

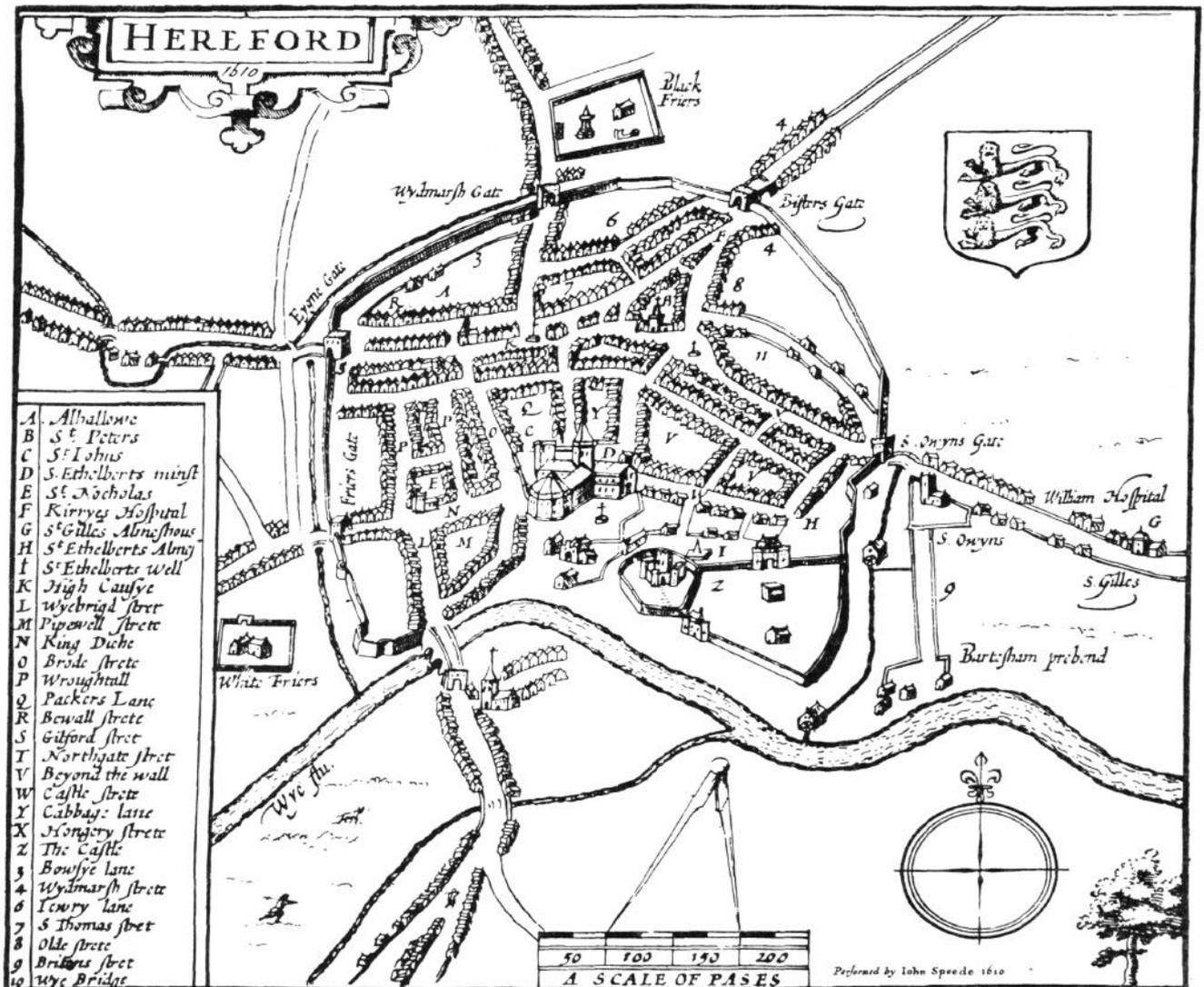
Hereford City Excavations

Volume 1

CBA Research Report 36

Excavations at Castle Green

By R Shoesmith



Hereford City Excavations Volume 1

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by **R Shoesmith**

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General introduction

'He who writes the Antiquities of a Provincial City, will find his judgment frequently embarrassed, and his progress retarded, by the uncertainty of information, and frequently by the contradictory accounts which he receives; for, as few authors have recorded much authentic intelligence of this nature, he is obliged to have recourse to tradition, which, though sometimes true, seldom deserves implicit confidence. Nor is this the only difficulty that will occur: the barrenness of events at certain periods, will frequently interrupt his narration, and the regular arrangement of detail. This is in a particular manner experienced in relating the History of Hereford.'

(Price 1796)

The problems facing John Price towards the end of the 18th century were the same as those facing present day archaeologists in Hereford. He was concerned that 'its ancient state...was involved in obscurity' and that the 'accounts of it (were) distracted by various opinions' to an extent that he could not determine its origins. The results of the ten years of archaeological work in the city, which are recorded in these three volumes, have not established any details of the initial foundation of Hereford, but they have substantially increased our knowledge of the pre-Conquest development of the burh and its defences.

Hereford is of great importance in the understanding of the pattern of urban revival after the close of the Roman Empire, because it is one of the best examples in Britain of an early town founded on a virgin site, rather than within the complex ruins of a Roman town or fort. It is also the earliest Saxon town west of the Severn and is apparently one of the earliest examples of a post-Roman town laid out on a formal plan. The accepted date for the foundation of the diocese of Hereford is AD 676, but, however important the part played by the Church, the city was preeminently a royal foundation with a strategic importance based on its command of the approaches to central Wales and its position astride a recognized ford on the River Wye (Lobe1 1969).

Throughout the late Saxon and early Norman periods, Hereford grew in importance. The earliest town defences so far established probably date from the mid 9th century, and a mint was founded during the reign of Aethelstan (924-39). The first castle was probably built before 1052 and eventually became in Leland's words 'one of the fayrest, largest, and strongest castels in England' (Smith 1964).

The final defeat of the Welsh meant that Hereford lost its strategic importance and became a quiet and rather remote shire town with gradually decaying defences and a disused royal castle indicating its former glory. Houses were occasionally rebuilt using traditional 'half-timber' work, but there were few changes to the design and size of the town between the 13th and the 18th century.

The town defences were still sufficiently strong to withstand a siege during the Civil Wars, but late in the 18th century the gates were demolished and the walls were neglected, gradually becoming incorporated within other buildings or used as a source for construction material. The city expanded during the 19th century but apart from some clearance in the market area and some widening of the streets, the central part remained substantially unchanged except that brick fronts replaced the original timberwork on many of the shops. Development continued within individual property boundaries until the 20th century when department stores, banks, and offices obliterated the traditional plots of ground. The railway left the medieval

town untouched, but the rapid increase in use of motorized vehicles in the 20th century made changes in the street plan inevitable. Between 1966 and 1970 a ring road was built, which followed approximately the line of the medieval defences, and together with a second bridge across the River Wye removed the volume of traffic from the city centre.

Construction of the ring road also exposed parts of the medieval city wall to public view for the first time for well over a century, and these fragments now help to protect the historic core of the city from further modern encroachments.

This three volume report describes the archaeological work undertaken in the city between 1965 and 1976. The interpretation of the complex series of defensive works, dating from the mid 9th century, was of primary importance, but the work has also revealed evidence of the internal organization of the city, its roads, houses, and pre-Conquest cemetery.

The main sections of each volume are:

Volume 1: The excavations at Castle Green
Historical Introduction
Excavation of part of the Saxon graveyard,
St Guthlac's monastic site and the castle
Conclusions

Volume 2: Excavations on and close to the defences
Geographical and historical outline
The excavations (excluding Castle Green)
General conclusions

Volume 3: The finds
The small finds
The ceramics
The environmental evidence

Volumes 2 and 3 are closely cross-referenced to enable the artefacts from each period, and the context of each find, to be established. Volume 1 is designed to be read separately, because it does not directly reflect the urban character of the excavations recorded in volume 2, but rather considers the variations in burial techniques between the 8th and the 12th centuries and the changing fortunes of the monastic establishment as it became surrounded by the medieval castle. The finds associated with the burials are described in volume 1 but all other finds from Castle Green are included in volume 3.

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In the preparation of this report, I was helped by M G Boulton who was responsible for many of the plans and drawings, and Councillor W A Vowles, the Chairman of the City of Hereford Archaeology Committee, and Ruth Devitt, both of whom regularly checked and corrected the text. The texts of Volumes 1 and 2 were read by Miss J N Crickmore, Urban Research Officer for the West Midlands, who provided many helpful comments. Encouragement was consistently given by other members of the City of Hereford Archaeology Committee, especially the secretary, Miss A E Sandford, and treasurer, R J Oldman. Miss Sandford, as assistant curator and later curator of the Hereford Museums, also made material available for study from previous excavations in the city.

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The long and complex task of typing and retyping the whole text was undertaken by Mrs I Dyer and Mrs H Banks, without whose help and understanding this report may never have been completed.

The use of microfiche

Whilst this report was in page proof, a decision was taken to publish parts of Volumes 2 and 3 in microfiche form to reduce costs.

This will require substantial editorial work and means that the cross-referencing system which was to be used in Volume 1 to identify finds published in Volume 3 has had to be abandoned. New cross-references will be included as a separate section at the beginning of Volume 3.

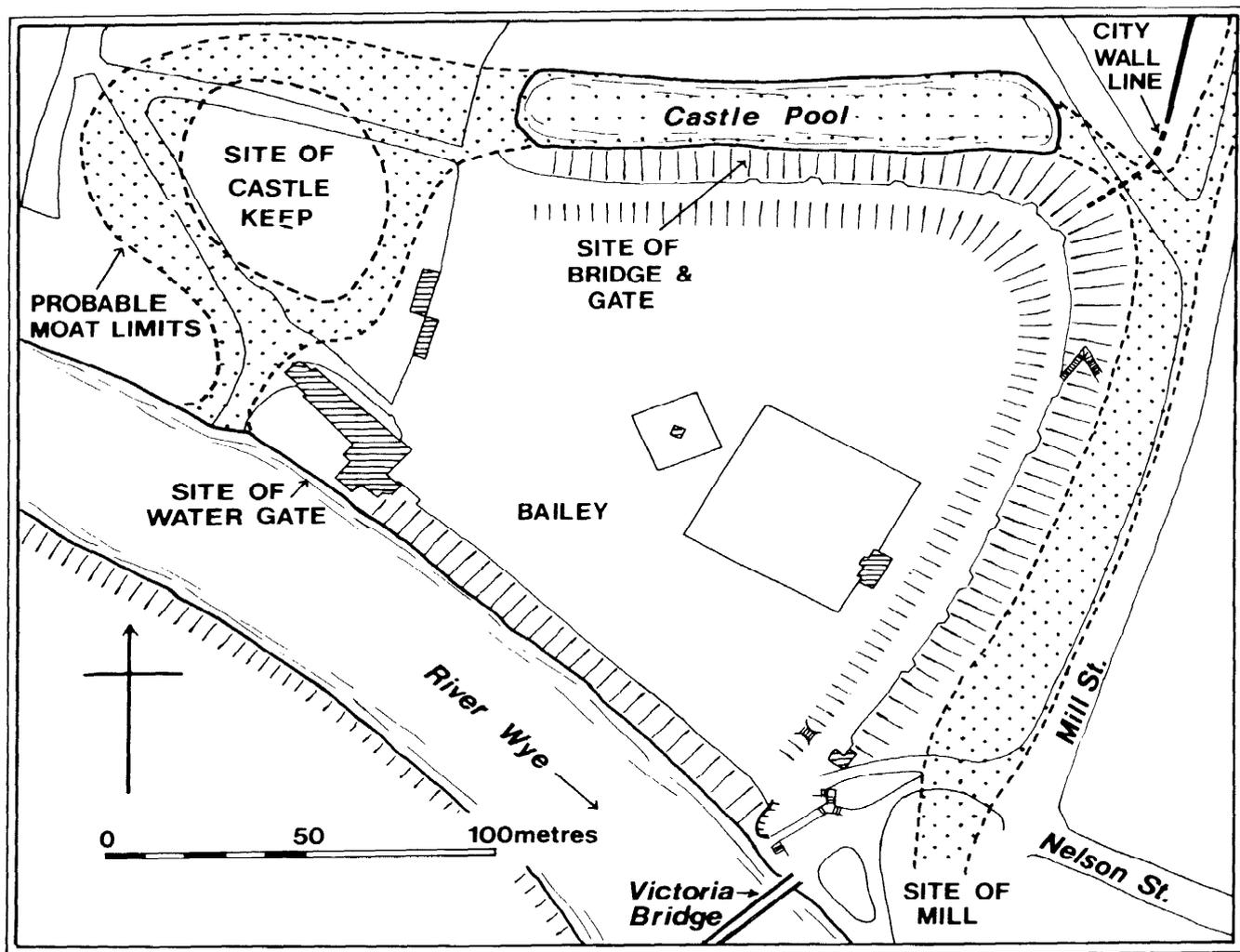


Fig 1 The site of Hereford Castle at the present date, showing the probable extent of the defensive moat

Introduction to Volume 1

Hereford castle, once described as being ‘as great circuite as Windesore’ (Smith 1964, 3, 47), is now a public open space, with no masonry surviving. The original castle, which was probably established shortly before the Conquest, reached the peak of its importance in the 13th century and, after long years of decline and a brief revival during the Civil War, was finally demolished in the second half of the 17th century.

The area was in use for several hundred years before the castle was built both as one of the principal burial grounds of the city and as the site of the collegiate church of St Guthlac. The religious settlement moved to a new site in the suburbs of the city in the mid 12th century and its original property became absorbed in the bailey of the castle.

This report is mainly concerned with the early history of the Castle Green area. It considers the historical evidence and the results of an emergency excavation in 1973 and reassesses the information available from a small excavation in 1960. The work has been sufficient to establish the national importance of the area and to indicate the existing level of preservation. The sites excavated were too small to give an overall picture of the early occupation but the results were sufficient to establish a period sequence for the buildings and the burials.

Present day description (Fig 1)

The site of the castle at Hereford is close to and north of the river Wye at the eastern end of the walled town. The remains are now scanty but give an impression of the original size. The castle mound, which has been totally removed, was to the west of the bailey and is now the site of a bandstand and an ornamental pool. The bailey to the east has been landscaped and is now a large open park area. A substantial earthwork follows the northern and western edges of the bailey, rising to Hogg’s Mount at the north-eastern corner. Outside the bank on the north is Castle Pool, which reflects part of the line of the water-filled ditch which originally encircled the castle on the west, north, and east. The ditch on the eastern side has been filled in and is an open grassed area with occasional trees. The bailey has a steep scarp slope to the river with a path along a slight rise along the top. Tarmac paths also follow the tops of the banks on the north and east sides and along the lower inside edges. A memorial to Lord Nelson was erected in the centre of the bailey in 1809 and the eastern part is now fenced off as a bowling green. A stone buttress, built at the southern corner of the bailey in 1975, conceals the pump mechanism which keeps Castle Pool full of water.

