

EAST ANGLIAN ARCHAEOLOGY



Frontispiece  
Aerial shot of the Carbrooke preceptory earthworks, showing fishponds filled with water  
(TF 9502/K/ATV 5)

# **Excavations at the Preceptory of the Order of St John of Jerusalem, Carbrooke, Norfolk**

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with contributions from  
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**Cover illustration:**

View across the excavation with dovecote in foreground; primary school beyond

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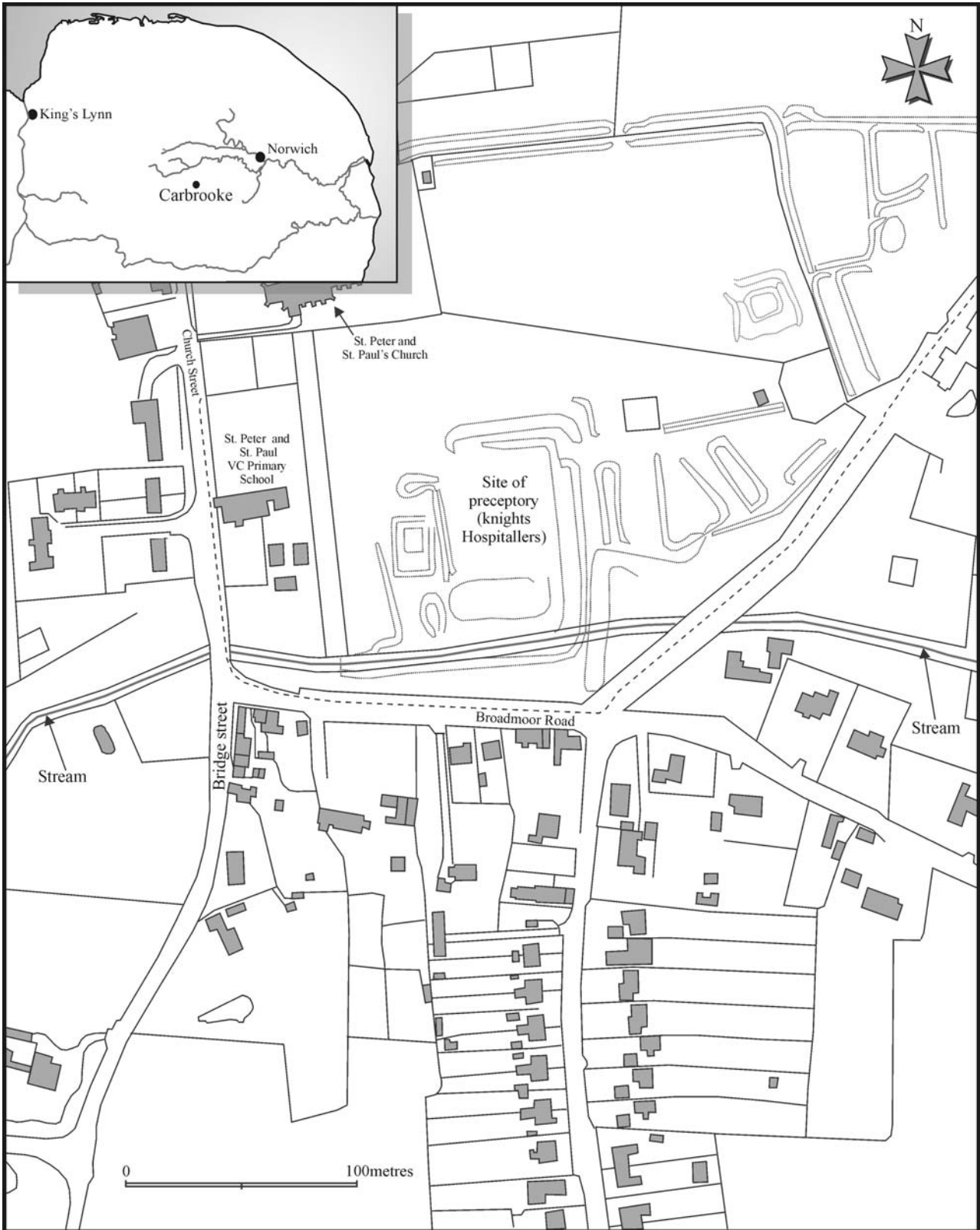


Figure 1 Location map. Scale 1:2500

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## Summary

Carbrooke Preceptory was first established in 1173 through a grant from Matilda, Countess Clare to the Order of St John of Jerusalem. In total eighteen manors in Norfolk were eventually in their possession, all administered from Carbrooke, which remained the only preceptory in the county at the dissolution. In addition to properties, rents and tithes were due from a large number of locations throughout Norfolk and East Anglia and

voluntary contributions were collected. The preceptory along with the rest of the Order was suppressed by Parliament in 1540.

Pre-development excavation revealed a stratified sequence of structures and deposits on the western side of the preceptory. Insights into the architectural and social history of the establishment have been revealed through a combination of archaeological and documentary research.

## Résumé

La commanderie de Carbrooke fut d'abord créée en 1173 grâce à une donation de Matilde, comtesse de Clare de l'Ordre de Saint-Jean de Jérusalem. Cette institution en vint à posséder jusqu'à dix-huit manoirs dans le Norfolk. Ceux-ci étaient tous gérés depuis Carbrooke, qui représentait la seule commanderie dans le pays au moment de la dissolution. En plus des propriétés et des contributions volontaires, la commanderie tirait des revenus de loyers et de dîmes qui provenaient d'un grand

nombre d'endroits dans le Norfolk et l'East Anglia. En 1540, le Parlement abolit la commanderie ainsi que le reste de l'Ordre.

Des fouilles préventives ont révélé un ensemble stratigraphique de structures et de dépôts dans la partie ouest de la commanderie. Des recherches à la fois archéologiques et documentaires ont permis d'éclaircir l'histoire sociale et architecturale de cet établissement. (Traduction: Didier Don)

## Zusammenfassung

Das Ordenshaus in Carbrooke wurde 1173 durch eine Zuwendung von Matilda Countess Clare an den Orden des Hl. Johannes von Jerusalem errichtet. Zuletzt gehörten achtzehn Landgüter in Norfolk zum Besitz des Ordens, die alle von Carbrooke aus verwaltet wurden, das zur Zeit der Auflösung der Klöster das einzige verbliebene Ordenshaus in der Grafschaft war. Neben Grundbesitzern mussten zahlreiche Orte in ganz Norfolk und East Anglia Pachten und Zehnten entrichten, darüber hinaus wurden

Spenden gesammelt. Das Ordenshaus wurde ebenso wie der Orden selbst 1540 vom Parlament aufgehoben.

Ausgrabungen vor Beginn eines Bauprojekts förderten an der Westseite des Ordenshauses stratifizierte Strukturen und Einlagerungen zutage. Durch archäologische und urkundliche Untersuchungen wurden Einblicke in die Architektur- und Sozialgeschichte der Einrichtung gewonnen. (Übersetzung: Gerlinde Krug)



# Chapter 1. Introduction

## I. The site

(Figs 1–3, Pl. I)

The site of the former preceptory of the Knights of St John Jerusalem – also known as the Hospitallers – at Carbrooke is located on the central watershed of Norfolk (NGR TF 9497 0210).

During January, February and March 1998 the Norfolk Archaeological Unit (NAU) conducted excavations in advance of an extension to St Peter and St Paul Primary School, Carbrooke (Figs 1, 2 and 3). The excavation was sited on the western edge of the preceptory, now a series of impressive earthworks (Scheduled Ancient Monument ref. Norfolk 387). Until the pre-development evaluation, conducted by the NAU, in August 1997, archaeological investigation of the grounds was restricted to aerial photography and ground survey. These outlined the moat, which formed a horseshoe around the eastern part of the establishment, three fishponds and three buildings, all of which were revealed as parch marks on the aerial photographs.

Carbrooke is located in south-central Norfolk on the Boulder Clay. The small market town of Watton is approximately 3km to the south-west. This area is one of the more sparsely inhabited parts of the county on what has been described as the central watershed. The site is relatively low lying for this part of Norfolk at 52m OD and is located next to a nameless watercourse.

Limited investigation of military order sites has been carried out in Britain, although documentary study of specific Hospitaller sites through their extant cartularies has been undertaken in relation to Essex and Kent preceptories (Cotton 1930, Gervers 1996). Recently the archaeological information on sites of the military orders has improved significantly with the publication of the full excavations at the Templar commandery at South Witham (Mayes 2002). Work on the archaeology and standing buildings at Cressing Temple provides a few archaeological parallels and until recently was the best-published set of archaeological data on the orders (Andrews 1993). The military orders also held many non-conventional sites, known as *camerae* by the

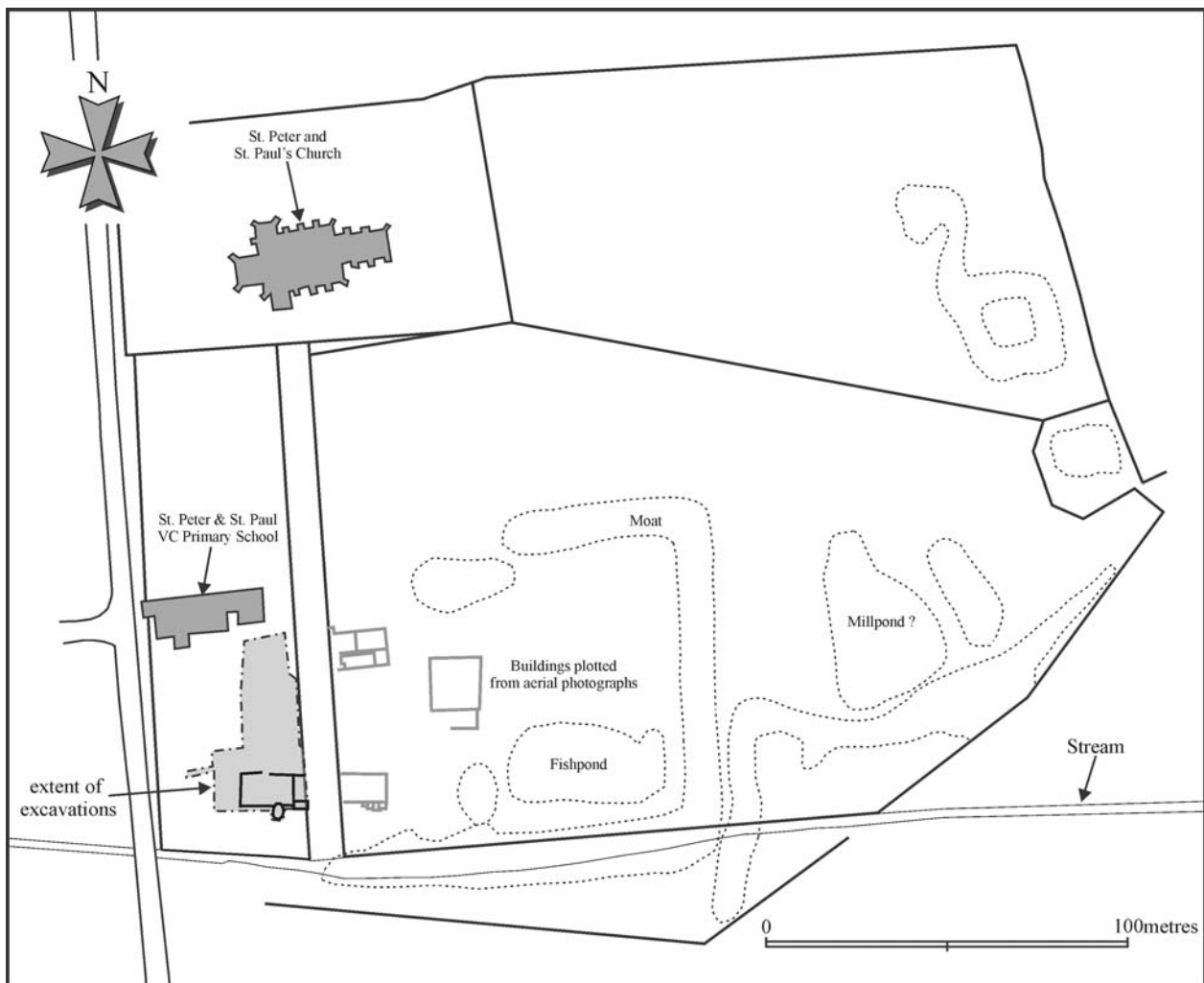


Figure 2 The preceptory in relation to the church. Scale 1:2000



Plate I Aerial shot of the excavation in progress, looking west

Hospitallers, and Rigold's (1965) multidisciplinary investigations at Strood and Harefield appear to stand alone in the literature on these. The scarcity of secondary British archaeological literature on these orders is surprising given their status as landowners alone. Gilchrist's (1995) work is the only synthetic statement. It was beyond the scope of the project to investigate the European published works beyond a cursory scan of material from Normandy (Miguet 1995). Formulating a research design for the investigation of a small section of a preceptory was therefore a largely empirical task. However, a forthcoming report on collated material relating to the Order's regional headquarters at Clerkenwell (Sloane, in prep.) will provide a set of archaeological questions that will certainly help to fuel future research on Hospitaller sites. This report has attempted to combine the archaeological and historical sources interpretatively. Such an approach can lead to insights that may not occur independently but also runs the risk of forcing the disparate sets of information together.

Documentation, both primary and secondary, is readily available for the study of Carbrooke Preceptory, although no cartulary survives. The fullest primary sources focus on two areas: material produced during the lifetime of the preceptory and that generated by the prolonged processes of the Dissolution in the 16th century. We are left, in the main, with records dating from the 15th and 16th centuries. Broadly speaking, these consist of rentals and terriers (relating to the preceptory's

landed holdings), surveys of income and expenditure of the preceptory as a whole (pre- and post-Dissolution), leases (16th-century) and an inventory of the preceptory site drawn up in November 1540, within six months of its dissolution. This material is supplemented by records of central government, such as the *Calendar of Patent Rolls (CPR)*, where there is a modest selection of references to Carbrooke Preceptory. The gravest deficiency in the primary documentation is the apparent loss of the house's deeds. There is thus no information dealing with the acquisition of land by the Hospitallers of Carbrooke Preceptory, beyond references to two 12th-century grants. It therefore remains impossible to detect any sustained policies behind the Order's territorial acquisitions in Norfolk, and donors remain anonymous (Gervers 1996, note 1, 23 and 67; Rye 1881, 58–9; PRO E328).<sup>1</sup> Although regrettable, the lack of a cartulary or collection of original deeds does not preclude a productive analysis of life at Carbrooke Preceptory; the use of cartularies remains the mainstay of much historical work on every type of religious institution, but they are not the only source of information. It may not be possible to uncover the precise origins of Carbrooke's estates but the broad range of surviving documentation allows a comprehensive survey to be made of Hospitaller activity within a range of Norfolk milieux. Clearly, however, the site of the preceptory itself was the mainspring of these pursuits and this is highlighted below. Looking outwards, it is also plain that Carbrooke Preceptory was part of a powerful

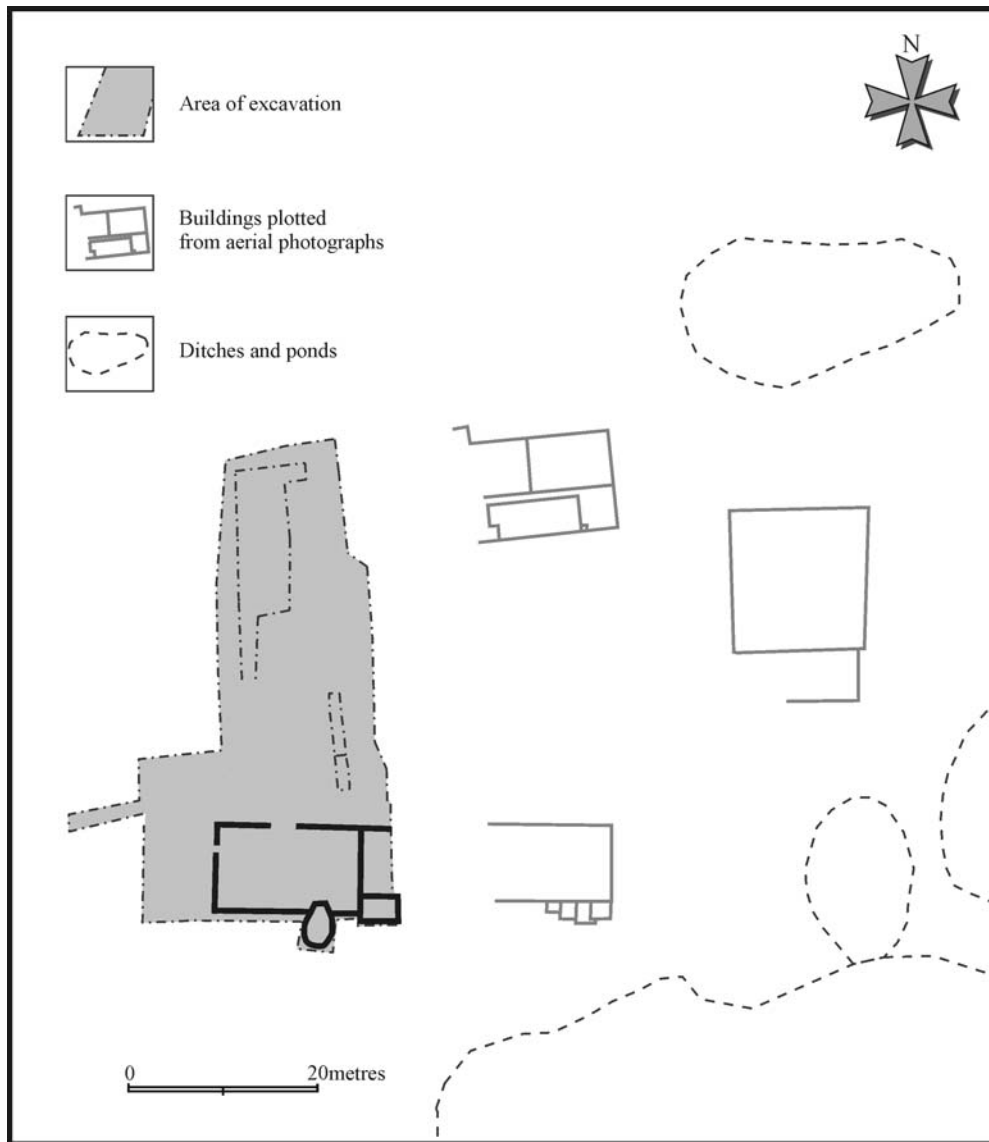


Figure 3 The excavated area in relation to earthworks and parch marks. Scale 1:800

Hospitaller nexus in which East Anglia enjoyed a national significance but which was centred particularly on Cambridgeshire and Essex. This is brought particularly into relief when information relating to the preceptory is considered in conjunction with that concerning the Hospitallers in Essex, as recently investigated by Gervers (1996, 66–68).

## II. The Order of the Hospital of St John of Jerusalem

The Order was recognised in a charter by Pope Pascal II in 1113, three decades after the actual emergence of the Hospitallers in Jerusalem where they began their existence as a fraternity, running a hospice for the care of pilgrims (c.1080) (Barber 1994, 8; Riley-Smith 1967, 32–37). The Hospitallers were not originally a military order. Militarisation took place in the 1130s, following the highly successful example of the Templars (founded 1120). The Hospitallers did not, however, relinquish their charitable work: rather, they took on a dual role (Forey 1992, 18–21). In 1137 the order was active in a campaign

in Syria and must have made an effective impression as five years later Raymond II, Count of Tripoli, requested that the Hospitallers provide garrisons for a number of important castles in Syria including the famous Crac des Chevalliers (Forey 1995). Interest in the Order in England was prompted by the fall of Edessa, one of the crusader states, in 1144, and the subsequent calling of the Second Crusade by Pope Eugenius III (Gervers 1996, 99–100). The stage was set for the prominent involvement of the military wing of the Hospitallers in the front line against Islam. The possibility of aiding such action possibly held greater appeal to potential benefactors in England than the Order's less war-like activities.

The Hospitaller institution was divided into jurisdictional areas known as *provinces*, *tongues* or, more confusingly, *priories*. In the chapter-general of 1302, for example, reference was made to the *tongues* of Provence, France, Spain, Italy, Auvergne, Germany and England (King 1934, 124–25). The province of England embraced all Hospitaller holdings in England, Wales and Scotland (see Forey 1992, 13 for a map locating the preceptories of the English province). A prior was head of each province, and Clerkenwell Priory in London formed the physical

headquarters of this provincial jurisdiction.<sup>2</sup> Sites where brethren of the Order dwelt, such as Carbrooke, were known as commanderies or preceptories (headed by commanders or preceptors). The Hospitallers originally confined themselves to use of the terms ‘preceptory’ and ‘preceptor’, while the Templars referred to a ‘commandery’ and ‘commander’ (Gervers 1996, 64 implies this distinction). Acquisition by the Hospitallers of Templar estates from the time of the latter’s suppression in 1312 meant that Templar vocabulary was adopted by the Order of St John. The terms became interchangeable although sites formerly held by the Templars tend to be described as commanderies. Preceptories were centres for the collection of money but were also crucial to recruitment, training, as residences for priests, retirement homes for brethren and *loci* of contact with the funding public (Forey 1992, 199). Support for the fighting knights was systematically achieved through the submission of *responsions*. In theory, each house contributed a third of its annual net income to the Priory of Clerkenwell along with a sum composed of *confraria*, or voluntary donations, which were collected throughout a preceptory’s territory. Money raised from the two sources was known as the *responson*. The prior then sent the dues of the English province to the Hospitaller headquarters in Jerusalem; this process was repeated in each province (Forey 1992, 223–5).

The prior was ranked as a baron and entitled to take a seat in the House of Lords. A contemporary illustration of the opening of the Parliament of 1523 includes a distinctive depiction of this office-holder, clad in the robes of St John, this illustration comes from the Wriothesley Garter Book, held in the Royal Library, Windsor (Lehmberg 1970, frontispiece). Sir William de Weston, the prior from 1527, took an active part in Parliamentary proceedings: he was, for example, signatory to a petition addressed to the pope, urging him to grant Henry’s divorce (Lehmberg 1970, 57). The prior’s role was arguably aristocratic with the emphasis at the priory increasingly placed on hospitality towards the later medieval period. Clerkenwell by the late 13th/early 14th century was, in design, more akin to a palace than a monastery, a trend that was accentuated during the later part of its existence (Sloane, in prep).

A preceptory’s brethren were described in three ways: knight, serjeant and chaplain. The first two were lay brethren, dedicated to military activity, while the chaplain acted as part of the spiritual arm of the Order. Although priests were not originally admitted to the military orders, it had gradually become apparent that it was preferable to entrust spiritual matters to professed brethren rather than secular priests — although use of the secular clergy within these orders was widespread again by the late 15th century — (Forey 1992, 176). However, the knights always maintained a superior position within the Order as a whole and this organisational element was one of the key departures of the military orders from those that had previously been founded (*ibid.*, 2–3). The difference between knights and serjeants emerged only gradually and reflected an increasing social stratification in the secular world. From the 13th century, a man might become a Knight of the Order of St John of Jerusalem only if he was of knightly descent, and every important post in the Order was held by men of this rank. In fact, within the military orders as a whole, the serjeants commanded the

least respect and enjoyed the fewest privileges, being often subordinate both to the knights and the chaplains (*ibid.*, 177–9).

### III. The archaeology of Carbrooke

Besides the investigations of the preceptory itself, little archaeological work has taken place within the parish of Carbrooke. Presently, all archaeological knowledge of the village is collated from standing buildings and chance surface finds. Little evidence has to date been collected from the period immediately preceding the establishment of the preceptory. A single sherd of Thetford-type ware (10th/11th-century) was discovered in a field to the west of the village hall. To this can be added two more sherds found in residual form within deposits excavated during the evaluation and a single sherd of St Neot’s-type ware dating from the 11th century. This total is no more than might be characterised as ‘background’ and gives no firm clues as to the status of the site prior to the establishment of the preceptory here.

The Order was rector of the two parish churches and a number of artefacts of this relationship remain in St Peter and St Paul’s, located just to the north of the preceptory. The chancel dates from the late 13th century whereas the bulk of the structure is, like many Norfolk churches, Perpendicular with some later 15th-century additions (Pevsner 1973). Two grave markers of 13th-century date are situated in the floor of the chancel, both have ‘cross potent’ carvings (the symbol of the Kingdom of Jerusalem). Each marker possesses an inscription. The first reads:

*MATER'CLARENSIS'GENER(I'QUO)'MILITE'CLARU  
M'ANGLIA'SE'JACTAT'HIC(T)UM(UMLATA'JACE)T*

This can be translated as, ‘a mother of the family Clare, by a soldier of which family England boasts herself renowned, lies buried here’.

Puddy suggests that this is the grave of Matilda Clare, foundress of the preceptory.

The second inscription reads:

*A'DEXTRIS'NATUS'REQUIESCIT'MATRIS'HUMAT(US)(HUNC)'PETIIT'  
PORTUM'PROPRIUM'REVOLUTUS'IN'ORT(UM)*

‘At the right hand of his mother rests a son interred; he has sought this haven, to his own birth returning’.

Puddy theorises that this may be the grave of one of Matilda’s sons, James, who is thought to have suffered from a disabling illness. The inscription, Puddy suggests, fits with James’ history. Given the Clare’s patronage and attachment to the Order, James may have become a donat and been buried with monastic ceremony (Puddy 1961, 19–21).

In addition, the altar table is constructed from a slab of limestone, said to have been excavated from the preceptory site.

There have been a number of metalwork finds within the village that can be related to the preceptory, including a Muslim coin dated 1220, a Hope pendant and an iron spur found immediately to the south-east.

Several undated earthworks may also be connected with the Order; a number of small enclosures can be seen in the grassland fields just to the east of the preceptory enclosure. Cropmarks at the end of Meadow Lane may be the site of a fossilised field system, and some less identifiable positive cropmarks exist behind the field of the present vicarage.

## IV. Documentary evidence

### Domesday Book

Carbrooke (*Cherebroc*) is referred to in *Domesday* as belonging to Ralph de Tosny and being situated in the Wayland Hundred. Prior to the conquest it was held by King Harold. The entry states that the village 'Always had 1 plough in lordship; then 1 villager; always 13 freemen; 1 slave; 16 acres of meadow; 2 men's ploughs; woodland; 300 pigs. Then 1 cob; 3 cows; 9 pigs. It is in the valuation of Necton' (Brown 1984). The local de Tosny *demense* was therefore centred on Necton and Carbrooke was an outlier.

### The foundation: the Norfolk context

Carbrooke Preceptory was founded in 1173 by Matilda (d.1195), the wife of Roger de Clare, Earl of Hertford (d. 1173). There is no record of this endowment beyond a confirmation, dated c.1175, of his mother's grant by Richard de Clare, Earl of Hertford (d. 1217). In it, he refers to her gift of the church of Carbrooke, half of the village of Carbrooke, the church of Little Carbrooke and two virgates of land in *Durcote* (the location of which is unknown), all with their appurtenances (Gervers 1996, 48, note 19, charter 34). Matilda had previously given the monastery of Stoke-by-Clare a yearly payment of half a mark (6s 8d) from her mill in Carbrooke, which led Ward to suggest that Matilda's property in Carbrooke formed part of her marriage portion (Ward 1981, 435).<sup>3</sup> This donation, possibly along with others, formed the nucleus of a religious house held by the Hospitallers. Until the late 12th century, a nun dedicated to St John occupied the preceptory along with its male inmates, but this arrangement, common across many preceptories, ceased in 1180. Henry II donated Buckland Priory (Somerset), formerly a house of Augustinian canons, to the Hospitallers and commanded that all sisters of St John scattered through the various preceptories in the English *tongue* be gathered together in one location (Knowles and Hadcock 1971, 284).

In 1192/3, the Hospitallers of Carbrooke received another donation from the Clare family: the advowson of the church of St Peter and St Paul Carbrooke with its appurtenances, and a preceptory attached to the same church with its full complement of demesne lands (Puddy 1961, 124 and 126). Reference to the grant is made in a 15th-century manuscript where the donor is described as Matilda, Countess of Clare, the wife of William, Earl of Clare, and the mother of Richard, Earl of Clare. Matilda's second husband was William de Aubigny, Earl of Arundel (d.1193) (Altschul 1965, 25). The timing of Matilda's second documented grant enables us to pinpoint the date when she founded Carbrooke Preceptory and also reveals from which family the lands originated. They formed part of the honour of St Hilary which descended to Matilda, the heiress of James de St Hilary who died in 1154, and included lands in Norfolk (Altschul 1965, 25 and table 1). As such, Matilda's husbands held the territory *jure uxoris* (by the right of the wife) but their deaths, in 1173 and 1193, released the lands to Matilda once again. The foundation of Carbrooke, estimated at pre-1175, can thus be pinpointed to 1173, while the dating of the second grant in 1192/3, can be modified to 1193. The Norfolk antiquarian, Francis Blomefield, believed that Matilda's gift of the 1190s marked the refoundation of a religious

house at Carbrooke. Blomefield thought there had previously been a Templar commandery on site, unsuccessfully founded by Roger de Clare (Blomefield 1805, 339).<sup>4</sup> Puddy concluded that Matilda had originally founded a nunnery, which was suppressed in 1180 (Puddy 1961, 14–15). The reason for these conclusions lies in the ambiguous wording of the grant. It states (in direct translation) 'she also gave to the same [brothers Hospitaller] a preceptory of the same [church or village of Carbrooke] with all demesne pertaining to the same [preceptory]' (Puddy 1961, 124).<sup>5</sup> This implies that a preceptory, in the form of the necessary physical complex, was there although then unoccupied by the Knights. Indeed, this may have been so, but not in the way interpreted by Blomefield and Puddy. Matilda probably simply donated a working manor, which, in anticipation of its intended role, was described as a preceptory in the grant.<sup>6</sup> The Order regarded the possession of a church (advowson and rectory) and manor as essential prerequisites for the establishment of a preceptory. Matilda's gift is consistent with Gervers' suggestion that once the Order had earmarked a suitable location for the establishment of a preceptory, it homed in on the immediate area in the quest for more property (Gervers 1996, cv).<sup>7</sup> After the major grant forming the preceptory and a central holding it can generally be seen from the Hospitaller cartulary that the Order followed its plans to enlarge the demesnes through focusing on smaller local landowners who might contribute to the gradual amassing of holdings in the locality (Gilchrist 1995, 66).

Throughout much of the medieval period Carbrooke was the sole house of the Order of St John in Norfolk, although there had been one previous attempt to endow an institution for the Hospitallers. Between 1154 and 1163, Ralf de Granville granted them a hospital in the village of Horsham, but this was given, sold or leased to the Priory of Horsham St Faith by the Order in 1163 (Puddy 1961, 13–14). The bailiff's account for Carbrooke Preceptory, running from Michaelmas 1540 to 1541, notes that a pension of 13s 4d, charged upon an unnamed rectory, used to be received from the Prior of Horsham and it is possible that this related to the Hospitallers' 12th-century grant to the monks of Horsham (SC6/Henry VIII/7268/326). It may seem remarkable that the Hospitallers rejected the gift of a hospital but, in strategic terms, such an endowment would have been an unwelcome drain on resources in an area where, at that time, holdings were insubstantial or non-existent.

