed tablewares, 1 reused as hardcore<br>1x polychrome tablewares<br>1x mottled ware  | Late 18 <sup>th</sup> -19 <sup>th</sup> century<br>18 <sup>th</sup> -early 19 <sup>th</sup> century<br>18 <sup>th</sup> century<br>19 <sup>th</sup> - early 20 <sup>th</sup> century<br>19 <sup>th</sup> - early 20 <sup>th</sup> century<br>mid 17 <sup>th</sup> -18 <sup>th</sup> century  |
| 002          | 4x tin glazed wares, possibly Lowestoft; at least three separate<br>vessels<br>1x creamware<br>1x softpaste porcelain cup<br>2x white salt-glazed stoneware cup, one tainted brown in kiln<br>1x Nottingham salt-glazed stoneware<br>1x salt-glazed stoneware, ?German<br>1x Boston-type ware<br>2x mottled ware, including tankard<br>2x light blue glazed tableware<br>1x white glazed tableware<br>4x black glazed red-painted earthenware, 1 possibly Jackfield<br>(Staffordshire)<br>1x Staffordshire slipware posset pot | 18 <sup>th</sup> century<br>late 18 <sup>th</sup> -early 19 <sup>th</sup> century<br>18 <sup>th</sup> century<br>18 <sup>th</sup> century<br>late 18 <sup>th</sup> -early 19 <sup>th</sup> century<br>17 <sup>th</sup> century<br>16 <sup>th</sup> -17 <sup>th</sup> century<br>mid 17 <sup>th</sup> -18 <sup>th</sup> century<br>18 <sup>th</sup> century<br>18 <sup>th</sup> century<br>18 <sup>th</sup> century<br>18 <sup>th</sup> -19 <sup>th</sup> century<br>18 <sup>th</sup> -19 <sup>th</sup> century<br>18 <sup>th</sup> century |
| 003          | 1x tin glazed earthenware<br>1x white salt-glazed stoneware ?tankard   | 18 <sup>th</sup> century<br>18 <sup>th</sup> century   |

|  | 11 a oth   |
|--|--|
|  | mid 17 <sup>th</sup> -18 <sup>th</sup> century   |
|  | 16 <sup>th</sup> -17 <sup>th</sup> century   |
|  | late 17 <sup>th</sup> -18 <sup>th</sup> century  |
|  | 18 <sup>th</sup> century   |
|  | 18 <sup>th</sup> century   |
| - Domestic   |  |
|  | 17 <sup>th</sup> century   |
|  | 16 <sup>th</sup> -17 <sup>th</sup> century   |
|  | 18 <sup>th</sup> century   |
|  | 18 <sup>th</sup> century   |
|  | mid 17 <sup>th</sup> century   |
|  | 17 <sup>th</sup> century   |
|  | 18 <sup>th</sup> century   |
| 3x black-glazed earthenware                                  | 18 <sup>th</sup> century   |
|  | 18 <sup>th</sup> century   |
| 2x Bourne D ware, ?jug and jug handle                        | 16 <sup>th</sup> -17 <sup>th</sup> century   |
| 1x Staffordshire black glazed tankard, virtually a stoneware | 18 <sup>th</sup> century   |
| 1x stoneware   | 19 <sup>th</sup> century   |
| 1x Boston-type ware pancheon                                 | 16 <sup>th</sup> -17 <sup>th</sup> century   |
|  | 17th 10th  |
|  | $17^{\text{th}}$ -18 <sup>th</sup> century   |
|  | 16 <sup>th</sup> -17 <sup>th</sup> century   |
| Ix Bourne D ware pancheon                                    | 16 <sup>th</sup> -17 <sup>th</sup> century   |
| 3x Bourne D ware, including pancheon in 2 linked pieces      | 16 <sup>th</sup> -17 <sup>th</sup> century   |
| 1x Bourne D ware jug   | 16 <sup>th</sup> -17 <sup>th</sup> century   |
| 1x salt-glazed stoneware tankard, ?Nottingham                | 18 <sup>th</sup> century   |
|  | 1x stoneware         1x Boston-type ware pancheon         3x black-glazed tablewares, including 2 tankards         1x Boston type ware pancheon         1x Bourne D ware pancheon         3x Bourne D ware, including pancheon in 2 linked pieces         1x Bourne D ware jug |

The quantity of tankards of 17<sup>th</sup> -18<sup>th</sup> century date, in mottled, stone and black glazed wares, is of note and concurs well with the documented use of the building as an inn or public house from the 16<sup>th</sup> century onward. There is a small number of cups of similar date in porcelain and stoneware which may suggest that the White Hart also functioned as a coffee house, though the group is not large enough for this to be more than a tentative suggestion.

Although the pottery exhibits residuality/redeposition, the presence of large fragments of pottery types (Bourne D, Boston) of apparently earlier date is of note. However, these wares can readily be 17<sup>th</sup> century, and therefore contemporary with other aspects of the pottery groups they occur with.

Analysis of the clay pipes followed the guidelines published by Davey (1981), though milling and burnishing were not examined in detail.

| Table | 2. | Clay | Pine  |
|-------|----|------|-------|
| 1 uon | 4. | ciuy | 1 ipc |

| Context      | Description   | Date   |
|--------------|---|--|
| unstratified | 1x bowl, TH on heel, Oswald type G12; 5/64" bore<br>3x stems, 1 each of 4/64", 6/64", 8/64"   | c. 1730-80<br>17 <sup>th</sup> -19 <sup>th</sup> century         |
| 001          | 1x bowl, in 2 pieces, Oswald type G24 local variant with oak<br>leaves on mould joins,; 5/64" bore<br>4x stems, 1 each of 4, 5, 6 and 7/64" | <i>c</i> . 1800-40<br>17 <sup>th</sup> -19 <sup>th</sup> century |

| 002 | <ul> <li>1x bowl, IB on sides of base, Oswald type G8 local variant; 6/64" bore</li> <li>1x bowl, Oswald type G6/G7 local variant; 7/64" bore</li> <li>1x bowl fragment, unidentified type, fluted</li> <li>1x bowl, Oswald type G4</li> <li>1x stem, 9/64"</li> <li>2x stems, 8/64"</li> <li>8x stems, 7/64"</li> <li>13x stems, 6/64"</li> <li>11x stems, 5/64"</li> <li>1x stem, 4/64"</li> </ul> | <pre>c. 1680-1710 c. 1660-80 early-mid 19<sup>th</sup> century c. 1600-40 ) ) } ave. bore date 1700/1, ) range 17<sup>th</sup>-19<sup>th</sup> century ) )</pre>      |
|-----|--|---|
| 008 | 3x bowls, IB on spur, Oswald type G12 variant; 5/64" bore<br>1x bowl, IB on heel, Oswald type G9 variant; 7/64" bore<br>1x bowl, Oswald type G5/G6 variant<br>2x bowls, Oswald type G6 variant; 7/64" bore<br>1x bowl, Oswald type G9 variant; 7/64" bore<br>1x bowl fragment, unidentified type<br>1x stem, 8/64"<br>12x stems, 7/64"<br>33x stems, 6/64"   | c. 1730-80<br>c. 1680-1710<br>c. 1640-80<br>c. 1660-80<br>c. 1680-1710<br>)<br>} ave. bore date 1694/1698, )<br>range 17 <sup>th</sup> -19 <sup>th</sup> century<br>) |
| 009 | 1x bowl, Oswald type G4, heel stamped with cross/spoked wheel;<br>8/64" bore<br>1x stem, 6/64"   | c. 1600-40<br>17 <sup>th</sup> -early 18 <sup>th</sup> century  |
| 010 | 2x bowls, Oswald type G6 variant, 7/64" bore<br>1x bowl, IB on spur, Oswald type G19/G20 variant; 6/64" bore<br>1x bowl, unidentified fragment   | <i>c</i> . 1660 <b>-8</b> 0<br><i>c</i> . 1690-1730   |
| 012 | 4x stems, 6/64"  | 17 <sup>th</sup> -early 18 <sup>th</sup> century  |

The bowls stamped 'IB' are products of Isaac Bilby, a Spalding clay pipe maker who is recorded as such in 1719 and who died in 1728 (Wells 1979, 158). Late  $17^{th}$  century examples of Bilby types have previously been found (*ibid.*) and therefore accord with the examples from contexts (002) and (008) which date to *c.* 1680-1710. The three late 'IB' bowls from context (008) may suggest that the stamp was re-used or acquired by a slightly later manufacturer. The unstratified bowl stamped 'TH' corresponds with previous examples found in Lincolnshire (*op. cit.*, fig. 1 no. 10). These earlier discoveries have been found within a 25km radius of Spalding and are thought to have been made there, although the identity of the maker has not yet been established (*op. cit.*, 163).

Only the clay pipe groups from contexts (002) and (008) are large enough to attempt bore-dating. Moreover, the assemblage from context (002) clearly exhibits pronounced residuality/redeposition. Nonetheless, this group has a Binford date of 1700 and a Hanson date of 1701(Oswald 1975, 92-3). In contrast, the assemblage from context (008) is much more coherent, with the stem bores concentrating around 6/64". This group has a Binford date of 1698. The major significance of this is that from other dating evidence (pottery, coin), this context is clearly 18<sup>th</sup> century and the coherence of the clay pipe group would indicate that a body of material of late  $17^{th}$  century date was incorporated during the formation of deposit (008).

There are two clay pipe bowls, in contexts (002) and (009), that date from the early 17<sup>th</sup> century. As the first recorded Lincolnshire maker was in Gainsborough in 1645 (*ibid.*, 123), and clay pipe manufacturing was legally (though, in practice, not entirely) restricted to London until 1640 (Jackson and Price 1974, 10), it is almost certain that these two bowls are imports. The sources of the two pipes are unknown but they are likely to have been made in London or, possibly, Holland.

#### Condition

All of the material is in good condition and presents no long-term storage problems. Storage of the archive is by material class.

#### Documentation

Late post-medieval artefact assemblages, including groups from Spalding, of similar nature to the present collection have previously been reported on. Several previous archaeological interventions in Spalding have been undertaken

and reported, including immediately north of the site (Symonds 1988). Additionally, the White Hart has been the subject of a previous desk-based archaeological and historical assessment (Cope-Faulkner 1999) and building surveys (RCHME 1995).