During exceptionally dry weather the grass in the bailey contains regular parched marks which have been shown to reflect the buried foundations of buildings. They were approximately planned in 1933 (Watkins 1933) and again in 1959 (Heys 1960), and were fully surveyed in 1975. Fig 2 is a composite plan of these various surveys and shows the irregular foundations of several buildings. The areas close to the edges of the green, particularly on the west and north, tend to parch out completely and foundations cannot be established. This extreme parching is thought to indicate building floor levels. Across the centre of the green is a shallow depression running north-east south-west which separates the bailey into two unequal parts. The foundations in the northern part of the bailey tend to have the same general alignment as that of the depression, in contrast to those in the southern part of the bailey which are oriented more nearly towards east-west.

Historical introduction

by D A Whitehead

There are only two pre-Conquest references to the minster church of St Guthlac which stood on Castle Green until the mid 12th century. The earliest is a will of a Shropshire thegn called Wulfgeat who died *c* AD 975, and the other a legal document of the early 11th century (Whitelock 1930, 54–6, 163–7; Robertson 1939, 186). Both these documents indicate that St Guthlac’s was an important church, the equal of many of the most ancient foundations in Britain.

Wulfgeat’s will contains a list of several important West Midland churches, each of which received a gift either in lands, money, or goods from the testator. St Guthlac’s receives a half a pound of pence – the same as Hereford Cathedral – and in the list takes precedence over minsters at Leominster, Bromyard, Clifton-on-Teme, Wolverhampton, Penkridge, and Tong. If this represents some sort of ‘pecking-order’, St Guthlac’s was clearly highly regarded by this distant Shropshire thegn. A similar indication of the minster’s position *vis à vis* the Cathedral occurs in the early 11th century document which records the purchase of an estate at Mansell, Herefordshire, by Leofwine from his kinsman Eadric. It was to be done with the cognisance of ‘the two communities at St Ethelbert’s minster and at St Guthlac’s’. Apart from implying that, in the eyes of Leofwine and Eadric, the minster on Castle Green was the equal of the Cathedral, this is the first explicit reference to the collegiate character of the church.

Arguing from the dedication to St Guthlac, it has been suggested that Aethelbald of Mercia, who became king in AD 716 and figures prominently in Felix’s *Life of St Guthlac*, is the most likely founder of the minster church (Lobe 1969, 2). He was a kinsman and friend of the saint and, after Guthlac’s death in AD 715, enriched his tomb at Crowland. The *Life of St Guthlac*, written about AD 740, records the beginning of a conflict between the English and the British in the borderland during the reign of Coenred of Mercia (AD 705–9). Aethelbald continued this struggle ‘against the implacable enemies of the Saxon race’, and since, as the *Book of Llandaff* indicates, the southern Marches were the centre of much of this martial activity, Hereford would have been a natural choice for a royal foundation – or refoundation – of a frontier minster, situated on the edge of territories recently annexed from the Welsh (Colgrave 1956, 2–6, 109; Evans 1893, 192).

Although there were relics of the saint elsewhere in western Britain, the church on Castle Green appears eventually to have had the saint’s body. This important piece of information is mentioned incidentally when a fire occurred in the royal castle accidentally destroying the wooden shrine which covered the saint’s remains (p 5). Clearly Hereford had a special place in the development of the cult of St Guthlac (Colvin 1963, 2, 676).

Although Aethelbald was reproached by St Boniface as a violator of ecclesiastical privilege, in the diocese of Worcester he appears as a benefactor of several churches which he either founded or refounded. These include St Peter’s, Worcester, the abbeys of Gloucester and Evesham, and minsters at Bredon and Daylesford (Stenton 1947, 204; Finberg 1972, 33–4, 90–1; Cox 1975, 43–5).

Most ancient minsters were royal foundations, or at least episcopal foundations with royal consent (Stenton 1947, 148). This is well attested in the foundation charters of several other *monasteria* in the diocese of Worcester, eg Withington, Twynning, Fladbury, and Kidderminster (Finberg 1972, 32, 35, 86–7, 91). Unfortunately, such early documentation is lacking for St Guthlac’s, but during a

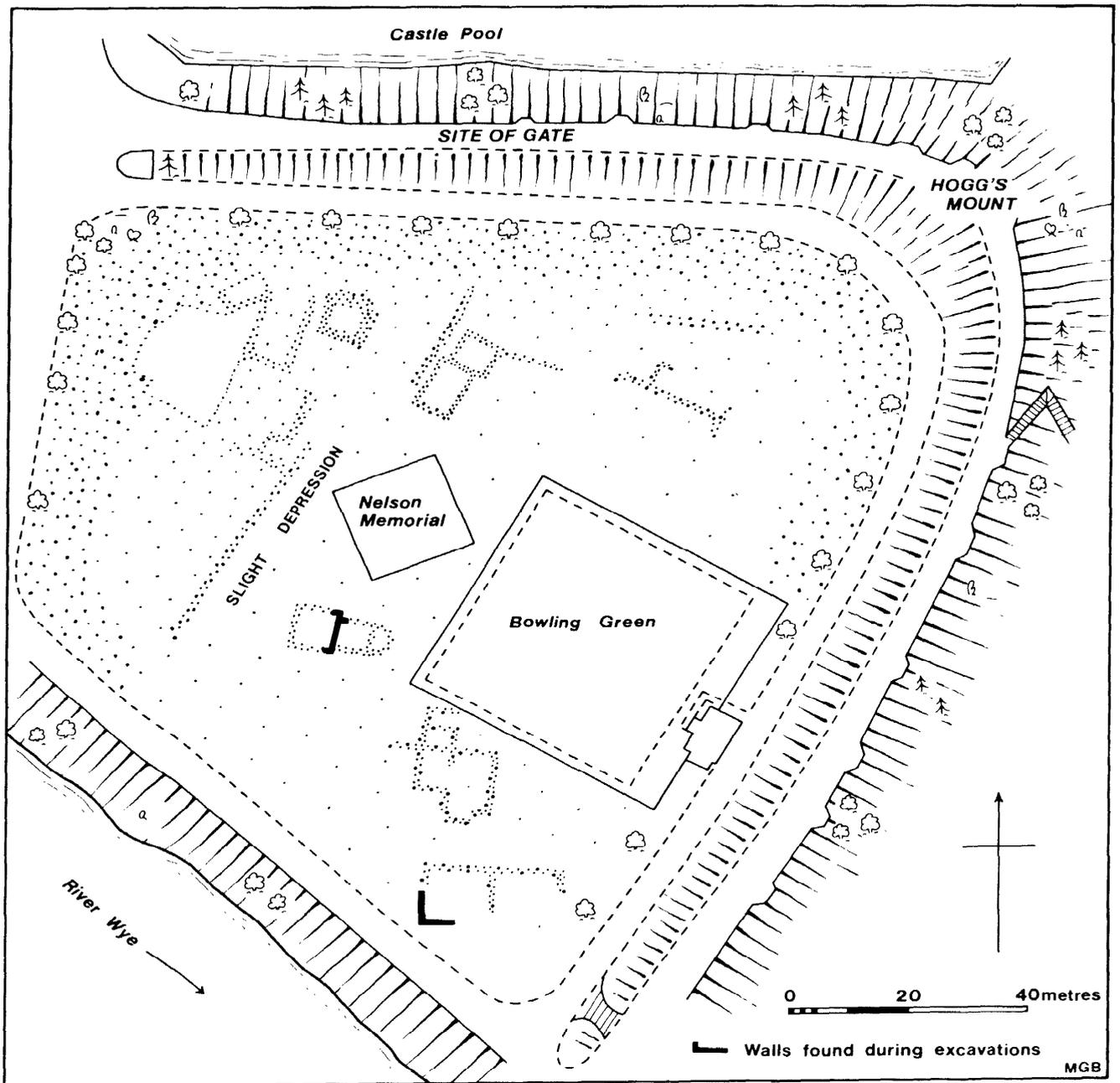


Fig 2 Castle green - the barley of Hereford Castle. A composite plan showing the foundations of buildings indicated by parching of the grass

bitter dispute between Bishop Orleton and the prior of the refounded St Guthlac's, the latter, on being deposed in AD 1322, asserted 'the prior to be of the foundation of the alms of the King's ancestors, and that he holds the priory of the King's advowson'. Of course, since he was unable to substantiate his claim, it was dismissed by the bishop's supporters (*Cal Pat* 1321-4, 49; Bannister 1908, 20-4).

All knowledge and traditions about the origins of St Guthlac's had disappeared by the time documentary evidence becomes plentiful after the Conquest. Domesday

Book indicates that the community had been well endowed with property, but by AD 1086 much of this had passed into other hands. As befits an ancient church, it was equipped with salt rights and nine burgesses in Droitwich. Bishop Robert de Bethune (AD 1131-48) provided a new site for the monastery in the Bye Street suburb of the city after its original precinct had been polluted with blood during the conflict between Stephen and Matilda (Hart 1863-7, 3, 236). He described the minster as 'the mother of other churches' possessing 'prebends, dignities, parishes' (*St Guthlac's Cart*, 499). St Guthlac's was therefore, in

Stenton's words, one of those 'primitive upland minsters...of high antiquity' whose origins must be sought during the earliest phase of British Christianity (Stenton 1947, 149).

There are several reasons for believing that the church on Castle Green was already very ancient when it received the body of St Guthlac. In particular, there are certain problems in accepting the straightforward explanation that the church was founded by King Aethelbald and dedicated to his friend Guthlac. The dedication appears to be wrong, for almost without exception the earliest minster churches of the West Midlands, great and small, were dedicated either to St Mary or St Peter (Stubbs 1862, 241 n 2). It is therefore of some interest to find that the full dedication of the 12th century monastery in the Bye Street suburb was St Peter, St Paul, and St Guthlac which makes it possible that the original dedication was, indeed, to St Peter (Martin 1954, 220; Hart 1863-7, 3, 236). A grant of a rent charge to St Guthlac's made by Roger de Lacy between 1143 and 1155 also refers to the monastery as St Peter's (Walker 1964, 30). However, there is no pre-Conquest evidence for such an assumption and it may well be that St Peter was added in the 12th century because of the close association of the minster with the church of St Peter in Hereford's market place or because it was the dedication of Gloucester Abbey to which St Guthlac's was attached in AD 1101. Nevertheless, a minster church dedicated to St Peter in Hereford in the 8th century, possibly favoured by Aethelbald, makes more sense than one dedicated to, at that time, an obscure East Midland saint. Moreover, such a dedication would also complement the original dedication of the Cathedral to St Mary (Finberg 1972, 36, 223).

There is however, another important argument why St Guthlac may be a later dedication. Although the saint died in AD 715, his cult took some time to develop. When Felix was writing in the 740s there was still no monastery at Crowland. It therefore seems strange that a minster should have been founded at Hereford, dedicated to St Guthlac, whilst his resting place remained a hermit's refuge. It would be even more surprising to find the saint's body here in the early 8th century, so soon after Aethelbald had personally enriched his tomb at Crowland.

Not until the 10th century did St Guthlac become something of a cult figure, particularly in those western parts of England remote from the Danish raids. Glastonbury, Winchester, and Hereford had relics of the saint, whilst offices, festivals, and manuscripts concerned with St Guthlac were to be found at Salisbury, Worcester, Hereford, and Leominster. According to Odericus Vitalis, Crowland was destroyed in AD 870 and it was perhaps at this time that the relics of St Guthlac were dispersed to the West Country, stimulating the renewed interest in the saint's life (Colgrave 1956, 7-15). Significantly, the first documentary reference to St Guthlac's at Hereford occurs soon after in the will of Wulfgeat.

There are reasons to suspect, therefore, that the association of St Guthlac with Hereford may not have occurred until the 10th century by which time the minster church on Castle Green was already regarded as an ancient institution, the equal of the Cathedral Church of St Mary. But what was the precise relationship between these neighbouring ecclesiastical establishments?

The paucity of documentary evidence makes this a difficult question to answer but if an early Saxon or sub-Roman presence is postulated upon Castle Green, several of the problems surrounding the foundation of the see of Hereford can be overcome. It was the 19th century local antiquarian, Walter Pilley, who first drew attention to

the possibility that Castle Green was the site of the earliest church in Hereford. This assumption was based upon topographical commonsense – the prominent position occupied by Castle Green on the Hereford terrace and the presence below the cliff of an important thoroughfare (Leland's Old Ford) which Pilley claimed to have traced in the meadows across the Wye (Pilley Collection 2272, fl62). Most of all he tried to provide a satisfactory explanation for the numerous burials he recorded on Castle Green (ibid ff252-3) (see p 6). Such extensive burial rights, which in the Middle Ages were a monopoly of the Cathedral, suggested that there had once been a church on Castle Green which, in the terminology of Anglo-Saxon laws, must have been regarded as a 'head minster' (Whitelock 1955, 395, 412).

Firm evidence about the establishment of a *cathedra* at Hereford depends, in the main, upon the inscribed cross seen by William of Malmesbury when he visited Hereford in c AD 1125 (Hamilton 1870, 4, 163). This was erected by Bishop Cuthbert (AD 736-40) to commemorate the construction of a new burial place for three of his predecessors together with Mildfrith, a prince of the local people called the Magonsaete or Western Hecani, with his wife, and also an unknown man named 'Oselmi, son of' Osfrith'. The implication seems to be that Cuthbert had transferred these bodies from another resting place, a supposition which is reinforced by his later activities as Archbishop of Canterbury. There he ended the tradition, begun by St Augustine, of burying the archbishops outside Canterbury in the church of SS Peter and Paul, and instead began a new custom of burial in the Cathedral Church of Christ Church (DNB 1975, 490).