Continuing problems on the English/Scottish border in the 14th century had a grave effect on the incomes of northern preceptories: peacetime rents from Chibburn (Northumberland) of £13 6s 8d dropped to only £5 10s, for example (Forey 1992, 123–4). The onerous task of *responsion* collection and transportation was articulated in the Hospitaller Chapter ordinances of 1302, which refer to the procedures to be followed should a province be unable to make its full payment (King 1934, 126–7). However, Carbrooke Preceptory was among the most profitable houses in the English province. Its income, in common with all Hospitaller houses, was generated by a rental economy: lands were held across Norfolk and, from the 14th century, it administered the manor of Togrind in Suffolk, which had formerly belonged to the Templars.<sup>8</sup>

A survey of each preceptory's annual receipts and expenditure was instigated in 1338 by Prior Philip de

Thame at a time of financial difficulty for the Order (Larking and Kemble 1857, note 18; Gervers 1996, lxx, note 1). The survey describes Carbrooke as 'one manor with garden' and 'one dovehouse' before moving on to the valuation of its lands (Larking and Kemble 1857, 81, note 18). The prior was concerned with the third from which Clerkenwell drew the *responsion*; the survey thus deals only with this part of all revenues (Gervers 1996, xxxix, note 1). Carbrooke's income was the fourth highest of all Hospitaller and ex-Templar properties and its *responsion* value of £120 9s 8<sup>3</sup>/<sub>4</sub>d was the sixth highest.<sup>9</sup> The gross landed income of Carbrooke Preceptory in 1338 stood at around £320 *per annum*, which was roughly equivalent to the landed income of a moderate baron.<sup>10</sup> It also contributed to Clerkenwell about 10% of all the *confraria* collected in the English province.<sup>11</sup>

The institutional side of Carbrooke Preceptory's charitable role is well documented. In 1338, the house maintained thirteen paupers who each received a daily loaf of bread (Larking and Kemble 1857, 82, note 18). Carbrooke's hospitable role may be investigated through the same documents. In 1338, expenditure on bread included that consumed by *supervenientibus ratione hospitalitatis*: unexpected people arriving in hope of hospitality. Also included in this survey was expenditure on the oats consumed by the horses of these unexpected visitors. Along with guests and the recipients of charity, a variety of people lived and worked on the preceptory site, and information from the 1338 survey sheds the most light upon their identity. Firstly, there were the Hospitallers themselves, listed at the foot of every house's assessment. There were then three Hospitallers at Carbrooke: Brother Alan Macy, preceptor and knight, Brother Thomas de Hinton, chaplain, and Brother William de Boyton, serjeant. It was not unusual to have only three brethren on site: within the whole of the English province in 1338, there were only thirty-four knights, forty-eight serjeants and thirty-four chaplains (Gervers 1996, lxi–lxiii). The highest number of Hospitallers gathered together in one place was at Chippenham Preceptory which, as the Order's infirmary, housed more than the usual modest complement; in addition to four active brethren, there were six invalids.<sup>12</sup> Such a limited Hospitaller population in England emphasises the fact that the Order's ultimate aims were achieved elsewhere.

As a member of the gentility, Brother Alan de Macy conducted his life in a knightly fashion, and the 1338 survey includes details of the provision for a small household composed of a squire and two pages. The former received a robe and stipend, while the latter

received only stipends. Macy's followers were an expression of his standing within the Order as well as the world at large. The household listed in the survey was, however, only the most basic core of Macy's entourage.

Secular priests and clerks were another group associated with preceptories. In 1338, Carbrooke Preceptory was charged with the provision of food and drink for the vicar of Carbrooke and his page, along with food for the vicar's horse.<sup>13</sup> As with the preceptor's household, the listed presence of a vicar, clerks and chaplain in the 1338 survey is indicative only of the minimum level of personnel. The charge laid upon Carbrooke Preceptory to support the vicar's page was an institutional acknowledgement of the vicar's status, but he would have taken on other people who, at the very least, carried washing to the laundry. The 1338 survey lists a variety of employees to whom robes and stipends were due: chamberlain, bailiff, cook, baker, porter, warrener, carpenter and gardener. Two pages were also assigned to the cookhouse and stable — each received 5s *per annum*, and a laundress received 4s yearly. The seneschal received a robe and retaining fee of 46s 8d. Additionally, the *Valor* records that fees were owed to the seneschal of the manorial court of Carbrooke, the seneschal of the manorial court of Chippenham, the bailiff and receiver-general, the itinerant seneschal and the commissioner of the liberties (Caley and Hunter 1810, 340). Most of these officials held manorial courts, both locally and throughout the region, the bailiff and receiver-general (one man) dealt with the finances of the entire Carbrooke estate and the commissioner of the liberties ensured that there were no infringements of the privileges accorded to the Hospitallers on their lands.

The hospitality owed to unexpected visitors has already been mentioned, but the 1338 survey highlights that the preceptor also expected certain people to enjoy the largesse of the house. The Prior of England theoretically stayed at Carbrooke for three days a year while on his tour of visitation of all the houses of the Order. The report assessed the preceptory's expenditure for this period at 60s. As this encompassed only a third of the house's financial commitments, the prior's yearly visitation therefore cost Carbrooke Preceptory £9, almost 3% of the preceptory's income if the *confraria* are discounted. The 16th-century farmers of the preceptory also owed the supervisor of the lands (the *Valor*'s commissioner of the liberties) food and drink for himself and four horses for two days and nights, on two separate occasions each year, as well as open-ended hospitality to the seneschal of the courts and his horse.

# Chapter 2. The Excavation

As with most archaeological investigation, the interpretative resolution is only so refined as the dating of certain artefacts. The dating for much of the archaeological sequence here was derived from either pottery or ceramic building material. Despite intensive metal-detecting by an experienced practitioner, few metal finds were found within the stratified sequence and those that were did not generally provide defined chronological resolution.

Seven periods were interpreted from the excavated evidence and are summarised below.

## Period 1: Prehistoric

A single ditch, 286, aligned east-to-west, was the only archaeological feature attributable to this period. The profile of this ditch was a slightly flattened U-shape, cutting through natural gravel. This was infilled with a single homogeneous light orange grey silty sand, 285, containing occasional charcoal flecks, flint pebbles and twelve worked flints. The majority of these flints were rough debitage, although there was one blade characteristic of Mesolithic style industries. This piece is almost certainly intrusive within the ditch fill. The remaining material is not accurately datable but is consistent with Neolithic and Bronze Age industries.

## Period 2: late 9th to 12th centuries

(not illustrated)

In the northern part of the site two features date from this period, a ditch and a post-hole, both were sealed below a later (period 4) landscaping layer, 76. The ditch, 360, was a flattened rough V-shape in profile that was horizontally truncated in antiquity. Numerous minor silting events eventually lead to its complete infilling. The latest of these, 313, contained two sherds of Thetford-type ware dating from the 10th or 11th century. The post-hole, 465, was filled with a deposit, 466, that contained a further two sherds of Thetford-type ware. In addition, two layers in the southern part of the excavation were assigned to this period, a light brown silty sand containing Thetford-type ware sherds, 392, thought to be make-up for a second layer and a chalky sandy clay, 436, interpreted as a surface. Several buried soils, 151, 204 and 452, contained residual sherds of Thetford-type pottery, in addition to later material.

## Discussion

Late Saxon pottery was present in residual form at the excavation, evaluation and from surface finds in a field on the west side of the village. This small assemblage is relatively eclectic in origin with several different Thetford-type ware production centres represented, including Thetford, Grimston, and possibly Norwich. A single fragment from a St Neot's type vessel was also found. The existence of this assemblage on its own is not enough to suggest a manorial presence at the site prior to the establishment of the preceptory. However, the

Domesday evidence indicates a small outlier manor here both before and after the conquest connected to Necton. This can be viewed in conjunction with the apparent policy of the Hospitallers only to found preceptories where a *domus* was provided by the donor in addition to land (Gilchrist 1995, 66). To these postulations can be added the pre-1173 documentary reference to a mill located at Carbrooke and owned by Matilda de Clare (see above). Two palaeosols date from this period, one containing a sherd of Thetford-type ware (10th/11th-century) and the other a sherd of early medieval ware (11th/12th-century). Smithy waste from palaeosol 429 was fairly fresh while the other palaeosol 452 contained an ironworking hearth base with an angular corner which, although abraded, probably dates from this period, suggesting smithing activity. All this seems to indicate a developed manor here prior to the establishment of the preceptory.

## Period 3: the foundation and early preceptory, late 12th to 13th century (Figs 4–8)

Intermittent structural information dating to this period survived later developments. The only extant elements were an internal stone wall, 460, with two integral ovens, 458 and 455, and an internal cobbled surface, 478. Brick contained within these internal structures dates from the 13th century, based on comparison with excavated Norwich material (see Anderson below).

## Building – phase 1

(Fig. 4)

A beamslot, 345, aligned north-to-south survived to the west of the group of internal masonry structures. This slot was merely a fragment of the original which doubtless once continued both to the north and south. Its fill consisted of a silty clay containing a variety of material, including two sherds of residual Thetford-type ware, a number of iron objects, fragments of smithing slag, fragments of coal and a brick fragment. The coal in conjunction with slag would be a very unusual occurrence for this period. However, the presence of a brick here suggests that some intrusive material was introduced into the deposit; this context was directly underneath a demolition deposit dating from the 16th century and was thus easily contaminated. The status of the Thetford-type ware sherds found within the gully fill is also in question, it is very likely that the underlying soil might have contained these sherds and they therefore have a residual relationship with the gully.

Several burnt layers were associated with a small gully located on the eastern side of the putative building. The gully itself, 396, consisted of a shallow hollow truncated at both of its long ends. Layers of mixed charcoal, burnt silts and clays and ash surrounded this. No direct dating of these layers was obtained but this gully may represent the east side of the first building phase.

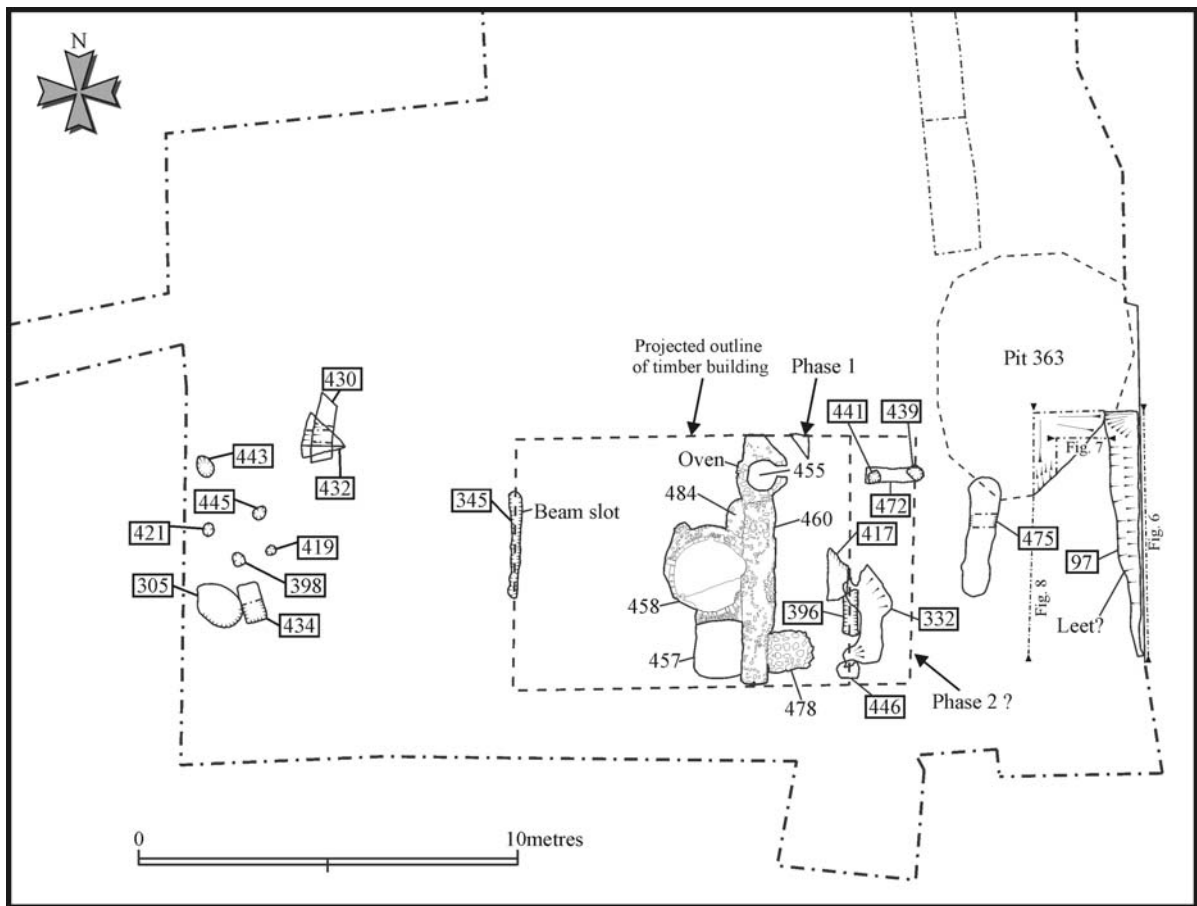


Figure 4 Period 3, late 12th to 13th century. Scale 1:200

Two isolated post-holes, 439 and 441, were located within the postulated extent of the building and may be structural elements; both belong to this period on the basis of stratigraphy only. These post-holes are associated with a small gully, 472, the remains of which was infilled with yellow clay. Another, larger gully, 475, infilled with clayey silt, was located nearby and formed a right angle with the first.

On this basis it appears that the building was timber framed, and founded on ground beams with some supporting posts.

### Building – phase 2

#### Internal features (Fig. 5)

Two surfaces, 457 and 458, were constructed from roofing tiles laid on edge. The more northerly of these surfaces, 458, was contained by a subcircular wall, 459, of coursed brick and flint, bonded with yellow clay, which is interpreted as an oven (Pl. II). The southern surface, 457, was connected to the northern one by a masonry setting integral with the subcircular wall and was contained within a subrectangular pit.

A small oven, 455, was constructed as an integral part of wall, 460, at its northern end. This oven was 0.81m in internal diameter, with an opening facing roughly east, 0.3m wide. It was constructed from essentially the same materials as much of the other masonry belonging to this period, coursed brick and flint with relatively large amounts of yellow mortar.

### Non-structural evidence

#### *Pit (millpond?)*

(Figs 4, 7 and 8)

A large, originally roughly circular pit, 363, was located to the north-east of the putative building. Judging only from the excavated quadrant this pit measured between 4m to 5m in diameter and was around 0.9m deep. The primary infilling, 379, consisted of washed-in sand; a woody peat, 463, formed over this. A second peat, 373, contained large fragments of wood and a single sherd of an early medieval ware vessel dating from between the 11th and 12th centuries. A redeposited soil, 362, infilled the bulk of the remaining volume containing a Yarmouth-type glazed ware vessel of 13th to 14th-century date.



Plate II Period 3 oven 455



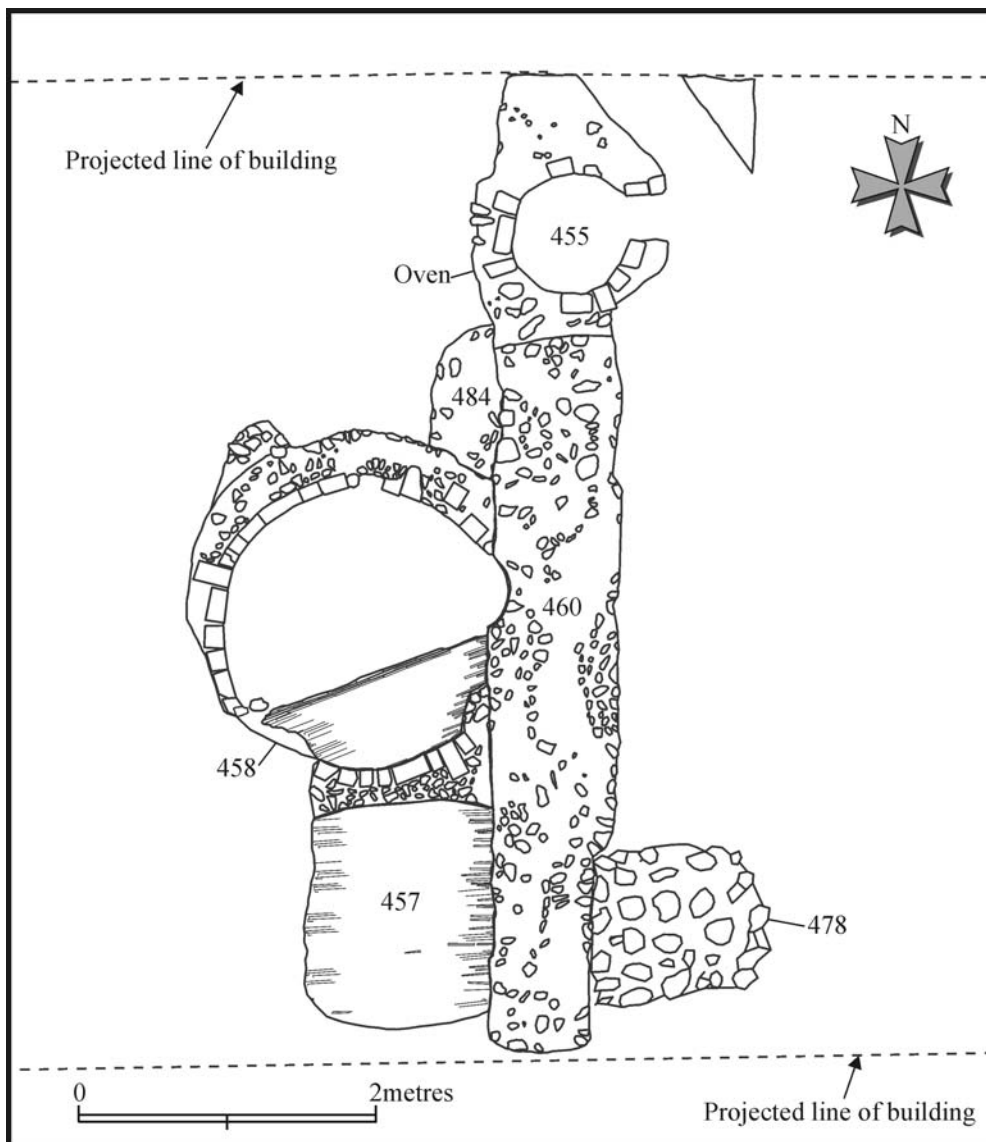


Figure 5 Period 3 oven, detail. Scale 1:50

#### *Ditch (Leet?)*

A north-to-south aligned ditch, 97, was not fully contained by the eastern limit of excavation and hence its full profile was not available. The ditch was infilled with a series of make-up layers consisting predominantly of yellow clay and clayey sands, containing little cultural residue (Fig. 4). Only four sherds of pottery were recovered from these deposits, all from a secondary fill, 85, these were all medieval coursewares, except for a single sherd of a Grimston-type ware, dating from between the 12th and 14th centuries.

#### *Post-hole structure*

A set of five post-holes, 398, 419, 421, 443 and 445, were found to the west of the main building that may represent a small structure. Two of these post-holes, 419 and 421, contained sherds of an early medieval ware vessel dated to the 11th or 12th century.

#### *Ironworking residue*

There is substantial evidence for an iron smithy located immediately to the west of the sill beam structure. This evidence was discovered within a number of poorly dated

features. Presumably, although not detected during the excavation, this smithy would have been located within another, probably timber structure, perhaps another sill beam structure. An assemblage of smithing waste was found within a small pit, 305, consisting of twenty-three pieces of iron smithing waste covered with hammerscale, probably representing bar waste and off-cuts. The group is typical of a smithy floor assemblage, consisting of large amounts of smithing waste (*i.e.* hammerscale) from around the anvil and many small iron waste fragments, with, classically, very few actual slags (Cowgill, pers comm). It seems likely that much of the slag collected from later contexts originated in this and the previous period. Presumably the smithy moved subsequently to another part of the preceptory. Nearby, two ditches 430 and 432 also contained waste in lesser densities. In addition, the beamslot 345 contained significant quantities of iron smithing residue and a pair of tongs (Fig. 28) almost certainly associated with smithing.

#### **Discussion**

The single archaeologically attributable building belonging to this period was, unlike its descendants,

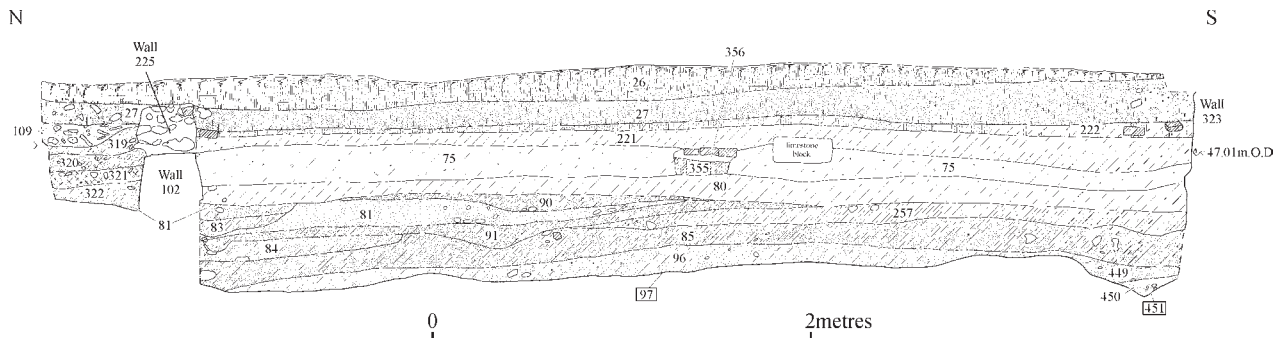


Figure 6 NS section, ditch 97/wall 102. Scale 1:40

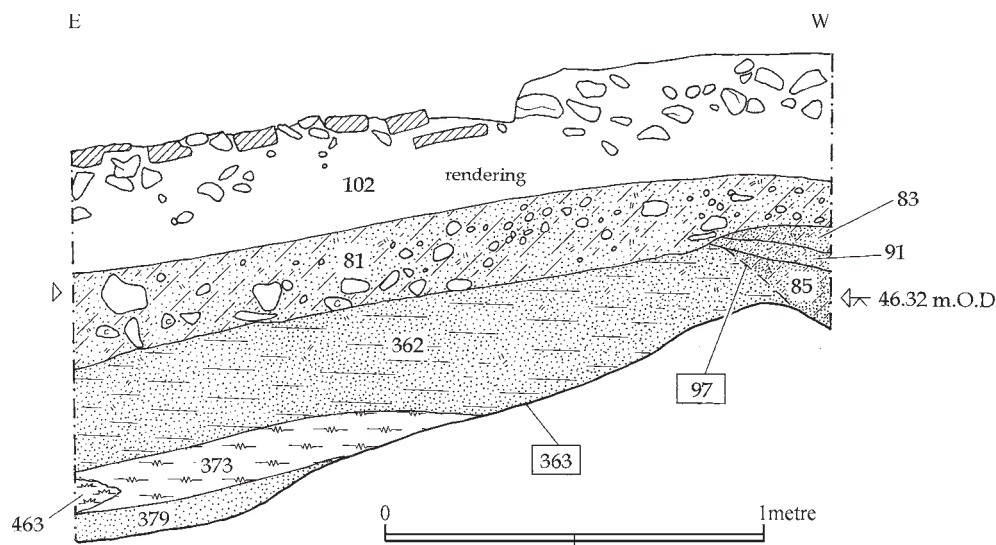


Figure 7 EW section, ditch 97/wall 102. Scale 1:20

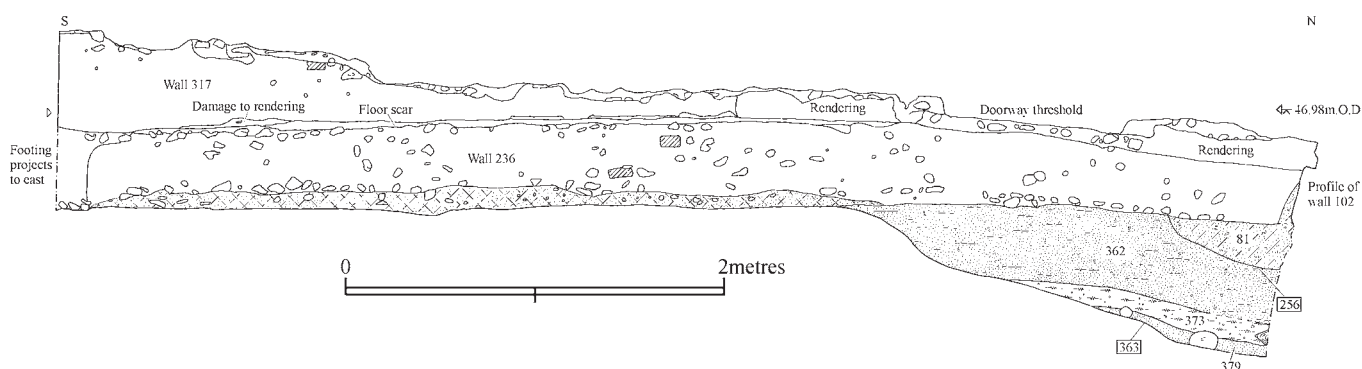


Figure 8 SN section, wall 317/millpond 363. Scale 1:40

apparently not an element of a longer range. The presence of the north-to-south ditch to the east of this structure militates against the possibility that this was the west end of a range. This structure went through at least two built phases. Initially a relatively small timber structure may have been associated with the smithing debris found to the west (below). It was later modified, enlarged and the use changed, possibly to malting, although the archaeobotanical results on this question are unclear. The two gullies, 345 and 396, along with the lack of any surviving

outside walls suggest a sill beam construction. Sill-beam buildings are thought to rarely post-date 1200 (Grenville 1997, 31). Given the date for the founding of the preceptory, 1173, in conjunction with the likelihood that the internal features date from the 13th century and the generally assumed short life of such structures, the construction of this example may date from the end of the suggested chronology for such buildings or the building is earlier than has been assumed. There is some evidence for at least one, if not two, conflagrations. The burnt layers

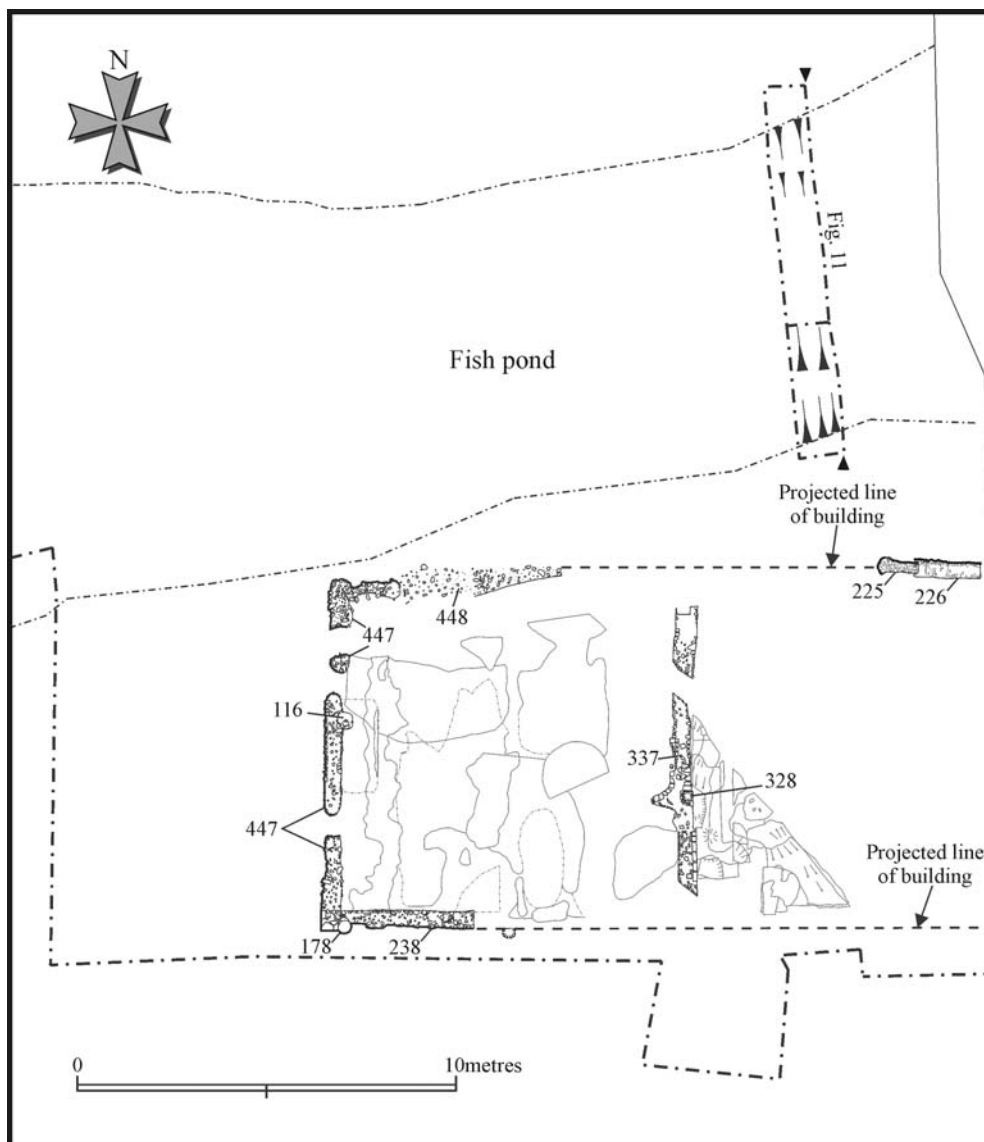


Figure 9 Period 4, 13th to 14th century. Scale 1:200

associated with the eastern gully are the first of these and charring of the internal masonry structures, particularly the cobbled surface, 478, and the southern extent of the central wall, 460, suggest a second burning event. Additionally, a number of the make-up layers underlying floors belonging to the next period were comprised of ash and charcoal, which may represent the demise of this structure.

The large pit, 363, and the ditch, 97, running south have been interpreted as a small pond and watercourse system connecting to the river lying 17m to the south. There was no direct evidence to suggest a function for this water system but it might have been part of a mill.

## Period 4: the 13th to 14th century

### Building range

(Figs 9, 10 and 11)

Structures dating from this period formed part of a range which later, possibly from this time forward, was approximately 40m long, as indicated by the parch marks (see Introduction). Only the western half of this structure

was investigated during the excavation. The walls were all very similar, 225, 226, 238, 326, 337, 447 and 448, constructed from flint and brick bonded with a similar whitish yellow mortar.

### West room

The western room was represented by three extant walls, 238, 337 and 447, the southern, eastern and western walls respectively. The north wall, 448, had largely been demolished by a post-medieval ditch, with only a small fragment remaining at its western end. Demolition material from this wall was scattered around the immediate vicinity of the ditch and incorporated within its fills. The west wall, 447, contained two crude gaps both measuring approximately 0.6m; no mouldings or fittings were discerned around these edges. Part of the east wall, 337, jutted out beyond the main face, originally forming a sequence of probably two or three steps leading up to a doorway between the two rooms. This wall contained more brick than the other walls of the room and appears to have been faced, at least in part, with hung tiles and a partial facing, or possibly a string course, of half-cut bricks. All these walls had shallow foundations and most

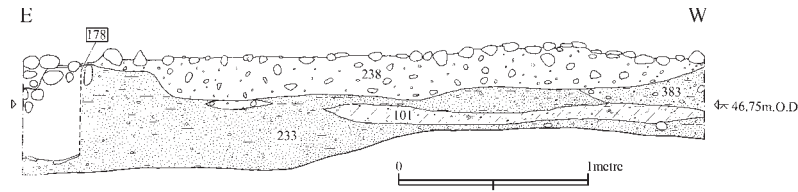


Figure 10 EW section, wall 238/post-hole 178. Scale 1:40

were located simply upon the underlying soil except for the south wall, 238, which was founded on a series of redeposited gravels 101, 233, 383 (Fig. 10). Dating the construction of this building is difficult. Bricks incorporated into its structure can be given a range between the 13th and 15th century and the brick and tile found within the make-up layer, 101, are of the same period.

