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SHREWSBURY HERITAGE PROJECT

The English Bridge
Gyratory System:
Research Design
(Revised)

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REVISED

ENGLISH BRIDGE GYRATORY SYSTEM

RESEARCH DESIGN

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PREFACE

In November 1985 the Shrewsbury Heritage Project began excavation in the south-west corner of the precinct of Shrewsbury Abbey in advance of the proposed re-development of much of the surrounding area. A general research design was produced in January 1986, and has recently been revised. This outlines the known archaeology of the Abbey and its surroundings, and summarised the known extent and preservation of archaeological deposits. These were assessed in terms of the Project's general research goals: the investigation of the form, development and economy of the Abbey, and its role in the growth of the medieval town. It was felt that these targets can best be achieved by excavation within and around the monastery's outer court.

Detailed development plans for the superstore, hotel and other buildings, and the treatment of the 'old infirmary' are still not sufficiently detailed to allow a full assessment of the archaeological response required within the former precinct. However, proposals for the English Bridge Gyratory System road scheme are sufficiently advanced to allow the formulation of a more detailed archaeological response to the threatened sites on the western periphery of the monastery.

This document together with the Shrewsbury Heritage Project research design has been substantially revised due to changes in the understanding of the western periphery of the monastery and it also incorporates significant alterations in the excavation timings due to a major delay in access to the A. Bertram Edwards site for rescue excavation.

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1. INTRODUCTION

The monastic precinct was sited on the tip of a gravel spur, projecting into the alluvial zone around the junction of the Rea Brook and the River Severn, at a natural crossing point and focus of communications. The monastery, founded between 1083 and 1087, took over a site that was already occupied: by a church with some parochial functions, including burial; by the 'homestead' of a late Saxon landowner, probably with watermills attached; and possibly by a domestic suburban settlement. Excavations recently concluded (the Queen Anne House site) have recovered late Saxon Stafford-type ware from a residual context on the southern edge of the gravel spur.

To the west of the precinct, the Rea Brook split into two streams around Coleham Island, which is known to have been settled by the early 13th century. The alluvial zone to the south of the precinct was exploited and adapted within the monastic period by the cutting of a mill-stream and fishponds; the precinct can now be shown to have been encroaching into this zone throughout the Middle Ages, with the construction of new buildings and terraces expanding the dry, habitable area southwards (see revised Abbey Research Design).

2. THE THREAT

The course of the road scheme, referred to as English Bridge Gyratory System III is shown in the attached plan. The proposed road surface will drop from the existing ground level at the junction with Coleham Head to the west, and Abbey Foregate on the north, to a maximum depth of 2.7m below existing ground level under the railway viaduct. The road foundations have been revised in the past 3 months and will take the form of conventional cut and backfilled foundations demanding the excavation and replacement of deposits to a depth of c. 2.5m below proposed road surface. Drains will be installed on each side of the proposed road at a slightly lower level than the foundations. In addition the removal of any soft-pockets below these depths may occur.

3. ARCHAEOLOGICAL POTENTIAL

The area under threat by the Gyratory System is low-lying ground, within 150 metres of the Severn, dissected by natural and artificial water-courses; ground-water has been encountered at depths of 1.4m to 3.2m below the surface. The underlying 'natural' is a brown silty-clay, with some signs of superficial deposits of gravel. Information on the presence, extent, and condition of archaeological deposits in the area comes from three sources: the current excavations of the Queen Anne House area; boreholes undertaken for Shropshire County Council; and an archaeological record of a trial trench dug at the south-west corner of the 'Old Infirmary' building.

The recent excavations in the Queen Anne House area have defined the edge of the gravel spur in the precinct area, with stratified archaeological deposits to a depth of 3m below the present ground surface with waterlogging and preservation of organic material from 2.5m below surface level. It is likely that such conditions will apply to sites excavated in the area of the mill.

Trial trenching (Watson 1985) and boreholes indicate that the bed of the northern channel of the Rea Brook is between 3m and 5m below present ground surface, largely backfilled with 19th century rubble for construction of the railway viaduct.

Ground conditions in the Coleham Island area are less well known. Soil descriptions in the borehole records are archaeologically ambiguous: a borehole in the forecourt of Severn Villa encountered a filled cellar with a thin deposit of uncertain origin overlying 'natural' at 2.17m; a test-hole beneath the cellar in Severn Villa produced green silt, possibly fill within a cut feature; a borehole in the United Reformed Church car-park close to the back garden of Severn Villa showed archaeological deposits from 1.5m to 3.2m below present ground level (silty clays and organic clays). Excavation in the back garden of Severn Villa encountered sterile river silt at a depth of metres.