It has been suggested that the original ecclesiastical focus 'for the folk who live in the west beyond the Severn' was Leominster, where a monastery was founded by the first recorded King of the Magonsaete, Merewalh, in c AD 660 (Finberg 1972, 220; Rodd 1963, 312-13). During the rule of his son Mildfrith, and at the latest by the time Wealhstod was bishop (AD 727-36), a cathedral had been established at Hereford. It is also suggested that the movement was commemorated by Cuthbert's cross which, according to the inscription, had been begun by his predecessor Wealhstod. However, apart from the details recorded by Goscelin in his life of St Mildburg, namely that Merewalh, a pagan, was converted to Christianity by a Northumbrian missionary, Eadfrith, who was then put in charge of the new monastery at Leominster, there is no other evidence to suggest that Leominster was ever Merewalh's capital or that it was the main centre of ecclesiastical activity in the borderland. Eadfrith simply converted the principal English King of the Marches who responded by founding for him a monastery. Indeed, there is a possibility that he merely re-endowed a pre-existing Celtic minster established sometime earlier by St David (James 1967, 33; Phillimore 1906, 274). There was no need for Eadfrith to turn his attention to Merewalh's subjects – they were already Christian. Moreover, the Magonsaete may have taken their name from the Roman town of Magnis in the Wye valley, a place remote from Leominster but less than four miles from Hereford (Richmond 1949, 39; Gelling 1978, 102-5). Therefore an alternative explanation for the inscription on Cuthbert's cross should be sought.

It may well be that it refers to the removal of burials from Castle Green to a new church near the site of the present Cathedral, or alternatively that the church on Castle Green was rebuilt and enlarged, perhaps with a *porticus* in which the earliest bishops of Hereford and members of the local dynasty could be buried. Indeed, there is no documentary evidence that the cathedral church of St Mary existed until AD 803 (*Cart Sax* 312). One point is

certain, however; the burial ground for the community remained on Castle Green until the mid 12th century when, because it was then inconveniently situated within the royal castle, it was transferred to the present Cathedral Close (Capes 1908, 22-3; see also Vol 2).

The Castle Green graveyard, set aside from the Cathedral church, fulfils perfectly the rubric of the early Church which forbade burials within the *parochia* of a Christian community (Barley & Hanson 1968, 20; Haddan & Stubbs 1869-71, 3, 211). The minster on Castle Green perhaps came into existence, like the suburban cemeteries outside Roman towns on the continent, as a *memoria* over a martyr's grave (eg Xanten; Borger & Gediger 1969, 232). Gildas, writing in the mid 6th century, demonstrates that the distinction between the 'basilicas of the Holy Martyrs' and the ordinary churches was still understood in his day (Winterbottom 1978, 20). Similarly, in the *Vitae* of St Illtud and St Cadog who lived in the 6th century, the *monasterium* is separated from the cemetery. When St Cadog founded his monastery at Llancarfan he first laid out a cemetery 'wherein the bodies of the faithful might be buried round about the temple' and then 'chose another place for himself' (Wade-Evans 1944, 47, 203). The reference in the 1010 MSS to Geraint, the son of Erbin (*ob c AD 540*), founding the church of Caerfawydd (Hereford) could indicate the sort of date that Hereford became an ecclesiastical centre (Williams 1848, 514, 539). Like many Welsh *clas* churches, the minster on Castle Green later became a collegiate establishment with a community of priests whose original purpose may have been to act as caretakers for a *locus sanctus* of the British church situated beside the Wye (Colgrave 1927, 36-7).

From the early 8th century Hereford was one of those places in Saxon England, like Winchester and Canterbury, which had two minsters. Recent excavations and documentary evidence at Lincoln show a sequence of minsters and emphasize the dangers of assuming continuity of site for an existing cathedral church. There excavation of the church of St Paul, probably founded by Paulinus in *c AD 620*, has shown that it was situated behind a Roman public building fronting Ermine Street and close to a temple dedicated to the Imperial Cult (Colyer & Gilmour 1978, 102-4). The church was rebuilt on at least two occasions in the Saxon era and was eventually absorbed within the bailey of Lincoln Castle. However, the primacy of this church had been superseded in AD 678 by the establishment of the See of Lindsey with a new cathedral possibly situated in the lower city. At this time, it is suggested, the body of a person of 'outstanding importance (perhaps the King of Lindsey)' was deliberately exhumed and removed to the new Cathedral. The subsequent ecclesiastical history of Lincoln is confused by the Danish settlement and during the late Saxon era the see was administered from Dorchester. However, in 1072-3 following the Council of Windsor, Remigius transferred his seat to Lincoln and occupied the church of St Mary which stood on the site of the present cathedral and was already regarded as the *matrix ecclesia* of Lincolnshire (Hill 1948, 64-73). At St Andrew's in Scotland the medieval cathedral was preceded by a Pictish monastery which occupied one corner of a royal enclosure (Brooks & Whittington 1977, 285, 292).

It is perhaps not surprising that Worcester provides the nearest parallel for the pattern of ecclesiastical evolution suggested for Hereford. There two burials were found under the refectory, with radiocarbon dates centred on the mid 6th century, suggesting that the burials are earlier than the accepted date of the foundation of the Cathedral. These burials, which it is suggested were Christian, took place in one corner of a Roman enclosure overlooking an

important ford across the Severn. In the mid 7th century Worcester became the centre of a diocese with a minster church, dedicated to St Peter, situated above the earlier burial ground (Barker 1968-9, 16-19; Barker *et al* 1974, 146-51). At some point in the next two centuries (the charter evidence is confused) another minster dedicated to St Mary appeared which, unlike Hereford, eventually became a regular monastic community (Barker 1968-9, 27; Stubbs 1862, 241). Nevertheless, St Peter's retained the bishop's throne and was still situated within the graveyard of the city. Finally, like St Guthlac's, the old minster at Worcester was absorbed within the castle erected by Urse d'Abitot soon after the Conquest (Dyer 1968-9, 34; Beardsmore 1976-7, 19).

The historical and comparative evidence indicates that there were very probably two minsters at Hereford, one on Castle Green which may have originally been dedicated to St Peter and then additionally to St Guthlac and, slightly upstream, the minster dedicated to St Mary which contained the bishop's stool. This was subsequently re-endowed by Offa whose murder of Ethelbert, King of the East Angles, at Sutton to the north of the city, later provided an additional dedication first mentioned in the mid 10th century (Whitelock 1930, 54-6). However, the original burial place of St Ethelbert may well have been within the graveyard on Castle Green, in the area which was eventually to receive relics of St Guthlac (Whitehead 1978, 11).

St Guthlac's, in the eyes of the Normans, was something of an anachronism. It had been untouched by the monastic reform movement of the 10th century and was still served by presbyteries rather than regular monks (*St Guthlac's Cart*, 499). The weakness of its position is reflected in the Domesday survey where most of its property had passed into the hands of laymen. The vill of Pembridge, its most valuable possession, had been seized by Godwin and Harold, his son, but, unlike the cathedral estates which had also suffered in this way, it was not restored at the Conquest and was held in AD 1086 by Alvred de Marlborough (DB, 1, 186). Three other estates, at Bartestree, Maund, and Moccas, had passed to Nigel the Physician, whilst Almeley, Middlewood (Clifford), and Whitney were also in other hands (*op cit* 183, 182b).

In AD 1101 St Guthlac's, like many other Welsh *clas* churches, was given by Hugh de Lacy to that most favoured monastery, St Peter's at Gloucester, and some time later three new churches in Hereford were placed under the 'minster's' patronage: St Peter's, in Hereford's new market place, which was founded soon after the Conquest by Walter de Lacy; the suburban church of St Owen, situated on the eastern approaches to the city; and eventually the chapel of St Martin, described in several charters as 'within Hereford castle' (Hart 1863 7, 1, 85; 3, 256; Capes 1908, 22).

During the mid 11th century there were several attacks on Herefordshire by the Welsh. Ralph, who became Earl of Hereford in *c AD 1046*, apparently did not restore the old fortifications of the county town but probably built a castle within the city defences, adjoining St Guthlac's and its graveyard (p 57). The casual manner in which Ralph appears to have squeezed his castle into the ecclesiastical precinct at Hereford is a foretaste of the disdain shown by William I for several other similar sites immediately after the Conquest. In AD 1055 the town was sacked and the castle fell, obviously swamped by the large Welsh hordes (ASC 1953, 184-7; Thorpe 1848-9, 1, 213-15). There is no record of the castle being refurbished by Harold in the following year when he refortified the town and it may well be that the site was neglected until the great castle builder, William Fitz Osbern, arrived as Earl of Hereford

immediately after the Conquest. Since Edric the Wild is recorded in AD 1067 as having harassed the garrison of the castle it must have been rebuilt by this date (ASC 1953, 200).

St Guthlac's survived these crises and continued on its original site in Castle Green until towards the end of the episcopacy of Robert of Bethune (AD 1131-48) when 'the church of St Peter of Hereford situated in the market place, and the church of St Guthlac, unsuitably situated within the circuit of the castle' were united 'together with all their parishes, possessions, and dignities' to endow a new monastery, built by Bishop Robert in the Bye Street suburb of the city and dedicated to St Peter, St Paul, and St Guthlac (Hart 1863-7, 3, 236). Thus the uneasy relationship between the minster church and the castle, which had existed since c AD 1052, was terminated following the 'strife and bloodshed' of AD 1140 when Miles of Gloucester and Geoffrey Talbot assaulted the royal garrison and polluted the precinct of St Guthlac. The vivid description in the *Gesta Stephani* of the citizens watching the 'bodies of parents and relations, some half-rotten, some quite lately buried, pitilessly dragged from the depths' and 'heaped up to form a rampart' before the castle, undoubtedly refers to the cemetery of St Guthlac (Potter 1976, 108-9). Presumably the church of St Guthlac and the accommodation of the community were abandoned at this date. But strangely the wooden shrine containing St Guthlac's body survived until it was accidentally burned during the reign of Edward I (Colvin 1963, 2, 676). Nothing more graphically represents the metamorphosis of the ancient community than the abandonment of the patron's tomb to the soldiers of the castle; Saxon saints were clearly even less in favour among the Normans than Saxon minsters (Deanesly 1961, 333-41).

Somewhere near the shrine stood the church of St Martin referred to in several 12th century charters as '*in castello Herefordensi*' or '*infra ambitum castelli de Herefordia*'. Since it has frequently been confused with its more ancient neighbour its history is traced below.

It was serviced by the monks of St Guthlac's monastery outside Bye Gate, and was first mentioned in c AD 1150 when it was given, without any justification, by Roger, Earl of Hereford, to the bishop of Hereford. After the former's rebellion in AD 1155 it was restored to Gloucester Abbey (Capes 1908, 13, 22) A royal charter of AD 1163-73 confirms that Hugh de Lacy had originally granted the chapel to St Guthlac's, which of course was a cell of Gloucester. A little earlier in c AD 1154, Hugh II refers to it as 'the chapel which my ancestors founded' which suggests that it had been established some time in the late 11th century or the first quarter of the 12th, possibly by Walter who built St Peter's but more than likely by either Hugh I (*ob ante* AD 1115) or his son-in-law and successor Payn Fitz John (*ob c* AD 1137) (*St Guthlac's Cart*, 165). With the suppression of the earldom of Hereford in AD 1075, after the revolt of Roger de Breteuil, the de Lacys inherited the power of Fitz Osbern in the southern marches (Wightman 1966, 168). They probably acted as sheriffs of the county and castellans of the castle at Hereford. Payn Fitz John was certainly sheriff of Herefordshire and Shropshire at the end of Henry I's reign and was referred to as Earl of Hereford in AD 1136 (*op cit*, 177). Indeed Payn, an 'ancestor' and relative of Hugh II, is the most likely founder of St Martin's chapel. Significantly, in AD 1134 he is mentioned as the patron of St Peter's Church in the market place (Hart 1863-7, 1, 38). Since St Martin's is not mentioned in the charter of AD 1101-2 which confirms the gift by Hugh I of St Guthlac, St Peter, and St Owen to Gloucester Abbey, it was presumably built some time in the early 12th century. Like the round chapel

in the de Lacy castle of Ludlow, built c AD 1140, during the time that Payn Fitz John was in possession of the castle, it was most probably designed to serve the needs of the garrison (Eyton 1854, 5, 241). Another parallel, nearer Hereford, is the church of St Mary '*de Castello*' at Kilspeck, also built c AD 1140, and similarly intended as a garrison chapel (Hart 1863-7; 1, 16; Wood 1913, 139). Indeed, with the removal of St Guthlac's after AD 1140, a similar chapel would have become necessary at Hereford.

The subsequent history of St Martin's is relatively straightforward. Between AD 1230 and 1250 the castle was completely reconstructed (Colvin 1963, 674). The simple '*domus de mota*', frequently referred to in the late 12th century, was replaced by a 'great tower' (*Cal Inq Misc* 1245-51, 247). Among the new facilities provided was 'a fair and becoming chapel' constructed in AD 1233 at the end of the oriel in the King's chamber (*Cal Lib* 1226-40, 230). The sheriff of Herefordshire was ordered in AD 1245 to find 50 shillings out of the issues of the county for a chaplain to celebrate divine service in this chapel and also a sufficient set of vestments, books, a chalice, and other things (*op cit* 1240-45, 296). He discharged this duty by granting the prior of St Guthlac's various properties belonging to the crown in Hereford in return for which the prior promised a chaplain for the chapel.

Soon after the Edwardian conquest of Wales the castle fell out of repair and when Queen Isabella visited Hereford in AD 1326 she was lodged at the bishop's palace (*Cal Pat* 1324-27, 337). Various commissions were established to view the defects and minor repairs were carried out, but by the end of the 14th century the castle grounds were being leased for 'herbage and pasture' (*op cit* 1292-1301, 494; 1313-17, 498; 1385-89, 280). In AD 1396 the prior of St Guthlac's was reprimanded for not carrying out his duties in the chapel in the 'great tower'. He was reminded that 'King Henry III by his letters patent, granted to the prior and convent of St Guthlac's a yearly rent of 100 shillings from divers tenements in the city and suburbs of Hereford (which are specified) all to find and maintain a fit chaplain to celebrate divine service in the King's chapel in the castle for the souls of King Henry III, his progenitors and successors and all the faithful departed, on Wednesday, Sunday, Friday every week for ever'. However, for 'the last 20 years or more', the prior had ceased to maintain a chaplain 'to the grievous damage and prejudice of the present king' (*Cal Inq Misc* 1392-99, 69).