#### East room

No structural components from the east part of the excavated building survived, all the walls were replaced by later refurbishment, with the exception of one wall, 337, shared with the west room.

A doorway between the east and west rooms was indicated by a brick threshold, a rectangular post-hole set into the wall 337, and a series of steps leading down from the east room.

A series of four post-holes 112, 116, 178 and 328, was integral with the walls of this building. Three post-holes 116, 178 and 328 were built into the masonry structure (Fig. 10).

Both rooms of the building contained a complex sequence of floors and make-up layers. The make-up deposits consisted of a mixture of redeposited soils, sands and gravels, with the occasional use of ash to infill small hollows. Clays were used to form some of the floors, 334, 342 and 344, in particular a yellow clay as was commonly used in the floors during periods five and six. Two of these deposits, 101 and 334, contained brick and tile fragments dated to between the 13th and 15th centuries. Floors belonging to this period, 406 and 416, consisted of a mortar and clay mixture, with the mortar perhaps representing a robbed tile or brick surface and the clay used as a bedding platform.

#### Fishpond

(Figs 9 and 11)

A large cut, now understood to be a fishpond, was situated immediately to the north of the building. A single slot was excavated through the fills of this feature, the majority of

which represent the infilling of the pond during period 5. However, two fills, 67 and 68, seem to date from near to the beginning of the pond's existence. The later of these, a silty clay layer, 67, may represent a clay lining; it contained a single sherd of unprovenanced glazed pottery (Norfolk type 2), that can be broadly assigned to a period between the 12th and 14th centuries, and a brick dating from between the 13th and 15th centuries; apart from these objects it contained little else besides a small fragment of animal bone and an oyster shell. The gravel and soil mixed layer, 68, probably represents the initial erosive infilling of the pond cut immediately after excavation.

To the north of the pond the extensive upcast produced through its excavation was spread to form a level terrace. This comprehensively buried earlier features and created the basis for a garden. Soils, 73 and 74, were imported and more minor landscaping events, 76, occurred above this layer.

#### Discussion

The presence of posts within the masonry walls of the building suggests a timber-framed structure with sleeper walls providing a basis for panel infill. The dating for this structure was not resolved beyond it belonging to the 13th or 14th century. The fact that this building occupies the same space as the period 3 sill-beam structure and is on the same alignment, implies that it was built soon after the destruction of its predecessor. Much of the east side of this building was replaced in the following period, with only a triangle of floor and underlying make-up left by the renovations. Few clues survive within the remaining structures with which to interpret the building's use. Pottery from this period is generally sparse throughout the excavated area, suggesting that cooking and perhaps also dining were conducted elsewhere within the preceptory.

The Carbrooke system of fishponds, if indeed they are all fishponds, its moat and watercourses are remarkable for a relatively small monastic establishment. Whether the entire system dates from this period could not be established. Fishponds do not appear to be a standard

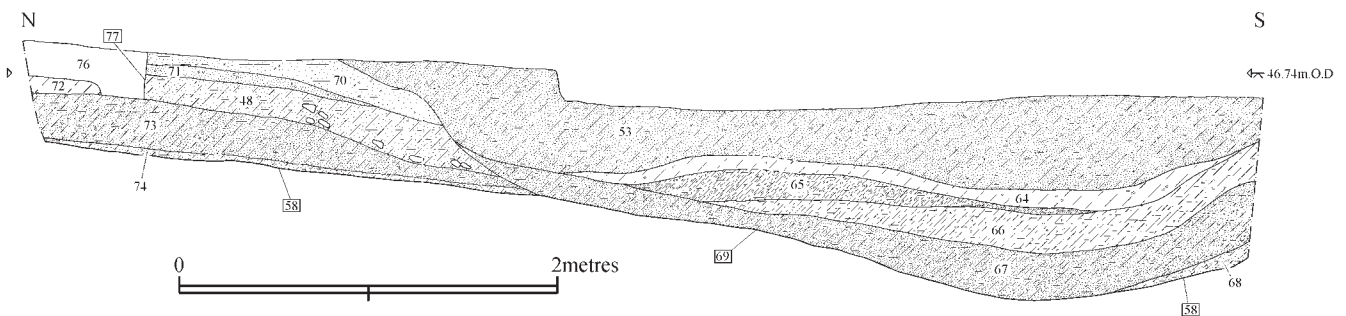


Figure 11 NS section, fishpond 58/69 and midden. Scale 1:40

feature of preceptory sites but, as Carbrooke demonstrates, they are not always visible on the ground or from the air either as a hollow or cropmark. It seems likely that some of this system at various times was dedicated to other purposes and milling in particular seems likely given the context of Hospitaller land management. However, no buildings can be seen in the vicinity of the ponds.

Although probably never strictly adhering to a restricted diet, the brethren at Carbrooke were obliged to consume only fish on certain festival days at the very least. The supply of fresh fish in this inland location may have been unreliable, possibly in part explaining why such a large and complex array of ponds was excavated in and around the preceptory. As Patrick Greene has pointed out, the amount of fish a pond or even a large system of ponds was capable of supplying, was small relative to the actual amount consumed (1992, 124). It may be that the supply of fresh fish at these ponds was for the more socially elevated members of the community and their guests, while others relied on the vagaries of supply and salted stored material — a conclusion drawn by Nicholson below. The investment in this system seems disproportionate compared with much larger monastic sites catering for larger populations and may represent the individual proclivity of a single preceptor.

Throughout its existence, the Order of St John was continually re-assessing the usefulness of its administrative units. In Essex, the fates of the preceptories of Chaureth and Little Maplestead provide ample illustration that the Hospitallers did not allow their organisational apparatus to fossilise. In the initial phases of their expansion in Essex, Chaureth was chosen as a preceptory site and strenuous efforts were made to consolidate its holdings but, in terms of communications, Chaureth was ill-placed and it was abandoned as a preceptory by 1255 in favour of Little Maplestead (Gervers 1996, lxxix-lxxx, lvii and xcvi). The acquisition of the prime Templar site of Cressing Witham resulted in yet another shift, with the ensuing marginalisation of Little Maplestead (*ibid*, lviii-lx). The fact that Carbrooke continued to attract investment shows that it was well placed to administer holdings in Norfolk and Suffolk.

An interpretative drawback of the 1338 survey is that it was concerned only with permanent household structures. Absent from this list, therefore, are transients such as the craftsmen employed to maintain the fabric of the preceptory's buildings, or the carters delivering wine to the preceptor.<sup>14</sup> Life at Carbrooke Preceptory embraced a wide range of people, and the various management changes associated with putting the preceptory out to farm, had little impact on day-to-day activity on site.

## Period 5: the 14th to 15th century

### Building range

(Fig. 12)

Alteration to the earlier period 4 building at this time was extensive. The complexity of the building and the relative lack of closely datable elements make reconstruction of the chronological sequence very broad. Further refinement may be possible if more elements of the range and other parts of the preceptory establishment were to be investigated.



Plate III Brick wall 387

### Dovecote

(Fig. 12, Pls IV and V)

A dovecote, 325 and 387, was added to the range at the same time that a number of other alterations were taking place. There were two main surviving elements of this structure: the first was an unevenly coursed ovoid wall 325 built of flint rubble bonded with mortar which projected to the south of the building towards the river. The second was a regularly course brick structure 387 (Fig. 14, Plate III) that projected into the interior of the building abutting the period 4 central wall, 337. There was evidence, in the form of wear, of a small internal entrance to the interior of the dovecote from the eastern room of the building. Bricks used in the construction of the dovecote again date from the 14th or 15th century. This structure was cellared slightly.

The north wall, 102 of the east room consisted of a variety of separate elements shared between this period and period 6. Both walls, 102 and 326 (Fig. 17), on either side of the door were constructed from flint and brick bonded with white mortar. Bricks from these walls date from between the 14th and 15th centuries. The east part of the wall, 102, contained a rectangular hollow on its interior side, of unknown function (Plate IV) and was also rendered on the interior with a hard smooth mortar. The doorway (Plate V) was flanked by two rebated limestone blocks, 394.

The wall, 338, immediately to the east of the dovecote contained an opening 1m wide with recessed chamfered edges constructed from brick and limestone, brick on the west side of the opening and limestone on the east (Fig. 15). The wall itself consisted of unevenly coursed brick,



Plate IV Rectangular hollow in wall 102

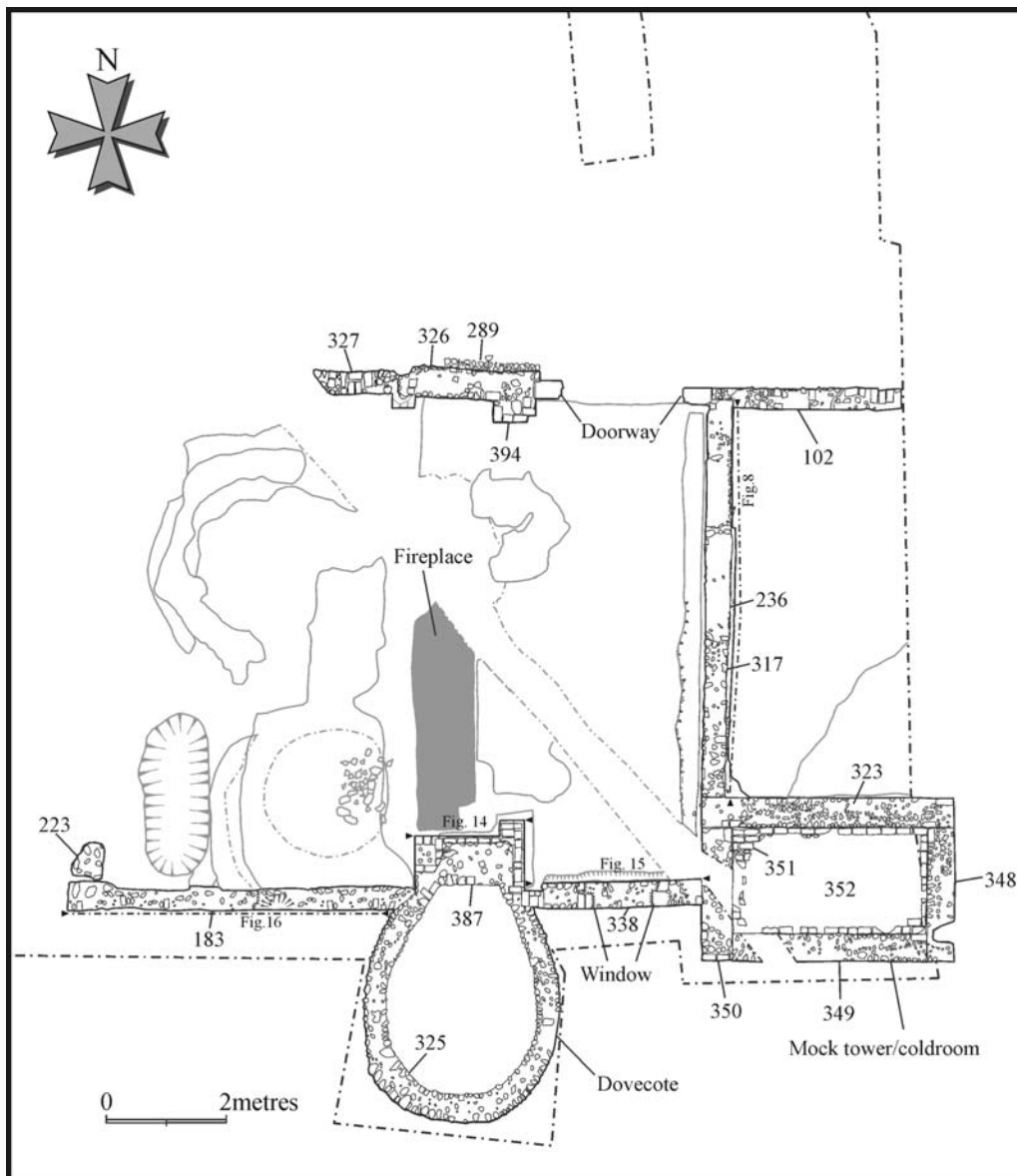


Figure 12 Period 5, 14th to 15th century. Scale 1:125



Plate V Rebated limestone blocks in wall 102

tile and limestone, bonded with a dark yellow mortar, with both limestone and brick quoins.

#### *Western room replacement walls*

Major parts of the south and north walls belonged to this period. Walls 183 (Fig. 16) and 327 (Fig. 17), both replace earlier period 4 walls, including the foundations. The southern wall, 183, was comprised of flint and brick arranged in a partial string course with the bricks forming quoins at the west junction with a period 4 wall, 238. The northern wall, 327, was also of flint and brick, but with the brick used in a better defined string course, as well as forming quoins.

#### *Small rectangular room*

A small yet relatively massively-built rectangular structure was inserted into the main range in the south-eastern part of the excavated area. All four of its walls, 323, 348, 349, and 350, survived intact and until recently remained visible as a surface feature. The walls are almost identical in construction, consisting of flint rubble with

occasional brick regularly coursed and bonded with a hard white mortar. Each of the four walls was rendered on both sides, also with a hard white mortar (Figs 8 and 18). The interior of this structure consisted of a partially surviving brick floor, 351, laid on to a mortar layer, 352, which survived intact.

A north-to-south aligned wall (Fig. 8), 236, abutted northern wall 323 of the small rectangular room to the south and exterior wall, 102 to the north. This new wall was constructed from flint and brick rubble, rendered on both sides. The associated floor level was evident as a scar (Figs 8 and 18) and a door threshold could be discerned on the surviving wall surface.

A series of hearth bottoms, 152, 308, 412 and 422 (not illustrated), were located on the east side of the internal wall, 337, separating the two rooms. Two of these deposits, 115 and 412, were composed of bricks set in clay. Another hearth, 422, consisted of large chalk fragments. Finally, hearth, 308, seemed to consist simply of a deposit of sand within a hollow.

A very complex sequence of floor, bedding and make-up layers belonged to this period. Unfortunately, very little datable information was incorporated and what there was appears to be mainly residual.

An undated remnant of cobbled surface (Fig. 12), 289, survived to the north of the building abutting one of the northern walls, 326.

A ditch, 275 and 277, located just to the north of the fishpond (Fig. 13, Plate VI), contained a masonry structure, 276, consisting of flint rubble mortared with a central string of bricks dating from between the 14th and 15th centuries.

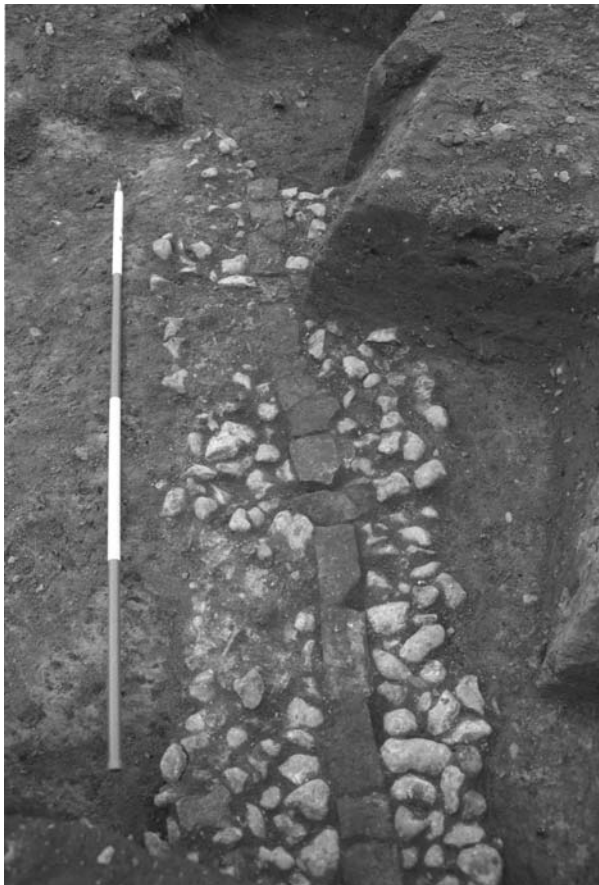


Plate VI Period 5 drain 276 north of fishpond

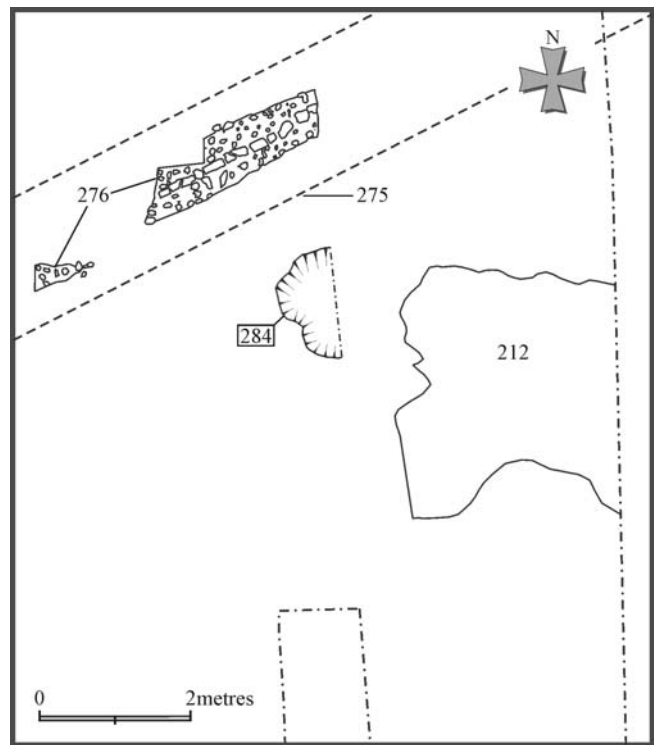


Figure 13 Period 5 drain detail. Scale 1:100

## Discussion

The presence of a dovecote is mentioned in the 1338 survey. The dovecote excavated here was possibly that structure. Its form was unusual, as was its placement on the south side of the building range which may have had an additional sematic purpose. The look of the building is difficult to reconstruct but the impression gained is of a round, or more accurately oval, tower; certainly the foundations for this structure were substantial and the tower may have been intended to resemble a fortification. The stoutly constructed small rectangular room to the east of the dovecote and the rectangular protuberances beyond the excavated area seen as parch marks (Fig. 3), were possibly a further elaboration of the statement. Military iconography was certainly employed by the order in a number of contexts, for instance the interior of the Templar chapel of St Bevignate (Perugia, Italy) was decorated with frescoes showing military scenes. Similar statements have been made in architecture, as in the case of the 16th-century Hospitaller additions to the originally Templar preceptory at Temple-sur-Lot (Lot-et-Garonne, France), turned into a substantial fortification resembling a castle. More locally there are embattled church towers at Garaway (Herts), Temple Bruer and Aslackby (Lincs); there are also battlements around the upper drum of the Temple church in London (Gilchrist 1995, 100) and on the gate tower at Clerkenwell. It is interesting that a military message was promulgated here as late as the 14th century, and the 16th century in the case of Temple-sur-Lot. These messages may be more to do with identity and perhaps differentiation from other religious orders, analogous to the branding of a corporation, as well as symbolising secular power and authority. But it is worth pointing out that many parish church towers also have battlements and they are a common architectural device in non-military monastic settings.

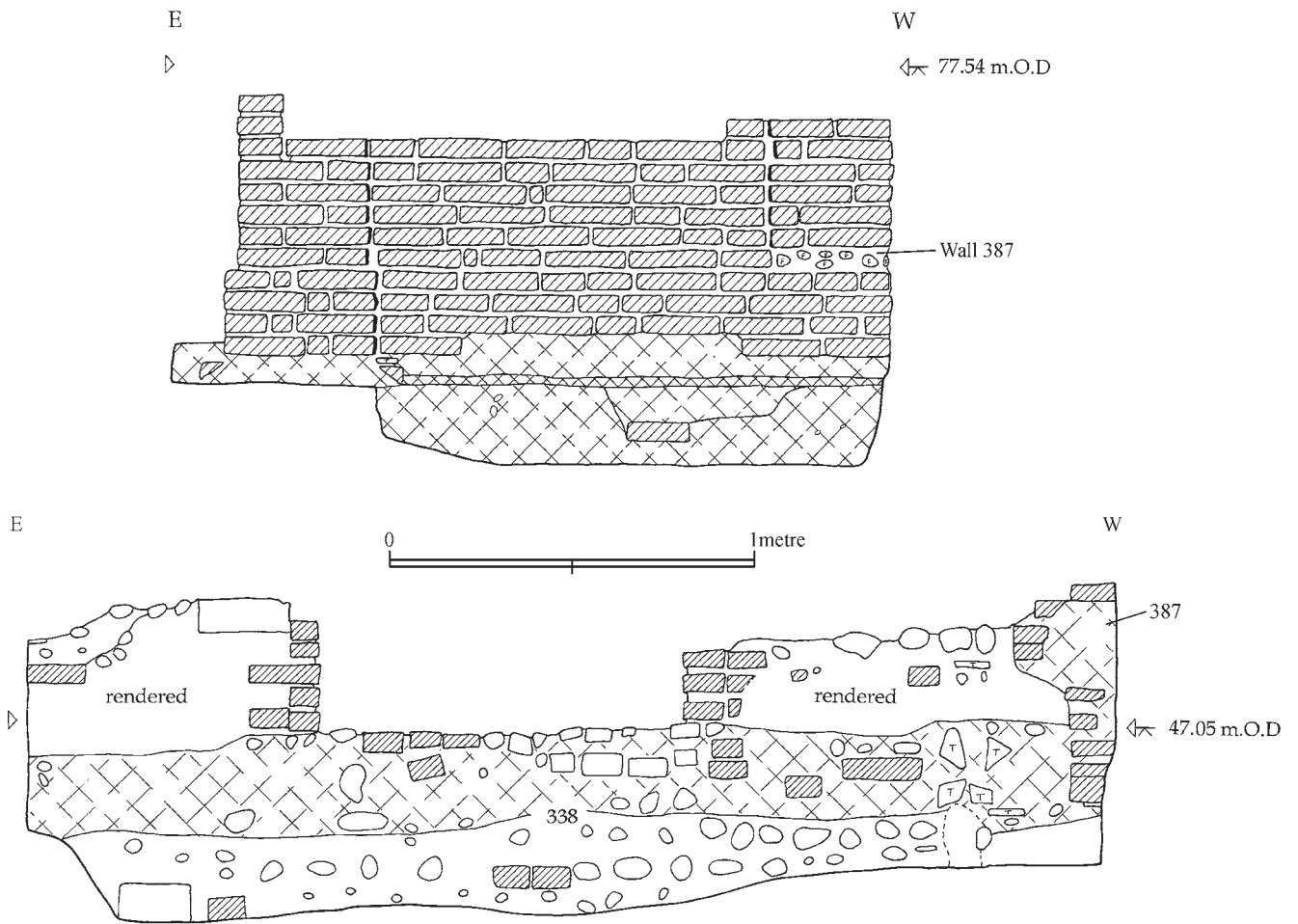


Figure 14 EW section, dovecote wall 387 and Figure 15 EW section, wall 338. Scale 1:20

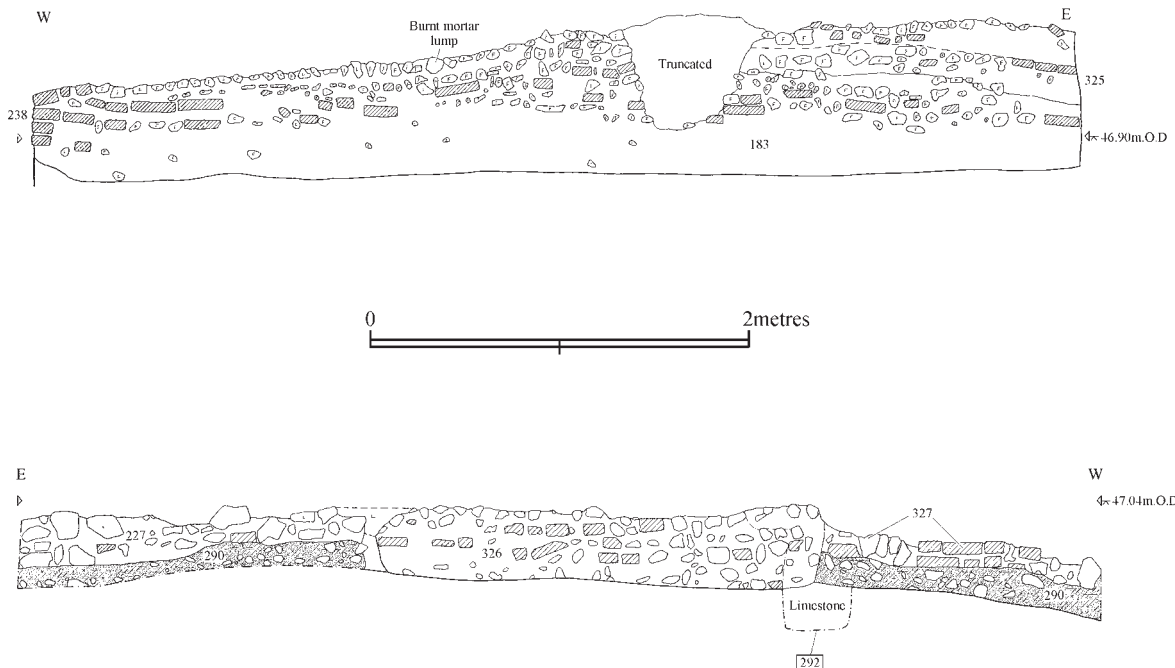


Figure 16 WE section, wall 183 and Figure 17 EW section, wall 327. Scale 1:40



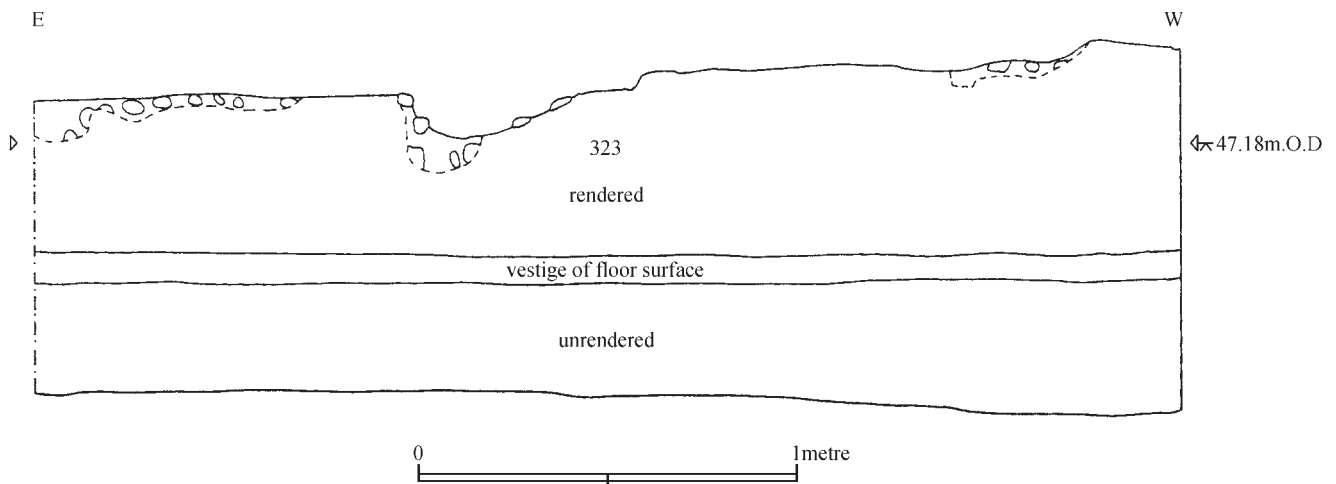


Figure 18 EW section, small rectangular room (wall 323). Scale 1:20

Pottery dating from this period consisted of a relatively high proportion of glazed jugs of both local and non-local manufacture. The predominance of glazed over coarseware is also reflected in the residual assemblage dating from this period found in later deposits. This sort of ratio between tableware and crockery may reflect the use of the building at this time, as a refectory (see Anderson below).

It is difficult to make a precise assessment of the changes in Carbrooke's financial status following the survey of 1338. A number of valuations, accounts and leases survive but do not deal with the same portions of revenue and expenditure. Even so, a downward turn in Carbrooke's revenues from between the 14th to 16th centuries seems evident. Given the economic changes occasioned by the advent of the Black Death in 1349, this shift is unsurprising and paralleled elsewhere: the income of Norwich Cathedral Priory dropped by 50% in the same period (Virgoe 1996, 357–8 and Bolton 1980, 207–21). The reduction in population caused a rise in wages along with a drop in prices and holdings were increasingly likely to be vacant. It thus became more and more difficult for landowners to maintain their levels of income. Direct exploitation had been the most common method of land management but, in the face of long-term economic difficulty, this method of control was relinquished in favour of wholesale leasing by the early 15th century (Mate 1984 and Virgoe 1996, 354–5). The precise impact of these changes upon the *rentier* economy of the Hospitallers remains unclear, although a reduction both in rental receipts and the rents themselves is likely owing to the diminution in the population.

## Period 6: the 15th to 16th century

(Figs 19–23)

The building acquires a number of additions and a modicum of refurbishment during this period (Fig. 19), the masonry components have been split into three separate phases. Some elements of the building and the exterior features belong generally to the period but remain unsubdivided.

### Phase 1 — refectory and chambers

A fireplace, consisting of a brick surface, 147 and 376, with a surrounding curb, 154, of cut half-bricks, abutted the interior wall of the dovecote, 387, and was placed against the period 4 interior wall, 337 (Fig. 19); this replaced the simpler period 5 fireplace in the same location (Fig. 12). This brick surface was laid on a bed of fine sand, 148. A plinth, 336, of unmortared bricks placed side on, was located at the back of this fireplace.

A clay floor, 191, was coterminous with much of the surviving parts of this western room but feathered out in the northern extreme. This layer was comprised of yellow sandy clay with a few patches of thin mortar, perhaps indicative of a tile or brick floor. Pottery recovered from this deposit dated to between the 15th and 16th centuries. Within the eastern room were a series of make-up layers, 135, 156, 268, 273, 364, 375, including hearth debris and redeposited refuse, 306; this sequence was capped with a mid grey/yellow clay floor layer, 240, containing pottery dating from the 15th century. The same set of layers, make-up, 59, 141, 254 and 309, followed by a floor, 105, existed in the west part of this eastern room and differed from their counterparts to the east only in that these had been affected by heat through proximity to the fireplace.

### Fishpond

(Fig. 11)

A gradual silting up of the fishpond took place during this period, a process which was evident in the accumulation of two deposits, 65 and 66, neither of which contained any material besides very occasional animal bone.

### Phase 2 — kitchen

#### Wall and fireplace demolition

The internal wall, 337, separating the two excavated Period 4 rooms, was removed, along with the fireplaces belonging to the previous phase. The destruction of this dividing wall created a single room.