#### Potential

The assemblage has moderate potential in that it clearly relates to the known documented use of the site as an inn/coaching house. Moreover, aspects of the assemblage suggest further, undocumented, social usages, perhaps as a coffee house.

#### References

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# THE CERAMIC BUILDING MATERIAL FROM SWH99 By Phil Mills BSc (Hons)

The fragments of ceramic building material recovered from the site were examined under a 20x binocular microscope. Their fabrics were described and compared with the fabric type series retained at Archaeological Project Services.

There were 14 fragments weighing a total of 2055g. Five fragments of brick and one fragment of roof tile were identified in the assemblage. Three different fabric types were identified, however it is probable that SWH2 is a less well fired and more crudely formed variation of SWH1. The third fabric was only represented by the single fragment of a roof tile to have been recovered from the site. This would suggest bricks and tiles came from different manufacturing centres.

It is recommended that the pieces be retained for future information about the spread of tile fabric types over the region, therefore helping to map out the changing development of the medieval brick and tile industry.

### **Fabrics:**

#### SWH1

A weak red (Munsell: 10R4/4) very hard granular feel irregular fracture fabric, with abundant poorly-sorted fine subangular calcite and very common well-sorted fine sub-angular quartz inclusions. Four fragments of brick were identified to have been made of this fabric.

#### SWH2

A reddish yellow (Munsell: 5YR6/6) soft sandy feel irregular fracture, with abundant poorly-sorted fine sub-angular calcite, abundant well-sorted very fine sub-angular mica, very common poorly-sorted fine sub-angular quartz and moderate poorly-sorted medium angular voids. One fragment of brick was identified to have been manufactured with this fabric. It is possible that this fabric type is a lesser-fired and more coarsely formed version of SWH1.

#### SWH3

A reddish grey core with reddish yellow surface (Munsell: 5YR5/2 core and 5YR6/6 surface hard smooth feel irregular fracture, with moderate well-sorted fine sub-angular black sand, moderate poorly-sorted medium angular calcite, very common well-sorted very fine rounded mica and moderate poorly-sorted medium sub-angular quartz. The single tile fragment was identified to have been manufactured using this fabric.

# **CBM** Catalogue

|           |                                 | Fabric<br>Mortar | Wt (g)     | No     | Cnrs     | Len(mm)      |         | Wth(mm) | Tk (mm) |
|-----------|---------------------------------|------------------|------------|--------|----------|--------------|---------|---------|---------|
| 001       |                                 |                  |            |        |          |              |         |         |         |
|           | B/T                             | SWH2             | 85         | 3      |          |              |         |         | Yes     |
| 0.        | ne piece retained for type      |                  |            |        |          |              |         |         |         |
|           | Brick                           | SWH1             | 85         | 1      |          |              |         |         | No      |
| H         | oles c11.7mm diameter maa       |                  | in forming | g proc | cess - 2 | vissiblec18m | n apari | ť       |         |
|           | Brick                           | SWH1             | 355        | 1      | 2        |              | 67.65   | 60.8    | No      |
| Sc        | ome degraded orange paint       | on header        | face       |        |          |              |         |         |         |
| 002       |                                 |                  |            |        |          |              |         |         |         |
|           | B/T                             | SWH2             | 115        | 2      |          |              |         |         | No      |
| Hi<br>008 | ighly fired - brittle and light | t.               |            |        |          |              |         |         |         |
|           | Brick                           | SWH2             | 290        | 2      |          |              |         |         | No      |
| He        | and shaped brick.               |                  |            |        |          |              |         |         |         |
| 011       |                                 |                  |            |        |          |              |         |         |         |
|           | B/T                             | SWH2             | 70         | 2      |          |              |         |         | No      |
|           | Brick                           | SWH1             | 465        | 1      |          |              |         | 56      | No      |
| Ві<br>012 | ırnt face                       |                  |            |        |          |              |         |         |         |
|           | Brick                           | SWH1             | 105        | 1      |          |              |         |         | No      |
|           | Tile                            | SWH3             | 485        | 1      | 1        |              |         | 16.6    | No      |

Wt = Weight, No = No of fragments, Cnrs = No of Corners, Len = Mean Length, Wth = Mean Width TK = Mean Thickness, Mortar = presence or absence

# THE METAL AND OTHER FINDS Gary Taylor MA

## Provenance

Most of the material was recovered from post-medieval dumped deposits.

### Range

The range of material is detailed in the tables. In addition to these items, pottery, clay pipes, glass, brick/tiles, animal bones and mollusc shells were recovered.

| Context | Description  |
|---------|--|
| 001     | 1x iron nail   |
| 002     | 2x iron nails, 1 bent<br>1x iron L-shaped structural fitting |
| 008     | 1x copper halfpenny, George III, 1775<br>1x iron nail        |
| 012     | 1x iron nail, bent   |

Table 1: Metal Objects

The bent nails, from contexts (002) and (012), are likely to have been so deformed through being drawn out of timber and would therefore suggest the dismantlement of some part timber structure, or structural component, in the vicinity.

The L-shaped structural fitting from context (002) may be a firebar hook from a toaster or a firebar extension (*cf*, Brears 1979, 15; 19: nos. 99, 281-291), though the bar is rather thick. Similar cooking implements date from the  $19^{th}$  to early  $20^{th}$  century (*ibid.*, 6-7).

A first issue halfpenny of George III dated 1775 was the only coin found during the investigation.

Table 2: Other Items

| Context | Description  |
|---------|--|
| 002     | 3x stone roof tile fragments<br>1x mica schist hone<br>4x painted mortar<br>2x cinders/clinker<br>1x coal fragment |

The presence of the stone roof tile fragments would tend to suggest that the context (002) had been formed outside buildings or that material deposited in the exterior was incorporated in the layer.

### Condition

All of the material is in good condition and presents no long-term storage problems. Storage of the archive is by material class. None of the metalwork was X-rayed.

### Documentation

Late post-medieval artefact assemblages, including groups from Spalding, of similar nature to the present collection have previously been reported on.

## Potential

The assemblage has limited potential, though the coin potentially adds clarification to the date of context (008) and overlying deposits.

## References

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Cope-Faulkner, P., 1999, *Desk-top Assessment of the Archaeological Implications of proposed development of land to the rear of the White Hart Hotel, Market Place, Spalding, Lincolnshire (SWH99)*, unpublished APS Report No. 19/99

# THE GLASS by Rachael Hall BA(Hons)

# Provenance

The following glass assemblage is the glass retrieved from the evaluation undertaken at The White Hart, Spalding.

## Range

The material is summarised in Table1 below

# Table 1

| Context | Descripton and Interpretation  | Date                             |
|---------|--|----------------------------------|
| +       | Colourless sherd of thick bottle glass   | 20 <sup>th</sup> century         |
|         | Mid brown sherd of bottle glass, inclusion of small air bubbles  | 20 <sup>th</sup> century         |
|         | Mid green sherd of bottle, part of base. Automatic mould produced  | 20 <sup>th</sup> century         |
|         | Mid green bottle, part of base   | 20 <sup>th</sup> century         |
|         | Two sherds of mid green bottle glass   | 20 <sup>th</sup> centruy         |
|         | Light green sherd of bottle glass. Irridescence  | 20 <sup>th</sup> century         |
|         | Three sherds of thick dark brown glass. One fragment displays part of<br>embossed letttering, indicating that the bottle contained Newcastle Brown<br>Ale          | 20 <sup>th</sup> century         |
|         | Dark green near complete base of wine bottle. Mould produced with a square profile push up. On edge of base have punt mark 122                                     | 20 <sup>th</sup> century         |
|         | Colourless container with ovoid body, produced in an automatic mould.<br>Decoration on the body of broken ribs. Punt mark on the base ' 287'.<br>Possible ink well | 20 <sup>th</sup> century         |
|         | Part of base of mid green bottle. Automatic mould produced. Embossed around bottm of sides 'Td IND CO OP'  | 20 <sup>th</sup> century         |
|         | Three colourless sherds of window glass. Much irridescence   | 19 <sup>th</sup> century         |
|         | Two fragments of mid brown bottle glass, part of shoulder and neck. Neck double collared with an internal screw and cork. Produced in a fully automatic mould.     | 20 <sup>th</sup> century         |
|         | Mid green bottle sherd, part of a deep push up of a wine bottle  | Late 19 <sup>th</sup> century    |
| 010     | Light green sherd of bottle glass. Much iridescence  | Undated                          |
|         | Mid green sherd of bottle glass  | Undated                          |
| 008     | Colourless sherd of window glass   | Undated                          |
|         | Part of stem of drinking vessel, with a bases collar and ribbed decorated knop.  | 18 <sup>th</sup> century         |
|         | Base of a lead crystal beaker, with a stepped foot. Scarring on the base of a pontil iron  | Late 18 <sup>th</sup><br>century |
|         | Two sherds of colourless window glass  | 18 <sup>th</sup> century         |

# Condition

The glass retrieved is mostly broken glass associated with dumped deposits. Several sherds have suffered weathering in the form of iridescence where a fine layer of hydrated silica is produced upon the surface of the glass, both acidic and alkali conditions promote this decay.

The glass recovered during the White Hart evaluation dates largely to the  $20^{\text{th}}$  century, though several fragments of  $18^{\text{th}}$  century glass were identified, of which two fragments are classed as tableware (the drinking vessel stem and beaker base).

#### Potential

The potential for further study of the glass assemblage is limited as many of the fragments are of 20<sup>th</sup> century date.

المينية (1997) المينية (1997) معالمات (1997) الإسلام (1997) الإسلام (1997)

# ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT James Rackham Environmental Archaeology Consultancy

### Introduction

Evaluation excavations were conducted by Archaeological Project Services at the White Hart, Spalding which uncovered a sequence of post-medieval deposits. A single 10 litre soil sample was collected for assessment from layer 012, the earliest dump deposit encountered, which is dated to the late 16<sup>th</sup> to 17<sup>th</sup> century. A small collection of animal bones was made from five of the excavated contexts.