It seems clear that the chapel of St Martin was superseded by the chapel in the king's oriel for which the prior of St Guthlac's continued to provide a chaplain. New chapels, associated with principal apartments, are a common feature of English castles rebuilt in the 13th century (Brown 1976, 205-8). At Ludlow, the 'round' chapel in the inner bailey was replaced by the chapel of St Peter on the south side of the outer bailey, which was first mentioned in AD 1328. The earlier chapel survived because it appears to have been used as part of the domestic appurtenances of the castle (St John Hope 1908, 264, 325; Pevsner 1954, 181-3). A similar fate seems to have befallen St Martin's chapel at Hereford. This robust Norman structure endured in the bailey of the castle and was seen by John Leland in the early 16th century. He described the east end as being made '*opera circulari*' but mistakenly assumed it was the 'faire chapel of St Cuthbert' - presumably a garbling of 'Guthlac' or 'Cuthlacus' (Smith 1964, 2, 65; Frere 1910, 2, 14 1). All memory of the poorly documented chapel of St Martin's had been erased by the 16th century, although the dedication persisted in the parish church serving the liberty of Hereford beyond Wyebridge across the river Wye. Leland, steeped in antiquarian references, knew of the far more important and relatively better documented church of St Guthlac which he believed was the only

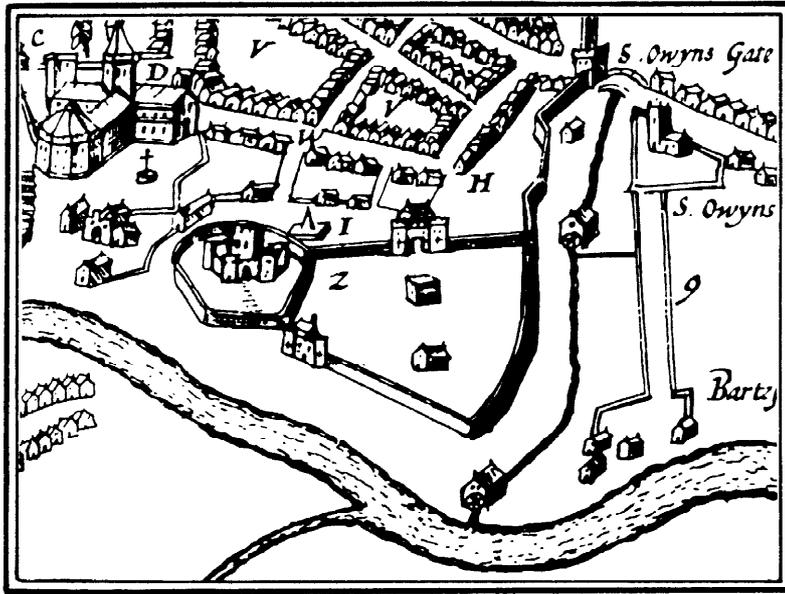


Fig 3 Speede's map of Hereford, 1610 The area of the Castle: D St Ethelberts Minster; H St Ethelberts Almshouses, I St Ethelberts Well; V Beyond the Wall, W Castle Street, Z The Castle; 9 Britons Street

church to have stood in the bailey of Hereford castle.

Speede appears to have noticed St Martin's and depicted it as a barn-like structure in the bailey of the castle on his plan of Hereford in AD 1610 (Fig 3). Indeed, St Martin's probably outlived the chapel in the king's oriel which was destroyed during the demolition of the great tower in AD 1660 (HRO LC Deeds, 8458). On John Silvester's plan of the castle (1677) a building 'built round for a market granary' is marked, and a similar building appears as 'M - a powder house as I suppose' on Hill's plan of 1716 (Pillely Collection 180; Lloyd 1884, 163). To these early topographers the substantial nature of the disused building indicated a military rather than an ecclesiastical use. Thus the chapel of St Martin survived until the early 18th century when the county justices, to whom Castle Green had been conveyed by Sir Robert Harley in 1647, sold the remaining offices of the castle for building materials (Pillely Collection, 151, ff50 93).

The bailey of the castle was laid out to form a public garden in the middle of the 18th century and as such it has remained. The motte was totally removed about the same date and the area was then used for houses and gardens until it was landscaped and a bandstand constructed in 1969. The only indications of the masonry castle which survive above ground are included in the house 'Castle Cliffe', which apparently incorporates part of the Water Gate shown on Speede's map (Fig 3).

Previous observations and excavations

Early in the 16th century Leland described the remains of Hereford castle in some detail (Smith 1964, 2, 64) and even then human remains had been seen for he comments:

Within the castel of Hereford yn digging hath ben found *non giganteae, insolitae, tamen, magnitudinis ossa*, and hard by *in ripa Vagae assidua alluvione apparent in ripa ejusdem magnitudinis ossa* (Smith 1964, 3, 47).

(...bones, not gigantic but certainly of unusual size, and hard by on the bank of the Wye where it is always flooded, bones of the same size appear in the river bank)

Human remains have been found on several occasions in the Castle Green area during construction and drainage works and others have been collected by children playing on the steep river bank. These observations are of importance because they give the only indication of the extent of the burial ground (Fig 4). In 1886 a main sewer was laid through Castle Green at a depth of between 9 and 12m. It was constructed by digging three manhole shafts in a line parallel to the Wye, between the river and the Nelson Memorial (Fig 4), and joining them by a tunnel. When digging the westernmost shaft:

the excavators had scarcely gone a couple of feet (0.6m) down before they came across human remains. Then, going a little deeper, a whole skeleton was found, and, at a depth of two feet six inches (0.76m) from the surface, three skeletons were found, laid within rude stone slabs, formed into three coffins, each seven feet six inches (2.3m) long. Each skeleton measured over six feet (1.83m). There was also a quantity of other human remains lying loose in the earth around. During Thursday, operations were commenced with the second manhole, at the opposite side of the Green and here human remains begun to be found at a depth of four to five inches (0.1m) from the surface; and when a depth of three feet eight inches (1.1 m) to four feet (1.2m) was reached, a trench filled with human remains was found. The bodies had evidently been stripped and thrown into the trench quite promiscuously, the skeletons lying in all sorts of positions....The third manhole has as yet only been marked out.

This is not, however, the first time that ancient human remains have been found in the Castle Green. Some time ago a part of the river embankment slipped away, exposing to view the skulls of a trench of skeletons, apparently of slain soldiers, who were buried just in the manner that the slain used to be put under the ground after a battle. In 1809, when the Nelson Column was erected in the centre of the Green, deep excavations had to be cut in the gravel to make a good foundation, and then a quantity of human bones and some military weapons were unearthed (Pillely Collection 180, 252).

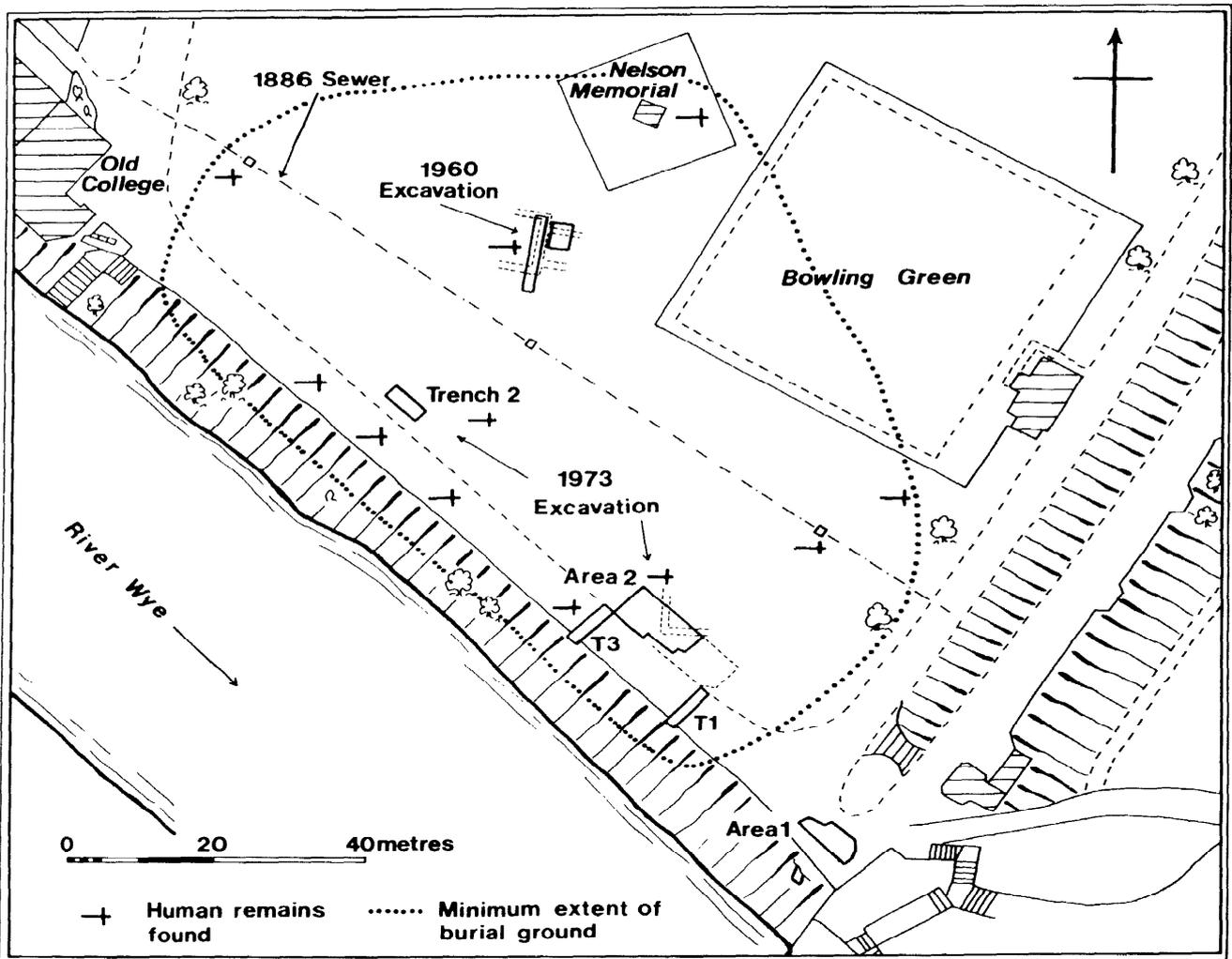


Fig 4 The southern part of Castle Green showing the extent of the 1960 and 1973 excavations and earlier observations of human remains

The contractors for the sewage scheme found other human remains at a later date in an area close to Castle Green.

On Monday they were pumping water from a shaft sunk a few yards above St Ethelbert's well, and whilst the men were at work in a heading between that shaft and the one (at the western end of the Green), a quantity of rubbish from the roof of the heading fell, and amongst it there were some human remains. On removing it the men found the blade of an old sword, such as was used at the time of the Parliamentary wars, being curved, and about two feet (0.6m) long and an inch (25mm) wide. It is in an excellent state of preservation. In this heading the workmen are coming across quantities of human remains, and apparently, of bullocks, all of which appear to have been buried quite promiscuously. The bones are all blackened by the action of the water percolating through the earth (most of which is 'made ground') towards the river (Pilleys Collection 180, 253).

The most enigmatic observation was made by Pilleys himself:

At the bottom of the manhole (at the west end of the Castle Green), on the south side, was a subterranean passage built of stone. The arch of the passage was about six feet (1.8m) high by about four feet (1.2m) wide. In the passage were seen two or three skeletons, also a pitcher jug in perfect condition. Unfortunately while the workman was lifting it up, a mass of earth fell, breaking it all to pieces. This came under my own observation. Close to this was a deep well, walls lined with stone. (Pilleys Collection 180, 255).

In 1924 Watkins examined a cist burial '14 yards (12.8m) from the south terrace towards the Russian gun end' (ie towards the east).

It was 1 foot 6 inches (0.6m) below the turf, lined with stones on edge and covered with a large, flat slab set in mortar. A skull and other bones were within, but not, I

think, all the bones appertaining to one body, nor were they in the right position, and bits of a jaw were near where the feet should be. A jaw was also found on the top of the slab, not in the grave. The cist appeared to continue as a stone-lined trench, and the spade struck a second skull to the east in this trench, which, however, was not uncovered. The cist was approximately E and W (Watkins 1924).

About 1929, Watkins saw and photographed 'human remains, at least two sets of bones in a stone-lined trench lying out of order end to end' (Watkins 1933). In 1933, a grave containing an almost complete skeleton was disclosed when a drain was being laid from the new pavilion. The grave, made of flat stones, just deep enough to hold a body, was covered by two slabs. It was shaped to fit exactly the head and shoulders of the corpse. Another, but very imperfect, skeleton was found upon the top of this grave (Morgan 1933).

Parched marks, first observed by Watkins (1933), suggested the outline of a small church south of the Nelson column. A small excavation was organized to examine these marks during a week in 1960. The remains of an E-W building were found together with a series of burials, some of which predated the building (Heys 1960). These results are reassessed in view of the more recent excavation (p 45).

In 1967, buildings were demolished on the site of the castle motte and its surrounding ditch, and in 1968-9

several small areas were examined on the bailey side of the ditch surrounding the motte. The earliest remains found consisted of masonry, dated to the 13th century, considered to be part of the abutment for a bridge. A 17th century wall, possibly built during the Civil War, acted as a revetment on the edge of the ditch (Leach 1971).

The 1973 excavation

Introduction

In 1973, the City Council decided that revetment works were necessary along the river side of Castle Green, the original bailey of Hereford Castle. Facilities and finance were not available to carry out any archaeological work until after the contractor had started on the site and, at all times, the total area involved had to be kept as small as possible to minimize nuisance to the general public. Excavation started in May 1973 and continued, when practicable, throughout a three month period.

The improvement works consisted of inserting pre-cast concrete retainers at the river level to prevent erosion of the bottom of the steep slope. Trees and bushes were removed from the overgrown bank (Fig 5) which was then re-scarped to a more gentle slope. The work involved the removal of about half of the existing tarmac path which ran along a raised embankment at the top of the escarpment.



Fig 5 Castle Green from the river before re-scarping of the steep bank. The stone foundations, F1 - area 1, can be seen underneath the tree slightly to the right of the centre.

This embankment was considered to reflect riverside defences, and the excavation was planned both to investigate this possibility and to examine any other occupation on the site. After the improvement works were completed, the embanked path was replaced some 5m to the NE.

The contractor used a drag-line to re-scarp the bank and insert the pre-cast concrete retainers and this machine travelled constantly along the embankment. Areas available for excavation were thus limited to a narrow strip to the NE of the path where damage from new services was anticipated. Two areas, trench 2 and area 2 (Fig 4), were chosen, but the former had eventually to be abandoned to make way for the contractor's increasing spoil heap.

To examine the raised pathway, trench 1 and trench 3 were cut by machine on successive Sundays. The sides had to be cleaned, rapidly examined, and drawn, and then the trenches backfilled to allow the contractors continual access.

The main site (area 2) was largely cleared by hand although a machine had to be used at times. Extensive shoring was needed because of the depth involved and the heavy machinery in use close by. The site had to be backfilled before the excavation could be completed, to allow the contractor's machine to work in safety.

The remains of a stone wall (F1 -area 1, Fig 5), which were visible on the steep erosion slope at the southern limit of the castle bailey, were due to be demolished during the course of the work. The wall could not be examined directly, so a small area, 8m to the north, was excavated by machine to seek its continuation.

