

**Excavations at Moat House, Chasewood Lodge, Exhall,**

**Warwickshire 2005**

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*Figures*

*Figure 1 Location of site (missing)*

*Figure 2 Location of excavated areas*

*Figure 3 Area A*

*Figure 4 Areas B1 and B2*

*Figure 5 Areas C and D*

*Appendices*

*Appendix 1 Insect Remains by Emma Tetlow*

## SUMMARY

*An archaeological excavation at Chasewood Lodge, McDonnell Drive, Exhall, Bedworth, Warwickshire (NGR SP3479 8479) was commissioned by Mr Das. The work was undertaken by Birmingham Archaeology in November 2005 as part of a condition of planning following the erection of a 71 bed residential nursing home and 5 flat units.*

*The new build was situated on a medieval moated site, and previous archaeological work, that included both desk-based assessment and evaluation, established that below ground remains was good. Despite construction work commencing before the full archaeological mitigation requirement had been satisfied, three areas had been left undisturbed by the development. These were excavated, revealing evidence of occupation of the site from the 12<sup>th</sup> century onwards.*

*The earliest activity on the site comprised evidence for robbed-out sandstone walls and a pit, and more ephemeral evidence for timber-framed structures. It was shown that the moat was excavated during this period, and further evidence of timbers structures in the form of a possible bridge were identified at its edge.*

*The archaeological evidence points to a reorganisation of the site during the 16<sup>th</sup> century, with deposits relating to the demolition of the previous buildings sealing the earlier features, including the robbed out walls and possible timber bridge. Evidence from the moat itself suggests it had not been maintained, and was silting up during this period. Subsequent activity on the site included the deliberate infilling of the moat, and the construction of 18<sup>th</sup> century brick buildings.*

## **Excavations at Moat House, Chasewood Lodge, Exhall, Warwickshire 2005**

### **1 INTRODUCTION**

#### **1.1 Background to the Project**

This report describes the results of an archaeological excavation and watching brief undertaken by Birmingham Archaeology on behalf of Mr Das for Chasewood Lodge Residential Home. The site of the development (NGR SP434793 284797, Fig. 1) lies within the bounds of a medieval moated complex. Earlier archaeological work on the site had shown that the survival of below-ground remains was good, and that important waterlogged archaeological deposits survived in the moat.

Work on the proposed development commenced without the prior notification of the planning department. Following a temporary stopping order being served on the site, Birmingham Archaeology were brought in to excavate three areas where redevelopment had not taken place as well as undertaking a watching brief to monitor landscaping around the edge of the moat (Fig. 2).

The excavation was carried out in accordance with a Brief prepared by Anna Stocks, Warwickshire County Planning Archaeologist, and a Written Scheme of Investigation prepared by Birmingham Archaeology (Birmingham archaeology 2005). All work on site was carried out in accordance with the Institute of Field Archaeologists Standard and Guidance for Archaeological Excavation (Institute of Field Archaeologists (Revised 2001), and Watching Brief (Institute of Field Archaeologists (Revised 2001)).

#### **1.2 Site Location and Description**

The site is situated on the outskirts of Exhall (centred on NGR SP 434793 284797), in the parish of Nuneaton and Bedworth, Warwickshire. It is located to the south of the M6 motorway and immediately north of the A444, McDonnell Drive forms the southern boundary of the site, with the M6 to the north and open fields to the east and west. The underlying geology of the district is largely the Warwickshire Coalfield, in which Carboniferous coal seams are overlain by Etruria Marls, and aquiferous outcrops from the Enville Group.

The moat is still clearly visible and waterfilled, on three sides of the moat platform (east, west and northern sides). The sides of the moat appear to be largely intact although the profile is obscured by silting and vegetation. The northeastern corner of the moat has been canalised into a narrow channel joining the eastern and northern arms of the moat. This was most probably done when the embankment for the motorway was created and it is likely that this corner of the moat is well preserved beneath the motorway embankment. An outer bank along the western and northern sections of the moat becomes progressively higher as it curves around towards the north until it is much higher than the level of the moat platform. Similarly, a low bank is visible around the southeastern return of the moat.

At the time of the assessment, the moat platform was occupied by the Alderman McDonnell House, an early twentieth century building with modern additions. Redevelopment of the site

in the intervening period had entailed the construction of two three-storey wings along the southern and western sides of the moat platform.

## **2 HISTORICAL BACKGROUND**

The site is moated, and may have its origins in the medieval period. During the medieval period the parish of Exhall was located on the edge of the wooded part of Warwickshire known as the Arden. This area extended across the whole of the north and northeastern part of the county, reaching as far as Weston-in-Arden to the east, and as far south as Henley-in-Arden (Hooke 1993, 10). The Arden was characterised by dispersed settlement in hamlets and farmsteads with only limited parcels of open-field arable. This was in contrast with the south of the county, known as the Feldon, where open-field farming and nucleated villages predominated.

From around the 12<sup>th</sup> century the much less densely populated Arden became the focus of colonisation from the south of the county where the Feldon and Avon valley could not absorb the expanding population of the 12<sup>th</sup> and 13<sup>th</sup> centuries. The large areas of uncultivated land, and the more liberal system of manorial control found in the Arden, also combined to make it more able to deal with its own growing population (Smyth 1994, 35). A characteristic of this process of colonisation, known as assarting, was the proliferation of moated sites throughout the Arden region.

There is great variation in the size, shape, and status of Arden moated sites. In the south of the county moats are typically located within villages, close to the church, the traditional site of the manor house, and enclose said manorial residence. However, in the Arden they are very often isolated, and vary much more in status, ranging from those belonging to the aristocracy, such as the earls of Warwick and the Boteler family, to those owned by the lesser gentry and wealthier peasant freeholder. There are also many examples of moats with ecclesiastical links (Smyth 1994, 46). The density and diversity of moated sites within the Arden resulted from processes of sub-infeudation and the granting of parcels of land to individuals. Farmsteads were established on lands newly cleared by lords anxious to increase their income from underdeveloped estates (Hooke 1993, 10), or on land individuals claimed for themselves from the waste. These grants varied from large farms to small parcels of land, often attached to existing units (Roberts 1976, 64). It is within this background of colonisation that the moated site off McDonnell Drive must be placed.

A full account of the history of Exhall parish and Exhall manor is to be found in the Victoria County History (VCH, Warks. 1951) and is only summarised here. Exhall was not mentioned in Domesday but was probably included in the 9 hides of Ansty and Foleshill which formed part of the lands of the Countess Godiva. During the eleventh century the estates of Countess Godiva and her husband, Earl Leofric, including Coventry and Exhall, passed to the Earls of Chester. During the reign of King Stephen, Ranulf, Earl of Chester, granted a portion of wood and waste in Exhall and Keresley to Coventry Priory, an important Benedictine house founded in 1043 by Earl Leofric.

The lands of Coventry Priory in Exhall were considerably enlarged at various times and in 1332 the Prior received a licence to impark an area of waste and wood in the manor of Newland just to the west of Exhall, and by 1535 the value of the priory estates in Exhall was £8 9s. 9d. In 1346 Exhall manor was recorded as being one of the places subject to the jurisdiction of the manor of Cheylesmore (the main manor of Coventry) which was itself part of the honour of Chester. The earldom of Chester had been appropriated by the Crown in 1265 and by 1542 it was held of Prince Edward as part of his manor of Cheylesmore. In 1549 Edward VI granted

Cheylesmore to the Earl of Warwick, who immediately leased it to the corporation of Coventry. From 1243 to 1329 the manor of Cheylesmore was in the possession of the de Montalt family and from 1243 until 1535 the tenants of Exhall manor were the Butler or Boteler family of Warrington (Lancs) (Lea 2002, 21). During the seventeenth and eighteenth centuries the manor of Exhall was held or leased by a number of families and as late as the early 1900s the Startin family were lords of the manor of Exhall.