### Methods

The soil sample was processed in the following manner. Sample volume and weight was measured prior to processing. The sample was washed in a Siraf tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet-sieve of 1mm mesh for the residue. Both residue and float were dried, and the residue subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flot was measured, and the volume and weight of the residue recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through the residue in order to recover magnetised material such as hammerscale and prill. The residue which was composed mainly of fired 'daub' has been retained. The float was studied under a low power binocular microscope. The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones *etc*) was noted and their abundance and species diversity recorded on the assessment sheet. The float has been retained. The float, residue and finds constitute the material archive of the sample.

The individual components of the sample were then preliminarily identified and the results are summarised below.

#### Results

A few uncharred seeds were present including elder (*Sambucus* sp.), goosefoot (*Chenopodium* sp.) and others. These may be *in situ* and have survived as a result of their robusticity but some of the seeds could be present as a result of movement through the soil.

The residue is composed almost entirely of fired 'daub', some with visible plant impressions, and suggests the destruction by fire of a structure of some sort or possibly the *in situ* heating of an oven or hearth structure. Whether this material is dumped or represents the *in situ* destruction of a structure could not be established from the area of deposit exposed (M.Dymond *pers com.*) in the evaluation trench. The deposit also yielded small quantities of mortar (40g), cinder (12g), glassy slag (2g) and plaster (4g) with a painted surface. Ten sherds of pottery and several fragments of flake and spheroidal hammerscale were also extracted.

Five grammes of animal bone were recovered including fragments of indeterminate domestic animal bone, some of which was burnt, small bird, fish (including stickleback) and amphibian. Four grammes of fragmented marine shellfish, with oyster, common mussel and common cockle identified, were also present. The flot was dominated by charcoal with a number of larger fragments (over 1 cm diameter) and included a few charred seeds, including wheat, barley and possible oat grains. The presence of ostracods (shelled aquatic crustaceans) indicates the inclusion of waterlain material within the deposits, but whether as a result of flooding or some other mechanism cannot be established. they may have derived from the silts used in the 'daub' since one or two shells appeared to be burnt.

## Discussion

The finds from the sample indicate a domestic, industrial and structural input into the deposit, with some indication of waterlain sediment, either secondarily derived from the daub or an additional component of the layer. The density of domestic debris is not high, but the range of animal bone, edible shellfish, small fish and cereal grain is typical of domestic food rubbish. Their relatively highly fragmented state, few of the marine shell and larger animal bones were more than 1 cm in length, is not consistent with a primary dump, but suggests trampling or reworking, although the larger charcoal fragments are more consistent with lower levels of mechanical damage. The industrial debris

is indicated by the slag and hammerscale. This is not present in sufficient quantities to indicate an iron smithy at the site but it is likely that this was nearby. The structural debris is mainly represented by the heated/fired daub, but the mortar, plaster and charcoal could all derive from a structure, the daub potentially being originally derived from river lain sediments.

While it is not possible to determine from this sample whether or not the layer was a dump or *in situ* collapse of a hearth/oven structure, there is a possibility that the remains indicate a combination of floor and structural collapse and that the evaluation trench may have exposed part of a building or hearth/oven structure of late 16th/early 17th century date.

#### Animal bone

The small collection of animal bone recovered by hand during the evaluation (28 fragments) was generally in good condition. Bone was recovered from layers 001, 002, 008, 010 and 012 (see attached archive) and included fragments of cattle, sheep and unidentified bird. Both the sheep and cattle bones included large animals typical of post-medieval improved stock. Immature animals are only suggested by a porous bone surface, rather than dental or epiphyseal data, and one sheep bone, an atlas, shows pathological ripping of the posterior articulation with the axis vertebra. A number of the bones showed evidence of butchery in the form of knife cuts and chop marks, and two sheep (or goat) bones exhibited evidence for dog gnawing. Sheep (or goat) bones were the most frequent among the identified fragments.

### Conclusions

Preservation of archaeological finds, structural debris and animal bone was good on the site and information on diet, structures and industrial activity can be expected to survive well in the deposits. There is a possibility that the lowest levels of the evaluation trench may have exposed debris from a burnt and collapsed late  $16^{th}$  /early  $17^{th}$  structure, which if *in situ* could indicate the survival of a relatively intact building plan or some smaller structure. Smithing is evidenced from the presence of hammerscale and domestic debris from the fragmented food remains present in the sample.

## Recommendations

No further work is recommended on the material from the evaluation, but should further archaeological work be required on the site then soil sampling and animal bone collection should be undertaken since these can be expected to elucidate elements of the contemporary diet, industrial activities and assist in the interpretation of the excavated layers on the site.

#### Acknowledgements

I should like to thank Jeremy Dubber for the sample processing.

#### **Bibliography**

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18/10/99

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1

Archive Catalogue of Animal bone from the White Hart, Spalding - SWH99

| site  | cont. | species | bone | no | side | fusion | zone    | butchery | gnawing | toothwear | measurement           | path. | comment  | preser<br>vation |
|-------|-------|---------|------|----|------|--------|---------|----------|---------|-----------|-----------------------|-------|--|------------------|
| SWH99 | 01    | SSZ ·   | LBF  | 1  | F    |        |         |          |         |           |                       |       | SHAFT FRAGMENT-FEM?  | 4                |
| SWH99 | 02    | SSZ     | HUM  | 1  | F    |        |         |          |         |           |                       |       | DISTAL SHAFT FRAGMENT-SL POROUS  | 4                |
| SWH99 | 02    | UNI     | UNI  | 1  | F    |        |         |          |         |           |                       |       | INDET-POSS BIRD  | 4                |
| SWH99 | 02    | UNIB    | RIB  | 1  | W    |        |         |          |         |           |                       |       | WHOLE  | 4                |
| SWH99 | 08    | BOS     | LI   | 1  | L    |        |         |          |         |           |                       |       | SL-MED WEAR  | 4                |
| SWH99 | 08    | BOS     | MAN  | 1  | F    |        | 6       |          |         |           |                       |       | VENTRAL POST HORIZONTAL RAMUS-POROUS-JUV                                   | 4                |
| SWH99 | 08    | BOS     | ULN  | 1  | L    |        |         |          |         |           |                       |       | MIDSHAFT-POROUS-JUV  | 4                |
| SWH99 | 08    | CSZ     | LBF  | 1  | F    |        |         |          |         |           |                       |       | SHAFT FRAGMENT   | 4                |
| SWH99 | 08    | CSZ     | LMV  | 1  | F    |        |         |          |         |           |                       |       | FRAG TRANSVERSE PROCESS  | 4                |
| SWH99 | 08    | CSZ     | RIB  | 2  | L    |        |         |          |         |           |                       |       | PROX SHAFT FRAGMENT  | 4                |
| SWH99 | 08    | CSZ     | RIB  | 1  | L    |        |         | CH       |         |           |                       |       | PROX HALF SHAFT-CHOPPED  | 4                |
| SWH99 | 08    | CSZ     | RIB  | 1  | L    |        |         |          |         |           |                       |       | PROX SHAFT FRAGMENT-POROUS   | 4                |
| SWH99 | 08    | CSZ     | RIB  | 1  | L    |        |         | CH       |         |           |                       |       | PROX SHAFT-CHOPPED   | 4                |
| SWH99 | 08    | CSZ     | RIB  | 1  | F    |        |         |          |         |           |                       |       | SPLIT SHAFT FRAGMENT   | 4                |
| SWH99 | 08    | OVCA    | ATL  | 1  | F    |        |         | СН       |         |           |                       | Р     | VENTRAL PART-CHOPPED-SEVERE LIPPING AND SOME<br>MALFORMATION OF POST FACET | 4                |
| SWH99 | 08    | OVCA    | HUM  | 1  | R    |        |         |          |         |           |                       |       | DISTAL SHAFT FRAGMENT-STAINED GREEN  | 4                |
| SWH99 | 08    | OVCA    | HUM  | 1  | R    | DF     | 1567890 | KN       | DG      |           | SD-16 BT-31.2 HT-19.2 |       | DISTAL END-SHAFT AND PART PROX END-PROX<br>CHEWED-SHAFT WITH KNIFE MARK    | 4                |
| SWH99 | 08    | OVCA    | INN  | 1  | L    |        | 7       |          |         |           |                       |       | POST ISCHIAL SHAFT   | 4                |
| SWH99 | 08    | OVCA    | RAD  | 1  | R    |        |         | CH       |         |           |                       |       | MIDSHAFT-PROX CHOPPED  | 3                |
| SWH99 | 08    | OVCA    | RAD  | 1  | R    | DF     | 456     | KN       |         |           | Bd-32.8 Dd-21.4       |       | DISTAL HALF-KNIFE CUTS ON SHAFT-LARGE                                      | 4                |
| SWH99 | 08    | OVCA    | TIB  | 1  | R    | DF     | 567     |          |         |           | Bd-32.7 Dd-26         |       | DISTAL HALF-LARGE  | 4                |
| SWH99 | 10    | BOS     | INN  | 1  | L    |        | 9       |          |         |           |                       |       | ACETABULAR FRAGMENT OF ILIUM-LARGE   | 4                |
| SWH99 | 10    | OVCA    | HUM  | 1  | R    | DF     | 6789    |          |         |           | SD-16 BT-32.6 HT-20   |       | DISTAL HALF-SL POROUS  | 4                |
| SWH99 | 10    | OVCA    | HUM  | 1  | R    |        |         | CH       |         |           |                       |       | ANT MIDSHAFT FRAGMENT-DISTAL CHOPPED                                       | 4                |
| SWH99 | 10    | OVCA    | RAD  | 1  | L    | DF     | 3456    |          | DG      |           | SD-17                 |       | SHAFT AND DISTAL END-DISTAL CHEWED   | 4                |
| SWH99 | 12    | OVCA    | CAL  | 1  | R    | PF     | 123     |          |         |           | GL-66.1 Bp-16.4       |       | COMPLETE   | 4                |
| SWH99 | 12    | OVCA    | SCP  | 1  | L    | DF     | 1235    |          |         |           | GLP-37.6 SLC-21.8     |       | DISTAL END AND NECK AND BLADE BELOW SPINE- 3<br>PIECES                     | 4                |