Finds from the excavation are deposited in Hereford City Museum (Accession no 1979- 300) with the exception of the human bone remains. These, apart from anatomical specimens kept in the Department of the Environment laboratory, have been re-interred in the Hereford Cemetery in accordance with the licence issued by the Home Secretary.

Acknowledgements

The excavation was made possible by equal grants from Hereford City Council and the Department of the Environment, but help and assistance from other bodies was instrumental in ensuring its success. I am grateful to the main contractors, Demex Construction Ltd, who organized their work to allow the excavation and arranged for daily problems to be dealt with by their site engineer, Mr Peter Grainger. At all stages in the excavation help and encouragement was given by the City Council and its various departments. The good offices of the City Engineer and Surveyor, Mr Graham Roberts, and his assistant in charge of the site, Mr Ted Turner, helped to smooth many problems. A hut and tools were loaned by the Roads and Bridges Department and the Parks Department lent hoses and sprinklers and also provided a watchman for several evenings when we were troubled by vandals.

The labour force throughout the excavation consisted of schoolchildren from Redhill (now Haywood) School, Hereford. The parties were organized by Mr Tennyson and without this voluntary work the excavation could not have taken place. Throughout the excavation the supervisory work was carried out very ably by Robert Wilson. He was assisted from time to time by his wife Beth and by John Hood and Tim Copeland. Changes in the labour teams greatly increased their work of supervision and meant that planning often had to be carried out in the evening. Machine work and shoring was undertaken by Mr Roy Jenkins, who worked during weekends and in the evenings so as not to delay the contractors.

Method

The limited nature of the excavations, the conditions under which the work was carried out, and the total lack of experience of the labour force, put a great strain on the supervisory staff. Skeletons had to be excavated, cleaned, and photographed during the course of one day as vandals were very active in the late evenings.

The results should be treated as those of a trial excavation done under rescue conditions. The major part of Castle Green remains undisturbed and only future excavation will answer the problems which remain unresolved.

Recording system

Site Code:	He731
Areas, Trenches:	Areas 1 & 2, Trenches 1, 2, & 3 (Trenches 1 & 3 were machine-cut)
Layers:	L 1-- L48 (numbering system continuous irrespective of area or trench)
Features:	F1-F3 1 (numbering system continuous irrespective of area or trench)
Graves and contents:	S1-S87 (the S number refers to the grave, skeleton, and any associated finds)
Datum on sections:	54.9m OD (approximately the level of the natural gravel of the site)
Other finds:	Referred to as L, F, or S number as appropriate. Finds directly associated with the burials, coffin fittings, etc are recorded in this volume. Other finds, artefacts, pottery, etc are recorded in volume 3, where appropriate references can be found.
Radiocarbon dates:	The radiocarbon dates used in the text are normally given in uncorrected form and are then preceded by 'ad' in lower case characters. When a correction has been made for the most recent value of half-life, the dates are preceded by 'AD' in italic capitals. No other correction has been included to bring the result nearer to the true calendar date (p 39).

Summary of chronology and periods

There are three main periods of occupation on Castle Green which are subdivided in the excavation report as necessary and are summarized in Table 1.

The earliest period comprises a burial ground and an associated building. The building was replaced at least once and the burials, most of which are stratigraphically separate from the building, are considered as seven separate groups based on the method and type of interment. The second period involves the use of the areas excavated as part of the castle of Hereford and the third period includes the post-medieval landscaping features. The indicated dates in the table are to the nearest half century,

In the excavation report for period 1, burial groups 1, 2, and 3 are considered as part of period 1a and groups 4, 5, 6, and 7 are considered as part of period 1c. It is probable that some of the burials in groups 4 and 5 belong to period 1b but there was no stratigraphic evidence to confirm such a relationship.

The burial groups are discussed within the excavation periods where appropriate and especially where they constitute an aid to stratification and dating. The groups, individual burials, and associated finds are considered in detail after the description of the excavation (p 24).

The excavation

The main body of the excavation report deals with area 2

Table 1
Summary of chronology and periods

<i>Occupation period</i>	<i>Total likely date range</i>	<i>Most probable date range</i>
Period 1		
a Building A in use	pre AD 1000	AD 700-950
<i>Burial groups</i>		
1 Early 'simple' burials	pre AD 800	AD 600-800
2 Early 'charcoal' burials	AD 700-1000	AD 800-950
3 'Coffin' burials	AD 700-1000	AD 800-950
b Building B in use	pre AD 1100	AD 900-1050
c <i>Burial groups</i>		
4 Late 'charcoal' burials	AD 850-1100	AD 900-1100
5a		
5b Late 'simple' burials	AD 900-1150	AD 950-1150
5c		
6 Cist burial	post AD 1100	AD 1100-1150
7 Infant burials	post AD 1100	AD 1100-1200
Period 2		
The castle occupation	c AD 1150	c AD 1650
Period 3		
Landscaping features	post AD 1700	

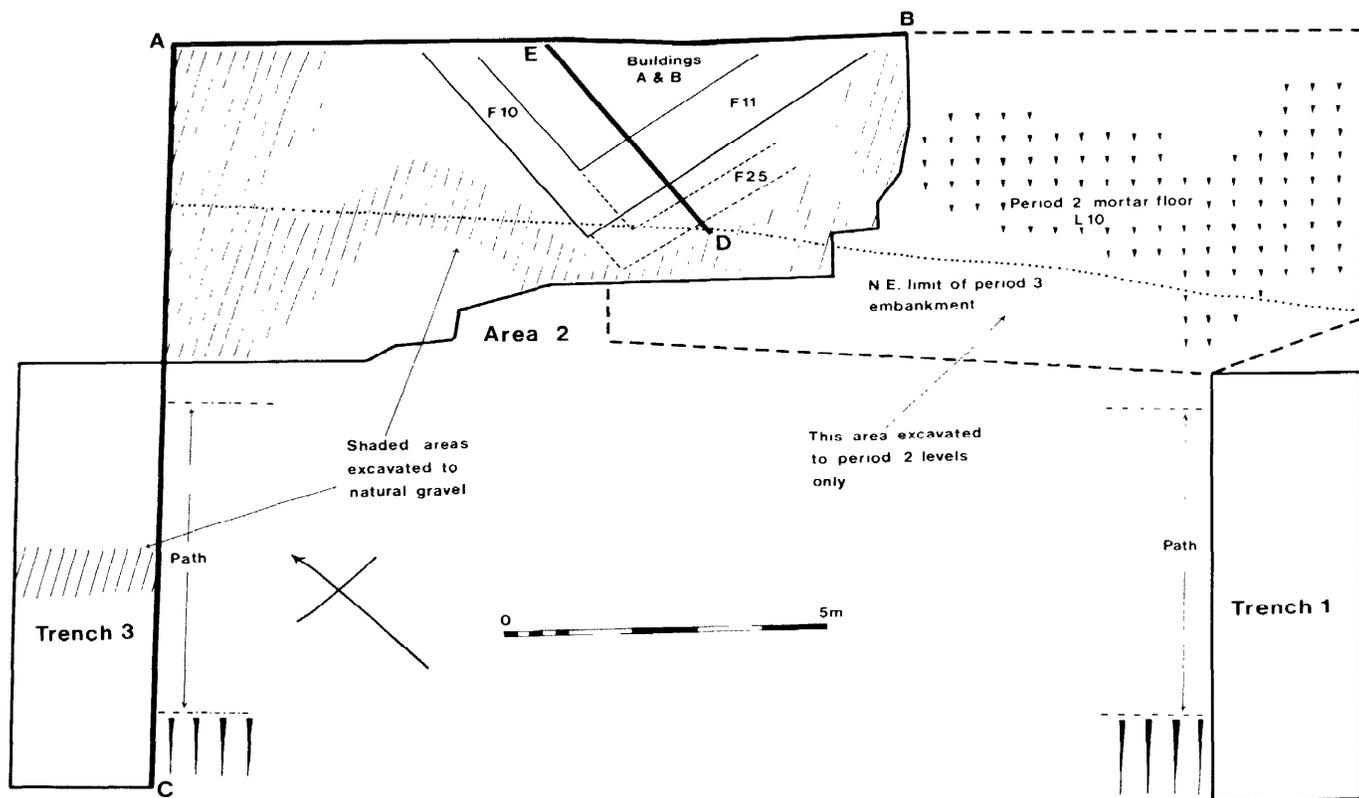


Fig 6 The relationship of area 2 to trenches 1 and 3. The plan shows the positions of the main sections and the areas which were totally excavated

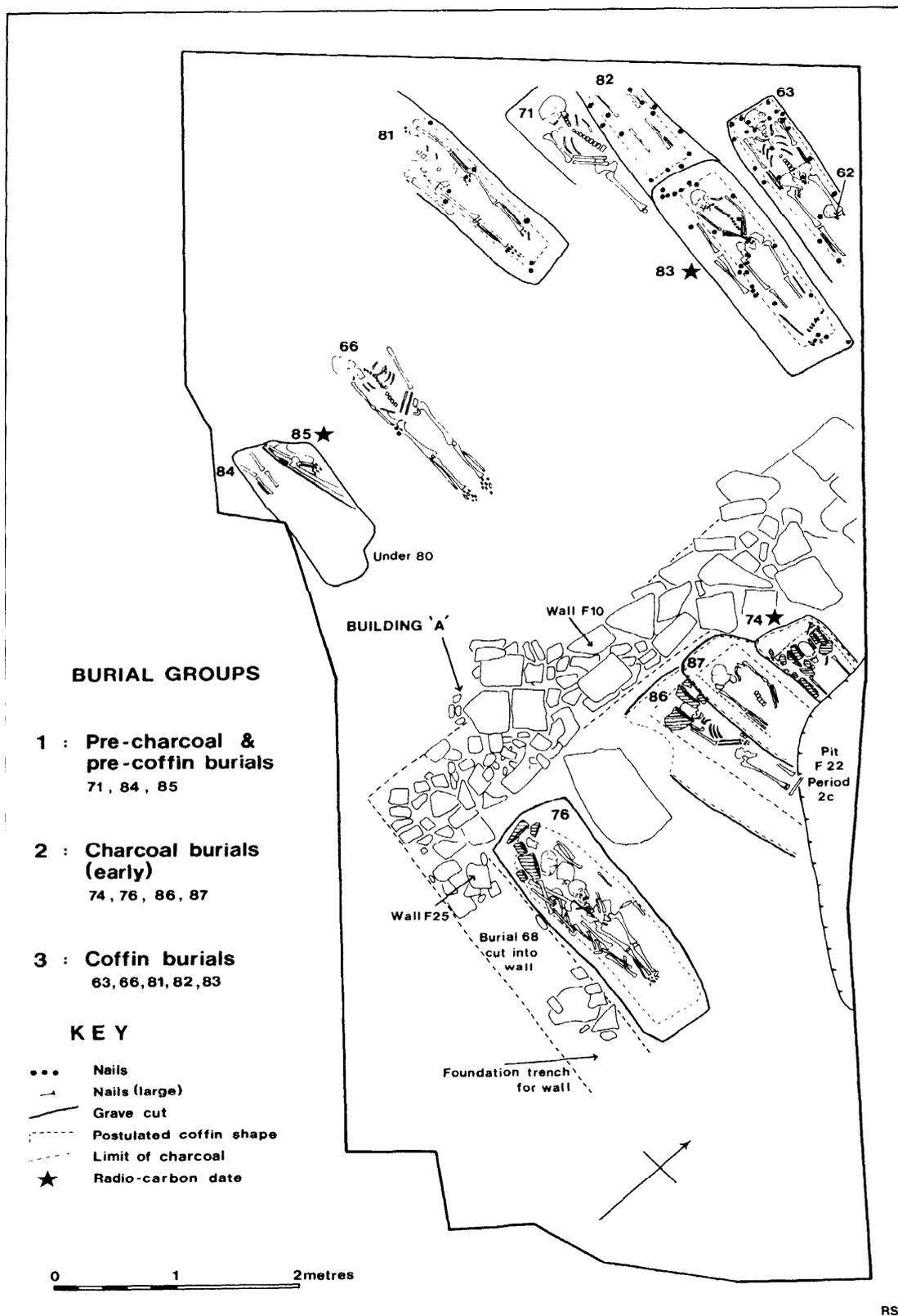


Fig 7 Area 2. Period 1a showing building A and burials of groups 1, 2, and 3

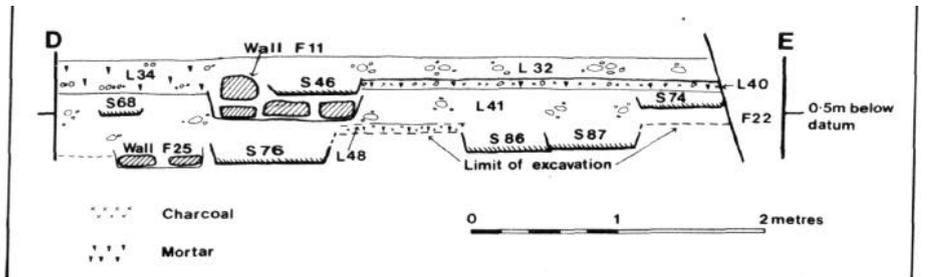


Fig8 Area 2. Reconstructed section D-E through buildings A and B (see Fig 6 for position)

and trenches T1 and T3. Area 1 and trench T2, which have no direct stratigraphical links with the main excavation, are considered separately.

Period 1a--Building A and burial groups 1, 2, and 3

The earliest levels on the site were found only in area 2. They comprised the stone footings of an E-W oriented building and burials of groups 1,2, and 3 which may have been associated with the building but could be earlier. The interior of the building and a small area around it could not be completely excavated (Fig 6) and an earlier phase of burials may thus remain.

Description (Fig 7)

The footings of two walls of an E-W oriented building were found within the confines of the excavation. The remainder of the building was left undisturbed to the NE of the excavated area. The only parts of the building which remained were those below the original ground level and all traces of floor levels had disappeared. A square-cut foundation trench, which must have originally been at least 0.8m deep, was cut for the southern part of the west wall (F10) and for the western half of the south wall (F25). The remainder of F10 was in a slight foundation trench (0.2m deep) and all traces of F25 were lost to the east where there were no signs of any foundation trench whatsoever. The deep foundation trench was about 0.6m wide with roughly laid stone footings, loosely mortared. The northern part of wall F10 was also used for building B of period 1b and it is probable that only the lower stones were part of the original building. The two walls F10 and F25 were not quite at right-angles but were tied together at the corner.