### **3 PREVIOUS ARCHAEOLOGICAL WORK**

An archaeological desk-based assessment was undertaken by the author in 2002 (Martin 2002a). Cartographic research revealed that the earliest maps available for the site depicted the moat as being sub-rectangular with a wide causeway in-filled between the southern tips of the western and eastern arms of the moat (Ordnance Survey First Edition 6" 1890). An L-shaped building was located on the eastern half of the platform with open ground or gardens occupying the remainder of the platform. By the time that the Second Edition Ordnance Survey was drawn up in 1913, the southwestern arm of the moat had been widened to create a small boating lake, with a footbridge giving access to the adjacent field. On the platform itself a central driveway had been constructed and more formal gardens created.

The shape of the moat at Moat House is sub-rectangular with a straight, regular eastern arm with the northern and western arms forming a gradual curve. Such irregularity may have been due to a change in the original use of the site (involving different phases of construction) or, because the moat was fitted into existing features, for example field boundaries, trackways or roads. Irregularly shaped moats were very common in the Arden where sites were usually later than those in the Feldon, and therefore, more likely to be restricted by existing features (Smyth 1994, 70). Here the moat followed the curve of the adjacent park boundary, and the southern arm was in-filled when the entrance was created.

The desk-based assessment (Martin 2002a) was followed by a programme of trial trenching (Martin 2002b). This revealed that archaeological survival was good across the moat platform and within the moat itself. Footings for a stone structure along the eastern side of the moat platform were revealed, and quantities of tile recovered, suggesting a building of relatively high status. Evaluation within the moat ditch revealed that it contained good waterlogged deposits suggesting that up until the seventeenth century the moat was open and still held water, but was no longer subject to dredging and cleaning. Waterlogged plant remains also indicated that land use in the vicinity of the moat was varied, with parkland and formal gardens as well as agricultural and arable land. Significantly, later cartographic evidence (Martin 2002a) shows that the area to the west of Moat House was parkland, and the retrieval of parkland indicators, such as cypress leaves, from the waterlogged deposit helps to set the park within an early post-medieval context (cypress trees being introduced into England in the middle of the sixteenth century).

The artefactual evidence also suggested that the moat was deliberately backfilled during the mid-late 17<sup>th</sup>- early 18<sup>th</sup> centuries. This was once again related to later phases of garden design and expansion beyond the southern confines of the moat platform.

### **4 AIMS AND METHODOLOGY**

Important archaeological information regarding the medieval foundation of the site, and the later development of the surrounding landscape, may have survived within the bounds of the development area. The overall objectives of the archaeological work were to:

- Establish at what time during the medieval period the site was first occupied, and what the nature of that occupation was, particularly with regard to domestic arrangements, status of the occupants, and utilisation of the surrounding landscape.
- Define the development of occupation within the site period by period.

More specific research aims were to:

- Define the date, character and extent of the stone building identified during the previous evaluation.
- Define the outer edge of the moat, and any features lying outside the moated enclosure.

It was necessary, following the excavation of Area A, and due to problems of access to redefine the parameters of the project. A small area at the entrance to the site, could not be excavated for health and safety reasons to allow emergency vehicular access for the residents of the nursing home. It was, however, apparent that the majority of this section of the site contained service trenches, and therefore the archaeology in this area would already have been disturbed and truncated. Full sampling of the early post-medieval moat deposits could also not be undertaken for health and safety reasons as the section across the moat became contaminated with raw sewage.

## **5 RESULTS**

### **5.1 Phase 1 Medieval (12<sup>th</sup>-14<sup>th</sup> centuries)**

#### ***The Moat***

The original outer edge of the southern arm of the moat was identified in the northeastern quarter of Area B (5010), and the northwestern corner of Area C (6005). Excavation revealed that it had originally been at least 8m wide, 2m deep and had a stepped profile (Fig \*). It was also evident that the moat had been kept clean, and regularly scoured out. The earliest deposit surviving in-situ was a black waterlogged deposit (\*\*\*\*) which could be dated to the 17<sup>th</sup> century (Phase 2, see below), this was sampled for beetle remains as discussed in Tetlow below.

A circular pit or posthole (5007), with a U-shaped profile measuring 0.45m wide by 0.3m deep, was cut into the lower edge of the moat. It contained dark brown silty clay (5008) with charcoal flecking. Two pieces of timber, one which appeared to be the lower part of a post and the other a plank, were bedded into the edge of the moat next to the pit.

#### ***The Moat Platform***

The earliest deposit identified on the site was a layer of re-deposited clay (4007, Area A and 7003, Area D) which contained lenses of silt, flecks of charcoal and pebbles spread across most of Area A and directly sealed the natural marl subsoil. The layer became progressively deeper towards the southern edge of the moated enclosure, measuring approximately 0.1m in the northernmost part of the area and reaching a depth of approximately 0.2m in the south, and represents levelling of the interior platform prior to the construction of buildings. This represented up-cast from the excavation of the moat, a common practice on medieval sites which elevated the platform above the surrounding area making it drier for occupation (Kirsty Nichol pers. comm.).

Across Area A (Fig. \*) sandstone foundations had been cut into the levelling layer of re-deposited clay. The first of these was located on the eastern edge of area A and consisted of a foundation cut (4008) and an *in situ* sandstone block (4010). The foundation cut measured 1.10m long and was 0.2m deep, it contained brown-red sandy silt (4009) mixed with small, irregularly shaped fragments of sandstone which were packed around the large sandstone block. The sandstone block itself was substantial, measuring 0.7m by 0.85m and 0.15m thick, it had been squared and dressed, with diagonal tool marks clearly visible on one surface. The majority of the foundations appear to have been grubbed out some time in antiquity, probably for re-use somewhere else on the site. However the possible remains of an unbonded wall consisting of smaller, flatter slabs of sandstone (4011), overlay the block, but could relate to the dismantling of the wall rather than the original build.

Immediately northwest of this feature were the remains of a second northeast-southwest aligned wall (4021), which had also been severely truncated in both directions. The wall consisted of a single course of roughly worked, flat sandstone fragments (4022), which were set into a matrix of red-brown re-deposited clay (4021) maximum depth 0.3m.

To the northwest again, was a third wall, on a slightly different alignment to the others (4012), it was constructed from fragments of sandstone and broken tile (4013) set into a matrix of re-deposited red clay mixed with pale brown sand which contained medieval pottery. It measured 1.2m wide by 0.2m high and had a cambered profile, however, it had been truncated at its northern end by a post-medieval pit (see below).

In the southwestern corner of Area A were the partial remains of another sandstone ashlar wall (4028 and 4037) on a northwest-southeast alignment, which had been truncated by later activity. Wall 4037 consisted of large, squared sandstone blocks and a number of medium-sized roughly worked sandstone blocks. A later brick wall butted against the northwestern end of the wall (see below). Wall 4028 consisted of a single course of large, squared sandstone blocks onto which a later brick wall (see below) had been bonded.

Across the centre of Area A was an area of rubble which survived in two discreet pockets, but was probably originally all one, and may have been a yard or floor surface. The first area (4019) sat within a roughly L-shaped depression, it consisted of fragments of sandstone and large quantities of broken tile mixed into red-brown silty clay with pebbles and charcoal flecking throughout (4026) It contained pottery datable to the mid-12<sup>th</sup>-early 13<sup>th</sup> centuries. Random patches of brown sand (4018) were also visible in the rubble spread. A very similar spread of rubble, sitting within a roughly rectilinear shaped depression (4027), lay to the south of the L-shaped feature, and probably represents the continuation of the same deposit. Only intrusive 17<sup>th</sup>-century pottery was collected from the surface of this area.

### **Outside the Moated Enclosure**

A thick deposit of re-deposited yellow-brown clay (5005) with pebbles throughout was spread outside the southwestern edge of the moat and directly sealed the natural marl subsoil. This was similar to the levelling layer found across the moat platform and may represent the remnants of an external bank which had either weathered or been removed as part of the later landscaping.