18/10/99

# The Environmental Archaeology Consultancy - Bone Catalogue Key THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

# Key to codes used in the cataloguing of animal bones

| SPECIES   | BONE   | SIDE   | FUSION   |  |  |  |  |
|---|--|--|--|--|--|--|--|
| SPECIES<br>BOS cattle<br>CSZ cattle size<br>SUS pig<br>OVCA sheep or goat<br>OVI sheep<br>SSZ sheep size<br>EQU horse<br>CER red deer<br>CAN dog<br>MAN human<br>UNI unknown<br>CHIK chicken<br>GOOS goose, dom<br>LEP hare<br>UNB indet bird<br>MALL duck, dom.<br>GULL gull sp.<br>FISH fish<br>UNIF bird indet<br>UNIF fish indet<br>GSZE goose size<br>BEAV beaver<br>CORV crow or rook | SKLskullTEMPtemporalFRNTfrontalPETpetrousPARparietalOCIPoccipitalZYGzygomaticMANmandibleMAXmaxillaATLatlasAXIaxisCEVcervical vertebraLMVlumbar vertebraSACsacrumCDVcaudal vertebraSCPscapulaHUMhumerusRADradiusMTCmetacarpusMC1-4metacarpusILMiliumPUBpubisISHischiumFEMfemurTIBtibiaASTastragalusCALcalcaneumMTTmetatarsusMT1-4metatarsus 1-4PH1lst phalanxPH22nd phalanxPH33rd phalanx | <pre>W = whole<br/>L = left side<br/>R = right side<br/>F = fragment<br/>TOOTH WEAR = Cool<br/>wear as a gu<br/>C.Grigson an<br/>Archaeologic<br/>Teeth are labelled a<br/>h ldpm4/dupm<br/>H lpm4/upm4<br/>I lm1/um1<br/>J lm2/um2<br/>K lm3/um3<br/>ZONES = zones reco<br/>The key to ex<br/>MEASUREMENTS = Any m<br/>A Gui<br/>Sites<br/>PRESERVATION 1 =<br/>2 =<br/>3 =<br/>4 =<br/>5 =</pre> | Records the fused/unfused condition of the epiphyses<br>P - proximal; D - distal; E - acetabulum;<br>N - unfused; F - fused; C - cranial; A - posterior<br>des are those used in Grant, A. 1982 The use of tooth<br>ide to the age of domestic animals, in B.Wilson,<br>d S.Payne (eds) Ageing and sexing animal bones from<br>al sites, 91-108.<br>as follows in the tooth wear column: |  |  |  |  |
|   | CAL calcaneum<br>MTT metatarsus<br>MT1-4 metatarsus 1-4<br>PH1 1st phalanx<br>PH2 2nd phalanx  | 4 -<br>5 -<br>5 -<br>1 -4<br>1 -4<br>1 -4<br>1 -4  | and dentine on teeth<br>surface of bone intact, loss of organic component, material<br>chalky, calcined or burnt   |  |  |  |  |