The interior of the building was not fully excavated, although it was taken down to below the level of the surrounding natural gravel. The lowest layer, L48, which was not removed, contained much mortar and charcoal (Fig 8). It was covered by L41, a mixed brown soil with some gravel and pebbles in which no features could be seen. This soil level went over the top of the footings of wall F25 but ended against wall F10. It is likely that layer L41 was much more complex than was appreciated during the excavation.

Three groups of interments were considered to be either earlier than, or associated with, building A and a consideration of these burials and their relationship to the building is essential in understanding its purpose and establishing the period of use.

Group 1-Three burials (S71, S84, and S85), which were earlier than the interments of group 3, were all external to building A. No stratigraphic relationship could be established between these burials and the building.

Group 2-Four burials (S74, S76, S86, and S87) were found within the building. They were in a row with the western end of the grave cuts close to the foundation trench for wall F10. Three of them (S76, S86, and S87) were cut slightly into L48 and were on a level with the bottom of the foundation trench for wall F25. The fourth (S74) was at a slightly higher level and within layer L41. S76 was sealed underneath the foundation trench for wall F11 of the period 1b building B. A large stone between S76 and S86 was not removed and may cover a fifth burial in the row (Fig 9).

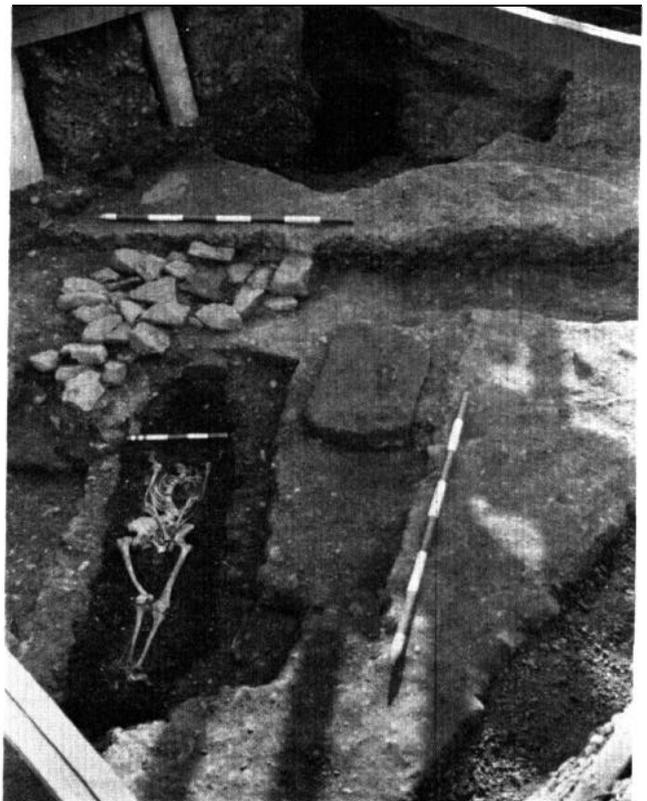


Fig 9 Area 2. Building A, after the removal of most of wall F10. The relationship of burial S76 to building A can be seen. Burials S86 and S87 are still unexcavated

Group 3 - To the west of building A were six burials in coffins (S62, S63, S66, S81, S82, and S83). Two of these burials cut S71 of group 1 and two were stratigraphically earlier than the group 5a burials.

Dating

There were no datable artefacts from building A or from any of the graves. Radiocarbon dates were obtained for bones from S83 and S85 and from the charcoal underneath S74 (p 39):

S85	Group 1	ad 700±70	(HAR985)
S74	Group 2	ad 920±80	(HAR414)
S83	Group 3	ad 930±70	(HAR1875)

S74 is considered to be associated with building A and thus gives an indication of a possible date range for at least some part of the use of this building.

Inventory (Vol 3)

Small finds

Stone	1 flint scraper (unillustrated)	1.48	No 20
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Discussion

The early periods are difficult to interpret because the repeated use of the area as a graveyard destroyed most of the levels above the original ground surface which would have been associated with the occupation of the buildings of periods 1a and 1 b. The only surviving remains of period 1a were those which were sufficiently below the ground level in later periods to remain undisturbed. As a result there is no stratigraphic relationship between the burials of group 1 and building A and the radiocarbon date centred on ad 700 for burial S85 cannot be used to date the building. However, the row of burials comprising group 2 were so arranged that it would seem almost certain that the interments were related to building A. In each case the western edge of the grave cut was very close to wall F10 and the southernmost burial, S76, was adjoining and parallel to wall F25 and sealed by the period 1 b wall, F11.

The burials of group 2 must have been interred from a floor level which has since totally disappeared. They were presumably cut through layer L41, although there were no signs of any grave cuts, and all were sealed with features which may be associated with building B of-period 1b. It is apparent that layer L41 was more complex than was appreciated during the excavation, when it was considered to be a homogeneous layer which overlay all the burials and the surviving footings of-wall F25 of-building A.

There are three distinct possibilities, each of which provides a different association between building A and the radiocarbon dated burial S74. In the first case there is the possibility that wall F25 was partly robbed out after the deposition of layer L41 and that the robber trench was not seen during the excavation. The part of layer L41 above wall F25 was confused by the insertion of wall F11 of building B and by the interment of-burial S68, both of period 1 b. In these circumstances, and accepting the mixed nature of-layer L41, the unseen presence of a robber trench can be postulated. It follows from this that the part of layer L41 which was internal to building B comprised part of the make-up for the floor of the building and that all the burials of-group 2 can be associated with the building in use. It is not surprising that the grave cuts were not seen within layer L41 because of the identical nature of the grave fills to the surrounding material.

The second possibility is that the three lower burials, S76, S86, and S87, were all associated with building A in use and then the building was demolished and the floor levels removed. A gradual accumulation of soil, L41, then covered the foundations to some depth before S74 was interred, either within the ruins of building A, or even early in the life of building B before the floor level L40 was laid.- This would be acceptable except that S74 is carefully positioned in line with the other burials of period 1a. This is not likely to be coincidental and one must assume that the position of the earlier graves was still marked or known even though the building had been demolished and soil had accumulated on the site. The positions of graves within a building are easily lost, and, although this possibility remains, it is considered to have a low order of probability.

The third possibility is that all or most of the burials were interred after building A was totally or partially demolished and before building B was erected, and that the soil L41 was an accumulation between the building periods. It is apparent, as a corollary to this, that wall F10 must have remained visible above the surface for it provided a limit for layer L41 and an alignment for the western edge of the burials and also eventually provided a foundation for the new western wall of building B of period 1 b. If-one adds to this the coincidental placing of S76 adjacent to the, by then buried, foundations of wall F25, then this possibility should also be considered to have a low order of probability.

It is thus most likely that the four burials of group 2 were associated with building A in use and it is on this basis that the date range for the building can be considered.

The radiocarbon date for the charcoal associated with S74, when corrected for the most recent value of the half-life, suggests that there is a 68% probability of burial between AD 810 and AD 970 and a 950% probability that it was between AD 730 and AD 1050. However there are reasons to suppose that the S74 radiocarbon date may be earlier than the date of burial (p 39) but, if S74 can be considered to have been interred late in the life of building A, then the date range given above provides some indication of the period of use of the building. It is shown later (p 16) that building B, which replaced building A, was probably demolished before the end of-the 11th century, and allowing a reasonable life for this later building, it can be suggested that building A was demolished at the latest by the early 11th century. There is a reasonable probability that S74 was buried after AD 810 but this cannot be used to date the construction of building A which may well have been of some age when S74 was buried. It does, however, give a date before which it is unlikely that the building was demolished. Thus the date of construction of building A is unknown but it was probably demolished at some time between about AD 800 and AD 1000.

The construction of building A was not understood at the time of excavation and still presents some difficulties. The two different levels of foundation trench cannot be explained within the confines of the excavated area, especially as there is no indication of the total size of the building. If the indications seen in the parching of the grass during drought conditions (Fig 2) represent building A or building B then the internal width was of the order of 8m and the length some 20m. This is a building of some appreciable size which would need strong foundations. In part, the foundation trenches were estimated to have been some 0.8m below the constructional ground surface which indicates that the original building was of a substantial nature. The lack of depth of the foundation trench on part of-the west wall could represent a doorway but this does not explain the variation along the south wall. It is

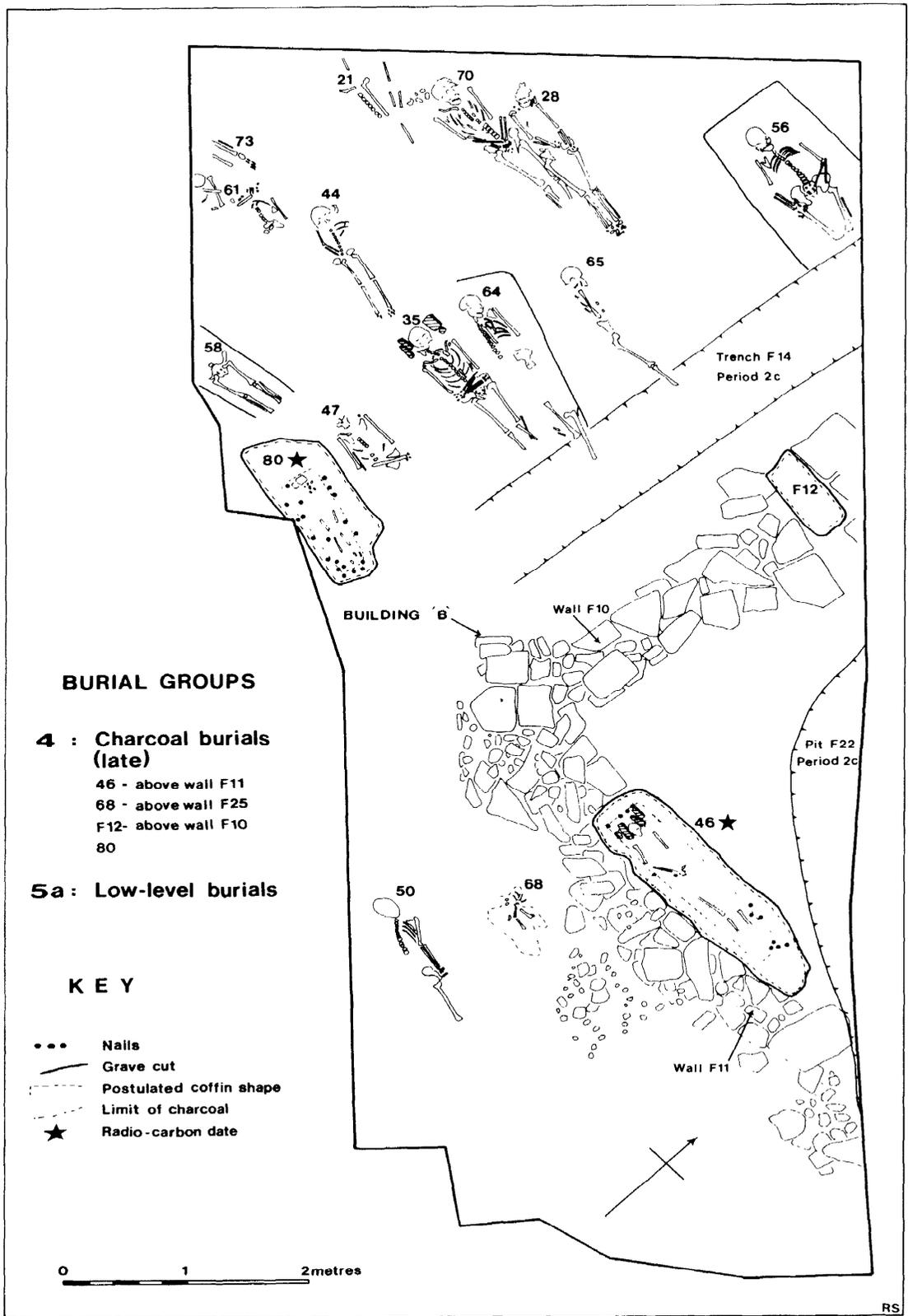


Fig 10 Area 2. Periods 1b and 1c showing building B and burials of groups 4 and 5a

possible that the south-western corner was deliberately strengthened to support a gable end or even a bell-tote. The width of the foundations were such that they would not have supported a stone wall of any great height and it is likely that the stone foundations were used as footings for a timber-framed building.

There is no indication of the eventual end of building A, but, as the eastern half of the southern wall, F25, was completely removed and only the foundations left of the other walls, a deliberate demolition down to, and below, the ground level existing at the time can be postulated.

The use of building A and building B and their relationship to the burial ground and, at a later date, to the castle, are considered later (p 54).

The burials of group 3, to the west of building A, are later than those of group 1 but have no stratigraphical relationship to the buildings. They are included in period 1a because of their general depth and because the radiocarbon date centred on ad 930, which was obtained from S83, suggests either period 1a or the early part of period 1b. They present a discrete group of burials unrelated to any other on the site.

Period 1b - Building B

Building A was eventually replaced by building B, the western wall, F10, being common to both. Some of the burials in groups 4 and 5, described under period 1c, may have been interred during the life of this building.

Description (Figs 10 and 11)

Wall F10 of building A was reused, or more probably largely rebuilt on the same line, but wall F25 was replaced by wall F11, about 1m within the original building line. The foundation trench for the new wall varied between 0.3 and 0.5m in depth from the assumed ground surface. Wall F11 was built directly above burial S76 of group 2, the bottom of the foundation trench being about 0.3m above the interment. The wall had a tendency to butt onto the western wall F10 although a few stones were common to both. The surviving masonry was, at a maximum, only 0.3m high close to the SW corner and did not, at any point, stand above the top of the foundation trenches. The stones used in the foundations were uncoursed and a little poor quality mortar had been used to bind them together. Both walls contained larger stones, close to the NE side of the excavated area, which made a wider foundation at each of these points.

