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Archaeological Recording at Eastcote Manor Moat Bridge, Solihull, West Midlands

by Mark Hewson

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1.0 Summary

A programme of archaeological recording was carried out at the moat bridge of Eastcote Manor, Solihull by Birmingham University Field Archaeology Unit in September 1996 in advance of bridge rebuilding work. All surviving elevations of the structure were recorded and an assessment of building phases was made. It was noted that the earliest phase is founded on natural red clay.

2.0 Introduction

This report documents the results of an archaeological investigation into the structure of the bridge across the moat at Eastcote Manor (SMR 579) (Fig. 1). The work was carried out in accordance with a brief prepared by the Joint Data Team (West Midlands Sites and Monuments Record). Birmingham University Field Archaeology Unit (BUFAU) was commissioned to undertake work in advance of, and during, the initial stages of the rebuilding of this bridge by Eastcote Hall Limited. It was planned that the recording of this structure would not only provide a permanent record of its surviving components but also offer important hitherto unknown information concerning the dating of the structure relative to Eastcote Hall, parts of which date back to the 15th century. The work took place during the week 16th - 20th September, with a further day of observation and recording on the 25th of September as preparations for rebuilding took place.

3.0 Background

It has been estimated that there are around five and a half to six thousand moated sites in Britain. Nichol (1994, 3) estimates that there are c. 200 moated sites in the West Midlands county alone, making this class of monument "one of the most significant and numerous 'types' in the region".

The moat surrounds an 'II-plan' house, 'Eastcote Hall' which is believed to date to the 15th century (Fig. 2). The dating of the bridge that crosses the moat is unknown, though a degree of continuity in the positioning of a moat crossing would be expected and it is possible that a bridge may have existed at this point in the 15th century. The Tithe map shows the moat to be complete and waterfilled. Further to this an undated plan of the buildings and moat shows the bridge though gives no indication of its character (Fig. 2b). The site is located at Grid reference SP19007925, off Barston Lane, Eastcote (Fig. 1b). The bridge itself crosses the square moat (SMR 579) at the centre of its northern side, giving access to Eastcote Hall (SMR 65).

4.0 Objectives and Methodology

The brief (as prepared by the Joint Data Team) required that the structure be recorded using both photographic and drawn methods. Further to this, a project specification was prepared by BUFAU which served to meet these requirements. Initially, the moat in the immediate environs of the bridge was to be drained by the contractors using steel shuttering, and pumping out the moat water within the enclosed area. Subsequently this area was to be excavated by means of a mechanical excavator to the depth of the underlying natural sub-soil, with the dual objectives of ascertaining the nature of the foundations on which the bridge rested and exposing the exterior elevations of the structure so that they could be recorded. The recording methods employed were to accord with the IFA 'Standards and Guidance for Building Recording (Draft)' and established BUFAU recording systems and procedure. In this case the drawing of both exterior elevations, those of the bridging arch, a surface plan and any further structural elements that might be revealed in advance of and during rebuilding was to be executed at a scale of 1:20. In addition detailed colour slide, colour print and monochrome photography would complement these drawings. In the event of the recovery of any archaeological finds, on-site and subsequent recording and conservation would be undertaken on the advice of Lynne Bevan (BUFAU Finds Researcher).

5.0 The Archaeological Results

Subsequent to shuttering and shoring work carried out by the contractors residual water was pumped out of the enclosed area of the moat immediately surrounding the bridge. Two trenches were then opened by mechanical excavator across the width of the moat on each side of the bridge, to a depth of c. 1.80m. below the surface of the structure, revealing the full extent of both exterior elevations. These trenches measured c. 0.80m. at the narrowest point and c. 2.0m. at the widest. This variation in trench width was necessary due to the proximity of the surrounding vegetation on the banks of the moat. It was observed that the bridge was founded on natural red clay for the full extent of its span across the moat. Following this phase of work BUFAU staff cleaned the revealed bridge structure with hand tools prior to recording work.

The archive resulting from this programme of work consists of 5 field drawings (plan and elevations) at 1:20 scale, monochrome and colour print, and colour transparency photographs.

5.01 North-East Facing Elevation (Fig. 3)

The earliest phase of the surviving structure on the north-east facing elevation was made up of four courses of dressed green sandstone. Commonly these blocks measured c. 0.13m. in height and were cut to a variety of lengths (for detail of all dimensions see figure 3). These courses were loosely mortared together with yellow sandy mortar which was waterlogged and in a bad condition. Natural red clay appeared to be sealing the joints, though whether intentionally incorporated or naturally deposited during the life of the structure is unknown. At the southern end of the structure, four large blocks of dressed and mortared red sandstone, above the green sandstone and abutting the brickwork could be seen (for dimensions see figure 3). It was evident that further blocks of red sandstone continued into the moat bank at this end; however further recording here was not possible due to difficulties of access. The northern extremity of the structure had in recent times been partially reinforced, to the depth of the foundations, with what appeared to be a reused concrete paving slab. Subsequent to the recording of this modern addition, the slab was removed, revealing that the course of green sandstone blocks continued across the length of the structure. The concrete slab was bonded to the earlier sandstone courses with roughly applied concrete. The remainder of the structure on this side was made up of c. 0.80 - 1.00m. of modern brickwork bonded below to both the red and the green sandstone. This brickwork was for the most part arranged in alternating courses of headers and stretchers and terminated in a parapet that ran the length of the bridge, although the parapets on both sides of the structure had been removed prior to the current phase of rebuilding work. The arch was made up of a single span of eight modern bricks mortared together and bonded below to the brickwork of the most recent build of this elevation. It was clear that the arch was in a poor state of preservaton due to root action in and around its supporting structure and to the weight of modern vehicles passing over the bridge.