Outside the moat in Area C two inter-cutting ditches (6006 and 6008) ran through Area C on a northwest to southeast alignment. The earliest of the ditches (6006), which was slightly stepped in profile and measured at least 1m wide by 0.5m deep, was truncated by a wide, shallow ditch (6009) which measured 3.5m wide by 0.5m deep, and had a slightly stepped profile. Ditch 6006 contained dark brown sandy silt (6007) with pebbles throughout.



### **Discussion of Phase 1**

Although many of the Phase 1 features and deposits had been severely truncated by later disturbance evidence of medieval occupation and activity was clear in all the areas excavated. This served to confirm the results of the evaluation (Martin 2002b), that identified the site of Chasewood Lodge as being medieval in origin.

Across the moat platform the earliest phase of activity on the site was represented by the layer of re-deposited clay (4007). A similar deposit was also noted during the evaluation (1019, *ibid.*) and was interpreted as upcast produced during the construction of the moat. It was noticeable in Area A that this layer became progressively deeper towards the south and this was most likely due to the need to level up the moat platform which was located on naturally sloping ground.

A number of vestigial sandstone walls (4021, 4012, 4028 and 4037) were bedded directly into the moat upcast and, therefore, represent a period of building activity which dated to the earliest period of construction on the platform. This was also noted during the evaluation where the remains of two walls and the corner of a substantial sandstone building (F103, F100, F200 and F201) were bedded into the moat upcast (*ibid.*). Although the walls in Area A were very truncated they were sufficiently well preserved to allow an interpretation of their size and construction. Walls 4021 and 4012, were clearly cambered in profile and at least 1m wide, this is consistent with solid stone wall construction rather than timber framing (which would simply require a short thin stone wall to act as a sill beam, rather than substantial 1m wide foundations. The weight of evidence, therefore, indicates that the sandstone fragments and clay matrix represent only the inner core of ashlar-faced walls which have had the outer facing stones robbed. It is likely that the ashlars were robbed out during much later phases of the site's history, leaving the characteristic cambered shape to the base of the rubble core. Further to this, re-use of ashlars on the site can be seen in walls 4028 and 4037. Here ashlar blocks were found in association with what may have been the remains of their rubble cores (4035 and 4039). Moreover, the corner of the building excavated during the evaluation revealed that its walls were made from rubble infill between large, squared blocks. Therefore, despite the poor state of preservation, the walls in Area A, in combination with the structural evidence evaluation, attest to the presence of a number of substantial buildings on the moat platform during the medieval period.

The existence of large buildings in Area A was further reinforced by the large sandstone block (4010), which was placed inside a rectilinear pit (4008). The block may have acted as the post-pad for a large timber post or formed the base of a sandstone pillar. The flat sandstone slabs (4011) on top of the large block could have been the remains of packing from around the base of the post, or were part of the fabric of a stone pillar. In this regard it is worth noting that a posthole (F203.) containing an *in situ* burnt timber with sandstone packing (2007) was found in the corner of the building found in the evaluation (*ibid.*). Although the burnt timber may have belonged to a different phase of activity than that represented by the building, equally it could have been an integral part of the building. Along with the putative sandstone post-pad in Area A, this suggests that some of the buildings were timber-framed.

The rubble spreads (4019 and 4027), which filled the L-shaped and rectilinear depressions in the moat upcast, could represent collapsed material in-filling the footprint of a building or buildings. It is possible that rubble from general demolition of the structures on the moat platform was spread out over Area A but was then scoured out during later phases of levelling, leaving only the rubble filling the depressions. This phase of demolition probably witnessed the levelling of the walls in Area A and the robbing out of the ashlars. A very similar layer of rubble (2011) sealed the walls of the building found in the evaluation. In the area of 'The Link'

and Pipe Trench 1 a rubble layer (7002), which sealed the moat upcast (7003) was also observed. All of this suggests that once the structures inside the moat had been demolished, much of the resulting rubble was levelled and spread out across the moat platform and the ashlar were robbed out for re-use elsewhere.

In Area B the southwestern edge of the southern arm of the moat (5010) was uncovered. Its stepped profile mirrored the profile of the moat revealed during the evaluation (F101) and this indicated that the moat was at least 8m wide and 2m deep. The northwest to southeast alignment of the southwestern edge of the moat suggested that its southern arm was curved and this may be because the original moat was circular. If it is remembered that the northern and western arms of the moat also form a gradual curve then a circular, or sub-circular, moat is certainly a possibility. If so, it may be that the straight eastern arm represents a later phase of moat construction when this section of the moat was straightened out for some particular purpose. It is equally possible, of course that the moat was simply irregularly shaped from inception.

The sandstone structure (5013), which was uncovered in the northeastern corner of Area B, was only partially revealed precluding any certainty about its true size and shape. However, it appeared to form a foundation, perhaps for a stone or timber superstructure. The sandstone foundation was located near to the inner edge of the moat and this suggests two possible functions. The first that it may have been part of the foundation of a building which projected into the moat, perhaps a tower or gatehouse. The second that it was one of the stone piers of a bridge, which spanned the southern arm of the moat. Associated evidence for a bridge at this point over the moat was provided by the pit (5007) in the lower edge of the moat as this may have been a posthole which supported an upright timber. Significantly, the pit and the sandstone foundation were on a northeast to southwest alignment, which would put any bridge of which they were once an integral part at a right angle to the southern arm of the moat. It might also be significant that two pieces of worked timber, a possible post and piece of planking, came from next to the pit, providing further evidence of a wooden bridge. On the outside of the moat the re-deposited yellow/brown clay (5005) could have been a vestigial outer rampart. Evidence that the moat had an external rampart is preserved in a curving earthwork bank around the outside of the northern and western arms of the moat. The absence of an earthwork bank outside the eastern arm of the moat may be due to its removal when this part of the moat was straightened.

In Area C the two northwest to southeast aligned ditches (6006 and 6008) may have been channels feeding from the moat into fishponds located elsewhere. It seems that the earlier ditch silted up and the channel was re-cut. Allowing for truncation, the later ditch appeared to be more substantial than the earlier and this may have been because a larger volume of water was required, perhaps for enlarged fishponds. The silting up of the earlier channel could have resulted from general lack of maintenance or from disuse of the fishponds for a period of time. The original outer edge of the moat was uncovered in the northwestern corner of Area C and showed that the moat was originally wider at this point than it is today. Moreover, the original edge of the moat maintained the gradual curve of the outer edge, which was observed in Area B. This provided further evidence that, in origin, the moat was circular and that the eastern arm had been straightened during a later period of the site's history.

## **5.2 Phase 1 Medieval (12<sup>th</sup>-14<sup>th</sup> centuries)**

### **Area A**

A layer of re-deposited clay (4007) containing lenses of silt, pebbles and flecks of charcoal had been spread across the majority of Area A and directly sealed the natural subsoil. This layer became slightly deeper to the south, and has been interpreted as an early levelling layer,

probably relating to the excavation of the moat. In the north and east of Area A the rough foundations of vestigial sandstone structures had been cut through this layer. The first of these was located adjacent to the eastern edge of the area and consisted of a rectilinear foundation trench (4008) and an *in situ* sandstone block (4010). The foundation trench, measured c.1.10m long by 0.2m deep, and contained red-brown sandy silt (4009) mixed with small fragments of sandstone. The sandstone block, was very substantial, 0.7m wide by 0.85m long and 0.15m thick, and had been roughly squared. Diagonal tool marks were clearly visible on one surface. Two smaller, flat slabs of sandstone (4011) sat on top of the southeastern corner of the large sandstone block, but there was no evidence that they had been mortared.

Approximately 1m to the northwest of this was the remains of a possible northeast-southwest aligned wall (4021), which had also been severely truncated. The wall consisted of a single course of roughly worked, flat sandstone blocks (4022), which were set into a matrix of red-brown re-deposited clay (4021).