1

18/10/99  $$\rm Th$\ ZONES$  - codes used to define zones on each bone

The Environmental Archaeology Consultancy - Bone Catalogue Key

| SKULL -       1. paraccelpital process       METACARPUS -       1. metal facet of proximal articulation, MC4         Skull -       2. cotpan acoutio evalue       3. metal facet of proximal articulation, MC4         Skull -       3. metal acoutio evalue       3. metal facet of proximal articulation, MC4         Skull -       4. steral facet       5. metal distal condyle, MC3         Cateral distal acoutio evalue       5. metal facet of proximal articulation, MC4         Skull -       4. steral distal condyle, MC3         Cateral distal condyle       5. metal distal condyle, MC3         Cateral distal condyle       5. metal distal condyle, MC3         Cateral distal acoutio condyle       5. metal facet of proximal articulation, MC4         Skateral distal condyle       5. metal facet of proximal condyle         Cateral distal condyle       6. metal foramen         NANDIELE       1. spectral facet         1. appression for metal acoutio foramen       1. tweer conse         2. diartema       3. body of linum with dorno-medial foramen         3. cortal arch       6. symphyseal brach of publs         3. anterior dorsal accending ramus posterior M3       6. lachial tuberoity         3. motioular facet       7. body of lachian         3. posterior epiphysis       3. trochanter major         3. posterior epiphysis <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th></t<>  |          |    |  |               |    |  |
|---|----------|----|--|---------------|----|--|
| 3. intercornual protuberance       3. medial distal condyle, MC3         4. startal acoustic meatus       4. lateral distal condyle, MC4         5. frontal sinus       5. anterior distal groove and foramen         6. ectorbitale       6. medial or lateral distal condyle         7. entorbitale       1. proximal epiphysis         8. temporal articular facet       FIRST PHALMX         9. facial tuber       2. distal articular facet         1. Information distance       1. tuber costae         2. distarma       3. body of fillium with dorso-medial foramen         3. lateral distemal foramen       4. laterad distal condyle, MC3         4. connolid process       5. acctabular foramen         6. angle       7. body of fillium with dorso-medial foramen         7. anterior diprocess       6. acctabular foramen         8. andribur foramen       8. lachial tuberosity         9. anterior epiphysis       3. tocdy of fillium with dorso-medial foramen         9. anterior epiphysis       2. turcohanter major         3. posterior epiphysis       3. tocdyle         4. auteral distal condyle       7. distal tochie         5. neural arch       5. distal antecol dorsi         6. contol dorse       7. distal tuberosity         5. posterior of neck with foramen       7. distal trochie  | SKULL -  |    |  | METACARPUS -  |    |  |
| 4. external acoustic meatus       4. lateral distal groups and foramen         6. ectorbitale       6. anterior distal groups and foramen         6. ectorbitale       6. metorbitale         6. entorbitale       6. metorbitale         6. fordial tuber       FIRST FHALAWX         7. facial atumer       INNOMINATE         1. Symphyseal surface       2. distal articular facet         2. distal disterma       3. hody of illium with dorso-medial foramen         4. illoputic entimence       3. hody of illium with dorso-medial foramen         4. oronoid process       5. actual rosa         6. contiduar foramen       5. actual rosa         7. anterior dorsal acsending ramus posterior M3       8. isochal tubercosity         8. mandbular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         1. spine       FEMUR         2. anterior epiphysis       3. trochanter major         3. noterior of anex with foramen       4. illoputic enternence         4. cutured acavity       8. isochanter major         3. condial angle of blade       7. distal acondyle         6. cartual angle of blade       7. distal condyle         7. caudal angle of blade       1. proximal engest of distal acindyle         8. isochanter m   |          |    |  |               |    |  |
| S. frontal sinus     5. anelia for algenove and foramen       6. ectorbitale     6. medial or algenove and foramen       7. entorbitale     7. entorbitale       8. temporal articular facet     FIRST PHALANN       9. facial tuber     1. proximal epiphysis       2. diastal articular facet     2. diastal articular facet       1. Symphyseal surface     1. huber coxae       2. diastemal foramen     3. body of 11 lium with dorso-medial foramen       3. lateral diastemal foramen     3. body of 11 lium with dorso-medial foramen       4. coronoid process     5. acetabular foramen       6. angle     7. body of isolium       7. anterior epiphysis     2. tirbechanter major       3. posterior epiphysis     2. trochanter major       3. posterior opiphysis     3. tordyled forasa       5. neural arch     5. diatal medial condyle       6. cranial angle of blade     7. diatal medial condyle       7. caudal angle of blade     2. proximal medial condyle       8. posterior of neck with foramen     3. trochanter tertius       8. posterior of neck with foramen     3. trochanter major       9. depression of medial angle orbidae     3. trochanter major       9. coronid cavity     3. trochanter major       9. coronid angle of blade     7. diatal medial condyle       9. posterior of neck with foramen     1. proximal medial condyle   |          | З. | intercornual protuberance                  |               | 3. | medial distal condyle, MC3                     |
| 6. ectorbitale       6. medial or lateral distal condyle         7. entorbitale       6. inclustrational frame       1. proximal epiphysis         8. facial tuber       1. infraorbital foramen       1. tuber coxae         9. infraorbital foramen       1. interactional framen       1. tuber coxae         2. distal articular facet       1. tuber coxae       2. distal articular facet         3. lastema       1. tuber coxae       2. distal articular facet         4. distal matched       1. tuber coxae       2. distal articular facet         5. condylar process       5. condylar process       5. condylar process         6. angle       7. body of ischium       7. body of ischium         7. anterior epiphysis       8. ischial tubercolity       9. depression for medial tendon of rectus femoris         VERTEBRA       1. supraelencid tubercle       2. trocharter major       3. trocharter major         3. condylar process       6. articla angle of blade       7. distal trochied       4. supraecondyled         SCAPULA       1. supraelencid tubercle       7. dotydal articular facet       9. depression for medial tendon of rectus femoris         SCAPULA       1. supraelencid tubercle       2. proximal medial condyle       5. condylar minore         6. cartial angle of blade       1. proximal medial condyle       1. turcohied       9. ror   |          | 4. | external acoustic meatus                   |               | 4. | lateral distal condyle, MC4                    |
| 7. entorbitale       8. temporal articular facet       FIRST PHALANX       1. proximal epiphysis         8. temporal articular facet       FIRST PHALANX       1. proximal epiphysis         9. facial tuber       2. distal articular facet         9. facial tuber       1. bitspace         9. facial distemal       INNOMINATE         1. alternal distemal foramen       4. litopublic eminence         8. concluid process       6. symphyseal branch of publs         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         1. spine       FEMUR       1. head         2. anterior epiphysis       2. trochanter minor         3. octivitation of the distal spine       5. distal medial condyle         6. spine       7. distal trochanter         9. opticitor of neck with foramen       5. distal medial condyle         6. camis angle of blade       7. distal trochanter         8. posterior of pine       7. motimal epiphysis         9. opticitor of neck with foramen       4. supracondyloid fossa         9. opticitor of neck with foramen       5. distal anticular condyle         9. opticitor of neck with foramen       5. motimal epiphysis         9. opticitor of neck with foramen       5. motimal epi  |          | 5. | frontal sinus                              |               | 5. | anterior distal groove and foramen             |
| 8. temporal articular facet       FIRST PHALAVX 1.       Proximal epiphysis         9. facial tuber       2. distal articular facet         0. infraorbital foramen       INNOMINATE       1. tuber socrale + scar         2. diastema       3. body of illum with dorso-medial foramen       5. body of illum with dorso-medial foramen         3. lateral diastemal foramen       4. illopubic eminence       5. condylar process       6. acetabular forasa         6. angle       7. body of ischium       8. ischial tuberosity       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR       1. head       2. trochanter major         3. posterior epiphysis       2. trochanter major       3. trochanter major         4. spine       5. cordylar process       5. trochanter major         5. posterior of piphysis       2. trochanter major       5. trochanter major         6. angle       7. distal articular       6. lateral distal condyle         7. posterior of neck with foramen       7. distal pre-epiphyseal portion of the distal spine       5. medial molecule         8. intercondylar eminence       7. caudal angle of blade       7. distal pre-epiphyseal portion of the disphysis         9. dorigin of the distal spine       1. therad listal condyla       5. medial malleolus         9. coranial angle of blade       7. caudal  |          | 6. | ectorbitale                                |               | 6. | medial or lateral distal condyle               |
| 9. facial tuber     2. distal articular facet       0. infromothial foramen     INNOMINATE       MANDIBLE     1. Symphyseal surface     1. tuber coxae       2. diastema     5. body of illium with dorso-medial foramen       3. lateral diastemal foramen     4. body of illium with dorso-medial foramen       4. coronold process     6. acetabular foras       6. condylar process     6. acetabular foras       7. anterior epiphysis     7. body of ischium       8. mandibular foramen     2. trochanter major       9. posterior epiphysis     5. trochanter major       9. anterior epiphysis     5. trochanter major       9. entrum     6. distal arcticular       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. caudal angle of blade     7. distal pre-epiphysis       9. caudal angle of blade     7. distal pre-epiphysis       9. caudal angle of blade     7. distal articulation       9. caudal angle of blade     7. distal pre-epiphyseal portion of the disphysis       9. leterial angle of operanon fossa     7. caudal apple of operanon foramen       9. torchlea     9. procense applexis   |          | 7. | entorbitale                                |               |    |  |
| 9. facial tuber     2. distal articular facet       0. infromothial foramen     INNOMINATE       MANDIBLE     1. Symphyseal surface     1. tuber coxae       2. diastema     5. body of illium with dorso-medial foramen       3. lateral diastemal foramen     4. body of illium with dorso-medial foramen       4. coronold process     6. acetabular foras       6. condylar process     6. acetabular foras       7. anterior epiphysis     7. body of ischium       8. mandibular foramen     2. trochanter major       9. posterior epiphysis     5. trochanter major       9. anterior epiphysis     5. trochanter major       9. entrum     6. distal arcticular       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. opicing of the distal spine     7. distal condyle       9. caudal angle of blade     7. distal pre-epiphysis       9. caudal angle of blade     7. distal pre-epiphysis       9. caudal angle of blade     7. distal articulation       9. caudal angle of blade     7. distal pre-epiphyseal portion of the disphysis       9. leterial angle of operanon fossa     7. caudal apple of operanon foramen       9. torchlea     9. procense applexis   |          | 8. | temporal articular facet                   | FIRST PHALANX | 1. | proximal epiphysis                             |
| 0. infraorbital foramen       INNCMINATE       1. tuber coxae         MANDIBLE       1. Symphyseal surface       2. tuber sacrale + scar         2. diastema       3. lateral disatemal foramen       4. biody of illiu with dorso-medial foramen         3. lateral disatema       5. condylar process       6. accetabular fossa         6. angle       7. anterior dorsal acsending ramus posterior M3       8. lachial tubercolity         9. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         1. supraglenoid tubercle       2. trochanter major         3. origin of the distal spine       7. distal trochies         4. tuber of spine       TIBIA         1. head       2. proximal medial condyle         2. quester tubercle       7. distal trochies         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       TIBIA         1. head       2. proximal medial condyle         2. quester tubercle       7. distal trochies         3. lesser tubercle       7. distal pre-epiphyseal portion of the diaphysis         4. tuber of spine       7. distal pre-epiphyseal portion of the diaphysis         5. posterior of neck with foramen       5. goaterior spine         6. cranial angle of blade   |          |    |  |               |    |  |
| MANDIBLE       1. Symphyseal surface       2. tuber sacrale + scar         2. distema       3. lateral disatemal foramen       4. iliquubic eminence         3. lateral disatemal foramen       4. iliquubic eminence       5. condylar process         6. angle       7. anterior dorsal accending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         2. anterior epiphysis       3. tuber of appine       1. head         3. origin of the distal spine       4. contrum       5. distal medial condyle         4. centrum       5. distal medial condyle       6. lateral distal condyle         5. origin of the distal spine       1. supraglenoid tubercle       7. distal trochlea         6. cranial angle of blade       7. distal trochlea       6. intercal condyle         7. caudal angle of blade       6. intercal condyle       3. intercondyle         8. intercondylar eminence       7. distal pre-epiphyseal portion of the diaphysis       3. processus anterior         9. depression for medial half of proximal epiphysis       3. intercondyle       3. intercondyle         9. cortrue       1. supraglenoid tubercle       7. distal pre-epiphyseal portion of the diaphysis         9. corestior of neck with foramen       5. medial mal   |          |    |  |               |    |  |
| MANDIBLE       1. Symphyseal surface       2. tuber sarzale + scar         2. distemal       3. lateral disatemal foramen       4. iliopubic eminence         3. lateral disatemal foramen       4. iliopubic eminence       5. condylar process         6. angle       7. anterior dorsal accending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         1. spine       FEMUR       1. head         2. anterior epiphysis       3. torchanter major         3. posterior epiphysis       4. centrum         5. neural arch       5. distal medial condyle         6. argin of the distal spine       6. lateral distal condyle         7. caudal angle of blade       7. tuber of spine         8. tuber of spine       1. proximal medial condyle         9. cardial angle of blade       1. intercondylar eminence         9. cardial angle of blade       1. intercondylar eminence         9. cardial angle of olecranon fossa       3. processus anterior         9. depression for proximal atterial condyle       1. intercondylar eminence         9. cardial dist of proximal epiphysis       3. processus anterior         9. cardial dist of oper cardial eminer       1. calcaneal tuber <t< td=""><td></td><td></td><td></td><td>INNOMINATE</td><td>1.</td><td>tuber coxae</td></t<>  |          |    |  | INNOMINATE    | 1. | tuber coxae                                    |
| 2. diastema       3. body of illum with dorso-medial foramen         3. lateral diastemal foramen       4. coronoid process       5. cody of illum with dorso-medial foramen         4. coronoid process       6. angle       7. acteral diastemal foramen         7. anterior dorsal accending ramus posterior M3       8. ischalt tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for medial tendon of rectus femoris       9. depression for medial tendon of rectus femoris         9. depression for petities       1. head       1. techanter tendiot         9. depression for he distal spine       1. proximal medial condyle | MANDIBLE | 1. | Symphyseal surface                         |               | 2. | tuber sacrale + scar                           |
| 3. lateral diastemal foramen       4. iliopublic eminence         4. coronid process       5. condylar process         5. condylar process       6. symphyseal branch of publis         6. angle       7. body of ischium         7. anterior dorsal accending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       1. head         2. anterior epiphysis       3. torchanter major         3. posterior epiphysis       3. torchanter minor         4. centrum       5. distal medial condyle         5. neural arch       6. lateral distal condyle         6. aranial angle of blade       7. bodyne         9. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       1. proximal medial condyle         5. oranial angle of blade       1. proximal netral accentorior of neck with foramen         6. cranial angle of blade       1. proximal netral condyle         7. caudal angle of olecranon forsa       3. processus anterior         8. trochaler angle of olecranon forsa       3. processus anterior         9. depression for proximal epiphysis       3. processus anterior         9. depression for medial half of proximal epiphysis       3. medial distal condyle, M74  |          |    |  |               |    |  |