4. EXCAVATION STRATEGY

4.1 Introduction

Three areas were selected for controlled excavation, on the basis of the predicted survival and character of archaeological deposits, and as presenting the best opportunity, within the framework of the current development proposals, for achieving the project's general research goals of understanding the Abbey as an element within the growing medieval town. These areas were:

- i) The western elevation of the 'Infirmery' block (currently Messrs. Goode and Davis).
- ii) The mill area (currently within the A. Bertram Edwards timber yard).
- iii) Severn Villa

Sequences and profiles in these locations will be linked by watching briefs and some trial trenching, during and before road construction.

4.2 The Infirmary area - (Goode and Davis)

18th and 19th century illustrations and plans show that the building known as 'The Old Infirmary' is merely the southern part of a complex of buildings defining the western side of the precinct's outer court. A building similar in appearance to the infirmary lay to the north, on the street frontage, with a three story buttressed building in between. The western elevation of this complex was pierced by an arcade of six arches at external ground level, leading to a hard-standing on the edge of the northern arm of the Rea Brook. It is likely that the hard-standing functioned as a waterfront, with the arcade giving access to storage facilities at undercroft level within the buildings of the outer court. There is no documentary evidence for this function, other than an agreement reached between the Abbey and the town in c. 1227-38 whereby the Abbey could receive tolls from merchants who come by way of the river and unloaded and sold their goods on the Abbey's land; the location is not specified.

Research Aims and Excavation Strategy

The aim of excavation in this area is to investigate the function and structural sequence of the 'Infirmary' building as revealed by the surviving western wall of the building together with remains of the building buried to the north and associated deposits. This will be combined with limited investigation of the northern channel of the Rea Brook and any surviving waterfront structures in the area.

Limited excavation has taken place outside the western gable end of the 'infirmary' block (Goode and Davies 1987) and a deep sequence of post-medieval deposits revealed. The excavation however was limited by a number of constraints which have prevented exposure of the medieval deposits (see Appendix 2). A preliminary study of the infirmary block's western elevation has suggested a complex sequence of additions and modifications during the building's lifetime.

Rescue excavation of the portion of the gyratory to the north of the surviving infirmary block has been prevented by the presence of a brick-built shed still used by the A. Bertam Edwards woodyard. There is however a strong possibility that much of the infirmary block still remains beneath this building and once this area becomes available excavation is proposed as outlined in orange on the attached sheet. As the gyratory system cuts across the scheduled monument area, rescue excavation is proposed within this area although it will closely follow the eastern limit of the gyratory.

4.3 The Mill Area - (A. Bertram Edwards)

The Abbey Mill, the lowest of the water-mills along the 2km long artificial Mill Stream, probably stood at the south-west corner of the monastic precinct, on or near the site occupied by a

timber-framed mill of 16th-17th century character (known from 18th century illustrations), and a brick built replacement which burnt down in 1906.

The mill was originally driven directly by the mill-stream flowing along the southern edge of the precinct; later the two Abbey fishponds to the south were joined together (between 1746 and 1825) and the resulting Abbey Pool was used as a mill pond.

The waste water from the mill flowed into the northern channel of the Rea Brook. This was truncated in c. 1770 when English Bridge was built, the Monks Bridge demolished and the watercourse under it filled in. With the construction of a railway viaduct in the 1850's, the remaining section of the northern arm was infilled, and water from the mill directed into a new channel to the west of the viaduct, flowing south to the surviving Rea channel.

Research Aims

Excavation on and around the site of the post-Dissolution Abbey Mill is likely to be able to test the hypothesis that the Abbey, which derived a substantial income from milling within three years of its foundation, took over existing, working, mills that formed a part, possibly an important part, of the pre-Conquest 'homestead' on the bank of the Meole. The Rea or Meole Brook was an intensively exploited milling stream throughout the medieval and post-medieval periods and ownership of its lower reaches must have been a considerable asset; it may be that the Abbey's acquisition of a feudal monopoly of milling in the area did little more than to ratify economic and geographic status-quo.

It has recently been suggested (1) that the south range of the building known, from Owen and Blakeway's writings, as the 'Old Infirmary' was, in fact, a gatehouse with the broad arch in the south wall giving access to the mill and fishponds. If true, this attractive hypothesis would provide an extensively paralleled context for the mill: situated on a causeway giving access from the 'gatehouse' to the area to the south, and also acting as a barrier between the Rea Brook and the fishponds. One of the project's principal research aims is to determine the chronology of the Abbey's main capital investments, particularly its hydraulic engineering. Excavation on and to the south of the mill area, on the course of the Gyratory System, would allow the establishment of the existence and date of such a feature, and also offers the possibility of sealed waterlogged deposits incorporating both environmental material and timberwork.