To the northwest of the aforementioned wall was the foundation cut for a third wall (4016) which contained the remnants of the western edge of a wall (4012), aligned roughly north-south. The foundation trench contained dark brown silty clay (4017), the wall itself, was constructed from fragments of sandstone and broken tile (4013) with a red clay mortar. This wall had been truncated at its southern end, but appeared to continue north, beyond the edge of Area A. Wall 4013 measured 1.2m wide by 0.2m high.

Extending from beneath the northern edge of Area A was a spread of rubble sitting within a roughly L-shaped depression (4019) which was aligned approximately north to south. The rubble consisted of fragments of sandstone and large quantities of broken tile mixed into brown-red silty clay with pebbles and charcoal flecking throughout (4026). Random patches of brown sand (4018) were also visible in the rubble spread. A very similar spread of rubble, sitting within a roughly rectilinear shaped depression (4027), was located immediately to the south of the L-shaped feature.

In the southwestern corner of Area A were the partial remains of two other sandstone walls (4028 and 4037) which were in better condition and had been constructed using large sandstone ashlar blocks, which may have been re-used. Wall 4028 was on an approximate northwest-southeast alignment. It consisted of a single line of large, squared sandstone blocks onto which a later brick wall (see below) was bonded. Butting up to one side of the wall was a concentration of brown silty clay containing fragments of sandstone (4035). The second wall (4037), which was also aligned northwest-southeast, consisted of large, squared sandstone blocks but also included a number of medium-sized roughly worked sandstone blocks. A later brick wall butted against the northwestern end of the wall (see below).

### ***The Link and Pipe Trench 1***

Re-deposited clay (7003) containing charcoal and pebbles was overlain by rubble (7002), which included broken tile, pebbles and fragments of sandstone.

### ***Area B***

In the northeastern quarter of Area B part of the southern arm of the moat (5010) was revealed. Here, the moat appeared to have originally been at least 6m wide by 2m deep and was stepped in profile. A circular pit or posthole (5007), with a U-shaped profile measuring 0.45m wide by 0.3m deep, was cut into the lower edge of the moat. It contained dark brown silty clay (5008) with charcoal flecking. Two pieces of timber, one of which looked like the lower part of a pointed post and the other of which looked like a piece of planking, were

bedded into the edge of the moat next to the pit.

A thick deposit of re-deposited yellow/brown clay (5005) with pebbles throughout was spread outside the southwestern edge of the moat and directly sealed the natural marl subsoil.

In the northeastern corner of Area B, the remains of a sandstone structure (5013) were partially uncovered. The structure consisted of roughly worked sandstone blocks (5014), which stood to a height of 0.6m, and were aligned approximately northeast to southwest. The lower blocks were large and flat and mortar was thickly applied between the stones of the structure. A later brick-build (see below) was placed directly on top of the sandstone structure.

### **Area C**

Two inter-cutting ditches (6006 and 6008) ran through Area C on a northwest-southeastern alignment. The earliest of the ditches (6006), had a slightly stepped profile and measured at least 1m by 0.5m deep. This was truncated by a wide, shallow ditch (6009) which measured 3.5m wide by 0.5m deep, and had a slightly stepped profile. Ditch 6006 contained dark brown sandy silt (6007) with pebbles throughout.

The original edge (6005) of the moat was revealed in the northwestern corner of Area C.

## **5.3 Discussion of Phase 1**

Although many of the Phase 1 features and deposits had been severely truncated by later disturbance evidence of medieval occupation and activity was clear in all areas excavated. The earliest phase of activity on the site is represented by a layer of re-deposited clay (4007), probably up-cast from the excavation of the moat, it had been spread over the surface of the moat platform in order to level it up. A similar deposit was also noted during the evaluation (1019, *ibid.*). It was into this layer that the footings for the early stone buildings had been excavated. Sandstone walls (4021, 4012, 4028 and 4037) were bedded directly into the up-cast. This was also noted during the evaluation when the remains of two walls and the corner of a substantial sandstone building were excavated. Although the walls in Area A were very truncated they were sufficiently well preserved to indicate their size and construction. Although the dressed stones from walls 4021 and 4012, had been robbed, there was sufficient evidence remaining to show that the core of the wall had been a mixture of rough sandstone fragments bedded in a red clay matrix, not dissimilar to that used for the footings.

Although the walls in Area A were very truncated they were sufficiently well preserved to establish their size and type of construction. The facing of the majority of walls had been robbed out in antiquity, however walls 4021 and 4012, had been substantial, being at least 1m thick at the base, the foundation consisted of fragments of sandstone and broken tile set into a clay matrix. Evidence of ashlar-faced walls was also observed in walls 4028 and 4037. Here ashlar blocks were found in association with what may have been the remains of their rubble cores (4035 and 4039). The rubble cores of the two walls uncovered during the evaluation indicated that they were constructed in the same way as those in Area A. Moreover, the corner of the building uncovered in the evaluation revealed that its walls were made from rubble infill between large, squared blocks. Despite their poor state of preservation the walls in Area A, in combination with the evidence of walling from the evaluation, attest to the presence of a number of substantial buildings on the moat platform in the medieval period.

The presence of large buildings in Area A was further reinforced by the large sandstone block (4010), which was placed inside a rectilinear pit (4008). The block may have acted as the post-pad for a large timber, or formed the base of a sandstone pillar or column. The flat

sandstone slabs (4011) on top of the large block could have been either the remains of packing from around the base of the post, or part of the fabric of a stone pillar. In this regard it is worth noting that a posthole (F203.) containing an *in situ* burnt timber with sandstone packing (2007) was found in the corner of the building that was excavated during the evaluation (*ibid.*). Pit 4016 probably was probably associated with the removal of one of the ashlar which was removed when the buildings were being levelled.

The rubble spreads (4019 and 4027), which filled the L-shaped and rectilinear depressions in the moat upcast, may represent collapsed material in-filling the footprint of a timber-framed building or buildings. It is possible that rubble from the demolition of stone structures on the moat platform was spread out over Area A but was then scoured out during later phases of levelling, leaving only the rubble filling the depressions. This phase of demolition probably witnessed the levelling of the walls in Area A and the robbing of the ashlar. A very similar layer of rubble (2011) sealed the walls of the building found in the evaluation. In the area of 'The Link' and Pipe Trench 1 a rubble layer (7002), which sealed the moat upcast (7003) was also observed. All of this suggests that once the structures inside the moat had been demolished, much of the resulting rubble was levelled and spread out across the moat platform and the ashlar were robbed out for re-use elsewhere.

In Area B the southwestern edge of the southern arm of the moat (5010) was uncovered. Its stepped profile mirrored the profile of the moat revealed during the evaluation (F101), indicating that the moat was originally c.8m wide and 2m deep. Excavation on the southwestern edge of the moat suggested that the southern arm may originally have been curved which may indicate that the original moat was circular in plan. This is may also be evident in the northern and western arms of the moat which also appear to have a gradual curve. If this is the case, the straight eastern arm may represent a later phase of construction, with this section of the moat being straightened for some particular purpose. It is equally possible, of course that the moat was simply irregularly shaped from inception.

The foundations of a structure (5013), in the northeastern corner of Area B, were only partially revealed during excavation. The sandstone foundations for the structure were located near to the inner edge of the moat suggesting two possible functions. Firstly, that of a building which projected into the moat, perhaps a tower or gatehouse. Secondly, that they represent the remains of a stone pier or abutment for a bridge, spanning the southern arm of the moat. Further evidence for a bridge at this point over the moat was provided by Pit 5007, located on the lower edge of the moat, which may have supported an upright timber on the outer edge of the moat. Significantly, the pit and the sandstone foundation form a northeast-southwest alignment at a right angle to the southern arm of the moat. It is also significant that two pieces of worked timber, a probable post and a plank, were excavated from the moat fills adjacent to the pit, providing further evidence of a wooden bridge.