A small north-south aligned wall, 172, (Fig. 19) within the west room, consisted of unevenly coursed limestone and brick bonded with a crumbly white yellow mortar. This structure only survived for a short length and it was unclear whether it had continued across the width of the

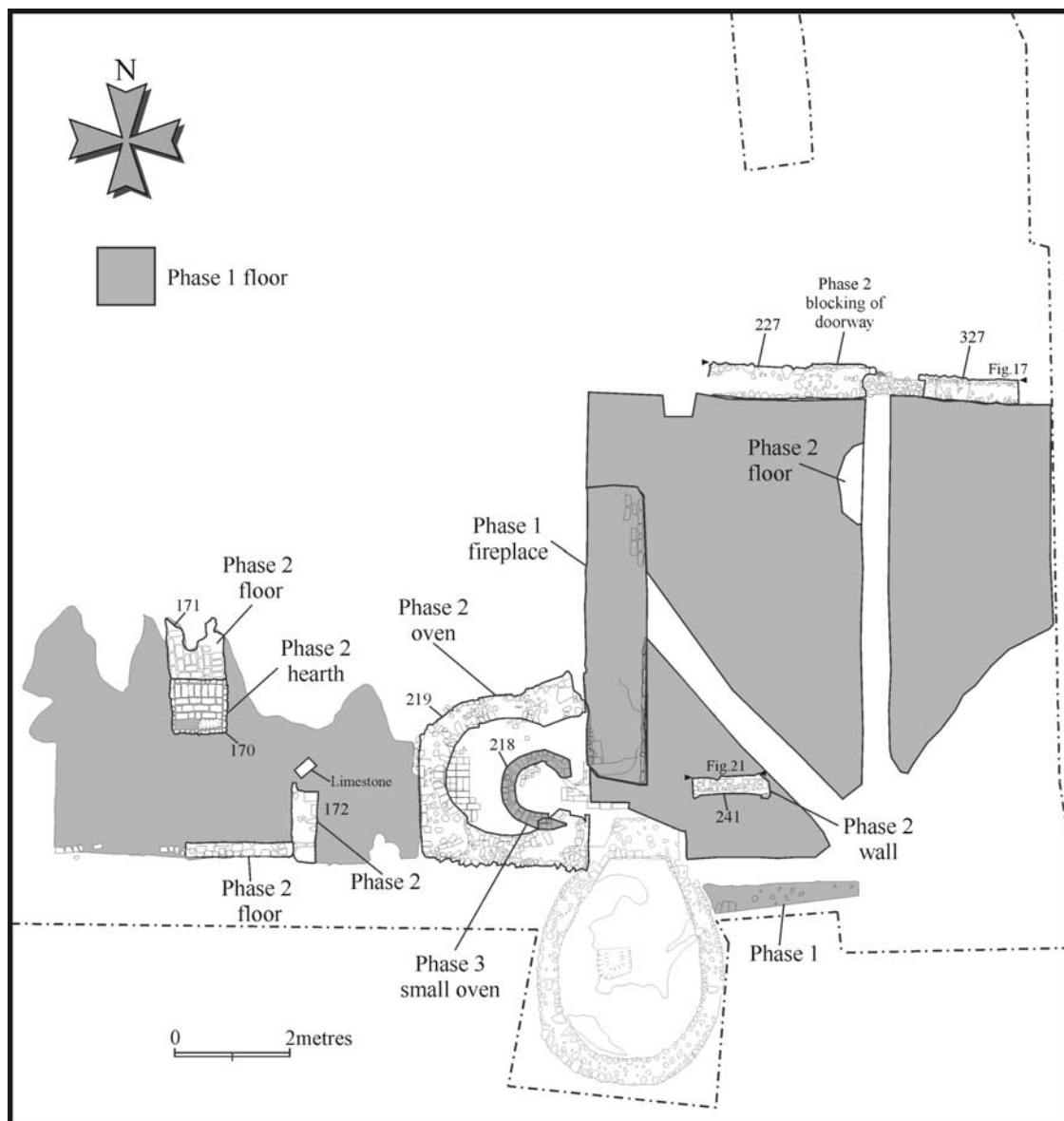


Figure 19 Period 6, 15th to 16th century. Scale 1:125

building, certainly at its northern end it had been destroyed. An east-west aligned internal wall, 241 (Figs 19 and 21) was placed so as to form a continuous length of wall between the dovecote, 387, and the north wall of the small massively built rectangular structure, 323 and thus creating an apparently enclosed non-accessible space. This wall was of relatively poor quality, constructed from brick, tile and limestone rubble in fairly even courses and bonded with a puddled clay.

A hearth consisting of a randomly arranged brick surface, 170, with a surrounding curb of half-bricks on edge was located centrally within the west room of the range. The bricks date from between the 14th and 15th centuries.

The large period 5 northern doorway was blocked with a regularly coursed flint and brick rubble repair wall, 227. To the east of this repairs were additionally undertaken to the existing wall, 102, which had slumped severely into an underlying pit (see Figs 7 and 22; Pl. IV). These wall repairs, 225 and 226, were relatively crude flint and brick rubble constructions.

A subrectangular evenly-coursed flint and brick structure 219 (Fig. 19), formed a circular interior area with an opening in the north-east which is interpreted as an oven. The base of this oven was a brick surface, 482, bonded with mortar that had obviously been heat-affected, judging from the state of the bricks. Only a part of this surface survived as much of it had been cut through later in the period and replaced with a simple clay surface, 262, laid on a bedding layer of very fine sand, 263. This clay surface had become vitrified in certain locations, indicating that the oven had reached high temperatures.

A brick surface 171, (Fig. 19), was located centrally within this west room, associated with the hearth, 170; this too was a fairly random arrangement of bricks set into the yellow clay layer, 191. Abutting the south walls, 238 and 447, and the new internal division, 172, was a surface of bricks, 234, found set into a green clay. The bricks from this surface may be dated to between the late 14th and 15th centuries. The same surface was also evident in what was the eastern room, 75 and 350, with a small area still surviving abutting one of the interior walls, 236,

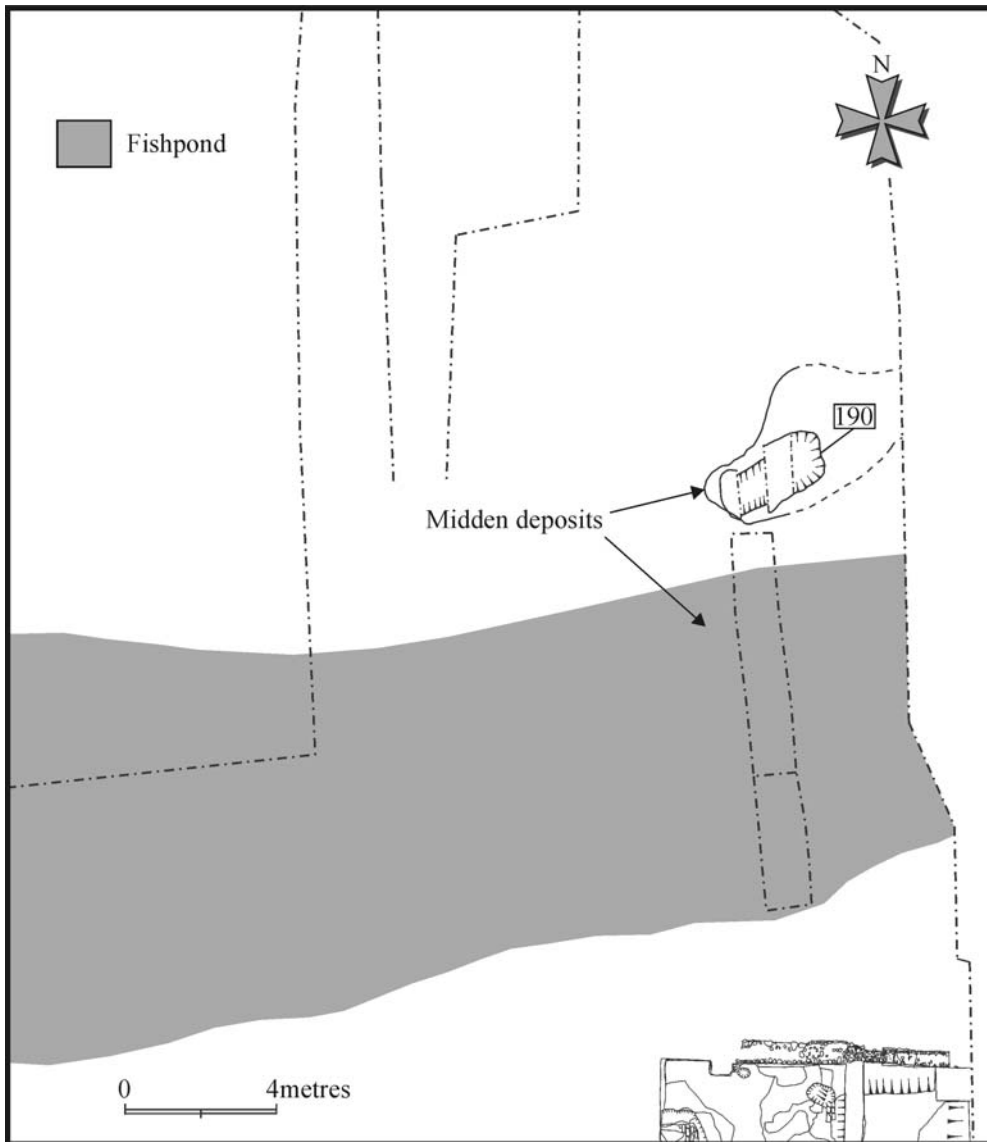


Figure 20 Period 6 midden deposits north of fishpond. Scale 1:200

separating the west and east rooms. Further evidence for this floor was provided by a mortar scar on the interior of the room's walls, 102, 323, 483.



Plate VII Period 6 ovens 218/219

### Phase 3

Later within this period the oven 219 was significantly reduced in size with the insertion of a circular brick structure, 218, approximately half the size of the original (Pl. VII). The base for this oven consisted of a burnt silty clay, 95, containing relatively large quantities of silica skeletons which, unlike any of the other samples taken at the site, did not contain oats, possibly suggesting that it had been used as a bread oven. The opening to this small oven was later altered to make it even smaller with the insertion of a number of roughly placed bricks, 124.

### Phase 2-3

#### *Fishpond/middens*

(Figs 11, 20)

Above the silt deposits within the pond was a peaty silt, 53, which contained significant amounts of midden material, denoting a change in the attitude towards the pond. Much of this midden material consisted of kitchen waste in the form of butchered animal bone, and an illegible clipped silver penny of 14th or 15th-century date was also

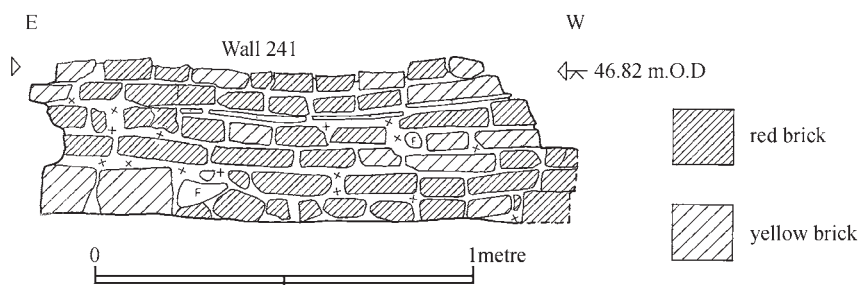


Figure 21 EW section, wall 241. Scale 1:20

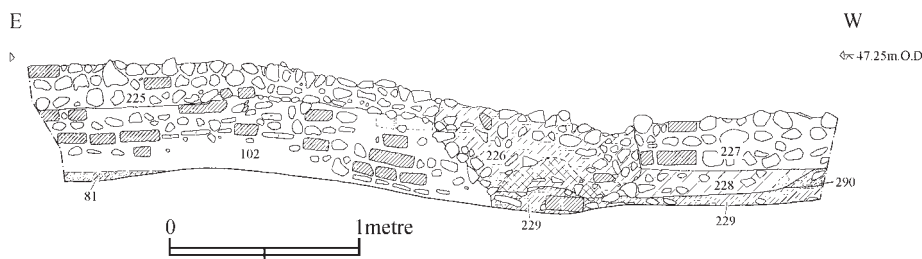


Figure 22 Repairs 225, 226, 227 to wall 102. Scale 1:40

recovered. The pottery from this deposit comprised both residual and intrusive elements. In general it seems most likely, given the dating evidence for disuse of the preceptory and the lack of post 16th-century activity, that this layer dates from the use of the preceptory; whether this use was pre- or post-Dissolution is uncertain given the ambiguity of the dating evidence. Some of the material is, unsurprisingly, residual and much may date from the Dissolution period. A further group of material intruded into the deposit, again unsurprisingly given the probably boggy nature of the area, as late as the 18th century.

To the north of the fishpond a pit, 231, was discovered infilled with refuse similar to that in the fishpond (Fig. 20). Pottery from this pit included material of a residual nature but predominantly dating to between the 15th and 16th centuries. Two more midden layers consisting of large amounts of animal bone and shell, 190 and 211, overlay the pit and the fishpond and contained similar material, the pottery from these layers again dating to between the 15th to 16th centuries.

### Unphased elements

#### *Internal post-holes*

A group of eight post-holes, 189, 208, 259, 311, 403, 405, 408, 410, were located within the middle room of the building. Together, these post-holes do not form a coherent pattern, although they occupy a similar position in the stratigraphic sequence, cutting a period 5 floor. These may represent scaffolding or temporary structures associated with refurbishment and repairs carried out at the beginning of the period.

#### *Infilling of dovecote* (Fig. 23)

The majority of the infillings of the dovecote consisted of gravel deposits, 192, 193, 194 and 196, separated by organic silty sand layers, 195, 197 and 200. Chemical

analysis of silt layer 200 showed it had a high phosphate content (2,000 ppm) and possessed a low P ratio, both these results are indicative of bird guano. Similar amounts of phosphate and a similar P ratio were recorded from a probable dovecote at Stratton, Bedfordshire (Macphail pers. comm.).

#### *External surfaces*

A path, 246, consisting of a compact yellow clay was located immediately to the south of the southern doorway. Brick contained within this layer is dated to between the 14th and 15th centuries.

To the south of the period 5 drain, between it and the fishpond, was a shallow linear hollow, 217. The shallowness of this feature suggests that it was a hollow way or path running down the side of the fishpond.

#### *Garden soil*

Extensive garden soils developed further across much of the area to the north of the fishpond during this period. These deposits were between 0.4m and 0.7m deep, test excavation providing little dating evidence and the pottery assemblage that was obtained had strong residual and intrusive components. The drain also went out of use during this period and was filled in with another garden soil containing pottery dating to between the 15th and 16th centuries.

### Discussion

The archaeological evidence from this period all suggests the change in use of the excavated portion of the building from a chamber during phase 1 to a kitchen in the subsequent phases. This can be seen both in the changes to the building and in the filling of the fishpond with midden from the kitchen. The animal bone contained within this midden material is detailed below (Hammon and Nicholson). Many of the meats consumed appear to be those generally associated with wealth, including young

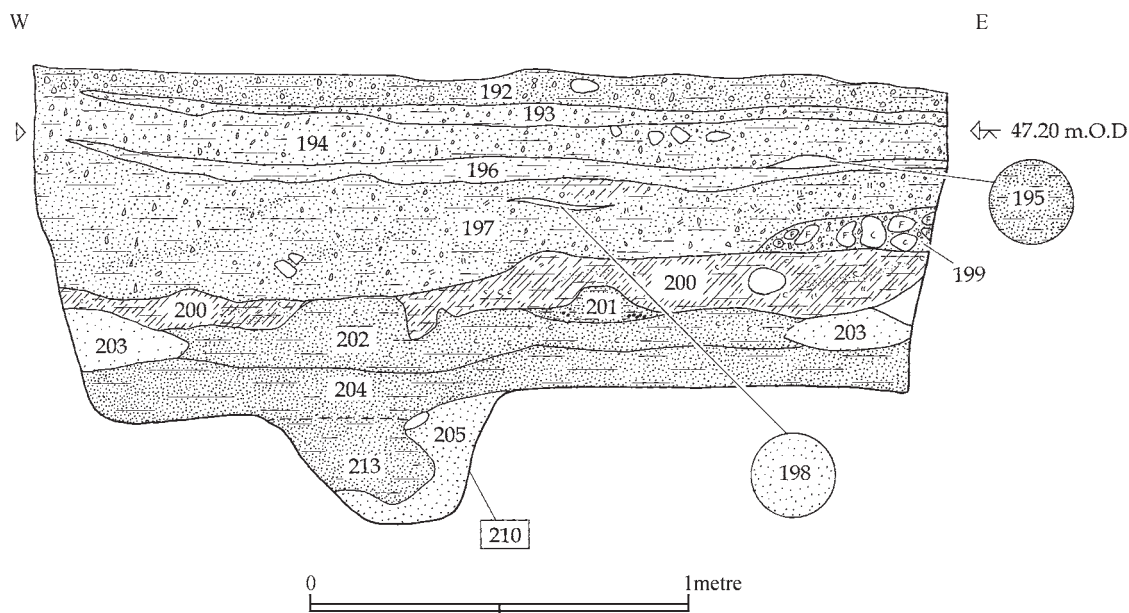


Figure 23 WE section through dovecote. Scale 1:20

cattle and pig, turbot, sturgeon, deer, swan and pigeon. There is, however, a significant undercurrent of less glamorous cuisine such as mutton, salted herring and rabbit, suggesting that the consumers of this food may have been split into distinct groups. Unfortunately the preservation of the plant remains was not sufficient to provide good resolution of the vegetable sector of the diet. Wheat can be seen to be the dominant cereal utilised at the site with pulses also represented (see Murphy below).

The dating of both the alterations to the building and the midden has proved too broad to ascertain whether the material represents life prior to, or after, the Dissolution. The fact that there is a major change of use could be interpreted as evidence for change of ownership but several important factors imply that the remains of this period represent pre-Dissolution activities. Firstly, the size and contents of the midden and in particular, the large amounts of fish bone collected. The original large size of oven 219 may also indicate preceptory use; this leads to the possibility that the reduction in the oven's size during phase 3 might signal the change from preceptory to manor. The dilapidation of this part of the preceptory in the subsequent period also argues against significant continuity across the Dissolution.

There is a great deal of relevant documentation from this period of the preceptory's life. This is reviewed in the appendix, by century, an accuracy of discussion not possible for the archaeological aspects.

The inventory compiled by the king's commissioners provides some insights into a preceptory in decline, but the account is difficult to interpret. Presumably the Hospitallers were well aware of the political tide as their suppression came relatively late in the cycle. It may be conjectured that much of the portable wealth had been removed or hidden prior to the arrival of the commissioners. Indeed the items on the inventory relating to a parlour and the chamber seem derisory when compared with the holding the Order is known to have possessed in the county by this time, and with the contents of the kitchen midden. The account of the buildings might be viewed as less likely to be problematic, a chapel, brewhouse, dairy and barn were all present at the

site in addition to the building housing the parlour and bedchamber but even at this level there are clearly omissions. No mention is made of a preceptor's residence in itself but its presence may have been obvious.

The parts of the preceptory that would have been too obvious to mention or of little interest to the commissioners are difficult to tease out from the limited area investigated archaeologically. Indeed, aspects of the complex may have been missed out for reasons that are impossible to discern now. The 'parlour surmounted by a bedchamber' may refer to the preceptor's quarters or perhaps the guest quarters, and the 'sleeping chamber for the many' may be the dormitory or the hospital. Any way that the uses of the available space are combined there are functions missing from the account. The preceptor was a man of knightly rank, and it seems reasonable to assume that given the Hospitaller wealth this individual would not have shared a bedchamber with three others. The fact that only one chair is listed is further evidence that the inventory cannot be taken at face value.

### Period 7: the late 16th to 18th century (Fig. 24)

Much of the sequence belonging to this period consisted of demolition material. The dating for the various artefact types accumulated within this debris varies from 16th to 18th century.

#### Demolition, dilapidation

A tile scatter, 109, was found immediately to the north-east of the building. These were chronologically undiagnostic falling anywhere between the 13th and 18th century. However, a ditch, 52/270, containing pottery dating from the 16th century or earlier, truncated the northern edge of this deposit. Thus a *terminus ante quem* is established for the demolition or collapse of the building's roof. This ditch also truncated the northern wall, 448, on the western side of the building.

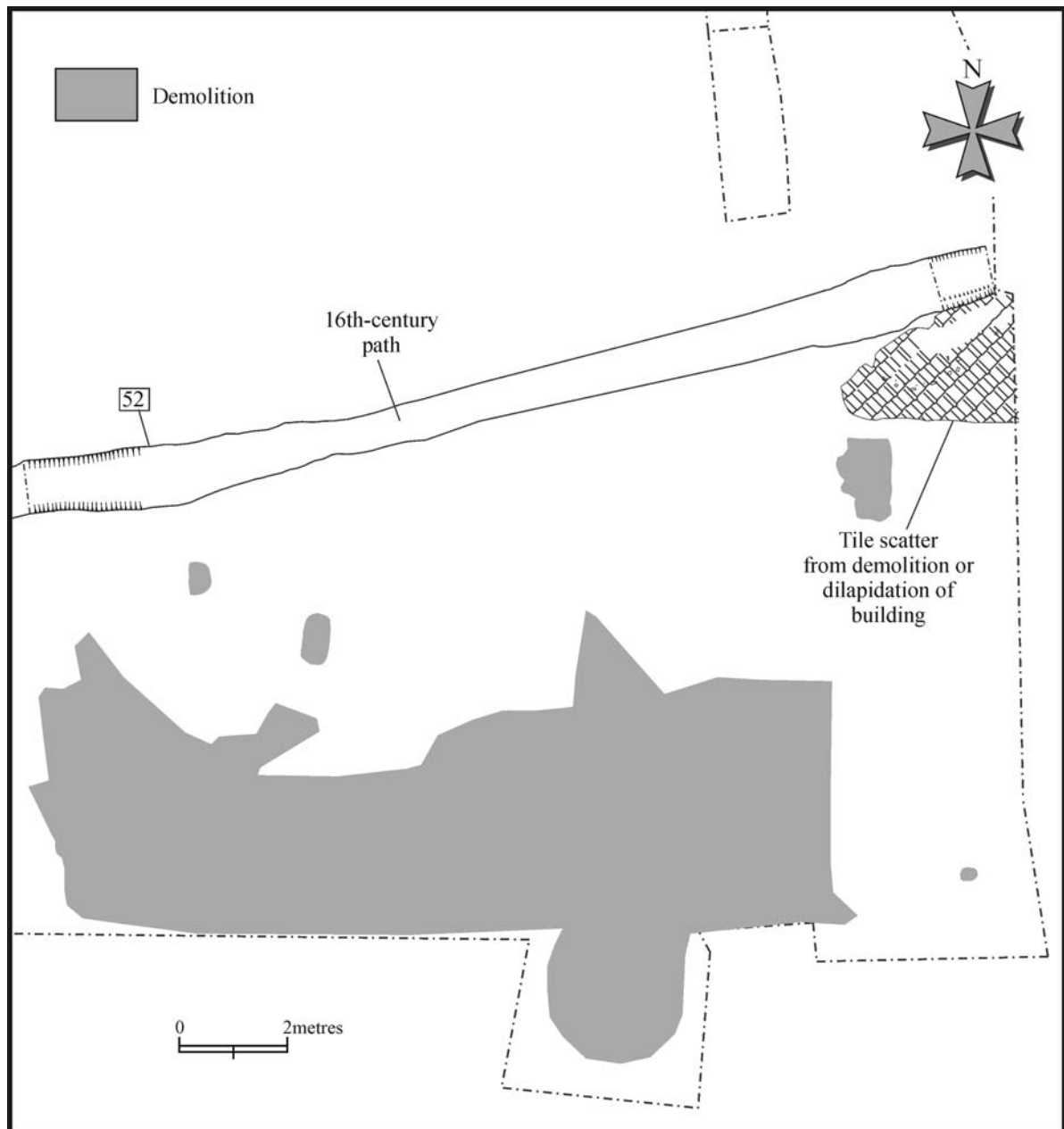


Figure 24 Period 7, post-medieval disuse. Scale 1:125

### Discussion

The excavated building was either demolished, or it collapsed, during the 16th century. Probably the final utilisation of the building is post-Dissolution, which may explain the reduction in the size of the oven. The relatively large quantities of lead waste and spillage found within the demolition deposit and the topsoil might suggest that the structural lead from this building, if not the other preceptory buildings, was opportunistically stripped out. The amount of wastage probably indicates a non-systematic process, implying dilapidation of the structure rather than demolition. This latest phase of the building's occupation was clearly short-lived although other parts of the preceptory may have been used for longer.

The late 16th century saw continuing occupation of a Carbrooke site by the Southwells, possibly that of the ex-preceptory. Elizabeth Southwell, widow of Sir Robert, who served as Rear-Admiral against the Spanish Armada (1588), wrote from Carbrooke, entreating the local

judiciary to exercise their authority in the village where 'the pore are growen so unruly there that they have left neither hedge, nor gate, nor stile unburned. And now they go to the wood and fell and lop at their pleasure' (Royal Commission 1876, 486). The time-scale of the post-Dissolution occupation remains undiscovered.

The buildings of the preceptory site remained intact beyond the Dissolution. They were probably in residential use as the roof-lead was not stripped and sold, usually one of the first tasks to be completed. The indenture of 1541 also required that all the buildings of the manor site be repaired and maintained (LR2/63, f. 114v-d). It appears from Elizabeth Southwell's letter (above) that the poor were rioting, in all likelihood because the Southwells were conducting a programme of enclosure. The activity described suggests 'beating the bounds', or levelling, rioting as symbolic act of destroying fences, hedges or other boundaries (Johnson 1996, 58).

# Chapter 3. The Finds

## I. Pottery

by Sue Anderson

A total of 307 sherds weighing 5.164kg was collected during the excavation. Table 1 provides a summary of the quantification.

The majority of pottery from this assemblage fell into three groups: medieval glazed, late medieval and post-medieval wares. For a small group, there is a very wide variety of different pottery fabrics.

### Pre-Late Saxon material

One unidentified sherd in a hard buff fabric containing moderate coarse flint and common rounded quartz was found (321). The date of this is uncertain but it could be prehistoric, early Saxon or early medieval.

Three Roman sherds were found. One very small micaceous greyware sherd was heavily abraded (313), but there was also a micaceous greyware jar base (379) which was probably from Wattisfield, and two sherds of a Nene Valley colour-coated rouletted beaker (435), also abraded.

### Late Saxon and Early Medieval wares

Thetford-type ware from several sources was found. Some was almost certainly from Thetford itself and some was Grimston Thetford Ware, but there were also sherds which could have derived from other production sites such as Norwich or a rural kiln. Only two forms were identified, both jars with parallel-sided rims.

Early Medieval Ware (EMW) occurred in several contexts. Most was in a fairly coarse sandy fabric which had generally been fired to a dark grey or black colour but was sometimes oxidised in places. This type is similar to

<i>Fabric Name</i>	<i>Code</i>	<i>Fabric No.</i>	<i>No.</i>	<i>% No.</i>	<i>Wt/g</i>	<i>% Wt</i>
Unidentified handmade	UNHM	0.00	1		6	
Roman Greyware Micaceous	RBGM	1.20	2		18	
Nene Valley Colour Coated	NVCC	1.81	2		8	
<i>Total pre-LSax</i>			<b>5</b>	<b>1.6</b>	<b>32</b>	<b>0.6</b>
Thetford-type Ware	THET	2.50	24		147	
Grimston Thetford-type Ware	THETG	2.57	10		84	
Early Medieval Ware	EMW	3.10	33		244	
Early Medieval Ware Shelly	EMWS	3.14	1		22	
<i>Total LSax and EMed</i>			<b>68</b>	<b>22.1</b>	<b>497</b>	<b>9.6</b>
Medieval Coarsewares	MCW	3.20	6		71	
Grimston Coarseware	GRCW	3.22	15		123	
Local Medieval Unglazed	LMU	3.23	26		166	
Ely Coarseware	ELCW	3.61	2		9	
<i>Total Med coarse</i>			<b>49</b>	<b>16.0</b>	<b>369</b>	<b>7.1</b>
Unprovenanced Glazed 1	UPG1	4.01	13		99	
Unprovenanced Glazed 2	UPG2	4.02	2		94	
Unprovenanced Glazed 3	UPG3	4.03	1		1	
Grimston Ware	GRIM	4.10	30		846	
Yarmouth-type Glazed Ware	YARG	4.11	1		9	
4 Ely Glazed Ware	ELYG	4.81	6		156	
<i>Total Med glazed</i>			<b>53</b>	<b>17.3</b>	<b>1205</b>	<b>23.3</b>
Late Medieval and Transitional	LMT	5.10	50		1226	
Cistercian-type Ware	CTW	5.20	1		3	
Midland Purple Ware	MIDP	5.21	2		32	
Grimston Ware Late	GRIL	5.30	2		17	
<i>Total LMed</i>			<b>55</b>	<b>17.9</b>	<b>1278</b>	<b>24.7</b>
Iron Glazed Black Ware	IGBW	6.11	4		66	
Glazed Red Earthenware	GRE	6.12	36		976	
Staffordshire-type Manganese Glazed	STMG	6.21	2		9	
Staffordshire-type Slipware	STAF	6.41	1		6	
<i>Total PMed</i>			<b>43</b>	<b>14.0</b>	<b>1057</b>	<b>20.5</b>
Siegburg Stoneware	GSW1	7.11	1		22	
Raeren/Aachen Stoneware	GSW3	7.13	6		345	
Cologne/Frechen Stoneware	GSW4	7.14	1		4	
Dutch-type Redware	DUTR	7.21	12		224	
<i>Total Imports</i>			<b>20</b>	<b>6.5</b>	<b>594</b>	<b>11.5</b>
Transfer-printed Earthenware	TPE	8.00	3		17	
Late Post Medieval Earthenware	LPME	8.01	4		9	
Industrial Slipware	INDS	8.02	2		11	
Creamware	CRW	8.10	1		4	
English Stoneware	ESW	8.20	4		91	
<i>Total Modern</i>			<b>14</b>	<b>4.6</b>	<b>132</b>	<b>2.6</b>
<i>Total</i>			<b>307</b>		<b>5164</b>	

Table 1 Summary of pottery quantification

material found in King's Lynn and attributed to a pottery production site in Middleton. Very little thin-walled material comparable with Thetford and Norwich EMW was identified. No rims were found. There was also one handmade shelly ware which was probably early medieval.

### Medieval coarseware

Medieval coarsewares also came from several sources, including Grimston, Norwich, Ely and several unidentified possibly local production centres. Grimston coarsewares included rims from three bowls and a jug (although this was similar to the non-calcareous variety of Ely coarseware and may not be from Grimston). One medieval coarseware jar had an unusual flaring rim with a hollowed end; this could be a Thetford Ware variant. One sherd was decorated with an applied thumbled strip. The local medieval unglazed wares, probably from Norwich or its vicinity, included one developed jar rim form.

### Medieval glazed wares

Grimston Ware was the most common glazed ware from the site, and included a longitudinally grooved strap handle typical of the later industry (73), and several base fragments with kiln scars. Ely glazed ware was also relatively common and included a stabbed strap handle (281). One gritty redware rim (362) was similar to Yarmouth-type glazed ware, although it could be a coarse oxidised Grimston product. Three unprovenanced glazed wares were found: UPG1 was a coarse sandy white or light grey fabric with light green glaze and was quite common; UPG2 was a hard calcareous fabric with buff margins and a grey core and worn patches of yellow glaze; and UPG3 was a sandy orange thin-walled fabric with copper green glaze. UPG1 could be a pale-firing Grimston variant, as iron-free clays were used in the industry for applied decoration on some later vessels.