The suggested existence of a north-south causeway along the east bank of the Rea Brook is not new. Earlier study in this area (2) sought an explanation for the abrupt right-angled westwards bend in the street of Old Coleham, to the south of the precinct, in the possible truncation of a pre-Conquest causewayed road across the Rea floodplain. The most likely context for this would be the replacement of existing fords by the Stone, Monk's and

Coleham bridges by the Abbey, probably before 1121. The construction programme would have enabled the Abbey to control and receive tolls from traffic travelling to or through Shrewsbury from the Midlands and the Severn Valley route, via Abbey Foregate, and from the Hereford-Ludlow-Stretton Gap route, via Old Coleham. It may also have encouraged the expansion of the pre-Conquest riverine suburban settlement zone 100 metres westwards to include Coleham Island.

Excavation Strategy

The precise extent and nature of the surviving structures and deposits in the mill area cannot be predicted on the available information with precision or certainty. It is proposed therefore that the excavation broadly concentrates on the site of the post-dissolution mills and the area immediately to the south (see attached sheet), and that a more precise formulation of excavation strategy will depend upon the results of initial machine stripping and trenching of the site.

One of the main goals of excavation in this area must, however, be the linking of the mill sequence with the precinct wall running southwards from the north east corner of the 'Old Infirmary' building (as seen by M.D. Watson in watching brief work in the area). This, together with the need to understand the mill sequence in detail, will necessitate the excavation of not only the area threatened directly by the Gyratory System, but also of the small but key linking area directly to the north-east of the mill (see southern hatched area on attached sheet). Although this falls within the scheduled area, it is felt that this small area is likely to be of crucial importance in linking the threatened area to the rest of the precinct and thus realising the potential of the mill area.

References

1. P.J. Drury pers. comm.
2. D.J. Pannett, pers. comm.

Appendix 1: The Severn Villa Site

This site lies on Coleham Island, to the west of the Abbey precinct, towards the rear of the property fronting Coleham Head. This area was known to have been occupied by the mid 13th century by several industrial tenements. Trial excavation took place in July 1986 to assess deposits threatened by the gyratory road system at its junction with the existing main road. Excavation in the back garden, the eastern part of the site, encountered sterile river silt at a depth of 1.8m, sealed by a succession of 18th-20th century dumping layers and yard surfaces. Trial excavation on the street frontage was halted at a depth of 1m below present ground surface (the limit of the threat), the corner of a 19th century brick structure, possibly part of a forge, with associated exterior surfaces having been uncovered. No pre-18th century deposits appear, therefore, to be threatened in this area.

Appendix 2: Goode and Davies 1986

Between December 1986 and April 1987 a 8m x 7m trench was opened in the south east corner of the former Goode and Davies yard, c. 3m west of the 'old infirmary' building. The aim of this trench was to locate medieval deposits and evaluate their nature and potential for the reconstruction of the western periphery of the monastic precinct. The work was constrained by the condition of the 'old infirmary' building, and to prevent damage to the building the excavations closely followed limits defined by the engineering firm Ove Arup. These constraints did not allow the medieval deposits to be contacted within the excavation area.

Excavation has revealed a 2m deep sequence of deposits of 18th - 20th century date. The earliest of these were a series of yard surfaces in the north east area of the site, some of which contained material suggesting industrial activity. These surfaces were bounded to the west by one arm of the Rea Brook and to the south by the outflow from the brick-built mill. These were deliberately backfilled prior to the construction of the railway viaduct, this in turn necessitating the construction of an underground culvert to carry the water from the mill to the Rea Brook, and a 3m stretch of this brick-built and barrel-vaulted culvert was revealed at the southern edge of the excavations. In the mid to late 19th century the area saw the construction of a brick shed with associated cobble and cinder yard surfaces, and these continued in existence until the present time.

Appendix 3: Gyrotory Excavation Timings

At the present time, apart from one limited trial area (see area 4 on attached sheet), the commencement of work along the northern arm of the gyrotory system has been delayed by the presence of A. Bertram Edwards timber yard. A firm date has not been put forward by British Rail for BUFAU's access to the site although the recent indications suggest late June 1987.

Excavation timings:

Site	Duration	Start	Finish
Severn Villa		Completed	
Goode and Davies Trial		Completed	
Goode and Davies (north)		July 1st	January 1st
A. Bertram Edwards (mill)		July 1st	January 1st

It is recommended that a full archaeological watching-brief be undertaken when road construction work begins.