On the outside of the moat the re-deposited yellow/brown clay (5005) could have been a vestigial outer bank, visible elsewhere around the outer line of the moat. The absence of an external bank along the eastern arm of the moat is probably due to its removal when this section of the moat was straightened.

In Area C, two northwest to southeast aligned ditches (6006 and 6008) may have been channels feeding from the moat into fishponds located outside the moat proper. It appeared that the earlier ditch silted up and the channel was re-cut. Allowing for truncation, the later ditch appeared to be more substantial than the earlier and this may have been because a larger volume of water was required, perhaps for additional fishponds, or to manage more water on the site. The silting up of the earlier channel could have resulted from general lack of maintenance or from disuse of the fishponds for a period of time. The original outer edge of

the moat was uncovered in the northwestern corner of Area C and showed that the moat was originally wider at this point than it is today. Moreover, the original edge of the moat maintained the gradual curve witnessed elsewhere in Area B. This provides further evidence that the moat was originally circular in plan.

#### **5.4 Phase 2 Post-Dissolution**

##### **Area A**

The Phase 1 rubble spread (4019) was cut by a Phase 2 pit or posthole (4015) which was U-shaped in profile, measuring 0.6m wide by 0.3m deep, and containing brown silty-clay (4025). A thick deposit of green-brown charcoal flecked sandy-silt (4004) sealed the pit. A small pit or posthole (4024), which was U-shaped in profile and contained brown silt (4033) with a large amount of broken tile, truncated deposit 4004.

The fill sequence was exactly the same as that identified during the earlier evaluation (see composite section Fig. \*), with the earliest fills being dark grey-black waterlogged deposits (5000 and 5001) which were sampled for beetle remains to complement the existing floral data set reported upon by Ciaraldi in Martin 2002b. These waterlogged deposits were overlain by brown sandy deposits (5002 and 5003) dating to Phase 2 (see below).

##### **The Link and Pipe Trench 1**

A deposit of green-brown silty-clay (7004) with charcoal flecking sealed the Phase 1 rubble layer.

##### **Area B**

The primary fill of the moat was grey-black sandy-silt (5001) containing pebbles, charcoal and organic, woody material. This was overlain by pale brown-grey sandy silt-clay (5002). A black waterlogged deposit (5000) with organic inclusions sealed fill 5002.

##### **Area C**

The Phase 1 ditch (6008) contained a lower fill of grey-brown sandy silt (6010) with pebbles sealed by brown sandy silt (6009) with charcoal flecking.

#### **5.5 Discussion of Phase 2**

Some time after the Dissolution a reorganisation of the site was undertaken, which involved the demolition of the majority of the Phase 1 buildings on the moat platform. The archaeological evidence also suggests that the moat was no longer being maintained and that the water channel or leat leading from the moat to the fishponds was also allowed to silt up.

In Area A it appears that following the demolition of Phase 1 buildings the majority of the moat platform was left open. This was suggested by a thick deposit of green-brown sandy silt (4004), which extended over Area A and into the area of 'The Link' (7004). The layer appears to be a mix of topsoil and may attest to the presence of a garden in the central area of the moat platform during Phase 2. This would mean that Phase 2 saw the demolition of buildings in the central area of the platform, which was then deliberately left open. However, it is possible that other Phase 1 buildings, around the outside of the platform remained in use which would go some way to explain the much better preservation of the walling of the building found during the evaluation at the edge of the moat platform (*ibid.*). The rearrangement of the moat platform into a courtyard-type complex with a central garden may reflect a change in the function of the moat from a medieval manorial centre to a Post Medieval country residence.

In Area B the picture is reinforced with the Phase 1 posthole on the edge of the moat being sealed by the lower fill (5001) of the moat; suggesting that the bridge was no longer standing by the time the moat began to silt-up. The waterlogged deposit (5000) was provided with a *terminus ante quem* of the mid-seventeenth century during the evaluation (Martin 2002b). Neither the moat nor the fishponds and leat (6008) in Area C were in use by the late medieval-early Post Medieval period. This follows a similar trend across the region whereby houses were often relocated to an adjacent site, or parts of the moat were infilled facilitating expansion and redesign of the household in the early Post Medieval period (pers. comm. Kirsty Nichol). This was also the era of in which many parks were designed and laid out across Britain.

## **5.6 Phase 3 18<sup>th</sup> Century - Modern**

### **Area A**

In the northern part of Area A, a concentration of ash and charcoal, mixed with brown silt (4036), sealed the Phase 2 topsoil deposit 4004, whilst in the southwestern part of Area A, the deposit was cut by two 18<sup>th</sup> century brick walls (4030 and 4032). The walls were constructed of red handmade bricks and were bonded with lime mortar. Wall 4030 was mortared onto the top of a Phase 1 sandstone wall 4028, whilst wall 4032 abutted the northwestern end of Phase 1 sandstone wall 4037. The brick walls and ash deposit were overlain by crushed brick (4001) which was, in turn, sealed by modern tarmac (4000).

### **The Link and Pipe Trench 1**

In The Link the Phase 2 deposit of brown silty-clay (7004) was truncated by the cut (7001) for a soakaway pipe which was then sealed by topsoil (7000), whilst in Pipe Trench 1 layer 7004 was directly sealed by crushed brick (7005).

### **Area B**

The Phase 2 waterlogged moat fill was sealed by a thick layer of mixed re-deposited clay and sandy-silt (5003). Layer 5003 was overlain by dark green-brown silt (5012), which showed evidence of root activity. To the southwest of the edge of the moat was an east-west drain (5019/5020). The drain cut contained grey-brown sandy-silt (5021), whilst the drain itself was made of sandstone blocks with sandstone capping. Unfortunately, water inundation prevented complete excavation of the drain.

A brick structure (5015) which consisted of red handmade bricks and lime mortar, was built on top of the Phase 1 sandstone structure 5013 in the northeastern corner of Area B. These were sealed by topsoil (5006).

In the southeastern part of Area B a layer of compact orange sand (5040), was cut by a northwest-southeast sandstone and brick culvert (5028) housing a red ceramic pipe. The culvert was sealed by a thick deposit of redeposited clay (5042). The latter was overlain by loose dark brown silt (5043) with pebbles which was sealed by green silty-clay (5044). A substantial curved surface (5036), consisting of closely packed unworked sandstone blocks, was bedded into layers 5043 and 5044. The surface was sealed by a large amount of rubble (5038) which contained broken tile and brick, lumps of mortar, fragments of sandstone and pebbles. The rubble layer was overlain by modern hardcore (4046), which acted as bedding for a tarmac surface (5047).

### **Pipe Trench 2**

The natural subsoil was overlain by loose orange sandy silt (8000) which was sealed by crushed brick hardcore (8001) overlain by tarmac (8002).

### **Area C**

Ditch 6008 was sealed by a deposit of red-brown sandy silt (6002) which covered the whole of Area C. This was sealed by grey silt (6001) over which was topsoil (6000). Modern rubbish (6004) including rubble, bricks and plastic was backfilled against the original edge of the moat.

### **5.7 Discussion of Phase 3**

It appears that during Phase 3 the site underwent a further change in layout and may even have expanded. This involved back-filling the southern arm of the partially silted up moat, levelling up over the medieval water channel and erecting brick buildings.

The brick walls (4030 and 4032) in Area A probably belonged to a phase of construction, which also saw the erection of a brick building (F202) onto the earlier sandstone building uncovered during the evaluation (*ibid.*). At this time a brick build (5015) was also erected on top of the sandstone pier (5013) uncovered in Area B. The bricks of all these structures appeared to be late 17<sup>th</sup> to 18<sup>th</sup>. This flurry of building activity probably followed the backfilling of the southern arm of the moat, and the levelling up of the area outside. This was probably the reason for the deposition of the thick deposit of sandy silt (6002) which sealed the abandoned water channel in Area C. The sandy silt layer (8000) observed in Pipe Trench 2, probably represented the same levelling layer as that in Area C. The sandstone-capped drain (5019) in Area B was also most likely to have been constructed at this time. The levelling and drainage activities could have been related to the expansion of buildings and landscaping beyond the southern arm of the moat. This would fit well with the general trend of moats being deliberately backfilled during the 17<sup>th</sup> and 18<sup>th</sup> centuries so that expansion could take place.