### Late Medieval pottery

Some of the Grimston Ware noted above may be of late medieval date, but two pieces were identified as Late Grimston Ware. One of these was a small vessel decorated with horizontal rows of red pellets and a slightly faceted neck (53), and the other was a high fired greyware with pink oxidised margins (378), although this was not like the typical oxidised versions of Grimston.

Pottery of the Late Medieval and Transitional (LMT) industry was very common on this site. The origin of most of this material was probably Hopton, although some micaceous products probably derived from Rickingham or Wattisfield (Anderson *et al.* 1996). Identified forms included a dripping dish, two jugs and several storage jars or cooking vessels. One vessel with a dark green glaze had incised wavy line decoration on the body.

Other late medieval wares included a rimsherd of a Cistercian-type ware mug (269), and two high fired sherds of Midland Purple type (53).

### Post-medieval pottery

Red earthenwares were the most common post-medieval pottery types. A jar and a flat base from a vessel with a globular body were iron-glazed. Other glazed types included several sherds of a large storage vessel (26/27) with finger tip decoration under the rim and a speckled

brown glaze, and a base with an unusual green and orange streaky glaze on the inside (53) (Jennings 1981, no. 1258).

Other post medieval pottery consisted of Staffordshire-type slipware and manganese glazed ware.

### Modern wares

Examples of 18th/19th-century white earthenwares included a creamware base, two pieces of industrial slipware with striped and marbled decoration, three blue and white transfer printed sherds (two willow pattern, one English rural scene), a hand painted saucer rim, and three sherds with a very pale cream glaze.

Four sherds of English stoneware bottles were also identified.

### Imported pottery

All imported pottery was of late medieval and post-medieval date. One piece of unglazed Siegburg stoneware was found (74), Raeren/Aachen stoneware included a large part of a small frilly based mug and part of a jug, and there was one small fragment of Cologne/Frechen stoneware. Several sherds of Dutch-type red earthenware probably belonged to a single vessel (26/27).

### The pottery by site period

Pottery was collected from fifty-one contexts including demolition and make-up layers, ditches, pits and post-holes.

Table 2 shows the pottery quantification by site period.

Phase	No.	%(No.)	Wt/g	%(Wt)
2	22	7.2	145	2.8
3	55	18.0	870	16.9
4	18	5.9	134	2.6
5	25	8.2	291	5.6
6	60	19.6	1279	24.8
7	93	30.4	1713	33.2
Unphased	33	10.8	722	14.0

Table 2 Pottery by site period

### Discussion

A wide variety of ceramic material was collected from this site, ranging in date from Roman to Early Modern. The most common pottery types by count were Late Saxon and Early Medieval wares, but this was probably due to the fragile nature of Early Medieval Ware. Much of this material, particularly Grimston Thetford Ware, was heavily abraded. By weight, late medieval wares were the most common, probably reflecting the final period of occupation of the preceptory and its subsequent demolition. It is also interesting to note the presence of significantly more glazed than coarse medieval wares, which may suggest that the high medieval use of the range was different from its later function as a kitchen. LMT, although glazed, is generally a functional rather than decorative ware. However, as much of the pottery is distributed in make-up layers and midden deposits, it is likely that sherds of broken vessels were redeposited from their original area of use or disposal whenever hardcore was required for flooring.

Parts of the assemblage are reminiscent of pottery groups from King's Lynn, Norwich and Thetford, perhaps suggesting a consumer site reliant on all three centres in



the Late Saxon to high medieval periods. However, the large quantity of LMT from the relatively close Hopton-Wattisfield area of Suffolk may suggest direct distribution from this industry in the late medieval period.

Study of the pottery by phase reveals a high degree of residuality. This is probably related to redeposition of soil both during the life of the building and following its demolition. Use of rubble and hardcore for floor make-up and foundations would involve considerable movement of soil and anything it contained, which would explain the diversity of wares found in many contexts. It is likely that very little pottery from this site remained in its original place of disposal until the present, although some rubbish pits appear to contain material with a short date range.

The small amount of pottery from a large and long lasting building can be explained by the status of the site, which presumably resulted in continual clearance of rubbish. Broken pots, animal bone and other waste were probably disposed of away from the kitchen, where refuse would no doubt otherwise have encouraged unwanted pests and vermin.

## II. The ceramic building material

by Sue Anderson  
(Fig. 25)

A total of 764 pieces of ceramic building material (CBM), 26 pieces of mortar/plaster and 75 fragments of fired clay were submitted for analysis. The material was quantified by fabric and form. Table 3 lists the count and weight quantification of the CBM by form.

Form	No.	Wt/g
Brick	228	217400
Roof tile	534	62205
Floor tile	1	280
Total	763	279885

Table 3 Quantification of CBM by form

### Fabrics

Seven sandy fabrics were identified as follows:

**B1:** Red, sandy with few other inclusions. Hard, often with partially reduced core. Tiles often slightly vitrified.

**B2:** Red or orange, usually with reduced core, generally softer than B1. Occasional very coarse flint, chalk, grog *etc.* Difficult to distinguish from B1 if only small fragments available.

**B3:** Yellowish-white or pinkish-buff, with reddish streaks and coarse red clay or grog, occasional chalk, some vesicles.

**B4:** Variable colours, usually pinkish purple and white in the same tile, poorly mixed. Some dense, some less well pressed. Very little temper other than sand and coarse pieces of clay/grog.

**B5:** Purple fabric, often with yellow surfaces and margins and usually heavily overfired. Coarse grog and ferrous inclusions, lots of vesicles. Usually poorly formed.

**B6:** Pinkish orange surfaces and blue-grey core and margins. Coarse sandy with occasional white grog.

**B7:** Orange, white or pink fabric, roughly made, organic tempered with some grog.

These fabrics were used for all bricks and tiles, although B7 applies only to bricks and B6 exclusively to roof tiles.

### Forms

#### Bricks

Brick fabrics are similar to those identified by Drury in Norwich with B1 and B2 generally corresponding to LB fabrics, and B3–6 forming a loose continuum of relatively well-mixed to very poorly mixed estuarine clays with varying degrees of temper (Drury's EB fabrics) (Drury 1993, 163–8). Fabric B7 is not specifically recorded in Norwich, although it may simply be an extension of the EB fabrics with coarse organic inclusions instead of inorganic temper. Suggested dates are based on brick sizes compared with those from Norwich; they have also been compared with pottery dates where possible.

Table 4 shows the quantities of bricks found in each of the seven fabrics. Estimated brick equivalents (EBE) are based on an average brick weight of 2800g. Although this allows for comparison within this assemblage, it is largely meaningless for comparison with other sites as it is based on samples, not on the total CBM found at the site.

Fabric	No.	Wt/g	EBE
B1	3	2415	0.9
B2	12	6756	2.4
B3	120	109187	39.0
B4	49	39621	14.1
B5	26	41401	14.8
B7	18	18020	6.4

Table 4 Brick fabric quantities

Red sandy fabrics B1 and B2 were not common at this site. This may be related to date, as bricks of this type do not seem to appear before the mid-15th century in East Anglia and are uncommon before the 16th century. However, the high proportion of late medieval and transitional pottery found suggests that there was activity at this time. The small numbers of early post-medieval bricks found may suggest that these were not generally used in the structures on this site, or that good quality bricks were robbed following the Dissolution. More common are bricks of later 14th and 15th-century date in fabrics B3, B4 and B5, which could represent the last major period of building at the commandery. Earlier bricks occur in a few contexts, for example wall 299 and plinth 336, which contained bricks of later 13th/14th-century date. Fabric B7 appears to occur from the 13th century at this site.

Table 5 shows the average dimensions for each fabric. The majority of bricks from this site were approximately 8–9" (20–22 cm) long, 4–4½" (10–11 cm) wide and 2–2½" thick (5–6.5 cm). This is the normal range for bricks of 14th-century and later date in Norwich. The few small bricks which occurred were largely in Fabric B5 and were heavily overfired. It is likely that they shrank to a smaller size than was intended during firing.

Individual brick sizes were compared with material from Norwich and form codes were assigned where possible. Table 6 shows the numbers and weights of fragments found in each brick type (Drury 1993, 163–8).

<i>Fabric</i>	<i>No.</i>	<i>Ave. width</i>	<i>No.</i>	<i>Ave. length</i>	<i>No.</i>	<i>Ave. height</i>
B1	1	231.0	1	110.0	1	48.0
B2	2	231.5	2	116.5	2	57.0
B3	30	239.4	43	116.8	45	54.0
B4	9	237.6	17	116.7	17	53.3
B5	14	217.4	20	107.1	20	49.3
B7	5	227.4	11	115.4	11	48.6

Table 5 Average dimensions and numbers of bricks measured

Drury suggested dates for EB2–4 of late 13th/14th-century, EB6–9 of late 14th/15th-century (although some occur in late 13th-century buildings), and LB1–3 of 16th/18th-century. At this site, several EB6–9 bricks occur in contexts assigned to periods 3–5, perhaps suggesting that they were in use earlier here than in Norwich. EB forms in fabric B2 are unusual and it may be that these sandy red fabrics are oxidised variants of fabric B3.

The quality of manufacture of some of these bricks was very poor. For example, a group of EB9 bricks from a period 5 demolition dump, 212, were extremely variable within the EB3 and EB9 size ranges. Many were small and heavily overfired, with some surface blistering and warping. A few were larger, although still within the EB9 size range, and had been less heavily fired, and one of these had a hand print on the surface. This, together with the rough nature and deep cracking of some of these bricks, suggests that they were not always fully dried before firing. Despite their crude nature, several had clearly been used as they were covered in thick deposits of mortar.

Three half-bricks from plinth 336 all had smoke blackening on one stretcher face, perhaps suggesting proximity to a hearth or fireplace. Several bricks from midden 190 and floor 191 had smoke blackened headers, and one of these also had a blackened surface with possible graffiti or scratchmarks under the soot.

One other half-brick had graffiti on the surface (27). Unfortunately it was unintelligible, but it had clearly been cut into the surface of the brick prior to firing and was partially covered with mortar (Fig. 25 No. 1).

Several fragments showed evidence for reuse (mortared breaks) and were often residual in later contexts. There were also several fragments with evidence for wear on the broken edges, suggesting use in flooring (see below). Some bricks had been deliberately shaped with chamfered edges (147, 233) or corners cut at 45° angles (57, 241). The latter appeared to have been reused, as there was mortar on the angled surfaces, but their original use may have been as a

coping course or plinth at the base of a wall. One brick had a rubbed semi-circular end (60) (Fig. 25 No. 2) and may have been used or reused in blind arcading or a window or door frame.

A few bricks were vitrified with either blue or yellow glossy surfaces (51, 209, 234, 240, 276), but the small number of these makes it difficult to determine whether they were deliberately used in decorative brickwork. However, all occurred in period 6 or later contexts, which would be contemporary with this style of decoration.

A few bricks in period 7 contexts showed signs of plastering or painting. One brick from 106 appeared to have red paint on one header, and another had plaster on one stretcher face.

One fragment of unstratified CBM was chamfered on both sides (Fig. 25 No. 3), one side by moulding and the other by sawing. It was in fabric B3 and may have been a shaped brick, but the size and form suggests that it was a fragment of window or door mullion. It was approximately 120mm long, 113mm wide and at least 46mm deep.

#### *Floor bricks and tile*

A number of bricks had clearly been used for floor surfacing as they were mortared on the base and sides only and showed signs of wear on the upper surface. Many were smoke blackened, and several of these occurred in the samples collected from contexts 147, 170, 171, 218, 266 and 376. Contexts 170–171 were sections of hearth, and 218 was an oven, but 147 and 376 were floors and 266 was a step. All were EB6 and EB7 bricks of probable late 14th/15th-century date. Some bricks from 170 appeared to have been deliberately halved on their long axis, with heavy wear having occurred on the broken surface. Bricks from curb 154 had a slightly curved long edge, presumably from wear rather than deliberate shaping.

Only one fragment of an unglazed floor tile was collected (ditch fill 53). This was in a fine red fabric and was probably post-medieval.

<i>Form</i>	<i>Fabric B1</i>		<i>Fabric B2</i>		<i>Fabric B3</i>		<i>Fabric B4</i>		<i>Fabric B5</i>		<i>Fabric B7</i>		<i>Total</i>	
	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>	<i>Wt/g</i>	<i>No</i>
B	15	1	6	1	1167	4	500	4					1688	10
EB			738	2	7607	44	2449	19	1826	4	1772	9	14392	78
EB2					970	1	4836	3					5806	4
EB3					7070	3							7070	3
EB4					1514	1	5206	7					6720	8
EB4A					2800	1							2800	1
EB6					8619	11	2800	2			1042	1	12461	14
EB6/7									1724	1	1658	1	3382	2
EB7			5600	7	76593	50	22208	12	2300	1	4900	3	111601	73
EB8					1010	1	1383	1					2393	2
EB9									35551	20	8648	4	44199	24
LB	132	1	412	2	1837	4	239	1					2626	9
LB1	2268	1											2268	1

Table 6 Quantities of brick forms by fabric

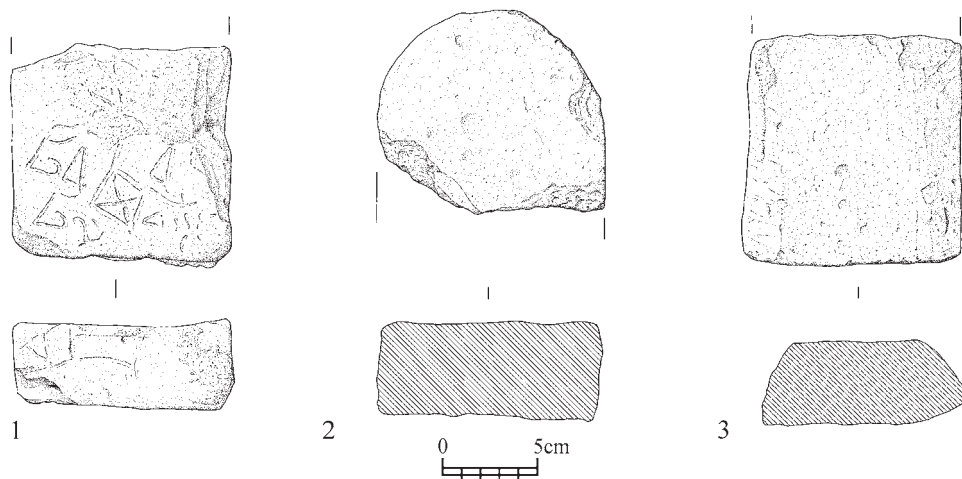


Figure 25 Ceramic building material. Scale 1:4

### Roof tiles

Fabrics for roof tiles correspond to several of those identified in Norwich by Drury, although sizes of tiles were slightly different (Drury 1993, 166–8). Fabrics B1 and B2 are the same as his RT4, fabric B3 corresponds to RT5, fabric B4 to RT1, and B5 and B6 to RT6. Most of these fall within the date range 13th/16th-century.

Peg tiles were the most common roofing material collected, but there were also a few fragments of ridge tiles and pantiles. Tiles occurred in the same basic fabric groups as the bricks, with the exceptions of B6 and B7.

Table 7 shows the quantities of roof tile by fabric. The estimated tile equivalent (ETE) is based on an average weight of 1020g for a complete peg tile. Like the brick estimate, this is provided simply to give an idea of relative quantities of fabrics within the assemblage and is of little value for comparison with other sites.

This shows that the majority of tiles, unlike the bricks, were in red sandy fabrics. Similar tiles were in use in Norwich from the 13th century onwards.

Peg tile dimensions were recorded where possible, but thicknesses of each fragment were not fully recorded due to the possibility of recording the same tile several times. Most pieces fell into the range 11–15mm, although a few were slightly thinner or thicker. The fabric B4 and B5 tiles were generally very uneven and could vary from one end of the range to the other within a single fragment. Only eleven length and twenty-two width measurements could be taken. The range for these was 243–258mm (9½–10") long and 152–172mm (6–6¾") wide. All but one of the measurable tiles were in fabrics B1 and B2.

Of the 212 fragments with one or two peg holes, only two had square holes. Most of the remainder had round holes about 15mm in diameter, although a few were smaller. At least thirty-three tiles had two holes, and this was probably true of most peg tiles from the site, based on the position of most holes close to the corners of many fragments. However, at least two tiles with single central holes no larger than 10mm in diameter were found. These tiles were in fabrics B4 and B5 and appear to be similar to roof tiles found in King's Lynn (Clarke and Carter 1977, 298). No glazed fragments of peg tile were found, which is unusual for a site of this date and status.

Two possible pantile fragments were found, in fabric B1, in post-medieval contexts 27 and 109. Tiles of this

Fabric	No.	Wt/g	ETE
B1	364	47627	46.7
B2	72	6350	6.2
B3	36	4806	4.7
B4	28	1708	1.7
B5	18	930	0.9
B6	16	784	0.8

Table 7 Roof tile fabric quantities

type were probably introduced into East Anglia in the 17th century (Drury 1993, 163–8).

Fragments of four ridge tiles were collected, three in fabric B1 and one in fabric B2. All were relatively thick in comparison with the peg tiles, varying from 16 to 22mm thick. Five pieces of a single dark green glazed ridge tile with crest decorations were found (109), but apart from this only one other piece of glazed roof tile was found (unstratified). The latter was 16mm thick and glazed dark brown. It could be another fragment of ridge tile.

### Mortar and plaster

A total of twenty-six fragments of plaster and mortar weighing 2.127kg was collected from three contexts (105, 170, 171). All were made of lime mixed with coarse chalk lumps and sand. A few fragments had smoothed surfaces and may have been plaster, but otherwise the fragments were unremarkable.

### Daub

Seventy-five fragments of daub weighing 5.496kg were collected from ten contexts. The majority was in a coarse fabric with large pieces of chalk, flint and organic temper. Some finer pieces were probably smoothed surface fragments. One fragment from 27 had impressions of bunches of wattles which could have formed the frame for a small oven dome. However, the most interesting pieces had unusual wood impressions, some with saw marks, surrounding rectilinear and squared raised areas with flat surfaces (167, 214, 123). The other side of these pieces was flat but rough, and some had been plastered. Their function is uncertain, but they could be the remains of a smoke hood built on a wooden frame with lath supports.

## Discussion

The material is similar to that identified by Drury and consists of medieval organic and grog tempered coarse brick fabrics and sandy roof tiles, some 14th to 16th-century finer sandy fabrics, and occasional post-medieval fabrics, most of which were roof tiles (Drury 1993, 163–8). It seems likely that building material from this site was derived from the same source as that found in Norwich, although there is some evidence to suggest that a few pieces could have been supplied via King's Lynn. Similar sources have been indicated for the pottery.

Despite this being only a sample of the total amount of CBM on the site, tile and brick was used more in period 5 than previously, with periods 6 and 7 containing large quantities of demolition material. Although there is some early use of brick, probably from the 13th century, it appears to have been more commonly incorporated into the fabric of the building from the 14th century onwards. The brick type changes from coarse organic tempered lightweight bricks in the earlier periods, to much heavier, coarsely made bricks of Norwich types in period 5.

Roof tiles also appear to be present from the 13th century, but in much finer fabrics from the beginning. The small number of coarse fabric tiles suggests that the finer red variety was favoured at this site. Unusually for a group of this type, there were no glazed floor tiles and very few glazed roof tiles, all of which were ridge rather than flat tiles. Perhaps this is related to the function of the area excavated rather than to any preference for plain tiles.

It is interesting to compare the quality of the roof tiles with that of the bricks. As few bricks were used in the construction of the building, perhaps it was acceptable to use roughly made types in the foundations and walls, which might be expected to be plastered or rendered, whilst the roofing material was visible externally and therefore of better quality. However, the internal brick floors and hearths were constructed of these bricks, presumably because, despite their coarse nature, they were extremely hard wearing and utilitarian.

The small amount of daub, much of which can be related to a single uncertain function, may indicate that there were wattle and daub structures in the vicinity, but that this was not the main construction technique on this part of the site.

In general, the CBM assemblage suggests limited use of tile and brick in the early buildings on the site, at least one building with a tiled roof by the 14th century, and occasional use of brick to support flint masonry up to the early part of period 6. Brick was probably of relatively low importance as a building material in this part of the preceptory, although its limited use as flooring and facing for ovens and hearths may reflect its cost — and practicality — in comparison with more readily available natural materials.

## III. Copper alloy

by Julia Huddle  
(Figs 26–27)

A total of fifty-nine copper alloy artefacts was recovered at Carbrooke. The vast majority of the finds are unstratified, having been metal detected from the topsoil during machine stripping; one is from period 6, whilst the remainder are from period 7. The material ranges in date from the 13th century to the late post-medieval period.

Two buckles, three mounts, part of a strap-end, a chain fragment and a bell are dated to the medieval period. These are however common finds amongst assemblages from the medieval period.

### Rowel spur

(Fig. 26)

1. SF 112 (500) unstratified: Incomplete copper alloy rowel spur. Both sides are distorted and one side is broken. Down-curved neck between the spur sides and the rowel box with eight-pointed star rowel. Probably post-medieval. No exact parallels found. However a spur rowel with a moulded neck was found in Norwich dated to the end of the 17th century (Margeson 1993).

### Strap end

(Fig. 27)

1. SF 12 (26) unstratified: Copper alloy forked spacer for circular strap end, with acorn type knob, one arm of fork broken. Compare forked spacers from London where the occurrence of this type of composite strap-end from the middle of the 13th century is discussed (Egan and Pritchard 1991, 140, fig. 92, nos 650–2).

### Buckles

Two D-shaped buckles were recovered on site (Fig. 27, Nos 2, 4) one, SF 10 is from an unstratified context whilst SF 111 is from a 15th/16th-century context. They are often recovered from late 12th/13th-century contexts. Simple double-looped buckles (often with angled frames) are a common type from early post-medieval contexts in Norwich and elsewhere. Two were recovered at Carbrooke, both are unstratified, SF 16 and SF 22 (Fig. 27 No. 3).

2. SF 10 (26) unstratified: D-shaped copper alloy buckle frame with moulded and incised decoration; copper alloy pin looped over bar.
3. SF 22 (26) unstratified: Double looped copper alloy angled buckle frame on leather strap with pin, traces of gilding on both buckle frame and pin.
4. SF 111 (53) period 6: D-shaped copper alloy buckle frame, with moulded pin rest and copper alloy pin looped over bar.

### Bells

(Fig. 27)

Bells made of sheet copper alloy were used for dress as well as for animals, from the medieval period onwards. The sturdier cast pellet bells, dated to the post-medieval period, were used for animals, most probably horses.

5. SF 37 (500) unstratified: Top half of small copper alloy sheet bell (rumble bell) with 'strap' loop for suspension.
6. SF 46 (27) period 7: Cast copper alloy pellet bell with iron pea *in situ*.

### Decorative strap/belt mounts

Strap and belt mounts are common finds on medieval and post-medieval excavations. The three mounts found at Carbrooke are likely to be medieval or early post-medieval in date; see for example those from London (Egan and Pritchard 1991, 200, fig. 126, no. 1083; 170, fig. 110, nos 819–23; 197, fig. 123, no. 160).

7. SF 171 (500) unstratified: Gilded circular plain domed copper alloy mount with integral rivet.

### Chains

During the medieval period chains worn as necklaces are rare and bracelets even more so. Chains, as dress accessories, are described in Baarts' catalogue of finds from Amsterdam (1977). The chain from Carbrooke could have been used to hold a group of keys or other valued

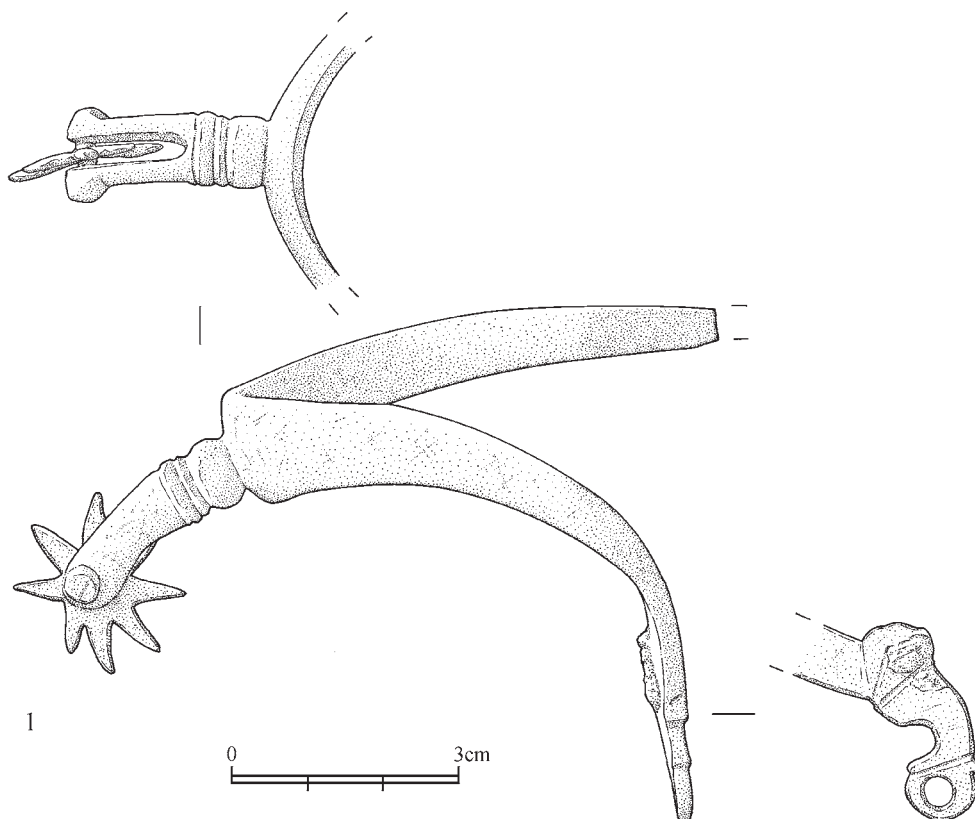


Figure 26 Copper alloy rowel spur. Scale 1:1

possessions, or indeed it may have been used to hang scale pans from a balance arm or for a censer for example.

8. SF 7 (53) period 6: Copper alloy chain fragment made up of S-links. Two methods of joining are used: one loop into the adjoining loop of the next link, the other loop around the centre of the next link i.e. through both its loops. This chain and its method of joining may be compared to three listed in the Museum of London's book 'Dress Accessories', where they are recovered from contexts dated as early as the 13th century and up to the early to mid 15th century (Baart 1977, 320). One was also found at Greyfriars, Norwich, from a post-medieval context (Emery forthcoming).

#### Vessels

Parts of two copper alloy vessels were found on site. One is a straight ridged vessel leg (Fig. 27, 9). The other is part of a vessel with a plate riveted onto one side (Fig. 27, 10). Although the plate does not appear to be patching up a tear or hole, it may be a reinforcing strip for the attachment of a handle. Copper alloy vessel fragments are often recovered in Norwich from post-medieval contexts, though it is likely that many derive from medieval contexts.

9. SF 38 (500) unstratified: Copper alloy cauldron or ewer leg.
10. SF 61 (247) period 7: Incomplete copper alloy vessel with riveted-on copper alloy rectangular plate fragment.

#### IV. Ironwork

by Natasha Hutcheson  
(Fig. 28)

In total, three hundred and twenty objects of iron were recovered from the excavations. The majority (67%) of these comprised nails. All the objects were highly encrusted and x-rays have been used to assist in identification where possible. The majority of the

ironwork derives from structures, some is domestic including a number of keys and knives and some represent items of personal adornment. In addition to these there are one or two agricultural implements and possible ironworking tools. The assemblage dates from the medieval through to the post-medieval period with one exception, an AD 1st-century bow brooch. The ironwork will be discussed by period.

#### Periods 1 and 2 (prehistoric – mid 12th-century)

A single nail derived from a period 2 context.

#### Period 3

Thirty-one objects were recovered from period 3. Approximately one third of these comprised unidentifiable 'lumps' of iron. Most of these lumps, possibly representing scrap iron, occurred in a context from which a set of tongs (Fig. 28, 3), possibly related to ironworking, was recovered. Slag was also found in this area. Other objects from period 3 include a ferrule (Fig. 28, 2) which would have fitted over the end of a rod or staff and a rotary key with a kidney shaped bow (Fig. 28, 1). Kidney-shaped key bows are generally associated with post-medieval keys, although the style was introduced at the end of the medieval period. Also recovered from this period was what appeared to be a knife blank (not illustrated) that probably represents a partially finished knife, again indicative of ironworking in the area, and a whittle-tang knife (Fig. 28, 7) with a worn cutting edge. This latter style of knife was prevalent throughout the medieval period.

1. SF 6 (73) period 3: rotary key with kidney-shaped bow, bit has symmetrical clefts. L.118mm, W. (of bow) 45mm, W. (of bit) 40mm.

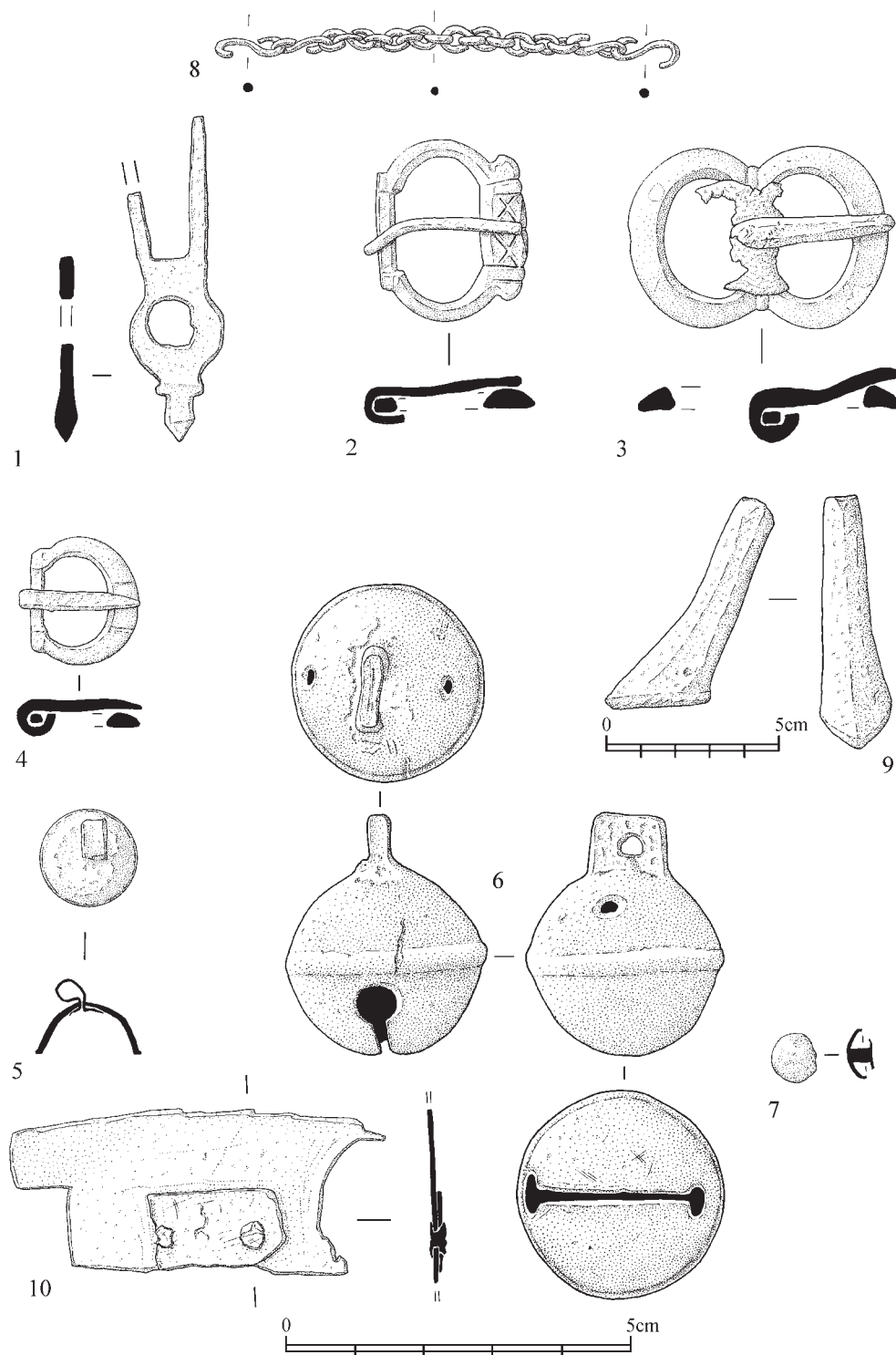


Figure 27 Copper alloy artefacts. Scale 1:1 (except No.9 at 1:2)

2. SF 245 (341) period 3: **cylinder**, slightly tapered, probably hollow. Ferrule? L. 42mm D. 18mm.
3. SF 249 (341) period 3: **tongs**. L. 220mm, W. 48mm.
4. SF 264 (452) period 3: **whittle-tang knife**, blade tip missing. Cutting edge worn through sharpening and use. L.95mm

#### Period 4

Fourteen objects were recovered from period 4 comprising twelve nails, a possible blade from a pair of shears and a rectangular sectioned, tapering bar with an ovoid head (Fig. 28, 5).