Within the limits of the building, on top of layer L41 of period 1a, was a layer of hard-packed earth, L40, about 0.1 m thick containing charcoal and mortar flecks (Fig 8). This layer was bounded by walls F10 and F11 and contained no signs of any grave cuts. Above layer L40, within the building limits, was a layer of soil, stones, and pebbles, L32, which was at the same level as L34, to the south of wall F11 and external to the building. Layer L34 consisted of a spread of earth, small stones, and mortar which overlay the diffuse period 1 a layer, L41. Between layers L32 and L34 and associated with the

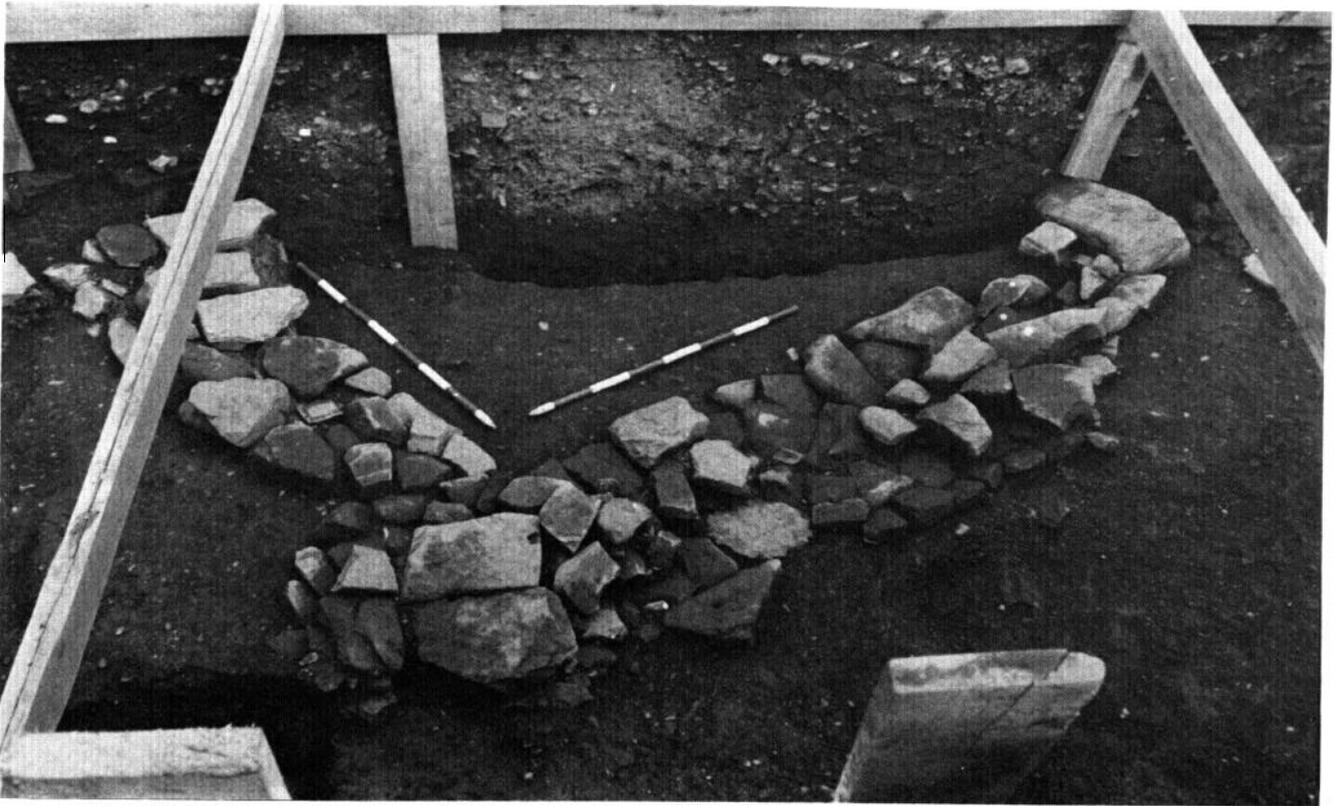


Fig 11 Area 2. Building B after the removal of burials F12 and S46

remains of the northern part of wall F10 were slight signs of a robber trench containing much mortar. This trench, F29, is considered as part of period 2c. There was no similar feature along the remainder of F10 and the line of F11 where the two layers, L32 and L34, tended to merge together.

There must have been a general build-up of soil after the building was demolished because the remains of two burials of group 4 were found on top of the foundations of the two walls (Fig 12). None of the burials could be directly associated with building B in use, but, apart from the two burials just mentioned, and isolated burials to the south of wall F11, the line of wall F10 apparently delimited a formal part of the graveyard during period 1c.

Dating

A radiocarbon date was obtained for bone from S46 of Group 4 (p 39):

S46 Group 4 ad 1060±80 (HAR986)

This is of special significance because the burial must have taken place some time after the demolition of building B. Adjusting the date for the most recent half-life value, there is an 84% probability that the burial was before AD 1110 and thus an even greater probability that building B was demolished before this date.

There were no finds from period 1b.

Discussion

The surviving remains of building B were little more than those of building A. If the excavated walls are considered in association with the parched marks in the immediately adjacent area, then building B would have been about 7m wide and 20m long. The foundation trench for the new southern wall F11 was not cut as deeply into the ground as that for the original wall F25 but, to compensate, the foundations were slightly broader. The foundations were only strong enough to have supported a timber-framed superstructure. The widening of the foundations of the western wall, close to the edge of the excavation, could indicate the position of a doorway as could the similar large stones in the southern wall. If layer L40 was the floor level of building B, rather than a layer deposited during its construction, then any approach to the building would have involved steps leading downwards.

The dating for the buildings of periods 1 a and 1 b is dependent entirely on the radiocarbon dates for the two burials S74 and S46. Dates from other interments, which are important in assessing the changes in burial techniques in the graveyard, cannot be directly related to the construction or demolition of the buildings.

It has been shown that building A was probably demolished at some time between AD 800 and AD 1000 and, because of the reuse of wall F10, there is every reason to suppose that building B was erected shortly after this demolition. The destruction of building B probably occurred before the beginning of the 12th century.



Fig 12 Area 2. The foundations of building B and their relationship with burials F11 and S46

Period 1c - Burial groups 4, 5, 6, and 7

All the burials which are later than those included in period 1a are considered as part of period 1c. At least two of the 'charcoal' burials of group 4 are later than the demolition of building B but the others and those of groups 5, 6, and 7 are dissociated from the building. It is probable that the line of wall F10 of buildings A and B became the eastern boundary of this part of the formal graveyard or that the area of the buildings was not used for burial, but the lack of stratification has made it impossible to establish which, if any, of the burials in group 5 should be associated with building B.

Description

The soils in the graveyard area showed little trace of cuts for the graves. This thick layer of mixed soil and stones was split into two parts during excavation. The lower part, which continued down to the natural gravel in places, was layer L36, and the upper part, directly underneath the period 2 levels, was layer L14 (Fig 13).

Group 4-These burials (S46, S68, S80, and F12) were all laid on beds of charcoal. One of them, S68, an infant, was above the line of the period 1 wall F25. Two others, S46 and F12, were directly on top of the foundations of building B and the fourth, S80, was to the west of the SW corner of the building (Fig 10).

Group 5-The burials within group 5 are all of a similar type but are considered as three separate subgroups. The choice of subgroup for an individual interment is based on the depth of the burial and the relationship with other surrounding burials. In one or two cases there was no stratigraphic relationship between the burials and there was then a choice of subgroup for a particular interment. Such burials can be identified visually on the schematic diagram (Fig 28).

Each subgroup is considered to represent a period of systematic use of the area of the graveyard excavated. However, some disturbance of early burials in a group with later ones was common. Of the ones shown as representing subgroup 5a (Fig 10), the only unexplained disturbance is that which removed part of S65. It is possible that a late, but deep, burial still remains in this area. In this and succeeding levels traces of grave cuts were rarely found. Several burials were cut at the feet or legs by trench F14 of period 2. This trench was U-shaped and progressively removed more of the burials in subgroups 5b and 5c.

The burials in subgroup 5a comprise the earliest general level of interment in the graveyard area, sealing those of the isolated group 3 (Fig 10). Subgroup 5b represents a complete reuse of the graveyard, sealing and occasionally cutting the burials of subgroup 5a (Fig 14). The few burials in subgroup 5c are amongst the latest in the graveyard and should be associated with the same date range as group 6 and perhaps group 7 (Fig 15).

Group 6-An isolated stone cist burial, S10, was found in the upper levels of the graveyard, sealing several burials of subgroup 5b (Fig 15).

Group 7-The upper level of burials consisted mainly of infants who had apparently been buried in very shallow graves. The burials of group 6 and subgroup 5c were at a similar level, and the whole assemblage (Fig 15) was irregularly arranged in the graveyard, contrasting with the alignment in rows apparent in the earlier subgroups 5a and 5b (Figs 10 & 14).

Dating

Radiocarbon dates were obtained from bone samples of S10 and S46 and from charcoal underneath S80 (p 39).

S46	Group 4	ad 1060±80	(HAR986)
S80	Group 4	ad 990±70	(HAR413)
S10	Group 6	ad 1130±70	(HAR988)

Inventory (Vol 3)

Small finds

Metal	Lead bar	L14
	Lead bar	L14

Discussion

The burials in group 4 should perhaps be seen as an extension of those of group 2 which were interred when building A was standing. S80 may be considered as a link between the two groups, being outside the building but at a similar depth to the burials of group 2.

It is noteworthy that the rows of burials in most of group 5 were arranged parallel to the line of the western wall of buildings A and B. All the burials in this group were at a significantly higher level than the burials of groups 1 to 3 and most were above the level of the undisturbed natural of the site (Fig 29). It is thus apparent that there was a substantial build-up of the ground level in the area around buildings A and B before the burials of group 5 were interred. This could have been caused in part by the demolition of the buildings and in part by the repeated movement of soil during the earlier interments. The burials of group 4, which overlie the foundations of buildings A and B, were mostly at a lower level than those of group 5 so it would seem likely that some of the group 5 interments, and almost certainly those of groups 6 and 7, were buried after building B had been substantially demolished. Even so, there is no reason to suppose that some of the well-aligned earlier interments in group 5 were not associated with building B when it was in use. Upstanding ruins of wall F10 may have provided a limit to the graveyard or the area of the building may have been deliberately avoided because of the difficulties of digging graves amongst the masonry.

There are insufficient radiocarbon dates from the later levels of the graveyard to indicate a date range for period 1 c, but on the evidence available it would appear that this major use of the graveyard began after the first half of the 10th century and that it continued until the castle occupied the site.

Period 2 - The castle

The use of the excavated area as a graveyard ceased and a series of features, which are associated with the occupation of the area as a castle, seal, and in some cases cut, the burials. Period 2a comprises the fragmentary traces of occupation levels, which were sealed by a possible defensive feature in period 2b. The occupation levels were cut by a large pit, F21, and this, together with other late disturbances on the site, comprises period 2c.

Description

Period 2a

Occupation levels associated with the castle were exposed in trenches 1 and 3, and in the extreme eastern corner of the main excavation area. A further area was opened to the SE of area 2 but only the top of the period 2 occupation could be examined in the time available (Fig 6).

The period 2a occupation levels were observed in the machine cut trench 1 and were examined in more detail in trench 3 where their relationship to the later embankment features and to the earlier graveyard was established (section C-A, Fig 13).

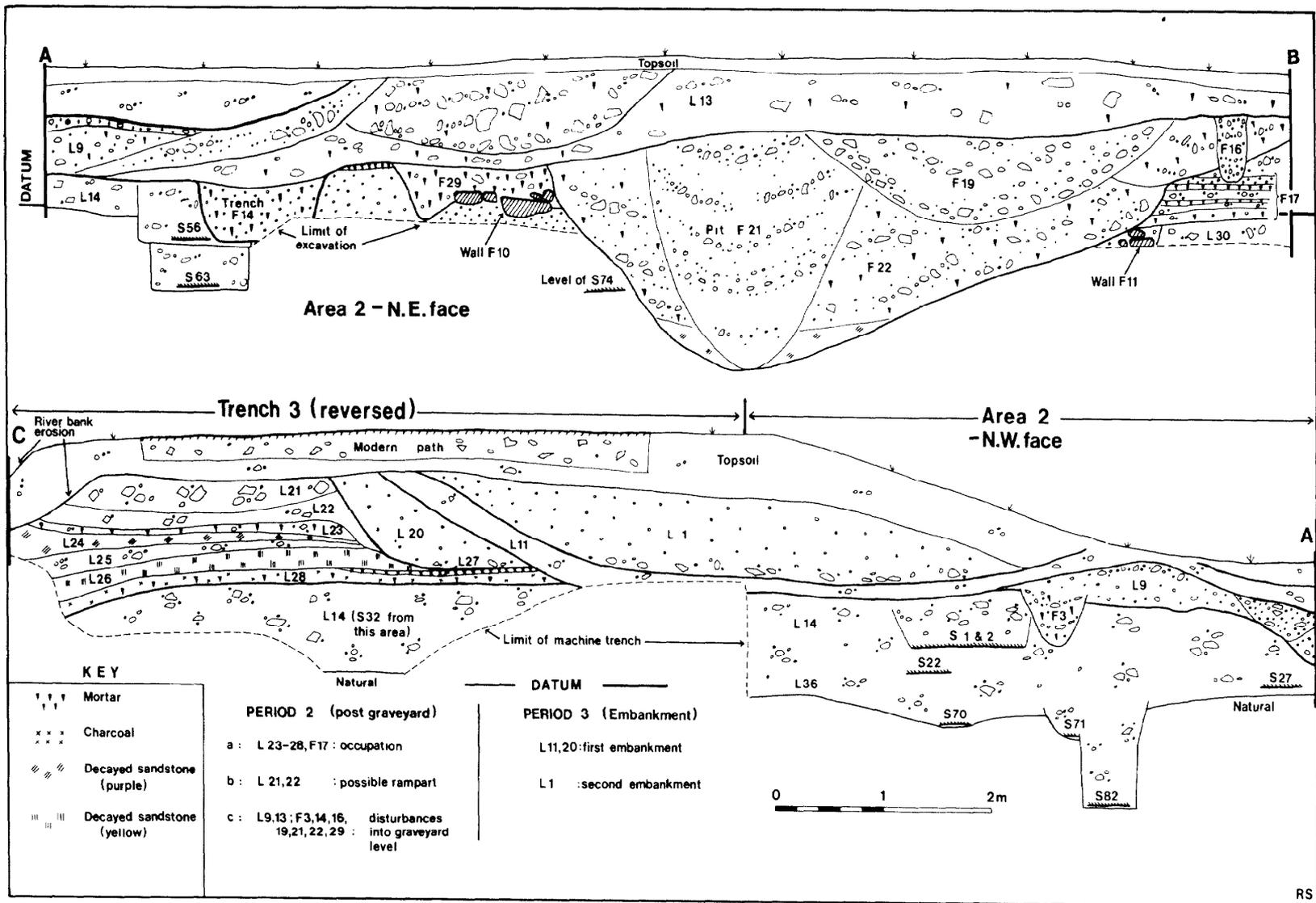


Fig 13 Area 2 and Trench 3. Sections A-B and C-A (see Fig 6 for positions)