The sandstone and brick culvert (5028) along with the curved sandstone surface (5036) should probably be seen as Victorian or early 20<sup>th</sup> century work. The construction of the culvert and the surface were most likely to have been part of the same phase of activity. The sandstone surface was substantial and carefully laid although its function is uncertain. It may have been the foundation for some form of building or been a garden or landscape feature. The dark green/brown silt (5012) which sealed the backfilled moat was probably a garden soil. Cartographic evidence (Martin, 2002) shows that landscaping of the site was being carried in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and this included the widening of the southern tip of the western arm of the moat to create a pond. Local tradition says that the pond had a fountain at its centre. It seems likely that by this time much of the area inside and outside the moat had been given over to gardens and all traces of the medieval and post-medieval buildings were gone.

## **6 POTTERY BY STEPHANIE RÁTKAI**

A small rather fragmentary assemblage was recovered comprising 37 sherds weighing 392g. The pottery was recorded by fabric/ware type and quantified by sherd count and weight, and vessel form was recorded where known. The assemblage was too small for detailed analysis but each context was spot-dated.

The earliest pottery recovered was a burnished, micaceous Roman greyware rim sherd from a small-mouthed jar which was found residually in (5021). A limited range of medieval wares



were present which consisted of Chilvers Coton A and C wares, Coventry D tripod pitcher ware. The earliest medieval pottery was Coventry D ware, used for tripod pitchers, which date to the mid 12<sup>th</sup>-early 13<sup>th</sup> centuries. A single sherd of this ware was found in (4019). Two other medieval fabrics were present, one a late medieval transitional glazed ware possibly paralleled by Warwickshire County Type Series (WCTS) fabric SLM12.1, the other unparalleled in the type series. The latter sherd was small (2g) and was found in 4020. The fabric oxidised orange-red brown but with a pale grey core contained a scatter of small rounded quartz grains and moderate-abundant voids caused by the burning out of organic material within the clay.

Pottery of the late 15<sup>th</sup>/16<sup>th</sup> centuries was represented by cistercian ware sherds from (4013) and (4014), both fills of (4012).

The ceramic sequence continued into the 17<sup>th</sup> and 18<sup>th</sup> centuries, attested by the presence of blackware, coarseware, mottled ware, slipwares and tin-glazed earthenware. The latest pottery was creamware, dating to the later 18<sup>th</sup> century and blue transfer-printed earthenware of the 19<sup>th</sup> century.

Fabric/ware	1000	1003	1011	1012	2004	4004	4012	4013	4014	4017	4019	4020	4024	4027	4035	5011	5012	5021	5035	5038	Total	
Blackware													1	1								2
Blue transfer-printed ware																	1					1
Brown salt-glazed stoneware																				1		1
Chilvers Coton A							1															1
Chilvers Coton C		1														2		1				4
Cistercian ware								1	1													2
Coarseware	1	1	1			1									1			1	1			7
Coventry D ware											1											1
Creamware					3																	3
Feathered slipware				1																		1
Late medieval/ Early Post Medieval glazed ware		1																				1
Medieval glazed ware												1										1
Mottled ware																			1			1
Roman grey ware																		1				1
Slip-coated ware	1	2								1											2	6
Tin-glazed earthenware			3																			3
Trailed slipware																1						1
<b>Total</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>37</b>	

Table 01: Quantification of pottery by sherd count

## 7 SMALL FINDS BY DR AMANDA FORSTER

Only a small number of artefacts were recovered, the majority of which was tile, dealt with in a separate section below (see Macey-Bracken). The finds were recovered from a range of contexts with no significant groups, either spatially or temporally. Each finds group is discussed individually below; Table 02 gives a breakdown of finds recovered from each context along with spot dates where available.

Context	Spot Date	Animal Bone	Brick	Coin	Copper Alloy	Glass	Iron	Slag
<b>MHE 02 (2002 Evaluation)</b>								
1000		-	1	-	-	-	-	-
1003	C18th	198g	-	-	-	-	1	-
1004		-	2	-	-	-	1	-
2004	C19th	-	1	-	-	-	-	-
<b>BA 1337 (2005 Excavation)</b>								
4001		-	-	-	-	-	1	-
4007		74g	-	-	-	-	-	-
4012	C15/16th	89g	-	-	-	-	-	-
4013	C15/16th	-	-	-	-	1	4	-
4014	C15/16th	-	-	-	-	-	1	-
4019	C12/13th	<1g	-	1	1	-	-	-
4023		14g	-	-	-	-	-	-
4026		-	-	-	-	-	-	1
4027	C17th	235g	-	-	-	-	-	-
5021	C17/18th	-	-	-	-	-	2	-
5035	C17/18th	-	1	-	-	-	-	-
5036	C17/18th	-	-	-	-	-	4	-
5038	C17/18th	-	-	-	-	2	-	1

Table 02: Quantification of finds by context and material with spot dates

### 7.1 Brick

Five fragments of brick were recovered, all from later contexts. All appear to be well manufactured, handmade bricks, with no complete examples. Contexts 1000, 1004 and 2004 are all dated by pottery to the 17th and late 18th centuries. Only context 5035 could be earlier, dated to the 17th/ early 18th century. The largest fragment, from 2004, is visibly worn on the upper surface, suggesting its use as a floor tile. Two sides display evidence of lime mortar. It is only partially extant, being 152x113x61mm in size.

Site	Context	Description
MHE02	1000	1 frag, clamp made brick
MHE02	1004	2 frags, clamp made brick
MHE02	2004	1 frag, clamp made brick
1337	5035	1 frag, clamp made brick

### 7.2 Copper Alloy, iron and lead

A small number of metal artefacts were recovered. A copper alloy pin, recovered from context 4019, could be an early example. Only one fragment of pottery was recovered from this context but it dates it to the mid-12th to early 13th century (see Ratkái, above). Similar examples have been recovered from a number of sites, including Hereford where there is a

very good parallel (Shoemith 1985, fig 4.16, 9). The Exhall pin is both round in section and quite corroded, although it is possible to see that the head is globular and 2mm in circumference. The stem is slightly bent and would have been 32mm in length when straight. It is not possible to tell whether the pin is brass or not without further metallurgical analysis.

A number of corroded iron fragments were recovered. These include various nails, two very corroded (5021) and a tack 30mm in length. The latter is square in section and also badly corroded. It was recovered from a late 15th/ early 16th century context. The remaining nail, 4001, is also square in section and c 55mm in length. The head is particularly corroded. A length of iron wire, 5038, c 200mm in length, was recovered from a late 17th/ early 18th century context. The most interesting iron artefacts were recovered from context 4013, and consist of 4 fragments (3 conjoining) probably from the same artefact. Again, badly corroded, these appear to be plate iron and curved in shape. The object is 30mm wide and 5mm thick (at the least corroded point). The context dates to the 15th/ 16th century. The shape would suggest a horseshoe, although the thickness of the artefact and lack of evidence for either nails or perforation may mean it is more likely to be an agricultural tool of some sort.

The final metal artefact is a lead disc, recovered from 4019, dated to the 12th/ 13th century. The disc is 34mm in diameter and 5mm thick. There are no visible markings on either surface although there is some corrosion.