5. SF 323 (48) period 4: rectangular sectioned **bar**, tapering at both ends, with a bulb at one end. L. 383mm.

#### Period 5

In total, nine objects were recovered from period 5, eight of which were nails. The other object is a scale-tang knife fragment (Fig. 28, 6). A rivet hole on the shoulder of the knife handle can be seen with the assistance of an x-ray. This is how the scales, usually made of bone or wood, were attached. Scale-tang knives were introduced in the 13th and 14th centuries and were in use throughout the later medieval period.

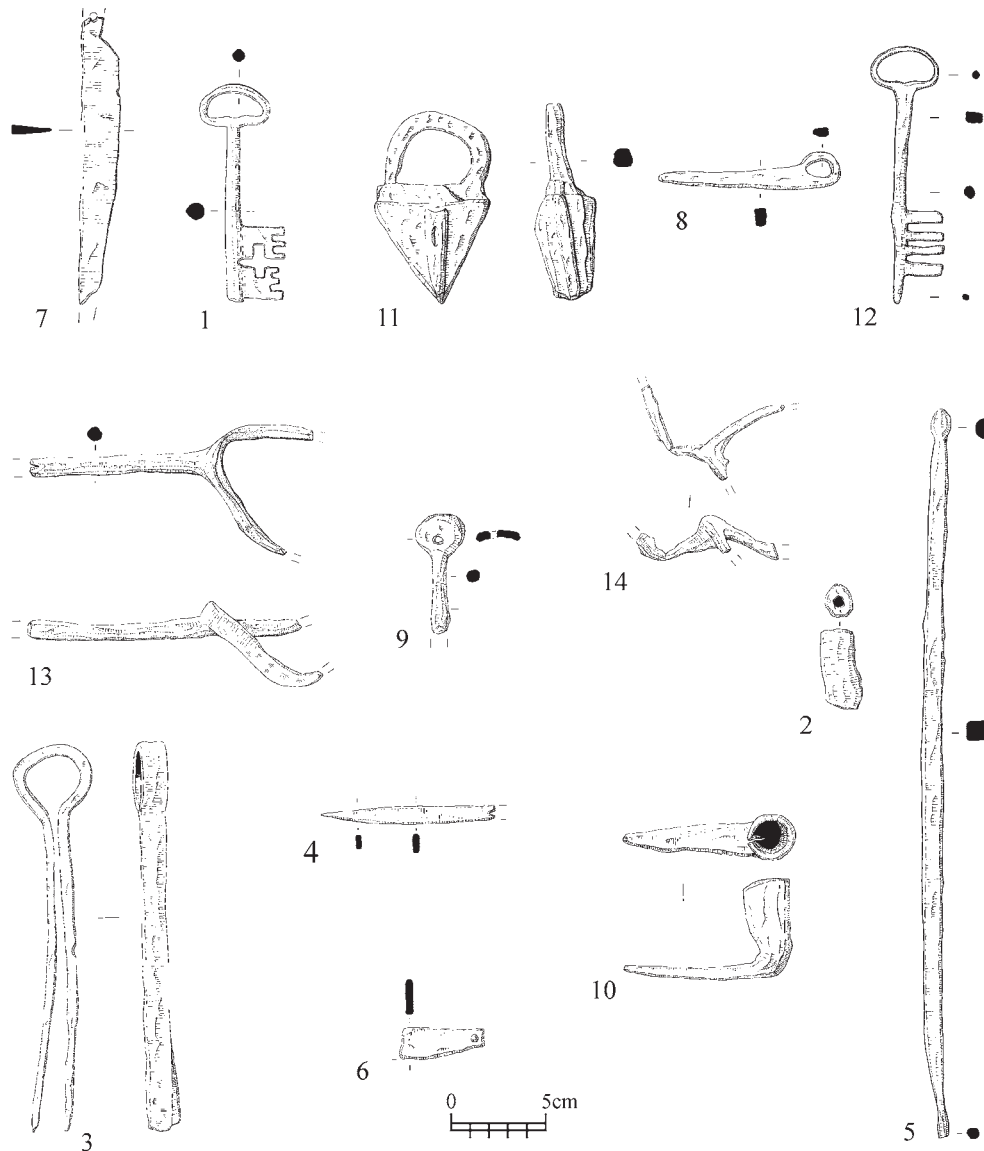


Figure 28 Ironwork. Scale 1:4

6. SF 287 (380) period 5: **scale-tang knife** fragment, blade and tang broken. Rivet on shoulder. L. 42mm, W. 20mm.

#### Period 6

Eighty two objects were recovered relating to period 6. Again, the majority of the objects (seventy-three) are nails. In addition to the nails there are a number of other objects deriving from structures, such as a spike with an encrusted loop attached. The spike has impregnated wood encrusted to it where it was inserted into a piece of timber. A small circular framed shoe buckle of a style that dates from the 14th century onwards was also recovered.

#### Period 7

One hundred and thirty-one objects were recovered from period 7 contexts of which 85% comprise nails. In addition to the nails there are a number of other items deriving from buildings including; two staples (SF 210, SF 281), two L-shaped hinge pivots (SF 193, SF 284), and a latch rest (SF 282). A number of domestic items were also recovered including a rotary key with a circular bow (Fig. 28, 9) a socketed candle holder with a right-angled

stem (Fig. 28, 10) and a scale tang knife (Fig. 28, 7). Another object of interest from this period is a loop-headed tapering bar (Fig. 28, 8) which may be a bell-clapper.

7. SF 1 (27) period 7: **scale-tang knife** with cutting edge rising to horizontal back. Tip and tang broken. L. 150mm.  
 8. SF 26 (54) period 7: loop-headed tapering **bar**, possibly a bell clapper. L. 97mm.  
 9. SF 89 (247) period 7: **rotary key**, circular bow, bit broken. L. 64mm.  
 10. SF 280 (27) period 7: **candle holder** with right-angled stem. Stem L. 85mm, Candle cup D. 20mm.

#### Unphased and metal-detected finds

Nine buckles were recovered by metal-detector; two oval framed buckles, two rectangular framed buckles with central bars, two D-shaped buckles and three trapezoidal framed buckles, two of which have a sheet roller on the outside edge. The oval and D-shaped buckle frames are more likely to be of medieval date and the rectangular and trapezoidal are more likely to be post-medieval in date. Buckles derive from a number of sources including horse equipment or clothing.

Other items include a rotary key with a kidney shaped bow (Fig. 28, 12) of probable post-medieval date and a box padlock (Fig. 28, 11). The padlock is triangular in shape with the keyhole on a decorative moulding at the front. This is probably post-medieval in date. In addition to these there are two possible ironworking punches, a broken sickle blade (SF 309) and a number of structural items including hinge pivots, staples and a mounting bracket for a circular sectioned door bolt (SF 317).

11. SF 18 (26) unstratified: triangular **box padlock** with hinged shackle. Keyhole on decorative moulding at front. L. 98mm, W. 58mm.
12. SF 33 (metal detected from topsoil): **rotary key**, kidney shaped bow, stepped-over bit, bit has symmetrical clefts. L. 138mm.

### Horse equipment

Seventeen horseshoes and four spurs were recovered from the excavation. All of the horseshoes were highly encrusted and x-rays have been used to assist in identification where possible. Fifteen of the shoes have rectangular nail-holes, the other two have square holes and seven have calkins. Where nails survive, they appear to have rectangular heads and tapering shanks and are clenched in the standard 'modern' way. From comparison with examples from London and Norwich it would appear most of the horseshoes are of later medieval (13th/14th-century) date, with two modern examples (Clark 1995; Margeson 1993).

The four spurs comprise three in iron and one in copper alloy (above). Of the iron spurs one consists of a D-section spur arm with a shallow curve. The other two are long spur fragments, one with both the arms and neck broken (Fig. 28, 13), the other with incomplete arms (Fig. 28, 14). These spurs are likely to be of 15th/16th-century date.

13. SF 47 (metal detected from topsoil): iron **long spur**, sides curve under ankle and rise towards terminals. Incomplete. L. 100mm.
14. SF 187 (269) period 7: **spur** (incomplete). L. 97mm, W. 45mm.

### V. Lead

by Julia Huddle and Geoff Egan  
(Fig. 29)

In total forty-five lead small finds (excluding window came) were recovered at Carbrooke. A token and two cloth seals are described below. By far the largest group of lead objects comprises metal working debris: thirty-two small finds (many in multiple pieces) weighing a total of 4.497kg and including lead sheet, strips and spillage. Many of these may be associated with repairs to buildings, for example guttering, roofing lead and window comes. Most of the debris is unstratified, with one or two pieces coming from periods 3, 5 and 7 and three from period 4.

Three unofficial weights or plumb bobs and a ball of lead shot were also recovered (unstratified) also a small clout nail from topsoil and four small finds which were unstratified and unclassified.

A lead/tin shoe buckle (Fig. 29, 1) may be compared to thirty-nine almost identical buckles (only the number and size of the beads varying) from 15th-century deposits in London (Egan and Pritchard 1991, 66–7, fig. 40, no. 227). They are prevalent in London but not readily paralleled elsewhere; this example from Carbrooke is therefore of particular note.

### Buckle

1. SF 212 (500) unstratified: lead **buckle** with circular frame (frame distorted) and central pin-bar; raised bevelled band around centre of frame and beading around edge. Iron pin missing. D 21mm.

### Token

2. SF 237 unstratified: D 21.5mm; (crude) mitre and crozier // cross with three pellets in each quarter and circle near perimeter. This is a late issue from the so-called 'boy-bishop' series of tokens found almost exclusively in East Anglia and thought to have been used in connection with celebrations at Childermass (December) under the Catholic church from the late 15th century up to the Reformation with a revival under Queen Mary (Mitchener and Skinner 1984, 122 and 155, pl. 14, nos 1, 2 and 3). The tokens are known in three sizes — 'penny', 'halfgroat'/'twopence' and 'groat' (fourpence), the present one being the second of these (those just noted are groat- and penny-sized). The close dating for this series is based on a presumed degeneration but there is no definitive evidence. The cross-and-pellets motif is an imitation of the reverse design on the late medieval silver coins.

### Cloth seals

3. SF 17 (26) unstratified: missing // D 24mm; (? crown over main device), edge legend: [S'VLNAGII]...+I., CO ESSEX (lombardic lettering with paired saltire-cross dividers between words). Textile imprint: c.5 threads per 5mm in one direction and a similar count, less clearly registered, in the other. Late 15th/early 16th-century Essex alnage/subsidy seal, *i.e.* an official issue to indicate that the cloth had been examined and was of a standard satisfactory for the market, and that the cloth tax had been paid. The missing central device could have been heraldic, like the rose on another Essex seal of similar date, or it might have been a larger letter F to indicate the textile had a minor fault and was being marketed as a second (Egan 1995, 26,

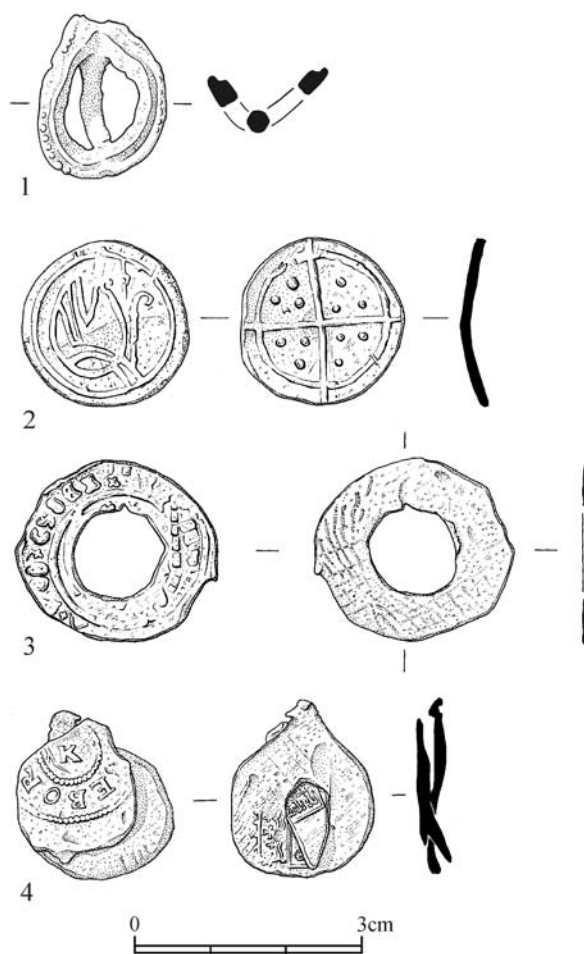


Figure 29 Lead objects. Scale 1:1



fig. 10, no. 14). The fabric was perhaps a thicker one than those available from looms in Norfolk.

4. SF 35 (500) unstratified: D 15mm//19mm; imprint from textile with 5 threads per 5mm in one system: K, ...EBOR around //crown over shield with arms of England, R to right Yorkshire alnage seal, probably late 16th-century, no exact parallel recorded. Near-parallels for the second stamp include versions with the monarch's initials ER and dated between 1553 and 1600, though several are undated (Egan 1995, 33, pl. 4, no.6). The K is presumably a code letter for the county (rather than signifying the textile name 'Kersey'): K also appears on some of the county's four-part alnage seals ('K COMIT YORKE') from the (?)early 17th century, arguably with the same significance.

## VI. Worked bone

by Julia Huddle

(Fig. 30)

Only one bone artefact was recovered on site, a bone die from a 15th- to 16th-century context.

1. SF 80 (190) period 6: cubical bone die with circle-and-dot numbers 1–6 placed so that those on opposite faces total seven, giving the die a regular layout. The term 'regular' is used here after Egan, who observes that, of the dice he has examined, those with the regular layout form the majority during the medieval period (Egan 1997). Potter defines the sixteen possible variant configurations of the numerals for regular dice. The Carbrooke example is of variant 14 (Potter 1992).<sup>15</sup>

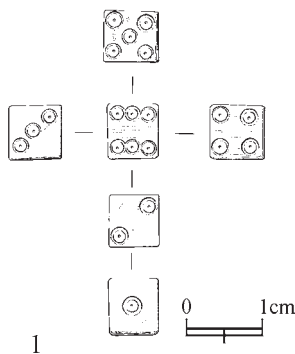


Figure 30 Bone die. Scale 1:1

## VII. Coins, tokens and jettons

by John Davies

Many of the coins catalogued below were discovered using a metal detector whilst machine stripping and as such they are both late in date and from the topsoil. A few were found, also by metal detecting, in stratified contexts but only one (SF 60) from a medieval deposit. The coins taken from the topsoil during machining seem to have suffered from their depositional environment and have emerged in poor condition, rendering them mainly illegible.

- |             |  |
|-------------|--|
| SF 9 (26)   | unstratified: silver coin: illegible penny, 14th–15th century. |
| SF 42 (500) | unstratified: copper alloy coin: George III farthing, 1775.    |
| SF 45 (500) | unstratified: silver coin: illegible penny, 14th–15th century. |
| SF 60 (53)  | period 6: silver coin: clipped penny, 14th–15th century.       |
| SF 90 (247) | period 7: copper alloy coin: George III halfpenny, 1773.       |

- |              |   |
|--------------|---|
| SF 122 (500) | unstratified: copper alloy: George III halfpenny, 1773. One quarter of coin cut away. |
| SF 123 (500) | unstratified: copper alloy coin: George IV farthing, 1820–30.                         |
| SF 128 (27)  | period 7: copper alloy coin: Charles I Richmond token, 1625–34.                       |
| SF 170 (500) | unstratified: silver coin: Illegible halfpenny, 15th century.                         |
| SF 174 (500) | unstratified: copper alloy coin: Illegible halfpenny. Post 1670                       |
| SF 176 (27)  | period 7: copper alloy coin: Illegible halfpenny 18th century.                        |
| SF 211 (500) | unstratified: silver coin: Henry VI penny 1422–7.                                     |
| SF 231 (500) | unstratified: copper alloy coin: Charles II Farthing, 1660–85.                        |
| SF 236 (500) | unstratified: copper alloy coin: Charles I Richmond token 1625–34.                    |
| SF 238 (500) | unstratified: copper alloy coin: German 10 Pfennig coin, 1941.                        |
| SF 272 (500) | unstratified: silver coin: illegible farthing, 14th–15th century.                     |
| SF 273 (500) | unstratified: silver coin: illegible penny, 14th–15th century.                        |
| SF 230 (500) | unstratified: copper alloy: French jetton, 1480–1500.                                 |
| SF 232 (500) | unstratified: copper alloy jetton: French jetton — Tournai, 1415–97.                  |
| SF 233 (500) | unstratified: copper alloy jetton: Nuremberg jetton — 'French shield', 1500–25.       |
| SF 234 (500) | unstratified: copper alloy jetton: Nuremberg jetton. Hans Krauwinkel II, 1586–1635.   |
| SF 235 (500) | unstratified: copper alloy jetton: Nuremberg jetton. Hans Krauwinkel II, 1586–1635.   |

## VIII. The hones

by J.M. Mills and Paul Ensom

Just two hones were recovered during the excavations, both dated stratigraphically to the final phase on the site (16th-century).

### Stone type

Hones from Norfolk sites are usually of Norwegian Ragstone, Phyllites and Coal Measures Sandstones, and occasionally other sandstones and metamorphic rocks. Of the two examples from Carbrooke, one (SF 267) is a Norwegian Ragstone hone, the other (SF 97) is a meta-sediment abundant in quartz and mica. The description of the latter appears to compare well with a medieval hone from York which is thought to derive from low grade metamorphic rocks in the Aberdeen district, or perhaps Anglesey (Morey and Dunham 1953, 141–8).

Hones are not intrinsically datable, however, certain trends in preferred stone have been observed. Norwegian Ragstone hones are usually current from about the 10th century and throughout the medieval period. There is no reason why the other hone (SF 97) should be of different date to its deposit.

- |              |  |
|--------------|--|
| SF 97 (230)  | period 6: heavily used, incomplete hone. Perhaps originally rectangular in section, the stone is now waisted and pierced for suspension close to one corner (possibly not an original feature). Both broad faces display point sharpening grooves. The stone is a meta-sediment, probably deriving from north-east Scotland, or possibly Anglesey, although similar rocks may be found in southwestern England, southern Scotland, or the seaboard of Brittany or Scandinavia. Length 124mm, maximum cross-section c. 37 x 15mm. |
| SF 267 (269) | period 7: two fragments, probably from the same hone. Norwegian Ragstone. A small, slightly tapering stone, broken at both ends. Largest fragment maximum length 53mm, maximum cross-section 18 x 9mm.   |

## IX. Window glass and lead window comes

by D.J. King

SF 56 (211) period 6: a sub-triangular fragment with curved edge of flashed ruby glass with three grozed edges. A section of curved beaded fillet with a central broad trace line from which a row of circles has been relieved. The areas to either side of the strip show traces of smear shading. 38mm x 28mm x 2mm. *c.* 1330–*c.* 1380.

SF 109 (255) undated: a sub-triangular fragment of clear glass with one grozed edge. A trace line, matt wash and unidentified relieved design are visible. 17mm x 10mm x 1.5mm. *c.* 1350–1500.

The evidence provided by the window glass is minimal and the low number of fragments found means that all conclusions need to be treated warily. SF 56 appears to be from a type of glazing which would have come from the edge of a painted window either in the main lights above

the springing or from a curvilinear tracery light. Normally beaded fillet consists of a heavy matt wash from which circles have been relieved, and the use of smear-shading on the edges of this piece is unusual but does provide a fairly tight dating of *c.* 1330–*c.* 1380. SF 109, the only other painted piece, is much less clear in its design and can only be given a much broader date range, although both fragments may be of similar date. They would have come from a building of some status such as a chapel, refectory or prior's lodge. The medieval clear glass fragments may be from plain quarry glazing. One fragment may be of post-medieval date, a possibility which is supported by the presence of post-medieval milled comes. The low milling count on these may indicate a later rather than earlier date in the post-medieval period (King 1987, 39–40). The medieval lead window comes are of standard type.

# Chapter 4. Environmental Remains

## I. Mammal and bird bone

by Andy Hammon  
(Figs 31–34, Tables 8–11)

### Recovery

The mammal and bird bone assemblage was recovered using three methods: material hand collected during the course of excavation; material sorted from the residue (collected on a 1mm mesh) of charred plant samples (bulk samples); material sorted from the residue (collected on a 5mm mesh) of dry sieved samples (SRS).

The majority of the bone was recovered from sample residues. Consequently, the normal recovery biases that affect most animal bone assemblages do not apply to the Carbrooke material (Fig. 31). The normal pattern expected is the preferential recovery of the larger skeletal elements of the larger mammal species, at the expense of the smaller skeletal elements of the larger mammal species and the remains of smaller mammals, birds, amphibians and fish.

### Identification and recording

The mammal bones were recorded following a modified version of the method described by Davis (1992) and Albarella and Davis (1994). This system considers a selected suite of anatomical elements as ‘countable’ (diagnostic zones); it does not include every bone fragment that is identifiable. Briefly, the skeletal elements considered are all teeth (mandibular and maxillary); the skull (zygomaticus); scapula (glenoid articulation/cavity); distal humerus; distal radius; proximal ulna; carpals 2–3; distal metacarpal; pelvis (ischial part of the acetabulum); distal femur, distal tibia, calcaneum (sustentaculum), astragalus (lateral part), naviculo-cuboid/scafocuboid; distal metatarsal; proximal phalanges 1–3. At least 50% of the specified area has to be present to be ‘countable’.

The following skeletal elements were always recorded for birds: scapula (articular end); proximal coracoid; distal humerus; proximal ulna; proximal carpometacarpus; distal femur; distal tibiotarsus; distal tarsometatarsus.

Horn-cores with a complete transverse section were recorded as ‘non-countable’, as were other elements of particular interest, such as pathological and neo-natal/very young specimens.

Mandibular fragments were considered to be ageable when there were two or more teeth present with recognisable wear. Mandibular

teeth, both *in situ* and isolated, were aged using tooth eruption and wear patterns. Cattle and pig teeth were recorded using the system devised by Grant (1982), whereas sheep/goat teeth were recorded according to Payne (1973 and 1987).

Measurements are listed in the appendix. Von den Driesch (1995) defines the majority of these. All pig measurements follow the definitions of Payne and Bull (1988). Humerus ‘HTC’ and ‘BT’ and tibia ‘Bd’ measurements were taken for all species according to Payne and Bull (1988). Measurements ‘BatF’, ‘a’, ‘b’, ‘1’, ‘3’ and ‘4’ for cattle and sheep/goat metapodials were taken using the criteria described by Davis (1992).

The differentiation of sheep and goat was attempted on the following elements: deciduous lower premolars (dP<sub>3</sub> and dP<sub>4</sub>); humerus; metacarpal; tibia; astragalus; calcaneum; and metatarsal. The criteria defined by Boessneck (1969) were used for all elements except the teeth (Payne 1985) and the tibia (Kratochvil 1969). The chicken/guinea fowl/pheasant (*Gallus/Numida/Phasianus*) distinction was attempted on the following elements: articular end of the scapula, shaft of the carpometacarpus, proximal end of the femur and shaft of the tarsometatarsus.

### Overview of the assemblage

#### Quantification

The material from Carbrooke forms a small assemblage (Tables 8 and 9). A total of 639 ‘countable’ fragments (Davis 1992; Albarella and Davis 1994) from hand collection and sieving were recorded from all periods at Carbrooke. In total, 26 different mammal and bird species were recorded. Hand collection produced 195 (*i.e.* 31%) ‘countable’ fragments, whereas sieving (both bulk and SRS) produced 444 (*i.e.* 69%) ‘countable’ fragments. The vast majority of ‘countable’ fragments were retrieved from deposits belonging to period 6 (85% of all ‘countable’ fragments — 546 of 639).

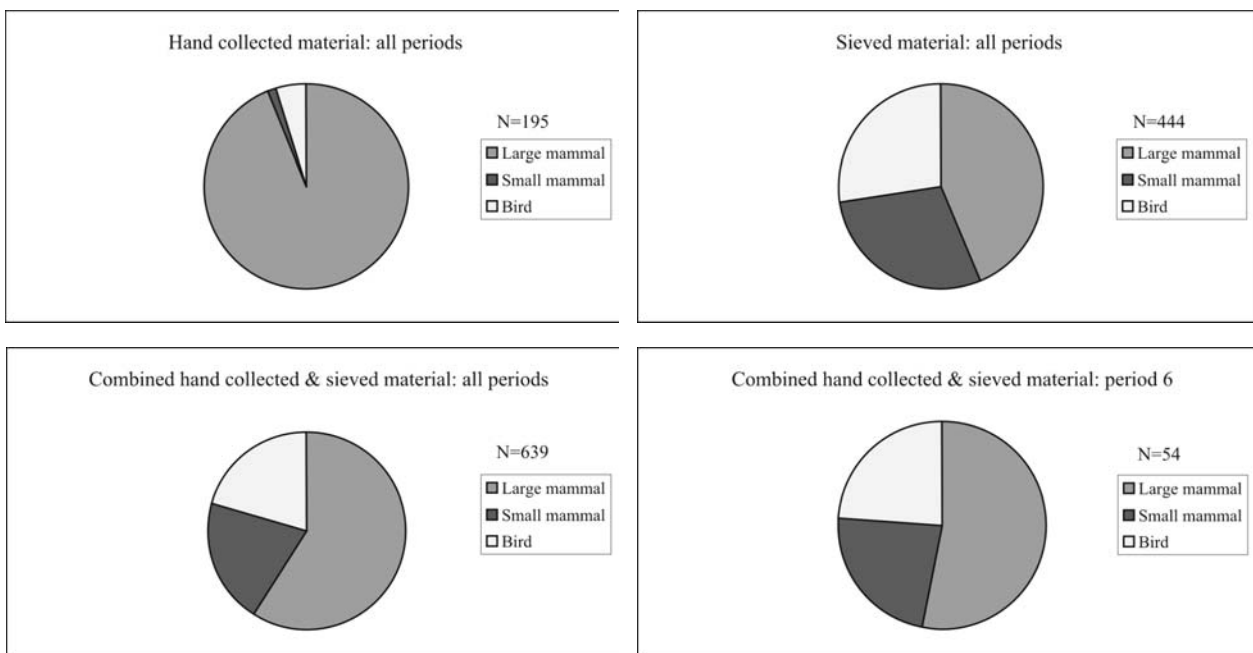


Figure 31 Mammal and bird bone: the effectiveness of retrieval techniques at Carbrooke

Species	Period 2	Period 3	Period 4	Period 5	Period 6	Period 6%	Period 7	Total
Cattle ( <i>Bos taurus</i> )	5	9	12	7	52	48.6	7	92
Sheep ( <i>Ovis aries</i> )			1		5	4.7		6
Goat ( <i>Capra hircus</i> )							*	
Sheep/Goat ( <i>Ovis/Capra</i> )	1	1	1	1	16	15		20
Pig ( <i>Sus scrofa</i> )	1	2	4	7	22	20.6	4	39
Horse ( <i>Equus caballus</i> )	1	3						4
Equid ( <i>Equus</i> sp.)	8	3		1			1	13
Dog ( <i>Canis familiaris</i> )							5	5
Cat ( <i>Felis catus</i> )					*			
Red deer ( <i>Cervus elaphus</i> )					3	2.8	1	4
Fallow deer ( <i>Dama dama</i> )								
Roe deer ( <i>Capreolus capreolus</i> )								
Brown hare ( <i>Lepus europaeus</i> )		1			1	0.9		2
Rabbit ( <i>Oryctolagus cuniculus</i> )			1					1
Domestic chicken ( <i>Gallus gallus</i> )								
c.f. Domestic chicken (c.f. <i>Gallus gallus</i> )					4	3.7	1	5
Goose ( <i>Anser</i> sp.)					3	2.8		3
Duck ( <i>Anas</i> sp.)					1	0.9		1
Grey heron ( <i>Ardea cinerea</i> )								
Whooper/Mute swan ( <i>Cygnus cygnus/olor</i> )								
Teal/Garganey ( <i>Anas crecca/querquedula</i> )								
Red grouse ( <i>Lagopus lagopus scoticus</i> )								
Grey partridge ( <i>Perdix perdix</i> )								
Golden/Grey plover ( <i>Pluvialis apricaria/squatarola</i> )								
Lapwing ( <i>Vanellus vanellus</i> )								
Woodcock ( <i>Scolopax rusticola</i> )								
Pigeon/Dove ( <i>Columba</i> sp.)								
Thrush ( <i>Turdus</i> sp.)								
Jackdaw ( <i>Corvus monedula</i> )								
<b>Total</b>	<b>15</b>	<b>19</b>	<b>19</b>	<b>16</b>	<b>107</b>		<b>19</b>	<b>195</b>

Table 8 Hand-collected material: numbers (NISP) of 'countable' (Davis 1992; Albarella and Davis 1994) mammal and bird bones from all periods

Species	Period 2	Period 3	Period 4	Period 5	Period 6	Period 6%	Period 7	Total
Cattle ( <i>Bos taurus</i> )			2		52	11.8		54
Sheep ( <i>Ovis aries</i> )					27	6.2		27
Goat ( <i>Capra hircus</i> )								
Sheep/Goat ( <i>Ovis/Capra</i> )					77	17.5		77
Pig ( <i>Sus scrofa</i> )		1			30	6.8		31
Horse ( <i>Equus caballus</i> )								
Equid ( <i>Equus</i> sp.)								
Dog ( <i>Canis familiaris</i> )								
Cat ( <i>Felis catus</i> )								
Red deer ( <i>Cervus elaphus</i> )					1	0.2		1
Fallow deer ( <i>Dama dama</i> )					1	0.2		1
Roe deer ( <i>Capreolus capreolus</i> )					3	0.7		3
Brown hare ( <i>Lepus europaeus</i> )					12	2.7		12
Rabbit ( <i>Oryctolagus cuniculus</i> )				2	114	26.1		116
Domestic chicken ( <i>Gallus gallus</i> )					8	1.8		8
c.f. Domestic chicken (c.f. <i>Gallus gallus</i> )					72	16.4		72
Goose ( <i>Anser</i> sp.)					7	1.6		7
Duck ( <i>Anas</i> sp.)					5	1.1		5
Grey heron ( <i>Ardea cinerea</i> )					1	0.2		1
Whooper/Mute swan ( <i>Cygnus cygnus/olor</i> )					2	0.5		2
Teal/Garganey ( <i>Anas crecca/querquedula</i> )					3	0.7		3
Red grouse ( <i>Lagopus lagopus scoticus</i> )					1	0.2		1
Grey partridge ( <i>Perdix perdix</i> )					4	0.9		4
Golden/Grey plover ( <i>Pluvialis apricaria/squatarola</i> )					1	0.2		1
Lapwing ( <i>Vanellus vanellus</i> )					2	0.5		2
Woodcock ( <i>Scolopax rusticola</i> )					2	0.5		2
Pigeon/Dove ( <i>Columba</i> sp.)					11	2.5		11
Thrush ( <i>Turdus</i> sp.)					2	0.5		2
Jackdaw ( <i>Corvus monedula</i> )					1	0.2		1
<i>Total</i>		1	2	2	439			444

Table 9 Sieved material: numbers (NISP) of 'countable' (Davis 1992; Albarella and Davis 1994) mammal and bird bones from all periods

### *Species present*

Due to the comprehensive sampling strategy adhered to at Carbrooke a wide range of domestic and wild mammal and bird species were identified (Tables 8 and 9). The major domesticates (cattle, sheep and pig) formed 54% (346 of 639) of the total hand collected and sieved assemblage; the minor domesticates (horse, dog, chicken and domestic waterfowl) formed 19% (123 of 639); the wild species (both mammal and bird) formed 27% (170 of 639).