| 4. coronoid process       5. acetabular fossa         5. condylar process       6. angle         7. anterior dorsal acsending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine         2. anterior epiphysis       1. head         2. anterior epiphysis       3. trochanter major         3. posterior epiphysis       3. trochanter major         5. neural arch       5. distal medial condyle         6. crantum       5. distal medial condyle         7. distal rochlea       6. trochanter tertius         8. origin of the distal spine       1. proximal medial condyle         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       1. proximal medial condyle         5. origin of the distal spine       1. proximal medial condyle         6. cranial angle of blade       2. proximal basect of distal articulation         7. caudal angle of blade       1. proximal processus anterior         9. depressive anterior       6. lateral aspect of distal articulation         7. caudal angle of oleranon fossa       3. processus anterior         9. depressive anterior       1. ateral distal condyle, MT4         9. deprestrictumetand       3. processus anterior <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>  |          |    |  |               |    |  |
| 5. condylar process       6. symphyseal branch of pubis         6. angle       7. anterior dorsal assending ramus posterior M3       8. ischil tuberosity         9. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR       1. head         2. anterior epiphysis       2. trochanter major       3. torochanter major         3. posterior epiphysis       2. trochanter major       3. torochanter major         4. centrum       5. neural arch       5. distal medial condyle         5. posterior of neck with foramen       6. lateral distal condyle         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       7. literochanter tertius         5. posterior of neck with foramen       5. medial medial condyle         6. cranial angle of blade       7. caudal angle of blade         7. caudal angle of blade       7. distal recepthyseal portion of the disphysis         8. trochaner tubercle       7. distal recepthyseal portion of the disphysis         9. letterit ubercle       7. distal recepthyseal portion of the disphysis         9. posterior of neck with foramen       5. medial medial condyle         6. cranial angle of blade       8. trochaner tertius         9. medial maleolus       1. alearal distal condyle         9   |          |    |  |               |    |  |
| 6. anglé       7. body ór ischium         7. anterior dorsal acsending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       FEMUR         2. anterior epiphysis       2. trochanter major         3. posterior epiphysis       3. trochanter major         4. centrum       5. distal medial condyle         5. neural arch       6. lateral distal condyle         6. cranial angle of the distal spine       7. distal trochlea         9. origin of the distal spine       1. proximal medial condyle         9. origin of the distal spine       2. proximal medial condyle         9. cranial angle of blade       1. proximal medial condyle         9. cranial angle of blade       2. proximal medial condyle         9. disterior of net with foramen       5. medial malleolus         9. disterior of net with foramen       5. medial malleolus         9. disterior angle of blade       1. proximal medial condyle         9. disterior angle of blade       2. proximal appet of distal articulation         9. disterior angle of olecranon fossa       3. processus anterior         9. disterior angle of olecranon fossa       3. processus anterior         9. disterial half of proximal epiphysis       1. medial facet of proximal arti  |          |    |  |               |    |  |
| 7. anterior dorsal accending ramus posterior M3       8. ischial tuberosity         8. mandibular foramen       9. depression for medial tendon of rectus femoris         VERTEBRA       1. spine       1. head         2. anterior epiphysis       2. trochanter major       3. trochanter major         3. posterior epiphysis       3. trochanter minor       4. supracondyloid fossa         4. centrum       4. supracondyloid fossa       5. distal medial condyle         5. neural arch       6. lateril distal condyle       6. lateril distal condyle         5. origin of the distal spine       1. proximal medial condyle       7. distal trochlea         5. posterior of neck with foramen       1. proximal medial condyle       2. proximal lateral condyle         6. cranial angle of blade       7. caudal angle of blade       3. intercondylar eminence         7. caudal angle of blade       7. distal procepiphyseal portion of the diaphysis         8. trochanter groove       CALCANEUM       1. calcaneal tuber         9. depressus anterior       2. sustentaculum tali       3. processus anterior         9. distal facet of proximal articulation, MT3.       2. lateral half of proximal epiphysis       3. lateral distal condyle, MT3         10. medial half of proximal epiphysis       1. medial distal condyle, MT4       3. medial distal condyle, MT3         2. lateral half of proximal e  |          |    |  |               |    |  |
| 8. mandibular foramen     9. depression for medial tendon of rectus femoris       VERTEBRA     1. spine     FEMUR     1. head       2. anterior epiphysis     2. trochanter major     3. trochanter minor       3. posterior epiphysis     3. trochanter minor     4. supracondyloid fossa       5. neural arch     5. distal medial condyle     6. lateral distal condyle       5. sopration of the distal spine     7. distal trochlea     7. distal trochlea       6. cranial angle of blade     7. caudal angle of blade     9. proximal lateral condyle       6. cranial angle of blade     7. distal pre-epiphyseal portion of the distal articulation       7. caudal angle of blade     7. distal pre-epiphyseal portion of the diaphysis       8. litertuberal groove     CALCANEUM     1. calcaneal tuber       9. depression for medial timediately above distal epiphysis     1. medial facet of proximal anticulation, MT3.       8. trochlea     1. medial for proximal epiphysis     1. medial facet of proximal articulation, MT4       8. trochlea     1. medial for distal epiphysis     1. medial fistal condyle, MT4       9. torchlea     5. anterior distal condyle     1. medial for lock with foramen       9. torchlea     6. intertuberal groove     CALCANEUM       1. head     1. needial half of proximal epiphysis     1. medial facet of proximal anticulation, MT3.       2. trochlea     1. medial facet of proximal anticulat   |          |    |  | MO            |    |  |
| VERTEBRA          1. spine       FEMUR       1. head         2. anterior epiphysis       3. trochanter major         3. posterior epiphysis       3. trochanter minor         4. centrum       4. supracondyloid fossa         5. neural arch       6. lateral distal condyle         8CAPULA       1. supraglenoid tubercle       7. distal trochlea         2. glenoid cavity       8. trochanter tertius         3. origin of the distal spine       7. distal trochlea         4. tuber of spine       7. BIBIA         5. posterior of neck with foramen       6. cranial angle of blade         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       6. lateral aspect of distal articulation         2. greater tubercle       7. distal pre-epiphyseal portion of the diaphysis         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       1. medial half of proximal epiphysis       1. medial facet of proximal articulation, MT3.         8. tarchalard       2. lateral half of distal epiphysis       4. lateral distal condyle, MT4         8. tarchalard       6. medial of lateral distal condyle, MT4         9. posterior proximal epiphysis       4. lateral distal condyle, MT4         9. torchae       5. anterior distal groove and foramen         6. dis  |          |    |  | MO            |    |  |
| 2. anterior epiphysis2. trochanter major3. posterior epiphysis3. trochanter minor4. centrum5. distal medial condyle5. neural arch6. distal medial condyle2. glenoid cavity7. distal trochanter tertius3. origin of the distal spine8. trochanter tertius3. origin of the distal spine1. sproximal medial condyle5. neural angle of blade7. distal trochanter tertius6. cranial angle of blade2. proximal medial condyle7. caudal angle of blade3. intercondylar eminence7. caudal angle of blade6. lateral aspect of distal articulation8. trochanter tertil3. greater tubercle4. intertuberal grooveCALCANEUM6. dorsal angle of olecranon fossa3. processus anterior7. capitulum8. trochales8. trochale1. medial facet of proximal articulation, MT3.2. lateral half of proximal epiphysis4. lateral distal condyle, MT48. trochale6. distal spine7. lateral half of proximal epiphysis6. medial distal condyle, MT48. trochale6. medial distal condyle, MT49. poterior proximal epiphysis6. medial distal condyle, MT49. poterior proximal lang scar and foramen6. medial distal condyle, MT49. abterior distal epiphysis6. medial distal condyle, MT49. betrior proximal lang scar and foramen6. medial distal condyle, MT49. tochaler anoth- semilunaris6. interal distal condyle9. trochlear noth- semilunaris6. interal distal condyle9. trochlear noth- semilunaris<   |          | 0. | mandibular loramen                         |               | 9. | depression for medial tendon of rectus femoris |
| 2. anterior epiphysis       2. trochanter major         3. posterior epiphysis       3. trochanter major         4. centrum       4. supracondyloid fossa         5. neural arch       5. distal medial condyle         6. lateral distal condyle       6. lateral distal condyle         7. distal trochanter tertius       7. distal trochanter tertius         3. origin of the distal spine       1. supraglenoid tubercle         4. tuber of spine       TIBIA         5. posterior of neck with foramen       2. proximal medial condyle         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       9. intercondylar eminence         8. trochanter tubercle       1. alteral aspect of distal articulation         2. greater tubercle       2. gureater tubercle         4. intertuberal groove       CALCANEUM         7. caudul angle of olecranon fossa       3. processus anterior         7. capitulum       1. medial facet of proximal articulation, MT3.         8. trochale       1. medial facet of proximal articulation, MT4.         8. trochale       3. amedial condyle, MT4.         9. poterior proximal lepiphysis       4. lateral half of proximal epiphysis         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle, MT4.         8. troch   | VERTEBRA | 1. | spine                                      | FEMUR         | 1. | head   |
| 3. posterior epiphysis       3. trochanter minor         4. centrum       5. neural arch         5. neural arch       6. lateral distal condyle         6. lateral distal trochlea       6. lateral distal condyle         7. distal trochlea       7. distal trochlea         8. trochanter tertius       8. trochanter tertius         8. toronanter tertius       9. trochanter tertius         9. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       TIBIA         5. posterior of neck with foramen       2. proximal medial condyle         6. crantal angle of blade       3. intercondylar eminence         7. caudal angle of blade       6. lateral aspect of distal articulation         7. caudal angle of blade       6. lateral aspect of distal articulation         9. greater tubercle       1. calcaneal tuber         3. lesser tubercle       1. calcaneal tuber         4. torchlea       3. processus anterior         8. trochlea       3. processus anterior         8. trochlea       3. medial distal condyle, MT3         9. posterior proximal epiphysis       3. medial distal condyle, MT3         9. posterior proximal una sca and foramen       4. lateral distal condyle, MT3         9. posterior proximal una sca and foramen       5. medial distal condyle, MT4 </td <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td>  |          |    | •  |               |    |  |
| 4. centrum       4. supracondyloid fossa         5. neural arch       5. distal medial condyle         6. lateral distal condyle       6. lateral distal condyle         7. distal trochlea       8. trochanter tertius         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       TIBIA         5. posterior of neck with foramen       2. proximal lateral condyle         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       4. proximal posterior nutrient foramen         8. trochanter tertius       5. distal precepinyscal portion of the diaphysis         8. lesser tubercle       7. distal pre-epiphyseal portion of the diaphysis         9. deltoid tuberosity       3. processus anterior         7. capitulum       3. processus anterior         8. trochlea       METATARSUS         1. medial half of proximal epiphysis       4. lateral distal condyle, MT3         2. lateral half of proximal epiphysis       4. lateral distal condyle, MT4         3. posterior prozimal ulna scar and foramen       5. anterior distal groove and foramen         4. medial half of istal epiphysis       6. lateral distal condyle, MT4         3. posterior prozimal ulna scar and foramen       6. medial or lateral distal condyle         4. tuteral half of distal epiphysis  |          |    |  |               |    |  |
| 5. neural arch       5. distal medial condyle         SCAPULA       1. supraglenoid tubercle       7. distal trochlea         2. glenoid cavity       8. trochanter tertius         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       TIBTA       1. proximal medial condyle         5. posterior of neck with foramen       2. proximal lateral condyle       3. intercondylar eminence         6. cranial angle of blade       3. intercondylar eminence       4. proximal nedial condyle         7. caudal angle of blade       3. intercondylar eminence       4. proximal nedial condyle         8. cranial angle of blade       3. intercondylar eminence       4. proximal posterior nutrient foramen         5. getater tubercle       7. distal pre-epiphyseal portion of the diaphysis       6. lateral aspect of distal articulation         7. capitulum       8. trochlea       9. processus anterior       2. sustentaculum tali         8. trochlea       METATARSUS       1. medial facet of proximal articulation, MT3.         2. lateral half of proximal epiphysis       3. medial distal condyle, MT3         3. opsterior proximal una scar and foramen       5. medial or lateral distal condyle, MT3         4. interal distal epiphysis       6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         8. tateral half of dis   |          |    |  |               |    |  |
| SCAPULA       6. lateral distal condyle         SCAPULA       1. supraglenoid tubercle       7. distal trochlea         2. glenoid cavity       8. trochanter tertius         3. origin of the distal spine       4. tuber of spine         4. tuber of spine       TIBIA       1. proximal medial condyle         5. posterior of neck with foramen       2. proximal lateral condyle         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       4. proximal posterior nutrient foramen         8. deltoid tuberosity       6. lateral distal articulation         7. capitulum       1. needial for proximal epiphysis       3. processus anterior         8. trochnea       METATARSUS       1. medial half of proximal epiphysis         6. distal shaft immediately above distal epiphysis       3. medial distal condyle         7. capitulum       5. anterior distal groove and foramen       5. anterior distal groove and foramen         8. posterior prozimal ulna scar and foramen       5. anterior distal groove and foramen         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         7. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle   |          |    |  |               |    |  |
| SCAPULA       1. supraglenoid tubercle       7. distal trochlea         2. glenoid cavity       8. trochanter tertius         3. origin of the distal spine       1. proximal medial condyle         4. tuber of spine       TIBIA         5. posterior of neck with foramen       2. proximal lateral condyle         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       5. medial malleolus         HUMERUS       1. head       6. lateral aspect of distal articulation         7. distal trochlea       7. distal pre-epiphyseal portion of the diaphysis         8. trochlea       7. distal pre-epiphyseal portion of the diaphysis         9. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       1. medial half of proximal epiphysis       3. medial distal condyle, MT4         8. trochlea       METATARSUS       1. medial facet of proximal articulation, MT3.         2. lateral half of proximal epiphysis       3. medial distal condyle, MT4         3. posterior prozimal una scar and foramen       6. medial or lateral distal condyle         4. distal shaft immediately above distal epiphysis       6. distal shaft immediately above distal epiphysis         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle<   |          | 0. | noted afon                                 |               |    |  |