Site	Context	Type	Frag	Description
1337	4019	Cu All	1	Pin
MHE02	1003	Fe	1	Very corroded fragment
MHE02	1004	Fe	1	Very corroded fragment
1337	4001	Fe	1	Nail
1337	4013	Fe	4	2 kidney shaped objects, both corroded
1337	4014	Fe	1	Tack
1337	5021	Fe	2	Nails, corroded
1337	5038	Fe	3	Length of wire, nail shaft and misc frag
1337	4019	Lead	1	Disc

### 7.3 Slag

Two amorphous fragments of slag were recovered. Fragment 4027 is small and very light and cindery, possibly better described as vitrified material rather than specifically as slag. The second fragment, 5038, has one very black, vesicular surface. The rest of the material is very blocky and contains burnt inclusions, possibly wood. This could be smelting slag - although as an individual find it is unlikely to reveal anything pertaining to industrial activities on the site. The context dates to the 17th/ 18th century.

Site	Context	Type	Frag	Description
1337	4027	Slag	1	Vitrified, glassy and light slag
1337	5038	Slag	1	Possible smelting slag

### 7.4 Glass

One small fragment of corroded glass was recovered from 4013, dating to the 15th/ 16th century. The fragment is very small and possibly window glass. The second find was recovered from 5038, a context dated to the 17th/ 18th century. The glass is obviously late, and must be from the later end of the bracket. It is embossed with the visible letters [...ion].

Site	Context	Type	Frag	Description
1337	4013	Glass	1	Small fragment of corroded glass
1337	5038	Glass	2	Conjoining. Clear green/ blue glass, embossed [...ion]

## 8 TILE BY ERICA MACEY-BRACKEN

Two hundred and seventy-nine fragments of tile, weighing 16.7 kg, were recovered from the site. The assemblage was very fragmentary and no complete tiles were recovered, although individual fragments were largely unabraded. The assemblage was quantified by count and weight, and examined macroscopically for the purposes of this report.

Most of the tile was in an orange, micaceous, sandy fabric with occasional small, sub-angular flint inclusions. The fabric was well-levigated and dense, giving an overall impression of quality. Most of the tile in this fabric was evenly-coloured throughout, although some examples had slightly darker orange-brown surfaces. Other tiles in the group were similar, but had a slightly softer fabric, with reduced grey surfaces. It seems likely that these variations represent different batches of tiles made from the same clay, rather than a wide range of clays being used to produce tiles for the site.

Few diagnostic features were noted across the assemblage. Two fragments of tile were glazed (4013), and a third fragment (4013) showed spots of glaze, but these fragments were small – the largest fragment measured 56mm / 2 1/8 inches – and did not retain any other diagnostic features.

Lugs were noted on seven fragments (4001 x 1, 4013 x 2, 5035 x 2, 5038 x 2), whilst seven fragments had a flange (5035 x 3, 5038 x 4). The more complete of these flanged fragments were also curved across the middle of the tile. Three similarly curved tiles were also recovered from an unstratified context. These curved and flanged tiles are similar to the earliest form of medieval roofing tile at York, which also consisted of curved and flanged tiles, dating from the 11th to the early 13th century (Lewis, 1997, 6). The curved and flanged tile imitate earlier Roman roofing forms (*tegula* and *imbrex*) and is currently thought to be associated with buildings of high status; such as churches (Garside-Neville 1995, 33 <http://www.yorkarchaeology.co.uk/wgate/main/brick.php>). The curved and flanged tiles were recovered from contexts belonging to Phase 3 (18<sup>th</sup> century – modern), and are therefore residual from the demolition of earlier buildings in the Post Medieval period and later.

## 9 BEETLE REMAINS BY DR EMMA TETLOW

### 9.1 Introduction

The insect remains discussed were recovered from two contexts dating to the early post-medieval period. Previous archaeological work on the site had shown that waterlogged archaeological deposits survived in the base of the moat.

Two samples were subject to assessment for archaeo-entomological purposes, samples 5000 and 5001. The samples were recovered from the black, organic rich, basal fills of the moat. It was hoped that an assessment of the insect remains from these samples would provide information on the following:

- Are there insect remains present? If so, are the faunas of interpretative value?

- Would the insects present provide information on how these deposits formed, in particular was material being dumped into the moat?
- Do the insects provide information on the environment surrounding the ditch?
- Do the insects provide information on the formation of the moat deposit?

## 9.2 Methodology

Both samples were processed using the standard method of paraffin flotation as outlined in Kenward *et al.* (1980), weight and volume of the processed material may be found in Appendix I. This paraffin flot was then sorted and identified where possible under a binocular microscope. The system for "scanning" faunas as outlined by Kenward *et al.* (1985) was followed.

## 9.3 Results.

The insect taxa recovered from the flots are listed in Appendix I below. The taxonomy used for the Coleoptera (beetles) follows that of Lucht (1987). A number of Dipterous (fly) puparia remains were found. The numbers of individuals present is estimated using the following scale: \* = 1-2 individuals \*\* = 2-5 individuals \*\*\* = 5-10 individuals \*\*\*\* = 10+ individuals. The taxonomy used for the Coleoptera (beetles) follows that of Lucht (1987).

Diverse, well-preserved and readily interpretable assemblages were recovered from both samples. Both samples contained insects that were suggestive of material in differing stages of decay being present near to the banks of the ditch or that had been deposited into it. Large numbers of Staphylinidae, such as the *Oxytelus* spp., and *Platystethus cornutus*, were found which are associated with damp, open textured rotting vegetative material and rotted manure (Koch 1989, Tottenham 1954).

A further suite of species, more closely associated with human habitation (and part of Kenwards 'House Fauna' (Hall and Kenward 1990, Kenward 1997, Kenward and Hall 1995)), were recovered in large numbers from sample 5001 and in lesser numbers in sample 5000. Species recovered from sample 5001 and which comprise part of the 'House Fauna' included the Lathridiidae, the Ptinidae, the Endomychidae *Mycetea hirta* and the Anobiidae *Anobium punctatum* (Hall and Kenward 1990, Kenward 1997, Kenward and Hall 1995).

Insects from both samples suggest that an area of open, weedy grassland lined the banks of the ditch. Broad indicators of grassland and disturbed ground include the Curculionidae such as *Alophus triggutatus*, *Apion* spp. and *Sitona* spp. (Bullock 1993, Koch 1992). Several other species indicate woodland nearby. Only one of these species, found in sample 5001, is associated with unspoiled wood. The scolytid, *Kissophagus hederæ*, is found on ivy (*Hedera helix*) in a variety of ecotones (Bullock 1993). The remainder are more closely associated with dead, diseased or rotting wood. It is also possible that these lignacious species were derived from timber used for construction or firewood. In both samples the Anobiidae *Anobium punctatum* and *Grynobius planus* are abundant, both of which are serious pests of dry, worked wood (Koch 1989).

A number of dung beetles that suggest animals were kept in the vicinity were found in both samples. Many of these species are commonly associated with the dung of larger ungulates such as horses and cows, whilst *Aphodius sphacelatus* and *Aphodius prodromus* are found

amongst the dung or a variety of animals including horse, cow and sheep (Jessop 1986, Koch 1989).

The insects identified within the assemblage are derived from a relatively restricted range of environments, which suggests that these deposits represent episodes of dumping of either housing waste or stable matter (or a combination of both). The overall composition of the assemblage is strongly suggestive of the dumping of rotting organic material, the Staphylinidae, *Oxytelus* spp., were recovered in greater numbers than sample 5001.

It would seem, therefore, that these two deposits represent two phases of dumping. However, of the two samples, 5001 presents a more intriguing picture. This sample contained a number of species which comprise Kenwards 'House Fauna' (Hall and Kenward 1990, Kenward and Hall 1995, 1997), whilst the relatively large numbers of dung beetles as well as a series of other species indicate the wider environment. It seems likely that this deposit was formed as a result of dumping from a variety of sources, which included domestic and stable waste. The ditch also functioned as a large "pit fall" trap collecting insects from the habitats surrounding the ditch during the time of deposit formation.

The assemblage from sample 5000 is considerably more restricted than 5001, and is more strongly indicative of stable manure than waste from human habitation, with a limited component from domestic sources.