### *Preservation*

The preservation (cortical integrity) of the Carbrooke Preceptory mammal and bird bone assemblage demonstrated considerable uniformity. The majority of bone fragments were either well or moderately well preserved. Well preserved material had suffered little exfoliation and abrasion to their original surfaces; whereas moderately well preserved material had been subject to some abrasion. Consequently, butchery and pathological conditions were easier to observe.

### *Provenance*

Animal bone residuality is notoriously difficult to recognise and to quantify. Various methods have been employed in the attempt to identify the volume of residual animal bone within an assemblage, the majority of which have relied on subjective criteria, such as differential surface colour and severity of abrasion. However, all such attempts to quantify residuality in this way have been problematic (Dobney, Jaques and Irving undated). Therefore, pottery residuality is normally used as an indicator of animal bone residuality, although the two may not be directly linked.

For the most part deposits recorded at Carbrooke Preceptory appear not to have been seriously affected by residuality. However, the majority of 'countable' fragments were derived from only four different contexts, all of which belonged to period 6: context 53 constituted 19% (105 of 546) of the 'countable' fragments recorded from period 6; context 190 constituted 23% (125 of 546); context 230 constituted 43% (234 of 546); context 249 constituted 12% (67 of 546). Therefore, remaining contexts produced only 15% of the 'countable' fragments from period 6.

Unfortunately, all four deposits contain intrusive and residual pottery dating from the 15th to 16th century. Consequently, it has not been possible to date this phase of activity more precisely, and it is not known whether it was before or after the Dissolution. Subsequently it has not been possible to utilise most of the comprehensive documentary evidence that pertains to period 6.

### *Primary and secondary deposition*

The level of canid gnawing may be used to infer the nature of deposition present on an archaeological site. A high level of canid gnawing noted from a vertebrate assemblage may suggest that the animal bones derive from secondary deposition caused by scavenging dogs, rather than from their original anthropogenic context.

Six percent of the post-cranial 'countable' elements from the Carbrooke Preceptory assemblage demonstrated canid gnawing (29 out of 461). This would indicate that the vast majority of the assemblage was not subject to secondary re-working by scavenging dogs. Therefore, the

animal bone recovered, including intrusive and residual material, may be attributed to human activity.

### **Period 6 mammal and bird bone assemblage**

The remainder of this section will deal exclusively with the material from period 6 (15th to 16th century), as it forms by far the largest single component (see above).

### *Species present*

Tables 8 and 9 show the species that were recorded from hand collection and sieving respectively. The period 6 mammal and bird assemblage was comprised of the major domesticates (cattle, sheep and pig) 51% (281 of 546), minor domesticates (chicken and domestic waterfowl) 18% (100 of 546) and wild species (both mammal and bird) 30% (165 of 546).

### *Skeletal representation*

Figure 32 demonstrates the skeletal representation of the most numerous species from period 6: cattle, sheep and rabbit. It would appear that no discrepancy exists between the presence of any of the skeletal elements for cattle and sheep. This would suggest that, at the very least, unbutchered carcasses were being transported to the site before they were dismembered into smaller joints of meat. The observed skeletal representation also raises the possibility that live animals were slaughtered at Carbrooke Preceptory.

The skeletal representation of rabbit indicates that there is a predominance of hind limbs within the assemblage. This phenomenon is most likely the consequence of taphonomic factors and recovery, rather than a cultural artefact. The differential preservation (*i.e.* taphonomy) of skeletal elements partly explains this pattern, for instance the tibia is generally more robust and durable than the radius and ulna. The dichotomy between the metacarpal and metatarsal may be explained by the fact that metacarpi are considerably smaller than metatarsi, and as a result are not recovered even when sieving is conducted. It is also nonsensical for the inhabitants of Carbrooke Preceptory to have been eating only the hind limbs of rabbit, rather than preparing the whole carcass.

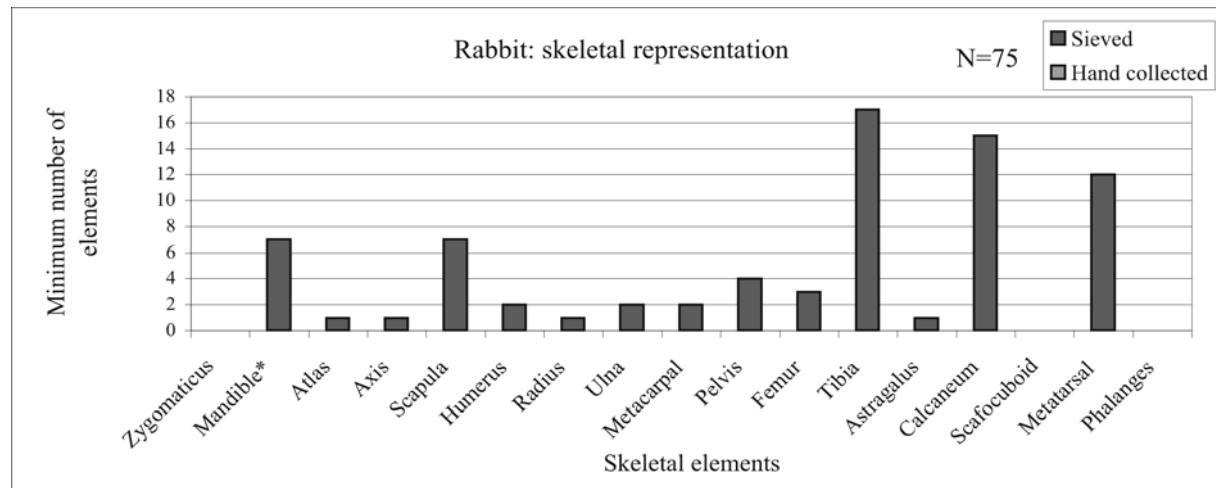
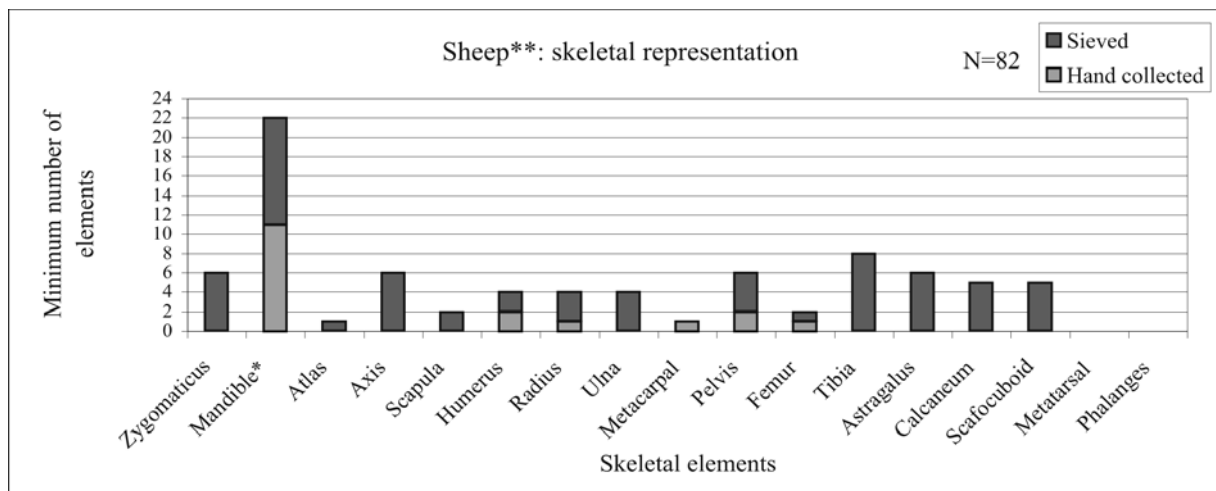
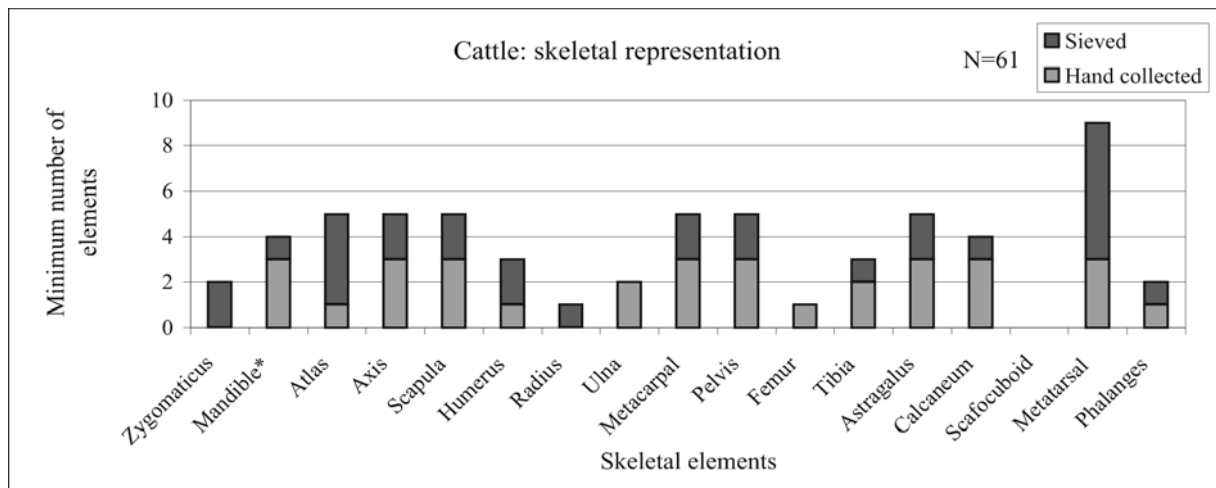
### *Sheep: age at death*

Period 6 provided enough ageable mandibles to construct a survivorship/mortality curve. Figure 33 compares this to the model curves for meat, milk and wool production suggested by Payne (1973). Although not directly comparable (the model curves using chronological age and the Carbrooke curve using 'stages' — see appendix) it would appear that the period 6 curve most closely matches that of wool production, *i.e.* has a relatively large number of older individuals compared to the meat and milk production models.

It is possible that one of the preceptory farms was raising sheep for wool. Alternatively, if period 6 actually pre-dates the Dissolution and the preceptory was in receipt of tithes from the local populace, it may have been the case that they were being provided with animals that were past their prime.

### *Pig: age at death*

Tables 10 and 11 summarise mandibular tooth wear and age stages and the fusion states of post-cranial elements respectively. Period 6 produced a relatively large number

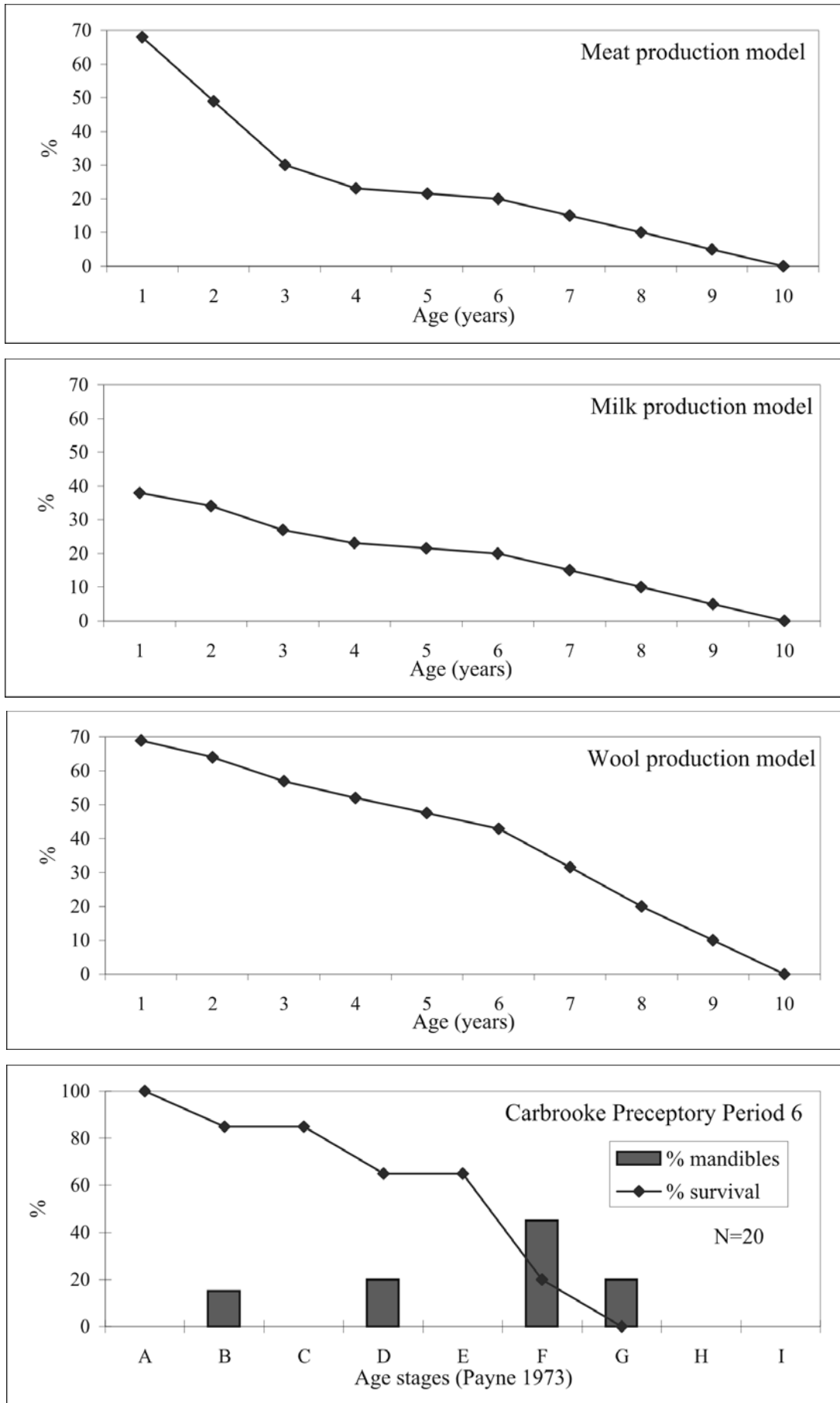


\* where 2 or more teeth were present \*\* includes both sheep (*Ovis aries*) and sheep/goat (*Ovis/Capra*)

Figure 32 Skeletal representation of the most numerous species from period 6

of neonatal, very young and young pig remains. This trend is generally thought to be indicative of a high status site and has been noted from various medieval assemblages, for example Launceston Castle, Cornwall (Albarella and Davis 1996) and Castle Mall, Norwich (Albarella, Beech and Mulville 1997). So therefore, perhaps not surprisingly, the animal bone assemblage supports the archaeological and documentary evidence in this respect.

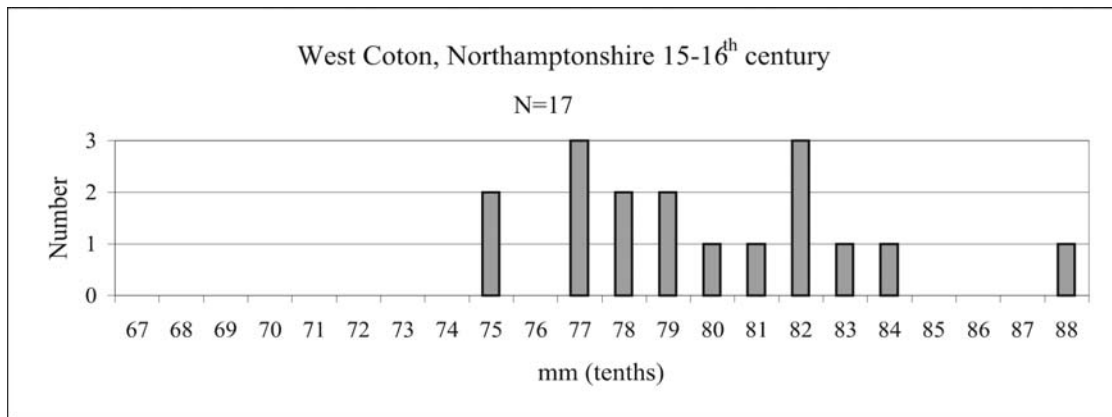
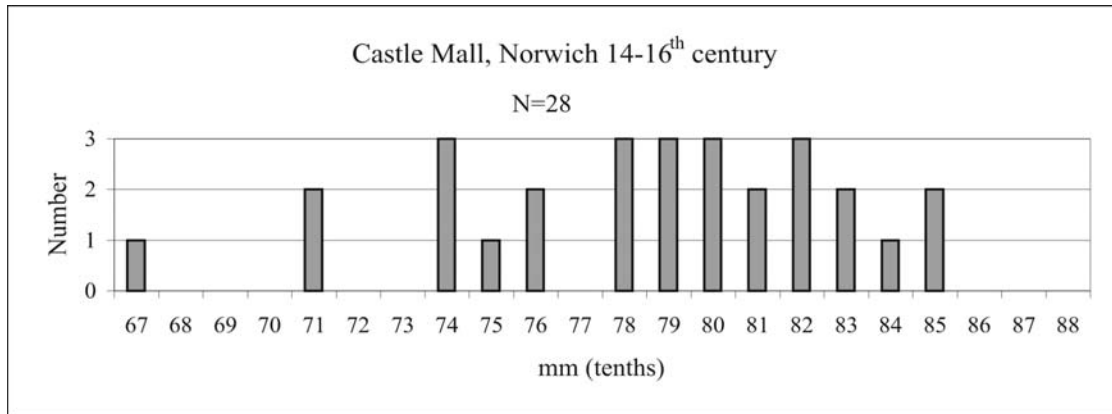
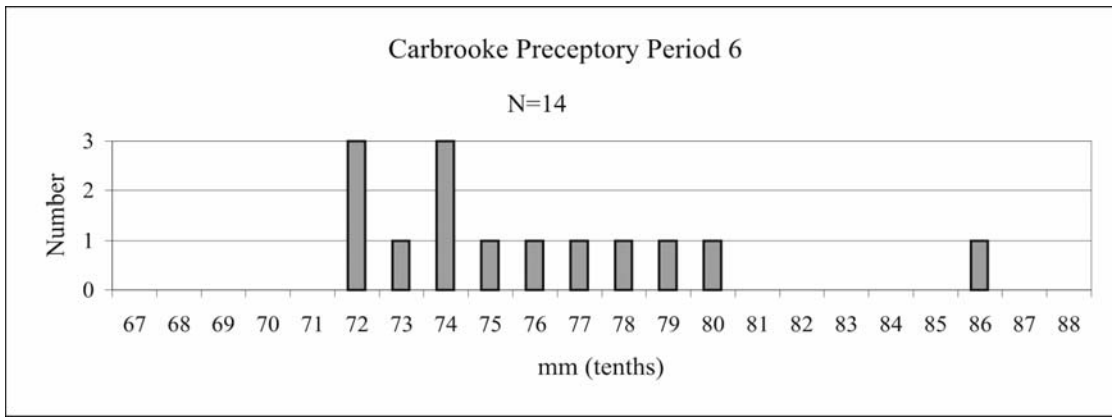
The presence of neonatal and very young individuals also suggests that pigs were bred at Carbrooke Preceptory. Dobney, Jaques and Irving (undated) surmise that since pigs have the ability to produce large litters outside the normal seasonal constraints of cattle and sheep, they are a ready source of meat all year round.



\* includes both sheep (*Ovis aries*) and sheep/goat (*Ovis/Capra*)

Figure 33 Sheep\* mortality curve for Carbroke period 6 compared to the model production curves of Payne (1973)





\* includes both sheep (*Ovis aries*) and sheep/goat (*Ovis/Capra*)

Figure 34 Comparison of sheep\* second mandibular molar widths from Carbrooke period 6 with Norwich Castle Mall (Albarella *et al.* 1997) and West Coton, Northamptonshire (Albarella and Davis 1994)

$dP_4$	$P_4$	$M_1$	$M_2$	$M_3$	$M_{1/2}$	Stage
a						J
a						J
a						J
a						J
m		f	b		a	J-SA
				a		SA
			h	e		A
	d		h	d		A
	e	l	f	c		A
	f	m	h	d		A

Fusion ages	Unfused		Fused	
	N	%	N	%
early fusing (12–18 months)	3	38	5	62
middle fusing (24–30 months)	5	83	1	17
late fusing (36–42 months)	6	100		

Table 11 Pig post-cranial fusion states (Schmid 1972; Silver 1970) from period 6

Table 10 Pig mandibular tooth wear (Grant 1982) and stages (O'Connor 1991) from period 6

### *Butchery*

Thirteen percent (55 of 414) of the post-cranial 'countable' fragments demonstrated observable butchery. Of the 55 butchered elements 35% had been chopped, 64% had been cut and 2% had been chopped and cut.

It is more usual to note a greater number of chopped bones over cut bones. The larger number of cut elements at Carbrooke Preceptory may be interpreted in two ways. Firstly, it may simply be a result of the good level of preservation within the assemblage, or secondly it may suggest that already prepared joints of meat were being transported to the site, rather than the primary dismemberment of carcasses (and presumably the slaughter of animals) taking place. The taphonomic causality is more likely, as skeletal representation (see above) demonstrates that all anatomical parts were represented, supporting the inference that live animals were present at Carbrooke.

### *Sheep: size of individuals*

It was possible to compare the size of mandibular second molars from the Carbrooke assemblage with those of a similar chronological date from Castle Mall, Norwich (Albarella, Beech and Mulville 1997) and West Coton, Northamptonshire (Albarella and Davis 1994) (Fig. 34). Sexual dimorphism and nutritional factors do not affect teeth to the same degree as they do post-cranial elements thus they are more suitable for the comparison of size of individuals (Albarella pers. comm.). Figure 34 demonstrates that the Carbrooke sheep fall within the expected size range for the region.

### *Utilisation of bird species*

Context 230 produced a Whooper/Mute swan femur which demonstrated cut marks on the shaft. The consumption of swan may be interpreted as a high status activity and has been recorded at other medieval high status sites, for example Launceston Castle (Albarella and Davis 1996), and it is still eaten once a year at the Vintner's Hall in London (Simon 1944).

Pigeon/dove was also noted, half of which was juvenile, and one fragmented piece demonstrated butchery. Although none of the recorded fragments are directly related to the dovecote their presence may suggest that pigeon/doves were still being bred for meat at Carbrooke in the 15th and 16th century, and this is supported by the deposits of guano within the dovecote. Albarella and Davis (1996) suggest that pigeon/dove was a useful source of fresh meat during the winter when other meats were scarce. Pigeon/dove may have had a secondary use, as pigeon manure makes excellent fertiliser (Drummond and Wilbraham 1939).

The goose bones were within the size range expected for domestic geese (*Anser anser*) and are unlikely to be from wild species, although this cannot be ruled out by taxonomic considerations.

The duck bones belonged either to Mallard (*Anas platyrhynchos*) or its domesticated form.

### **Summary and conclusions**

The mammal and bird bones from Carbrooke Preceptory represent a small assemblage. However, because of the generally good preservation and the comprehensive sieving programme this assemblage has been quite informative. This is reflected by the large species list.

Most of the material belonged to period 6. The four contexts (53, 190, 230 and 249) which produced the majority of this material contained both intrusive and residual pottery. It has not been possible to date period 6 more precisely than 15th–16th centuries and it is uncertain whether these deposits relate to pre- or post-Dissolution activity at Carbrooke. Consequently, it has not been possible fully utilise the documentary evidence.

Period 6 was dominated by the major domesticates (cattle, sheep and pig). Relatively large numbers of chicken were present and also small numbers of domesticated waterfowl. Rabbit was the most abundant wild mammal species and a wide range of wild bird species was also noted.

Overall the mammal and bird bone assemblage may be interpreted as that belonging to a high status site, whether secular or ecclesiastical in nature. The presence of butchered swan and neonatal and very young pig remains both support this.

In future it would be useful to compare vertebrate assemblages from preceptory and commandery sites with those of other high status sites, such as monasteries and castles, to assess any hitherto unobserved differences.

## **II. Fish bone**

by Rebecca A. Nicholson

The fish assemblage from the selected contexts at Carbrooke Preceptory has, in the mix of herring, cod and flatfish, much in common with both secular and monastic medieval assemblages from elsewhere. However, with the possible exception of period 4, herring was less commonly represented than at most secular sites. Herring bones occur in quantity at all sites from Anglo-Saxon times forward, assuming that soil has been sieved, and the herring fishery off the East Anglian coast has been well documented. Salted herring and, from the 14th century smoked (red) herring, were cheap and became an important staple (Cushing 1988 and Dyer 1988). Great Yarmouth was one of the major herring markets of Europe by the 13th century, and many monastic houses sent ships there to buy fish (Saul 1981). This situation continued through the next few centuries. While the relative paucity of herring at Carbrooke may be a consequence of the relatively small number of sieved contexts which contained fish remains, it may also reflect a preference for other more highly regarded fish. If so, then this would suggest that the fish remains from deposits 190 and 230 date from before the Dissolution. The indication that both complete and processed (dried) cod and ling were represented at Carbrooke again accords with records from other monastic establishments, where both dried stockfish and 'green' (salted) fish of the cod family figure extensively. Stockfish was standard fare for both the poor and 'middle classes' in the Middle Ages. It would keep almost indefinitely, but required long soaking before it was fit for stewing. Many monastic records reveal stockfish, or 'hardfish' to have been purchased in quantity (Bond 1988).

Monastic records document the importance of fish, which became a dominant part of the diet during the later medieval period, with the imposition of ever more 'fish days', when the consumption of other meat was forbidden. Monastic rolls at Winchester Priory indicate

that between 50 and 70% of meals were fish-based by the late 15th century (Kitchin 1892, quoted in Bond 1988).

Freshwater fish were expensive and consequently highly prized in the medieval period (Dyer 1988). Many of those represented at Carbrooke Preceptory were small, so perhaps less desirable though still marketable, however the identification of bones from fish traditionally associated with wealth, including sturgeon and turbot, would imply that expensive food was available to some (Dyer 1988, 31). Purchasing records of 1415–16 from the small Cluniac Priory of Bromholm in Norfolk feature fresh and red herring, cod, ling, halibut, salmon and sturgeon (Redstone 1944). The fenland marshlands contained some of the most important monastic fisheries in England (Bond 1988, 80–1). Eel, bream, roach, perch, pike and less commonly tench were often kept in monastic fishponds (Bond 1988, 94). ‘Menucia’, translated as minnows, seem to have been regularly purchased by the monks at Winchester, as diet rolls of 1492–3 and 1514–15 show. Bond suggests that the term may have included any small fishes, which could account for the small and tiny perch and cyprinid bones recovered from the archaeological deposits at Carbrooke (Bond 1988, 75).

Flatfish, particularly plaice, flounders and sole, were common items in monastic inventories, and their bones are also commonly found at secular medieval sites. Records from Canterbury Cathedral Priory in c. 1300 indicate the fish dish for one monk should comprise two soles or one plaice, four herrings and eight mackerel (Smith 1943, 42).

It would seem likely that all of the marine fish, with the possible exception of the dried cod and ling, were obtained from local markets as a result of the East Anglian fishing industry. While the soft-mouthed herring can only be caught commercially using nets (the drift net being particularly suitable), fish of the cod family were most probably caught using many-hooked hand-lines. Conger eel could also have been caught in this way. Flatfish are found in inshore waters, and as bottom-dwellers are likely to have been primarily caught by hook and line or shoreline trap, as were the rays.

Sturgeon, like the sharks and rays, are not teleosts but possess a poorly ossified skeleton. Archaeologically the distinctive scutes are the only part to survive. Sturgeon are now extinct in British lakes and rivers, and are very rare visitors to British coastal waters. The fish may be caught both on hooks and in nets, and were often caught during their spring migration up river. Their flesh has been described as ‘like a compound of veal and eel, with a flavour of lobster’ (Phillips and Rix 1985, 125).

Despite the small assemblage size and uncertain date of the larger groups, some conclusions may tentatively be drawn. Presuming, as seems likely, that the fish remains from contexts 190 and 230 pre-date the Dissolution, then it would seem that the members of the Order of Knights Hospitallers living at Carbrooke were relatively well-off, or at least that they had access to relatively expensive food items. The assemblage may be contrasted with that from 15th and 16th century deposits from Greyfriars, Norwich, where herring bones were common and expensive fish were rare (Nicholson forthcoming). Since the assemblage from Greyfriars was very similar to that recovered from other sites in Norwich it would seem that while the diet of the friars corresponded very closely to that of the townsfolk in general, some of those dining at Carbrooke

Preceptory, at least in the later years of occupation by the Order, had recourse to better fare (Jones and Scott 1985 and Locker 1987). This interpretation based on the fish remains is also indicated by the mammal and bird bone assemblage (see Hammon above).

The freshwater fishes represented from the site were probably kept in specially managed fishponds, of which the preceptory owned at least three.

### III. Botanical remains

by Val Fryer and Peter Murphy

After an initial assessment of thirty-six bulk samples from contexts in all areas of the site, eleven were selected for quantitative analysis. The samples analysed were from periods 3, 4, 5 and, mainly, 6. The main aims of the study were:

1. to characterise any specific activities occurring on the site;
2. to augment the sparse data-set for later medieval agriculture, crop processing and related activities from Norfolk.

#### Crops and weeds

##### *Cereals and other food plants*

Cereal grains and/or chaff were present in all samples analysed at varying densities. Preservation was poor to moderate; many grains had become puffed and distorted during charring and the chaff in some assemblages was severely abraded.