| 2. glenoid cavity       8. trochanter tertius         3. origin of the distal spine       TIBIA         4. tuber of spine       TIBIA         5. posterior of neck with foramen       2. proximal medial condyle         6. cranial angle of blade       3. intercondylar eminence         7. caudal angle of blade       4. proximal posterior nutrient foramen         7. caudal angle of blade       6. lateral aspect of distal articulation         7. caudal angle of blade       7. distal pre-epiphyseal portion of the diaphysis         8. trochnet       7. distal pre-epiphyseal portion of the diaphysis         9. detroid tuberosity       1. calcaneal tuber         9. detroid tuberosity       2. sustentaculum tali         9. trochlea       8. trochlea         RADIUS       1. medial half of proximal epiphysis         9. lateral distal condyle, MT4       3. prosterior proximal una scar and foramen         4. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle, MT4         9. anterior distal groove and foramen       6. medial or lateral distal condyle         10. lateral nal of distal epiphysis       6. medial or lateral distal condyle         11. trochlear notch- semilunaris       6. medial or lateral distal condyle         12. lateral notch- semilunaris       6. lateral coronoid process   | SCAPIILA | 1  | supraglenoid tubergle                      |               |    |  |
| 3. origin of the distal spine         4. tuber of spine       TIBIA         4. tuber of spine       TIBIA         5. posterior of neck with foramen       proximal lateral condyle         6. cranial angle of blade       intercondylar eminence         7. caudal angle of blade       intercondylar eminence         7. caudal angle of blade       intercondylar eminence         7. caudal angle of blade       intercondylar eminence         9. distal prove       6. lateral aspect of distal articulation         9. desser tubercle       7. distal pre-epiphyseal portion of the diaphysis         9. detoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       1. medial facet of proximal articulation, MT3.         8. trochlea       METATARSUS         1. medial half of proximal epiphysis       4. lateral distal condyle, MT3         2. lateral half of proximal epiphysis       4. lateral distal condyle, MT4         3. posterior proximal una scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis <td< td=""><td>БОЛГОШТ</td><td></td><td></td><td></td><td></td><td></td></td<>  | БОЛГОШТ  |    |  |               |    |  |
| 4. tuber of spineTIBIA1. proximal medial condyle5. posterior of neck with foramen2. proximal lateral condyle6. cranial angle of blade3. intercondylar eminence7. caudal angle of blade4. proximal posterior nutrient foramen7. caudal angle of blade6. lateral aspect of distal articulation8. detroit7. distal pre-epiphyseal portion of the diaphysis9. detroit1. head1. head1. calcaneal tuber2. greater tubercle1. calcaneal tuber3. lesser tubercle2. sustentaculum tali6. dorsal angle of olecranon fossa3. processus anterior7. capitulum1. medial half of proximal epiphysis1. medial facet of proximal artciulation, MT38. trochleaMETATARSUS1. medial facet of proximal artciulation, MT47. posterior prozimal upiphysis4. lateral distal condyle, MT48. posterior prozimal upiphysis4. lateral distal condyle, MT49. posterior prozimal upiphysis6. medial or lateral distal condyle9. lateral half of distal epiphysis6. medial or lateral distal condyle9. lateral half of distal epiphysis6. medial or lateral distal condyle9. lateral half of distal epiphysis6. medial or lateral distal condyle9. lateral ashaft immediately above distal epiphysis6. medial or lateral distal condyle9. lateral coronot uberosity2. lateral ashaft immediately above distal epiphysis9. lateral ashaft immediately above distal epiphysis6. medial or lateral distal condyle9. lateral coronoid process1. olecranon tuberosity9. la  |          |    |  |               | 0. | ciochancer certias                             |
| 5. posterior of neck with foramen2. proximal lateral condyle6. cranial angle of blade3. intercondylar eminence7. caudal angle of blade4. proximal posterior nutrient foramen8. trochlea6. lateral aspect of distal articulation8. trochlea6. lateral aspect of distal articulation, MT38. trochleaMETATARSUS9. medial half of proximal epiphysis3. medial distal condyle, MT49. posterior proximal ulna scar and foramen4. lateral distal condyle4. intert uberoisty3. medial distal condyle, MT48. trochleaMETATARSUS9. lateral half of distal epiphysis4. lateral distal condyle, MT49. posterior proximal ulna scar and foramen5. anterior distal groove and foramen4. intert uberosity6. anterior distal groove and foramen4. interior distal epiphysis6. medial half of distal epiphysis9. lateral half of distal epiphysis6. medial or lateral distal condyle9. lateral half of distal epiphysis6. medial or lateral distal condyle9. lateral conon tuberosity2. trochlear notch- semilunaris9. lateral coronoid process1. olecranon tuberosity   |          |    |  | πτρτα         | 1  | provimal medial condule                        |
| 6. cranial angle of blade3. intercondylar eminenceHUMERUS1. head3. intercondylar eminenceHUMERUS1. head6. lateral aspect of distal articulation2. greater tubercle3. lesser tubercle4. intertuberal grooveCALCANEUM5. deltoid tuberosity1. medial angle of olecranon fossa7. capitulum3. trochleaRADIUS1. medial half of proximal epiphysis1. medial half of proximal epiphysis1. medial distal condyle, MT32. lateral half of distal epiphysis3. metrior distal groove and foramen4. medial half of distal epiphysis6. medial or lateral distal condyle5. lateral half of distal epiphysis6. medial or lateral distal condyle6. distal shaft immediately above distal epiphysis5. anterior distal groove and foramen7. cutohlear notuberosity2. trochlear notch - semilunaris7. lolecranon tuberosity2. trochlear notch - semilunaris7. lolecranon tuberosity3. medial condyle7. distal shaft immediately above distal epiphysis4. lateral distal condyle8. trochlear notch - semilunaris5. lateral coronoid process9. distal shaft immediately above distal epiphysis6. medial or lateral distal condyle  |          |    |  | TIDIA         |    |  |
| 7. caudal angle of blade       4. proximal posterior nutrient foramen         HUMERUS       1. head       5. medial malleolus         1. head       6. lateral aspect of distal articulation         2. greater tubercle       7. distal pre-epiphyseal portion of the diaphysis         3. lesser tubercle       1. calcaneal tuber         4. intertuberal groove       CALCANEUM         5. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       8. trochlea         8. trochlea       1. medial facet of proximal articulation, MT3.         2. lateral half of proximal epiphysis       3. medial distal condyle, MT3         3. posterior prozimal ulna scar and foramen       6. medial or lateral distal condyle         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         9. lateral coronoid process       9. lateral coronoid process  |          |    |  |               |    |  |
| HUMERUS1. head5. medial malleolus1. head6. lateral aspect of distal articulation2. greater tubercle7. distal pre-epiphyseal portion of the diaphysis3. lesser tubercle1. calcaneal tuber4. intertuberal grooveCALCANEUM5. deltoid tuberosity2. sustentaculum tali6. dorsal angle of olecranon fossa3. processus anterior7. capitulum8. trochlea8. trochleaMETATARSUS1. medial half of proximal epiphysis1. medial facet of proximal articulation, MT3.2. lateral half of proximal epiphysis3. medial distal condyle, MT32. lateral half of distal epiphysis6. medial or lateral distal condyle4. medial half of distal epiphysis6. medial or lateral distal condyle5. lateral half of distal epiphysis6. medial or lateral distal condyle6. distal shaft immediately above distal epiphysis6. medial or lateral distal condyle7. clearnon tuberosity2. trochlear notch- semilunaris8. lateral coronoid process3. lateral coronoid process   |          |    |  |               |    |  |
| HUMERUS1. head6. lateral aspect of distal articulation2. greater tubercle7. distal pre-epiphyseal portion of the diaphysis3. lesser tubercle1. calcaneal tuber4. intertuberal grooveCALCANEUM5. deltoid tuberosity2. sustentaculum tali6. dorsal angle of olecranon fossa3. processus anterior7. capitulum8. trochlea8. trochleaMETATARSUS1. medial half of proximal epiphysis4. lateral facet of proximal articulation, MT3.2. lateral half of proximal epiphysis4. lateral distal condyle, MT33. posterior proximal ulna scar and foramen5. anterior distal groove and foramen4. medial half of distal epiphysis6. medial or lateral distal condyle5. lateral half of distal epiphysis6. medial or lateral distal condyle6. distal shaft immediately above distal epiphysis6. medial or lateral distal condyle1. olecranon tuberosity2. trochlear notch- semilunaris3. lateral coronoid process1. olecranon id process  |          |    | caddar angre or brade                      |               |    |  |
| 2. greater tubercle       7. distal pre-epiphyseal portion of the diaphysis         3. lesser tubercle       1. calcaneal tuber         4. intertuberal groove       CALCANEUM         5. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       8. trochlea         8. trochlea       METATARSUS         1. medial facet of proximal articulation, MT3.         2. lateral half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of proximal epiphysis       4. lateral distal condyle, MT4         3. posterior prozimal ulna scar and foramen       6. medial or lateral distal condyle         4. medial half of distal epiphysis       6. distal shaft immediately above distal epiphysis         6. distal shaft immediately above distal epiphysis       3. anterior distal groove and foramen         1. olecranon tuberosity       2. trochlear notch- semilunaris         3. lateral coronoid process       3. lateral coronoid process  | HIMEDILC | 1  | boad                                       |               |    |  |
| 3. lesser tubercle         4. intertuberal groove       CALCANEUM         5. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       3. trochlea         8. trochlea       METATARSUS         1. medial facet of proximal articulation, MT3.         2. lateral half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of distal epiphysis       4. lateral distal condyle, MT4         3. posterior proximal ulna scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         9. trochlear notch- semilunaris       3. lateral coronoid process  | NOMEROIS |    |  |               |    |  |
| 4. intertuberal groove       CALCANEUM       1. calcaneal tuber         5. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       3. processus anterior         8. trochlea       METATARSUS         RADIUS       1. medial half of proximal epiphysis         2. lateral half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of distal epiphysis       4. lateral distal condyle, MT4         3. posterior prozimal ulua scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. distal shaft immediately above distal epiphysis         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         9. trochlear notch- semilunaris       9. lateral coronoid process  |          |    |  |               | 1. | distal pre-epiphyseal portion of the diaphysis |
| 5. deltoid tuberosity       2. sustentaculum tali         6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       8. trochlea       METATARSUS         8. trochlea       METATARSUS       1. medial facet of proximal articulation, MT3.         RADIUS       1. medial half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of proximal ulua scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         VLNA       1. olecranon tuberosity       2. trochlear notch- semilunaris         3. lateral coronoid process       3. lateral coronoid process  |          |    |  | GRI ORNEUM    | 1  |  |
| 6. dorsal angle of olecranon fossa       3. processus anterior         7. capitulum       8. trochlea       METATARSUS         8. trochlea       METATARSUS       1. medial facet of proximal artciulation, MT3.         RADIUS       1. medial half of proximal epiphysis       2. lateral half of proximal epiphysis         2. lateral half of proximal epiphysis       3. medial distal condyle, MT4         3. posterior prozimal ulna scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         VLNA       1. olecranon tuberosity         2. trochlear notch- semilunaris       3. lateral coronoid process  |          |    |  | CALCANEUM     |    |  |
| 7. capitulum       8. trochlea       METATARSUS       1. medial facet of proximal artciulation, MT3.         8. trochlea       METATARSUS       1. medial facet of proximal artciulation, MT4.         RADIUS       1. medial half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of proximal ulna scar and foramen       4. lateral distal condyle, MT4         3. posterior proximal ulna scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         ULNA       1. olecranon tuberosity         2. trochlear notch- semilunaris       3. lateral coronoid process   |          |    |  |               |    |  |
| 8. trochlea       METATARSUS       1. medial facet of proximal articulation, MT3.         RADIUS       1. medial half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of proximal una scar and foramen       4. lateral distal condyle, MT4         3. posterior proximal una scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         6. distal shaft immediately above distal epiphysis       6. medial or lateral distal condyle         1. olecranon tuberosity       2. trochlear notch- semilunaris         3. lateral coronoid process       1. medial facet of proximal articulation, MT4  |          |    |  |               | 3. | processus anterior                             |
| <ul> <li>RADIUS</li> <li>1. medial half of proximal epiphysis</li> <li>2. lateral half of proximal epiphysis</li> <li>3. medial distal condyle, MT3</li> <li>4. lateral distal condyle, MT4</li> <li>5. anterior distal groove and foramen</li> <li>6. medial or lateral distal condyle</li> </ul>  |          |    | -  |               |    |  |
| RADIUS       1. medial half of proximal epiphysis       3. medial distal condyle, MT3         2. lateral half of proximal epiphysis       4. lateral distal condyle, MT4         3. posterior proximal ulna scar and foramen       5. anterior distal groove and foramen         4. medial half of distal epiphysis       6. medial or lateral distal condyle         5. lateral half of distal epiphysis       6. medial or lateral distal condyle         6. distal shaft immediately above distal epiphysis       7. olecranon tuberosity         2. trochlear notch- semilunaris       3. lateral coronoid process  |          | 8. | trochlea                                   | METATARSUS    |    |  |
| <ul> <li>2. lateral half of proximal epiphysis</li> <li>4. lateral distal condyle, MT4</li> <li>3. posterior proximal ulna scar and foramen</li> <li>4. medial half of distal epiphysis</li> <li>5. lateral half of distal epiphysis</li> <li>6. distal shaft immediately above distal epiphysis</li> <li>4. lateral distal condyle, MT4</li> <li>5. anterior distal groove and foramen</li> <li>6. medial or lateral distal condyle</li> <li>1. olecranon tuberosity</li> <li>2. trochlear notch- semilunaris</li> <li>3. lateral coronoid process</li> </ul>  | DADTUO   | 1  |  |               |    |  |
| <ul> <li>3. posterior proximal ulna sear and foramen</li> <li>4. medial half of distal epiphysis</li> <li>5. lateral half of distal epiphysis</li> <li>6. distal shaft immediately above distal epiphysis</li> <li>ULNA</li> <li>1. olecranon tuberosity</li> <li>2. trochlear notch- semilunaris</li> <li>3. lateral coronoid process</li> </ul>   | RADIUS   |    |  |               |    |  |
| <ul> <li>4. medial half of distal epiphysis</li> <li>5. lateral half of distal epiphysis</li> <li>6. distal shaft immediately above distal epiphysis</li> <li>ULNA</li> <li>1. olecranon tuberosity</li> <li>2. trochlear notch- semilunaris</li> <li>3. lateral coronoid process</li> </ul>  |          |    |  |               |    |  |
| <ul> <li>5. lateral half of distal epiphysis</li> <li>6. distal shaft immediately above distal epiphysis</li> <li>ULNA</li> <li>1. olecranon tuberosity</li> <li>2. trochlear notch- semilunaris</li> <li>3. lateral coronoid process</li> </ul>  |          |    |  |               |    |  |
| <ul> <li>6. distal shaft immediately above distal epiphysis</li> <li>ULNA</li> <li>1. olecranon tuberosity</li> <li>2. trochlear notch- semilunaris</li> <li>3. lateral coronoid process</li> </ul>   |          |    |  |               | 6. | medial or lateral distal condyle               |
| ULNA 1. olecranon tuberosity<br>2. trochlear notch- semilunaris<br>3. lateral coronoid process  |          |    |  |               |    |  |
| 2. trochlear notch- semilunaris<br>3. lateral coronoid process  |          | 6. | distal shaft immediately above distal epip | ohysis        |    |  |
| 2. trochlear notch- semilunaris<br>3. lateral coronoid process  | ULNA     | 1  | olecranon tuberosity                       |               |    |  |
| 3. lateral coronoid process   |          |    |  |               |    |  |
|   |          |    |  |               |    |  |
|   |          |    |  |               |    |  |

# SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS extract from *Archaeology and Planning* DOE Planning Policy Guidance note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

| i Period:                       | all types of monuments that characterise a category or period should be considered for preservation.  |
|---------------------------------|---|
| ii Rarity:                      | there are some monument categories which in certain periods are so scarce that all surviving<br>examples which retain some archaeological potential should be preserved. In general,<br>however, a selection must be made which portrays the typical and commonplace as well as<br>the rare. This process should take account of all aspects of the distribution of a particular<br>class of monument, both in a national and regional context.   |
| iii Documentation:              | the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.  |
| iv Group value:                 | the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement or cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.   |
| v Survival/<br>Condition:       | the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.   |
| vi Fragility/<br>Vulnerability: | highly important archaeological evidence from some field monuments can be destroyed by<br>a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would<br>particularly benefit from the statutory protection that scheduling confers. There are also<br>existing standing structures of particular form or complexity whose value can again be<br>severely reduced by neglect or careless treatment and which are similarly well suited by<br>scheduled monument protection, even if these structures are already listed buildings. |
| vii Diversity:                  | some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.  |
| viii Potential:                 | on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.  |

## THE ARCHIVE

The archive consists of:

- 46 Context records
- 11 Scale drawings
- 1 Photographic archive (comprising 33 colour slides and 33 black and white prints)
- 1 Box of finds
- 1 Processed environmental sample
- 1 Stratigraphic matrix

All primary records and finds are currently kept at:

Archaeological Project Services The Old School Cameron Street Heckington Sleaford Lincolnshire NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum 12 Friars Lane Lincoln LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

| Lincolnshire City and County Council Museum Accession Number: | 243.99 |
|---|--------|
| Archaeological Project Services Site Code:                    | SPW99  |

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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# GLOSSARY

| Context       | An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretations of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, $e.g.$ (004). |
|---------------|--|
| Cut           | A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.   |
| Fill          | Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).   |
| Layer         | A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.  |
| Medieval      | The Middle Ages, dating from approximately AD 1066-1500.   |
| Post-medieval | The period following the Middle Ages, dating from approximately AD 1500-1800.  |
| Rood          | A measurement of land which is usually $^{1}\!\!/_{4}$ acre (0.1 hectares), although regional variations do exist.   |
| Saxon         | Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany  |