Following the recording of this elevation, the contractors were able to remove c. 0.50m. of the structure along the length of the bridge and to excavate down a further 0.75m. below the moat's water level. This work revealed that the natural red clay continued to at least this depth, but there was no sign of the natural sandstone geology as is reportedly the case for the south side of the moat (Joint Data Team, Brief for Archaeological Recording at Eastcote Manor; Solihull, West Midlands). Additionally, this work revealed that on both sides the outer bridge structure, in its earliest extant phase, was made up of green sandstone to a width of two blocks, the core of the bridge being made up of a matrix of silty-clay and gravel. At the level of the more recent brick courses the core of the bridge was made up of matrix of silty-clay and gravel plus modern brick and tile rubble.

5.02 The South-West Facing Elevation (Fig. 4)

This elevation was prepared and recorded in the same way as the above mentioned north-east facing elevation. The lowest courses appeared to be in worse condition than those of the north-east facing side. Blocks of dressed green and red sandstone were included throughout these lowest courses. Modern brickwork made up most of the bridge structure on this side, much of which was in poor condition, with the exception of that at the southern end. The arch was of mortared modern brickwork, also in poor condition due to root action and the weight of vehicles passing above. Following the conclusion of recording work on this side the contractors again were able to remove the outer 0.50m, of the structure along the length of the bridge and to excavate down 0.75m, below the water level. This work revealed (as expected) that the whole bridge appears to be founded on natural red clay. In addition the removal of the outer 0.50m, of the structure here revealed an earlier phase of the bridge. This was similar to the primary phase on the north-east facing side. There were five courses of dressed green sandstone blocks c. 0.13m, in height and of various lengths (for dimensions see figure 4) running the length of the bridge. These blocks were bonded together with yellow

sandy mortar similar to that of the north-east facing elevation, though in this case the mortar appeared to be in better condition. At the southern end it was observed that a scries of large, dressed red sandstone blocks had been added. These were bonded to the green sandstone blocks with what appeared to be a similar mortar to that bonding the green blocks themselves. Above the green blocks, the remainder of the structure here was made up of modern brick and tile rubble plus silty-clay and gravel.

5.03 The Arch Elevations

Both of these elevations were in poor condition having been subject to root action and pressure from above. The lowest courses, whilst predominantly of green sandstone blocks similar to those of the bridge sides, have modern tile and brick fragments as infilling incorporated among them in the joints between courses. These courses did not appear to be mortared - whether the mortar has been eroded over time or was never used is unknown. Additionally, brick and mortar rubble was evident in these lower courses. Three courses of modern brickwork were bonded to the lower sandstone courses, above which was a layer of cement and the brick span of the arch itself.

6.0 Discussion of the Archaeolgical Results

The only datable material recovered from the structure consisted of 19th century and 20th century brick and tile. No evidence of the use of handmade bricks within the structure of the bridge was apparant. However there appear to have been three main building phases: 1. the laying of the green sandstone courses; 2. a lengthening of the bridge with the addition of large blocks of red sandstone; and 3. a widening of the bridge on the south-west facing side, with the addition of modern brickwork both on this side and on the north-east facing side, making the bridge both wider and higher.

The green sandstone phase as revealed on both sides and at the lowest part of the archway appears to be the earliest surviving remnant of the bridge. It was observed that green sandstone blocks had been reused as decorative garden borders in the grounds of Eastcote Hall. Whether they were also originally part of the bridge work or are related to the Hall itself is unknown. It would be useful to investigate whether similar blocks are evident in the structure of the Hall - none are mentioned in descriptions of the building (VCH1V, 22).

The addition of large red sandstone blocks appears to be part of a later phase of building, and suggests that the bridge may have been lengthened. The south-west facing side of the bridge exhibits this same phasing of green and red sandstone. This side of the bridge also appears to have been widened by c. 0.50m. at some point with a combination of green and red sandstone and brickwork, subsequent to the addition of the large red sandstone blocks of the second phase. The introduction of brickwork on the south-west facing side may well have coincided with the introduction of the brick-built structure of the north-east facing side. The arch elevations exhibit similar courses of green sandstone in the earliest phase. It appears however, that remedial work was carried out at some time to reinforce these courses by infilling gaps with modern tiles and brick fragments. The later part of these elevations is of modern material suggesting that the whole arch was rebuilt in the 19th/20th century, using the earliest foundations as a base.

7.0 Acknowledgements

The fieldwork and recording was conducted by Mark Hewson, John Hovey and Jon Sterenberg. The report was edited by Peter Leach who also monitored the project and the figures were prepared by Mark Breedon. We are grateful for the information supplied by Solihull Joint Data Team's Sites and Monuments Record.

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8.0 References

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Fig.2



Southwest Elevation;

Most Recent Phase



Earliest Phase