Wheat (*Triticum* sp.) grains were present in all samples and were particularly abundant in those from the period 6 ditch deposit, 53, and burnt layer, 156. Rachis nodes were present in all samples but the period 6 hearth deposit, 214. Hexaploid-type forms (*T.aestivum/compactum* [bread wheat] type) with attached internode fragments but no trace of glume bases, were common throughout and abundant in the period 6 burnt layer, 156 and in the period 5 hearth layer, 267. Tetraploid-type nodes (*T. turgidum/durum* [rivet wheat] type) with attached glume bases and swellings below the glume inserts, were present at a low density in only four samples. Silica skeletons, including wheat glume tips and awn fragments, were recovered from six samples and were common in the period 6 oven deposit, 95. Barley (*Hordeum* sp.) grains and/or chaff were noted in all samples. Although the preservation of the grains was generally poor, hulled grains were noted, and the period 5 make-up layer, 91, contained two possible asymmetrical lateral grains of *Hordeum vulgare* (six-row barley). Rachis nodes were present in all but four samples and sprouted grains were noted in the period 6 demolition deposit, 167. Oats (*Avena* sp.) were found in all but period 6 oven deposit, 95, and burnt layer, 156. Floret base fragments were recovered from three samples but all were lacking diagnostic basal abscission scars and it was not possible to ascertain whether they were from wild or cultivated species. Rye (*Secale cereale*) was represented by sharply keeled grains with truncated apices and elongated embryos, and rachis nodes with indistinct definition of rachis segments.

Although specific identification of the wheats was difficult because of poor preservation, short rounded hexaploid-type forms appeared to predominate. Rivet-

type wheat, first noted in medieval samples by Moffet, was poorly represented (Moffet 1991). The ratio of identifiable bread-type wheat rachis nodes: rivet-type wheat rachis nodes was 27:1 and, therefore, bread wheat appears to have been the main crop utilised on the site. Barley appears to have been of secondary importance. Oats and rye only formed a very small part of the assemblages and were probably present as wheat crop contaminants.

Indeterminate large Fabaceae (pulses), including separated cotyledons and fragments, were present in small numbers in all samples but that from the period 6 demolition deposit 167 and hearth deposit 214. No surviving testa fragments with hila were noted and therefore tentative identifications are based on size and form. Rounded forms probably of *Pisum/Vicia* (pea/large vetch) type were found in five samples. The larger sub-rectangular forms typical of *Vicia faba* (field bean) were not noted. Pulses have been noted at other medieval sites in Eastern England, for example Round Wood, Stansted and Boreham Airfield, Essex, although generally at higher densities than those seen at Carbrooke (Murphy 1990; Fryer and Murphy 2003). The presence of pulses may be indicative of attempts to counter chronic soil nitrogen depletion in the medieval period by means of rotations using nitrogen-fixing leguminous plants and/or mixed cropping (Bolton 1980).

#### *The wild flora*

Seeds/fruits of common weed species were present in all samples. Large seeded segetal species were predominant and included *Agrostemma githago* (corn cockle), *Anthemis cotula* (stinking mayweed), most of which were probably originally present as complete capitula ('seed heads'), *Bromus* sp. (brome), *Centaurea* sp. (cornflower), *Chrysanthemum segetum* (corn marigold) *Medicago/Trifolium/Lotus* sp. (medick /clover/trefoil), indeterminate large grasses, *Raphanus raphanistrum* (wild radish) and *Rumex* sp. (dock). Leguminous weeds including *Vicia cracca* (tufted vetch), *V. hirsuta* (hairy tare) and *V. sativa* (common vetch) were present in all samples. The assemblages may have been biased towards the larger-seeded species by crop cleaning, that is winnowing and sieving, which would have effectively removed all of the small weed seeds.

The consistent presence of *Anthemis cotula* indicates cultivation of heavy clay soils, but light soil weeds such as *Rumex acetosella* (sheep's sorrel) and *Spergula arvensis* (corn spurrey) were also represented. In three samples, macrofossils of wetland species including *Carex* sp. (sedge), *Cladium mariscus* (saw-sedge) and *Eleocharis* sp. (spike-rush) were identified.

Tree/shrub macrofossils were exceedingly rare but included single fragments of *Corylus avellana* (hazel) nutshell in samples from the period 6 burnt layer, 156, and from the period 3 ditch, 85, and a single seed of *Ulex europaeus* (gorse) in a sample from the oven deposit, 95.

#### **Charcoal**

Charcoal fragments were present in all samples at a moderate to high density. Other plant macrofossils included fragments of charred root, rhizome or stem, and indeterminate buds, culm nodes, seeds and thorns. Indeterminate Ericaceae (heather) stem fragments and leaves and pinnule fragments of *Pteridium aquilinum*

(bracken) were probably imported onto the site as litter, bedding or fuel. Fragments of black porous 'cokey' material, black tarry material and siliceous globules were all probably the residues of the combustion of organic materials including cereals, straw and grass, at very high temperatures. Probable food waste included bone fragments, eggshell and fish bone. Industrial residues included the metallic globules, slag and probably the vitrified material.

#### **Sample composition**

Despite the different context types represented (hearths, ovens, demolition debris, ditches, make up levels and fire deposits), the assemblages are very similar in composition, consisting largely of cereal grains, usually with some pulse seeds, and variable amounts of chaff, weed seeds and other remains. Samples of broadly similar composition came from all site periods.

The overall predominance of grains in association with a weed assemblage dominated by large seeded species suggests that semi-cleaned prime grain deposits are represented. Charred chaff elements were rare with the exception of robust wheat rachis nodes which, because of their similar size to cereal grains, could not be winnowed out but only removed by hand sorting. Light chaff elements were, however, present as silica skeletons in six samples. It is very likely that the samples analysed represent a mixture of prime products accidentally charred in hearths and ovens during more than one type of process, together with residues from fuel. The fuel probably consisted both of charcoal and crop-processing waste (which may itself have included some residual grains). Charred residues from burnt flooring materials and thatch could also be represented, particularly in the period 6 burnt layer, 156. Specific interpretation of activities on-site is therefore difficult.

A sample from a period 6 demolition layer, 167, produced some barley grains which had germinated before charring, and it is possible that these represent charred residues resulting from poor temperature control during malt-drying. Even in this sample, however, most barley grains were not sprouted, so there is no evidence that malt-drying was a major on-site activity. Other processes which may have resulted in charring include grain-drying prior to storage, accidental spillage of grains and pulse seeds during cooking, incomplete burning of fuel and, perhaps, catastrophic fires (for example period 6 burnt layer 156).

#### **Conclusions**

Wheat, including both hexaploid and tetraploid species, appears to have been the main cereal utilised on site. Semi-cleaned prime grain deposits were represented. Barley was also present and was possibly being malted but the remaining cereals were probably present as wheat crop contaminants. Cereal production was based on both heavy clay soils and lighter sandy soils. Heathland was used to supply bedding, litter and/or fuel. The presence of pulses and leguminous weed seeds may suggest that the soils were nitrogen-depleted and that a system of crop rotation was being employed to improve fertility.

The taphonomy of the charred assemblages appears to have been complex, involving inputs from a range of processes and events.

# Chapter 5. Conclusions

The combination of documentary research and archaeological investigation has here provided insights that arguably would have been unavailable to either discipline alone. For example the inventory pertaining to Carbrooke compiled by Henry VIII's commissioners recounts a sparse existence. This can be compared with the rich and varied mammal, bird and fish bone assemblages collected from the midden of the same period, implying that there was a belated attempt to appear moderate, or perhaps that the preceptory was asset-stripped prior to the arrival of the King's men. Taken at face value the document paints a very different picture from the archaeology. As stated at the beginning of this report, the lack of published archaeological work on preceptory or commandery sites has made this a largely empirical exercise. However, there is a thriving document-based literature pertaining to the military orders in general and the Hospitallers in particular; it is mainly international in perspective and there has consequently been little recent research on documents relating specifically to preceptories and their context.

Information on the initial laying out of the preceptory was addressed both historically and archaeologically. The Hospitallers were preceded at the site by an extant *domus*. Unfortunately, the scope or time depth of this manor was not discovered during the excavation but it can be seen from both sources that industry in the form of smithing and milling was conducted at Carbrooke prior to the Hospitaller presence. This leads to questions of how much of the eventual infrastructure was in place prior to the Order taking possession. Such questions might be addressed by further targeted research of 12th and early 13th-century Clare family documents and potentially also limited further archaeological investigation of parts of the preceptory.

The first phase of building investigated here was a simple timber framed structure, possibly dating from before the establishment of the preceptory. A stone structure was not built until period 4 (13th to 14th-century). And, while it is not possible to generalise too broadly because no other structures in the complex have been investigated, the coincidence of this with the period of acquisition of former Templar properties is compelling; possibly reflecting the preceptory's increased wealth. Period 4 marks the origin of the excavated fishpond, one of a relatively vast collection of water features for an establishment of this size (see Fig. 2). The grand scale of the moat and the further water features to the east may reflect a period of great confidence; this programme is more likely therefore to date from the beginning of the 14th century, as large scale misfortunes, such as a series of bad harvests and the Black Death during the middle of the century, would seem to preclude an ostentatious display of wealth at that time. Apart from the moat and fishponds a number of features lie to the east of the enclosure (Fig. 2). These have the appearance of a mill-pond with associated leets, similar to the industrial complex at Bordesley Abbey (Astill 1993). Such an industrial complex would certainly be in keeping with the

role of the preceptory as a revenue generating institution converting agricultural wealth to portable wealth.

The preceptory buildings, seen as cropmarks, reflect the built environment as it was by the 16th century. The extent to which this reflected the earlier layout is uncertain. As a pattern it conforms, roughly, with other layouts of preceptories and commanderies in England, such as the recently surveyed example of a commandery from Swinithwaite, N. Yorkshire (Moorhouse n.d.). Most larger preceptories were enclosed within either moats, or a bank and ditch (Gilchrist 1995, 74). Carbrooke differs in that it is only partially enclosed on its eastern side by a moat; no evidence was discerned for a different form of enclosure on the west side of the establishment. Most preceptories had the conventual buildings grouped around a central space but without a cloister; this space was in some instances occupied by a garden and in others by a formal courtyard (Gilchrist 1995, 74). In Normandy, where the Hospitaller and Templar sites are often well preserved compared with sites in England, a recently published survey of many of these makes it clear that preceptory buildings tend to cluster around the periphery of the precincts and most preceptories are bounded by a wall. The survey also shows that chapels were most commonly rectangular and often found on the south side of a quadrangular courtyard occupying most of the south wing (Miguet 1995). Many larger preceptories shared their chapel with the local community as the parish church and the opposite may also have occasionally been the case. Carbrooke apparently had a chapel attached to a small courtyard and there is a large parish church just to the north-west of the precincts (Fig. 1). The relationship between the preceptory and St Peter and St Paul church is difficult to define but there are the two grave-stones with Hospitaller iconography suggesting a relationship, possibly at an early stage prior to the construction of the chapel. Both these are early 13th-century and it is therefore possible that the relationship changed over time with the Hospitallers initially using the church as their chapel and later building their own.

Three buildings are visible at Carbrooke Preceptory as cropmarks. Two of these can be characterised, at least for some part of their existence — the chapel and the excavated building — parts of which were, at different times, a barn/industrial building, refectory, chamber, and kitchen. The remaining, most northerly building of the group is complex in its layout as well as symmetrical and does not appear to be a farm building; possibly this structure represents the preceptor's lodge. If so, like many other aspects of the archaeological record here, the grandeur of the building is in marked contrast to the documents prepared just prior to the Dissolution describing the accommodation and its contents.

The layout bears some comparison with a secular manor, a fact that reflects similarities in some aspects of lifestyle as well as iconographic tastes. The preponderance of horse equipment here makes this point. The activities of the inhabitants of Carbrooke would seem, both through the material and documentary records, to

bear more resemblance to those of a large baronial house than a monastery. The conspicuous consumption illustrated in the contents of the period 6 midden is further evidence of a more aristocratic than contemplative mind set. Perhaps within the milieu of the period this combination of religion and masculine aristocratic pursuits would not have seemed as incongruous as it does to the modern mind. The attachment of the concept of monastic life to the Military Orders may in itself be unhelpful in attempting understanding them. This ambiguity is also reflected in the headquarters of the Order in England, the priory at Clerkenwell. This complex, certainly by the 15th century resembled a palace more than a monastic head house (Sloane forthcoming). The inextricable linking of monasticism with concepts of frugality, moderation and contemplation in the modern historical view seems at odds or at least incongruent with the idea of the *militiae*.

One of the unexpected discoveries made during the documentary research was that of the role played locally by the head of the Order, the prior, as a Norfolk landowner. The priorial holdings were widespread across the county. Such lands were separate from those endowed to the Order as a whole, in that their revenues funded the prior's household and activities. The prior thus tended to act alone in related transactions rather than on behalf of the Order (Gervers 1996, lxvi–lxviii). The necessity of such holdings is clear when the prior's national role is considered: the Order could not, for example, be responsible for expenses associated with his parliamentary activity.

Recent research by Gervers identified the manor of Rainham (Essex) as an important source of personal priorial income. Gilbert de Vere granted the land to the Order in the 1180s and, as prior in the 1190s, administered it privately without any opposition (Gervers 1996, lxvii). By the 14th century, the prior's Essex holdings were complemented by lands held in Norfolk and probably elsewhere, the existence of which is revealed by the Close Rolls. In 1323, Prior Thomas Larcher acknowledged a debt of £550 owed to the Earl of Pembroke. In default of payment, the debt was to be levied 'of his lands and chattels in counties Norfolk and Essex' (*Calendar of Close Rolls*, 705).

The significance of these Norfolk holdings is considerable. Firstly, the achievement of the Carbrooke clerks in accumulating around 10% of England's *confraria* resulted from collection on both the lands of Carbrooke Preceptory and those of the prior, in addition to 'cold-calling' on other parishes. There were thus many more tenants of St John in the county than previously supposed, and they would have been particularly susceptible to the appeal of the Hospitallers.

When it is recalled that the Order's infirmary was situated at Chippenham in Cambridgeshire, the

topographical bias towards East Anglia of significant Hospitaller houses and holdings becomes evident (at least for the earlier part of their existence in England).<sup>16</sup> It is likely that priorial presence in East Anglia was far greater than before envisaged, both within the region's preceptories as well as on his private estates.

It is compelling that the two cloth seals discovered here bridge the Dissolution. The earlier one is from Essex and we can infer that it represents the well-documented links existing between this and the Essex priories. Egan (above) suggests that the fabric was of a thicker type than may have been produced within Norfolk, by this time certainly known for its fine woollen products. But, there may be an institutional rather than trade reason for its presence here. Provisioning of the Hospitaller sites within the English *tongue* may have been centrally controlled. Production of surplus might have been in this case quite separate from what was consumed on site. The pottery also hints at these institutional provisioning systems, although most of the pottery is of local origin, there is a significant component of far-flung, and for a Norfolk rural site, rather eclectic types. The second cloth seal is from York and dates from a few decades after the Dissolution. It must thus relate to the people inhabiting the site after the monastic establishment was dispersed. The fact that elements of life at this time, as seen in the archaeological record, mirror the situation prior to the Dissolution is interesting and begs the question whether aspects of the establishment continued in business, much as it had been but for a different institution. Archaeological dating information on the demise of those elements of the preceptory's built environment investigated here does not rule out further occupation in the 16th century. Indeed, the reduction in the size of the oven at that time suggests a form of continuity, if in a reduced form.

One of the more important and, for a Hospitaller site, new forms of archaeological information uncovered at Carbrooke was the animal bone midden. Again this dates from around the period of the Dissolution, making its interpretation problematic. It has been assumed here that the midden represents consumption during the latter years of the preceptory's existence, based on the widespread network represented by the diverse species within the assemblage. As Nicholson (above) points out there is a discrepancy between this assemblage of fish remains and that excavated from Greyfriars, Norwich; the Carbrooke group is much more impressive in both the individual species present and the overall variety. Hammon's report also illustrates this, with the mammal and bird bone assemblages indicating the wealthier strata of society. An assemblage of faunal remains from a moated site at Wimbotsham, Norfolk of the same period contained a relative abundance of young pig, as does the Carbrooke assemblage; there were also high proportions of domestic and some wild fowl at both sites (Hammon 2003, 39).

# Appendix 1 — further documentary information relating to the 15th and 16th centuries

## 15th-century

There was a contingent of people who might be classed as part of a preceptor's following, but whose links with any preceptory were based on a less official footing. As such, they remain invisible in most sources. Fortunately, however, the composition of the preceptor's retinue at Carbrooke is partially revealed by reference to an incident of 1451 that caused much outrage at the time. The people in question were the friends and relatives of William Langstrother, then preceptor of Carbrooke (and from a northern family) (Virgoe 1997). His kinsman, Robert Langstrother, along with a (lay) posse from the preceptory broke into Wood Rising manor house. The group threatened three women in the hall, forced their way into the chamber of Joan Boys, the daughter of the house, dragged her from the building and tied her on horseback behind one of their number. The getaway was marked by three arrows shot at a servant, followed by a frenetic gallop to Carbrooke Preceptory. They then set off towards Lincolnshire and reached Eagle, another house of the Hospitallers, also administered by William Langstrother.<sup>17</sup> Robert and Joan were married on the way, at Wiggenhall St Mary, the whole episode apparently prompted by the looming possibility that Joan was to marry one of the Southwell family (Virgoe 1997, 151 and 155). Robert's career as a follower of his Hospitaller relatives continued. He eventually went to London to serve, in an unofficial capacity, another of his kinsmen, John Langstrother, who was the Prior of England. Robert's will was written at Clerkenwell, where he died (Virgoe 1997, 156).

## 16th-century

Leases of the late 15th and early 16th centuries, associated with Carbrooke Preceptory's holdings, are useful material for comparison with the 1338 information as they deal with the forms of two main areas of the preceptory's finances: *confraria* and *anticipatio* (anticipated revenues from lands and property). They are recorded in the three surviving leasebooks of the Order, dealing with transactions in the periods 1492–1500, 1503–1526 and 1528–1539 (Lansdowne 200; Cotton Claudius Evi; LR2/62). Documentation dealing with the Hospitallers' finances and land management in the late 14th and early 15th centuries has not been found. Two leases of *confraria* survive, from 1516 and 1531 (Cotton Claudius Evi f.161d (1516); LR2/62 f.70v–d [1531]). Both ran for fifteen years and each farmer was bound to pay £53 6s 8d *per annum* at Carbrooke; this is a drop of 44% on the 14th-century figure. Four leases of the *anticipatio* survive, dated 1500, 1503, 1519 and 1528 and, although the terms of the transactions appear to vary, it is quite clear that £20 4s 5½d *per annum* was due to Clerkenwell towards the *responson* (Lansdowne 200 f.86v–d (1500); Cotton Claudius Evi f.4 (1503); Cotton Claudius Evi f.207d (1519); LR2/62 ff.5d–6v (1528)). On combining the figures for the farmed *confraria* and *anticipatio*, a total of £73 11s 1½d is obtained, which may be regarded as the minimum acceptable (albeit theoretical) figure for the money to be paid to Clerkenwell by Carbrooke in the early 16th century. A diminution in the net theoretical income of the preceptory is thus evident, as shown by the changing amount rendered as the *responson*: in 1338, this was £120 9s 8½d while that of c.1520 was £73 11s 1½d. Despite this change for the worse over two centuries, Carbrooke's continuing value to potential investors remained extremely attractive. It is significant that the first man to farm it from the Crown after the Dissolution was Sir Richard Southwell (1504–1564) who took it on for twenty-one years from Michaelmas 1541 (LR2/63 ff.114v–d). Southwell was a Norfolk man of immense wealth, who acted as the crown's bailiff there in the first year after the Dissolution: in this capacity he would have had ample opportunity to assess the ex-preceptory's assets (SC6/Henry VIII/7268/326; see also Stephen and Lee 1921–22). More generally, his prominence in the Dissolution process as the king's commissioner and receiver at the Court of Augmentations, meant that he was supremely well placed to identify desirable ex-monastic properties, and Carbrooke evidently fell into this category (Richardson 1961, 12, 50 and 86).

Although the preceptory chapel was served by Brother Thomas de Hinton in 1338, by the 1490s a secular chaplain carried out these duties. In 1493, John Pawnton was assigned a corrody for life, in return for celebrating divine service in the preceptory chapel. Thomas Wilson was appointed chaplain in 1519, and, in 1528, John Winter was the last priest to be charged with the duty of serving the Hospitallers at Carbrooke (Lansdowne 200 f.12v (Pawnton); Cotton Claudius Evi, f.201v–d (Wilson); LR2/62 ff.59d–60v (Winter)). In common with the others, Winter received food, drink and clothing befitting the status of

gentleman, a chamber within the preceptory and five marks *per annum* as a salary.<sup>18</sup> He was expected to perform priestly tasks as long as he was able but, if eventually restricted by ailing health to his chamber, his allowance of food and drink would be brought to him. Meanwhile, we may suspect that a chaplain with greater vitality would have begun to serve the preceptory chapel, also in receipt of a corrody. John Winter received a pension of 76s 8d *per annum* from the Court of Augmentations and remained in the locality (LR2/63 f.10v). He is documented as a surveyor of the lands of Carbrooke manor, in September 1540, when he was described as 'Sir John Wynter, priest'. A decade later, however, he was simply one of four Carbrooke churchwardens who provided an inventory of their church for the Crown in 1552–3 (LR2/220 ff.269–74 (survey); E315/500 no. 31).

The bailiff's account which spans the period from Michaelmas 1540 to Michaelmas 1541, refers to the preceptory site as a manor with barns, stables, one dovehouse and ponds, yards, orchards and a garden of eight acres (although it is unclear from the wording whether the entire site or only the garden contained this acreage).<sup>19</sup> A more detailed description of Carbrooke Preceptory is provided in the inventory compiled by Roger Townsend, Richard Southwell and Thomas Mildemay, the king's commissioners in November 1540 (E117/12/1). The purpose of this activity was to itemise the saleable goods of the preceptory and, if sold, to enter the amount raised. This task was accomplished room-by-room, and it is evident that Carbrooke Preceptory took the form of a relatively modest complex. A parlour, furnished with a hanging, tables, cupboards, forms and 'a chayer', was surmounted by a chamber for sleeping, which contained three bedsteads, mattresses, various types of bedlinen and a cupboard. These two rooms were probably occupied by the Hospitallers and, as such, the chair would have been used by the preceptor. There was also a sleeping chamber for the 'meanye' (many) with two bedsteads and two old coverlets; a buttery, containing among other things tablecloths, napkins, a bread-hutch and a pewter salt-cellar, a kitchen, and a larder with a firkin for verjuice. The inventory then deals with goods associated with the other buildings of the complex. There was a chapel, a brewhouse, a dairy, a 'husbondry' which was the storage area for the cart, two ploughs, two pitchforks and harness, and a barn in which grain was stored. There was also a number of large animals on site: eight horses, nine hogs, three sows, ten cows and a bull.

Sir William Weston, Prior of the Order of St John of Jerusalem in England was summoned to neither the parliaments of 1539 nor 1540 (Lehmburg 1977, 51 and 89). On 10 May 1540, the life of Carbrooke Preceptory came to an end, when the Bill for the Suppression of the Order of St John of Jerusalem in England was passed in a Parliament packed with men compliant with Henry VIII's wishes (Richardson 1961, 101). The Hospitallers were charged with defamation and slander of the king's majesty and with upholding the 'usurped power of the Bishop of Rome' (Lehmburg 1977, 102). From that moment, the Court of Augmentations took action. Forty-three preceptorates were assessed and surveyed with a view to their disposal in the most lucrative fashion.

Initially, the ex-preceptory's modified financial status was recorded. Amendments were made to a survey similar to the *Valor* and the extant manuscript, dating from 1540, is full of deletions and insertions (SC12/12/33). Poor relief was no longer dispensed to the six boys, for example, and the vicar of Carbrooke apparently received a raise in the value of his food entitlement from £3 6s 8d to £4 (in addition to his pension of £4). Income was assessed at £38 8s 11½d and the net value of the ex-preceptory was assessed at £16 8s 11½d. The preceptory was managed on behalf of the Crown by a bailiff, from Michaelmas 1540 to Michaelmas 1541, and the account for this period survives (SC6/Henry VIII/7268/326). Actual revenues were similar to the assessed revenues at £43 19s 6½d. Outgoings were considerably more modest, and profits for the year stood at £35 4s 9d.

During this period of temporary administration, the inventory of sale was drawn up in November, and the Court of Augmentations also confirmed pensions to people such as Thomas Copledyke, last preceptor of Carbrooke, and John Winter, the priest (E117/12/1 (inventory); LR2/63 f.16v–d (Copledyke); LR2/63 f.10v (Winter)). From Michaelmas 1541 the ex-preceptory was leased to Southwell for the term of 21 years, rendering annually £36 4s 9d. This sum corresponded closely to the profits of 1540–1541 (LR2/63 f.114v–d). The king reserved only woodland and the advowson of Carbrooke church, although these were granted to Southwell in April 1544 (Brewer *et al.* 1864–1932, 279 (1544)).

## Appendix 2 — measurements of mammal and bird bones and mammal teeth

All measurements are taken in tenths of a millimetre. See text for an explanation of how the measurements were taken.

### Element codes

AS = astragalus  
CA = calcaneum  
CO = coracoid  
CMC = carpometacarpus  
FE = femur  
HU = humerus  
MC = metacarpal  
MT = metatarsal  
RA = radius  
PE = pelvis  
TBT = tibiotarsus  
TI = tibia  
TMT = tarsometatarsus

### Species codes

ANA = *Anas* sp. (duck)  
ANS = *Anser* sp. (goose)  
ARC = *Ardea cinerea* (grey heron)  
B = *Bos taurus* (cattle)  
CAF = *Canis familiaris* (dog)  
CCO = *Cygnus cygnus/olor* (whooper/mute swan)  
COL = *Columba* sp. (pigeon/dove)  
COM = *Corvus monedula* (jackdaw)  
EQ = *Equus* sp. (equid)  
GAG = *Gallus gallus* (chicken)  
GN = *Gallus/Numida* (chicken/guinea fowl)  
GNP = *Gallus/Numida/Phasianus* (chicken/guinea fowl/pheasant)  
GP = *Gallus/Phasianus* (chicken/pheasant)  
LEE = *Lepus europaeus* (brown hare)  
LLS = *Lagopus lagopus scoticus* (red grouse)

O = *Ovis/Capra* (sheep/goat)  
OVA = *Ovis aries* (sheep)  
PEP = *Perdix perdix* (grey partridge)  
S = *Sus scrofa* (pig)  
SCR = *Scolopax rusticola* (woodcock)  
VAV = *Vanellus vanellus* (lapwing)

### Measurements

c. = slightly imprecise measurement (within 2%)

### Bone:

1 'GLC' in humerus and 'GLI' in astragalus  
2 'DI' in astragalus and '3' in metapodials

### Teeth:

\* anterior width in pigs

### Pig age stages (O'Connor 1991)

J = juvenile  
I = immature  
SA = subadult  
A = adult  
E = elderly

### Sheep age stages (Payne 1973)

A = 0–2 months  
B = 2–6 months  
C = 6–12 months  
D = 1–2 years  
E = 2–3 years  
F = 3–4 years  
G = 4–6 years  
H = 6–8 years  
I = 8–10 years



## Endnotes

<sup>1</sup> The various Hospitaller cartularies, compiled between 1442 and 1447, contain copies of donations and confirmations of land in fourteen counties, but Norfolk is not among them, (Gervers 1996, *op cit* in note 1, p. xxiii and n.1). Walter Rye, the late Victorian Norfolk antiquarian noted the existence of 82 deeds relating to Carbrooke in the Public Record Office (Rye 1881, 58–9). Although the reference is obsolete, it appears to denote a collection known to be dominated by the pre-Dissolution holdings of religious houses (E328) but examination of the partial catalogue available for this class did not bring them to light. They may indeed be held in E328 but not yet catalogued, but there is also the possibility that they were held separately by the prior in a cartulary dealing with his Norfolk lands. For the Essex context, see Gervers (1996), *op cit* in note 1, pp. lxviii.

<sup>2</sup> The Prior of Clerkenwell was also the preceptor of the religious house in the same location — the Preceptory of Clerkenwell.

<sup>3</sup> Ward also refers to the gift of the church of Carbrooke to the monastery of Stoke-by-Clare, by Richard of Clare (d. 1217).

<sup>4</sup> No evidence has been uncovered either to support or refute this notion.

<sup>5</sup> ‘Dedit etiam eisdem praeceptoriam eiusdem, cum toto dominia eidem pertinent’.

<sup>6</sup> For the layout of ex-Templar sites, see Greene 1992, 28–9, 136–9.

<sup>7</sup> In Essex, land was acquired in various ways and those employed to endow Chaureth Preceptory are a case in point. The Hospitallers solicited donors for gifts in free alms, resulting in the conveyance of the church of Chaureth in Broxted in 1151 (Gervers 1996, lxxix–lxxx, cii). Such gifts were supplemented by purchases or long-terms leasing; for the purchase of a serf at Chaureth (*ibid*, lxxix).

<sup>8</sup> For a comparison of the Templar and Hospitaller economies, see Gervers 1996, chapter 6 ‘Hospitallers and Templars in the Essex Landscape’, xcix–cx. For lists of rents held by Carbrooke, see NRS 20302, NRS 20283; NRS 27295; SC6/Henry VIII/7268/326; Puddy 1961, 41–50, and 56–57 (map). For the manor of Togrind (Suffolk) mentioned in Larking and Kemble (1857, 166) and erroneously assigned to Norfolk, see Gervers 1981, 9. None of Carbrooke’s holdings were analysed for this assessment.

<sup>9</sup> Approximate income in pounds: Clerkenwell 400; Slebech (Pembrokeshire) 307; Willoughton (ex-Templar, Lincs) 284; Carbrooke (Norfolk) 192; Shingay (Cambs) 187; Dinmore (Herefordshire) 182. Approximate value of the *responsions* in marks: Willoughton (ex-Templar, Lincs) 302; Scotland 300; Slebech (Pembrokeshire) 258; Shingay (Cambs) 190; Quenington (Gloucestershire) 183; Carbrooke (Norfolk) 180.

<sup>10</sup> The figure of £320 was calculated by subtracting the sum of the *confraria* from the total income of Carbrooke, and multiplying the result by three. In the decades around 1300, most barons took incomes of between £200 and £500 although, clearly, many baronial incomes were measured in thousands, rather than hundreds of pounds. One of the highest landed incomes was received by the Earl of Lancaster who, in 1311, took £11,000 (Dyer 1989, 29).

<sup>11</sup> Approximate figures only. Total *confraria* submitted to Clerkenwell Priory: 1284 marks. Carbrooke’s submission: 130 marks.

<sup>12</sup> Most English houses consisted of two to three professed brothers; the largest communities were Chippenham (10) (Cambridgeshire), Clerkenwell (7) and Buckland (6) (Somerset): (Forey 1992, 151, note 4).

<sup>13</sup> The vicarages of Carbrooke Magna and Parva were consolidated in 1424 (Blomefield 1805, 331, note 35).

<sup>14</sup> Temple Crossing (Essex), sacked in the uprising of 1381, was ‘well-supplied with wine and suitably stocked for an important lord.’ The English chapter of Hospitallers was held there in 1381, and the prior was Sir Robert Hales who also held the royal post of Treasurer of England (Wadhams and Symonds 1990, 8).

<sup>15</sup> For an explanation of Potter’s classification system and discussion of the usefulness of charting more accurately the configuration of the numerals on dice see Egan 1997.

<sup>16</sup> The coming of the Black Death to England in 1349 may have been the crucial point of change.

<sup>17</sup> The Langstrothers were pardoned on 12 May 1453: *Calendar of Patent Rolls, 1452-1461*, p. 74.

<sup>18</sup> A mark was equal to 13s 4d.

<sup>19</sup> SC6/Henry VIII/7268/326. Accounts customarily ran from Michaelmas to Michaelmas (September 29). The bailiff was Sir Richard Southwell.

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