## 10 DISCUSSION (UNFINISHED)

May have been sandstone buildings from inception – if so high status. Large amounts of high quality roof tile of medieval date found in all areas of the site. Similarly many large ashlar were noted during removal of spoil heap in Area C. This spoil was produced during digging of footings for new build-could mean that *in situ* medieval walls were present in areas of new build.

Phase 1 = Medieval manorial site, high status

Phase 2= End of medieval period see period of change, maybe of decline in maintenance of site. This led to demolition of some medieval buildings, perhaps in disrepair or simply no longer necessary. Ashlars removed and re-used or even sold. Could this be set against Dissolution if Exhall is high-status ecclesiastical site. Moat silting up. Perhaps fishponds no longer in use and water channel silting up. Possible creation of central garden on moat with medieval buildings round inside of moat being used.

Phase 3= Building and expansion. Necessary to backfill the moat, and level up outside the moat. Brick builds erected, perhaps in some cases superimposed on foundations of medieval buildings.

Almost complete absence of pottery and animal bone noted in all areas.

The contents of samples taken for archaeo-entomological (beetle) analysis present a more complex picture of the environment and activities occurring around the moat ditch at the time of their deposition in the early post-medieval period. Deposits from the base of the ditch suggest the dumping of domestic waste into the moat, whilst the large number of dung beetles recovered suggests that faecal material or stable manure was also being dumped.

A small component from sample 5001 also suggests the presence of an area of open weedy, grass and wood. It does seem likely that the lignacious species, particularly the Anobiidae, in both samples were derived from wooden structures or a woodpile rather than nearby woodland.

The sample contained mainly waterlogged biological remains as well as small fragments of charcoal. Amongst the waterlogged remains there were species which indicated the presence of water in the moat (e.g. seeds of duckweed, Cladocera's ehippia). Other species, instead belonged to disturbed/arable environments, such as fat hen (*Chenopodium album* L.), common chickweed (*Stellaria media* Villars), and pimpnel (*Anagallis arvensis* L.). Finally, cypress leaves (*Cupressus* sp.) and fragments of moss were also observed. The species composition indicates that the deposit incorporated plants from different types of environments present nearby the site (e.g. garden/park) and activities carried out in its vicinity (e.g. agricultural activities).

The material suggests that up to the seventeenth century the moat was open and still held water, but was no longer subject to dredging and cleaning. The material also points to land use in the vicinity of the moat being varied, with the presence of both parkland and gardens as well as agricultural and arable land. Significantly, later map evidence (Martin 2002) shows that the area to the west of Moat House was park, and the retrieval of parkland indicators, such as cypress leaves, from the waterlogged deposit helps to set the park within an early post-medieval context (cypress trees had been introduced into England by the middle of the sixteenth century).

It has been shown (Smyth 1994, 61) that there is a correlation between moated sites and medieval parks in the Arden, where they were either moated hunting lodges or residences within parks (Martin 2002). This again suggests the strong possibility that the Moat House site was high status in origin. Agricultural and arable land use in the vicinity during the post-medieval period might also have its origin in the medieval period. Although open field agriculture during the medieval period seems unlikely as it was not commonly found in the Arden area where environmental and social factors resulted in a more diversified economy.

If the Moat House is the site of a hitherto unidentified high status Arden manor then it could be considered of regional significance. It should also be considered that the moated complex was within the orbit of Coventry, which was a town of national as well as regional importance during the medieval period. One of the ways in which the rich of Coventry might have expressed their prestige and wealth was by the creation of moated country residences and hunting lodges. The preservation of archaeological features and deposits containing environmental evidence appears to be good and offers the prospect of viewing the development of the site in its regional setting from the medieval period well into the post-medieval period.

## **11 ACKNOWLEDGEMENTS**

The project was commissioned by Mr Das. Thanks are also due to Andrew of John Craddock Associates for their co-operation and assistance throughout the project. Thanks also go to Anna Stocks, who monitored the project on behalf of Warwickshire County Council. Work on site was undertaken by Kate Bain, Robert Burrows, Helen Martin-Bacon, Mary Duncan, Kristina Krawiec, and Phil Mann. Specialists to whom thanks are due include Erica Macey-Bracken, Dr Amanda Forster, Stephanie Rátkai, Dr Wendy Smith, Dr Emma Tetlow. Helen Martin-Bacon

produced the written report which was illustrated by \*\*\*\*\*, and edited by Kirsty Nichol who also managed the project for Birmingham Archaeology.

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**APPENDIX I**  
**Insect Remains by Dr Emma Tetlow**

Sample	5000	5001
Processed Weight	10kg	10kg
Processed Volume	10l	10l
<b>Carabidae</b>		
<i>Pterostichus minor</i> (Gyll.)	*	**
<i>Pterostichus</i> spp.	*	*
<i>Platynus ruficornis</i> (Goeze.)		*
<i>Amara</i> spp.		*
<b>Hydraenidae</b>		
<i>Hydraena</i> spp.		****
<i>Octhebius</i> spp.	**	***
<i>Helophorus</i> spp.	**	***
<b>Hydrophilidae</b>		
<i>Cercyon atricapillus</i> (Marsh.)		***
<i>Cercyon</i> spp.	**	***
<i>Hydrobius fuscipes</i> Leach		**
<b>Histeridae</b>		
<i>Paralister</i> spp.		***
<b>Lioididae</b>		
<i>Agathidium</i> spp.	**	
<b>Staphylinidae</b>		
<i>Lesteva longelytrata</i> (Goeze)	**	**
<i>Oxytelus sculptus</i> Grav.	**	***
<i>Oxytelus rugosus</i> (F.)	**	***
<i>Oxytelus nitidulus</i> Grav.		**
<i>Platystethus arenarius</i> (Fourcr.)		**
<i>Platystethus cornutus</i> (Grav.)		**
<i>Platystethus nitens</i> (Salhb.)		**
<i>Platystethus</i> spp.		
<i>Stenus</i> spp.	***	
<i>Staphylinus</i> spp.		***
<i>Xantholinus</i> spp.		**
<i>Neobisnius</i> spp.	**	
<i>Tachyporus</i> spp.		***
<i>Tachinus</i> spp.		**
<i>Aleocharinae</i> gen. & spp. <i>Indet.</i>	***	***
<b>Cucujidae</b>		
<i>Monotoma</i> spp.		**
<b>Cryptophagidae</b>		
<i>Atomaria</i> spp.		**
<b>Sample</b>	<b>5000</b>	<b>5001</b>
<b>Lathridiidae</b>		
<i>Enicmus minutus</i> (L.)	**	*****
<i>Corticaria</i> spp.	***	***

<b>Colydiidae</b>		
<i>Aglenus brunneus</i> (Gyll)	**	**
<b>Mycetophagidae</b>		
<i>Typhaea stercorea</i> (L.)	*	*
<b>Endomychidae</b>		
<i>Mycetaea hirta</i> (Marsh.)		***
<b>Anobiidae</b>		
<i>Grynobius planus</i> (F.)	**	**
<i>Anobium punctatum</i> (Geer.)	***	**
<b>Ptinidae</b>		
<i>Tipnus unicolor</i> (Pill.Mitt.)		**
<i>Ptinus fur</i> (L.)		**
<b>Scarabaeidae</b>		
<i>Aphodius sphaelatus</i> (Panz.) or <i>Aphodius prodromus</i> (Brahm.)	**	**
<i>Aphodius</i> spp.	***	***
<b>Chrysomelidae</b>		
<i>Plateumaris/Donacia</i> spp.		**
<i>Chaetocnema concinna</i> (Marsh.)		*
<b>Scolytidae</b>		
<i>Kissophagus hederæ</i> (Schmitt.)		**
<b>Curculionidae</b>		
<i>Apion</i> spp.		****
<i>Barynotus</i> spp.		**
<i>Sitona</i> spp	****	****
<i>Alophus triguttatus</i> (F.)		**
<i>Ceutorhynchus</i> spp.	**	**

Table 01: The insect remains from Exhall.