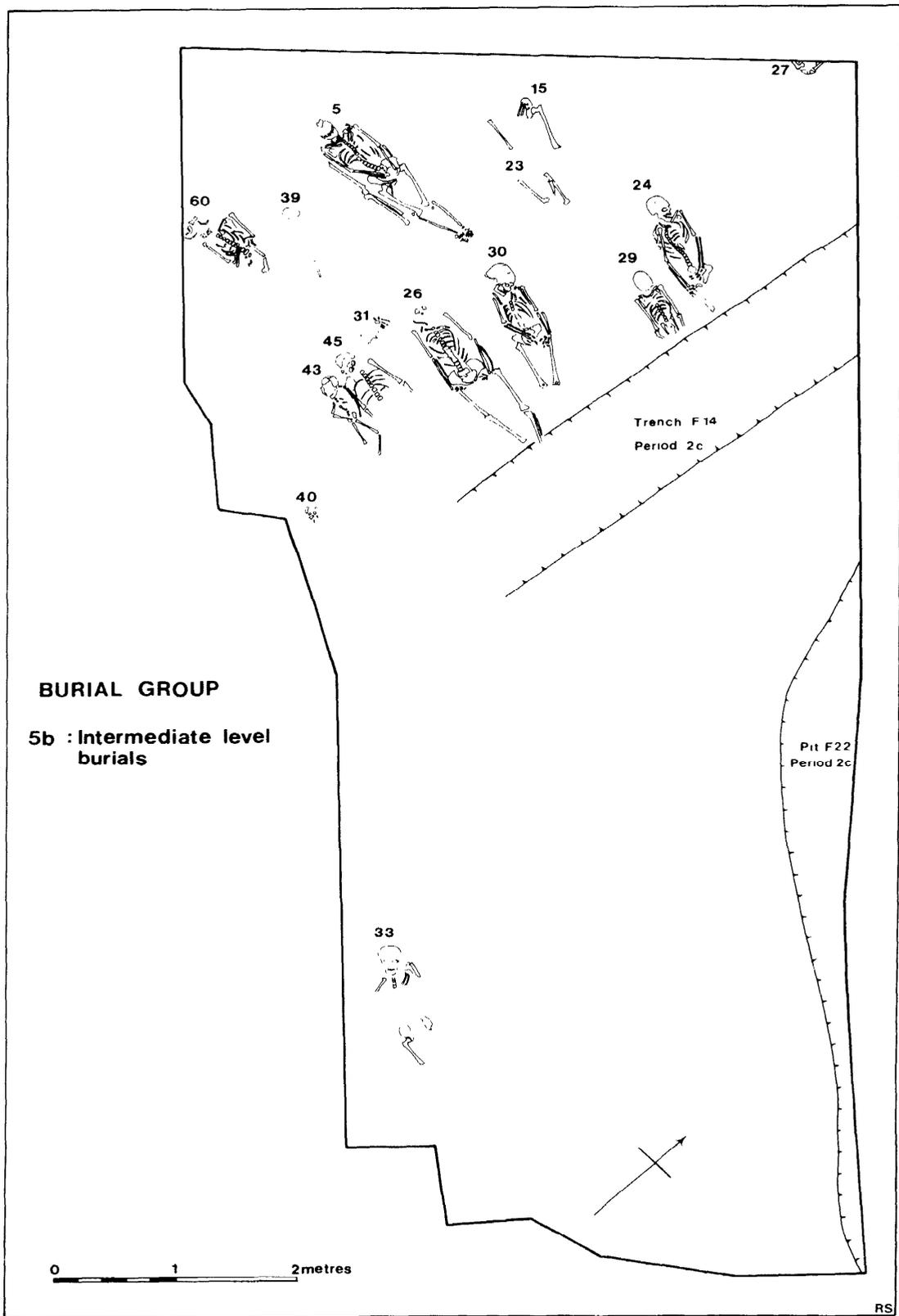


Fig 14 Area 2. Period 1c The burials of group 5b

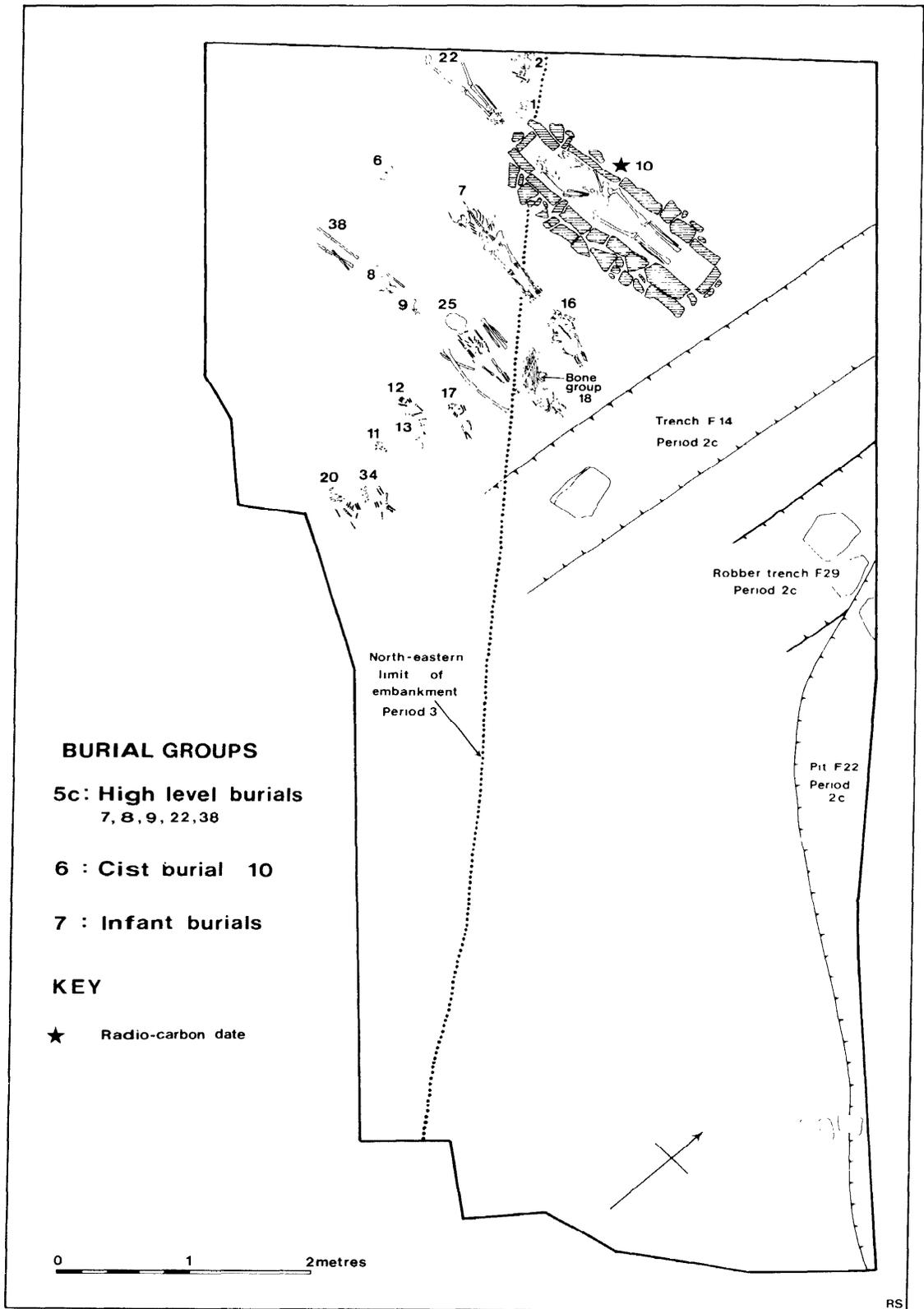


Fig 15 Area 2. Period 1c. The burials of groups 5c, 6, and 7 and the traces of the period 2 and 3 use of the site

On top of the graveyard layer L14 was about 0.1m of yellow sandy mortar mixed with flecks of charcoal, L28, which was considered to be a floor level. It was sealed by a layer of charcoal, L27, which became thicker away from the river. Above this was a layer of packed yellow sandstone chips, L26, which was solid enough to be a floor level although there were no other traces of a building. The brown sandy earth and pebble layer, L25, on top of this, contained most of the sherds of pottery associated with period 2a. It was sealed by a layer similar to L26 but consisting of a more purple sandstone, L24, which was in turn covered in a brown earth layer, L23, containing much yellow mortar.

In the extreme eastern corner of area 2, similar levels, collectively F17, survived in a very small area (section A-B, Fig 13). An additional area was cleared to the SE where the upper level L10 corresponded to the top of F17. There was no opportunity to excavate this area into or below the period 2 levels (Fig 6). Layer 10 tended to rise to the SE and became more continuous.

Period 2b

In trench 3, and to a lesser extent in trench 1, the occupation levels of-period 2a were sealed by a layer of brown earth, L22, which became more stony in the upper levels (L21). This combined layer was up to 0.5m thick. It had been removed to the SW by bank erosion and was cut away to the NE by the landscaping of period 3.

Period 2c

There were slight traces of a robber trench, F29, for the northern part of wall E10 of building B. The gravel and soil fill included much mortar but the trench was only apparent for a distance of-between 1 and 2m from the section (Fig 15).

A trench, F14, was cut across the graveyard parallel to the line of wall F10, and some 1m to the west of it. The trench was U-shaped and sufficiently deep to affect the burials of group 5. It contained some mortar and gravel and occasional large pieces of stone.

A deep and large pit, F22, which was found within the limits of building B of period 1b, was cut by the baulk (section A-B, Fig 13). The sides were steep and the bottom of the pit was below the level of the deepest burial of period 1. The contents of-the pit were very mixed and appeared during excavation to be three separate fills. The original pit F22 was apparently recut first as F21 and then as the more shallow F19. The pits contained mixed soils, gravels, larger pebbles and stone, and some mortar. The cut for pit F22 was later than the robber trench F29 for wall F10 and later than the occupation levels F17 of-period 2a. A single posthole, F16, was cut into the pitfill close to the eastern corner of the area.

The features of period 2c were sealed by a homogeneous soil level, L13, which apparently accumulated during the latter part of period 2. The latest stratigraphical features in this period comprised a series of-ill-defined disturbances, collectively L9 and F3, which contained mixed soils, pebbles, and gravel. They cut through layer L13 in the northern corner of the excavated area and into parts of layer L14, the latest level of-the graveyard. Layer L3 in trench 1, which was excavated by machine, is also included in period 2c.

Dating

The dating for the features of period 2 is based primarily on the pottery but is considered to be later than the date of the last adult inhumation. S10, the cist burial of group 6, is one

of the latest burials in the graveyard and the radiocarbon date, when corrected, indicates that there is an 84% probability of interment before AD 1175. The pottery from layer L25 is probably of 13th century date so the available information indicates that the period 2a occupation took place during the late 12th and 13th centuries. The possible defensive works of period 2b are probably later than the 13th century but could be of any date from then until after the Civil War.

The robber trench F29 and the parallel trench F14 both contained no pottery but, together with other disturbances, were sealed by layers L13 and L9 which contained no pottery later than the 15th century. Pit F22 is dated on the pottery evidence to the late 13th or early 14th century.

Inventory (Vol 3)

Period 2a Small finds

Metal Lead plate L25

Period 2a—Ceramic material

Pottery

Fabric	A7a	B1	C1	D2
Sherds	1	36	2	7

Period 2b - Ceramic material

One sherd fabric B1

Period 2c - Small finds

Metal

Lead bar L9
Iron arrowheads L9, L13
Copper pin T1, L3

Period 2c - Ceramic material

Pottery

Fabric	A2a	A4	B1	C1	C2	E8
Sherds	2	1	18	7	1	1

The pottery fabrics are described in detail in Volume 3. None of the sherds from Period 2 is suitable for illustration.

Discussion

Most of the layers associated with the castle occupation, within the confines of area 2, were removed during the landscaping works of period 3. It is apparent that they were better preserved immediately to the SE of this area where they were exposed but not examined, but otherwise most of the evidence for occupation during period 2 came from the machine cut trench T3 where the layers were preserved by the period 3 bank.

The principal periods of occupation were during the late 12th and 13th centuries. The small area of T3 in which the occupation layers were preserved was insufficient for any firm analysis, but there were apparently at least two rebuilding phases and it is possible that the earliest building was destroyed by fire. The latest floor was sealed by thick layers of apparently dump material which may represent the remains of a rampart running along the top of-the scarp slope. This need not be the earliest defence close to this line, as erosion of the steep slope was probably a regular occurrence which would have totally removed any earlier works associated with the period 2a occupation. The various shallow disturbances in the graveyard area may have been caused by the removal of-soil for the construction of this rampart, but the large, deep pit F22 within the limits of the period 1 building would seem more likely to have been dug in search of valuables or burials associated with this earlier building. The slight traces found fit in well with the historical picture of Hereford castle, which was in constant use during the 12th and 13th centuries but then became redundant and the remains used as a quarry for other buildings in the city.

Most of the arrowheads found on Castle Green were from layer 9, one of the poorly defined disturbances into the graveyard level. They are of types 2, 3, and 5 (LMC 1940, 65-73) and probably have a date range from the 12th to 15th centuries (Vol 3).

Period 3 - The embankment and later features

During the early 18th century Castle Green was laid out as a public garden and walk. The regularity of the present earthworks indicates that reasonably large-scale landscaping took place and it was then that all remaining parts of the castle were either buried or removed. The riverside embankment was constructed during this period and is of two phases. Its construction involved removing most of the period 2 occupation levels from area 2 exposing in parts the surface of the earlier graveyard.

Description (section C-A, Fig 13)

An embankment was formed by increasing the height along the top of the riverside scarp slope. Layers L21-L28 were cut away to the NE and the remaining parts sealed underneath L20, a layer of soil, rubble, and clay. This dump material, together with the exposed parts of the upper graveyard level L14 and the shallow disturbances of period 2, were covered with L11, a layer of soil which represented the surface after the first landscaping phase.

The embankment was heightened and widened at some later time with the addition of further soil and rubble, L1, to the NE of the original embankment. A thick coating of topsoil was added and turfed, and a path laid along the new crest.

Dating

The finds from this period suggest a mid 18th century date for the first embankment. It was widened and heightened at some time in the early years of the 19th century.

Inventory (Vo13)

Small finds

Metal

Iron arrowhead L11
Pewter buckle L11

Ceramic material

Pottery

Fabric	E2	E6	G5
Sherds	1	1	1

The pottery fabrics are described in detail in Vol 3. None of the sherds from period 3 is suitable for illustration.

Discussion

The construction of the first embankment was apparently accompanied by the removal of a quantity of material from within the castle bailey, thus leaving the upper levels of the period 1 graveyard close to the surface and destroying most of the traces of the period 2 castle occupation. Only in trench 3, where the occupation levels were to be covered by the embankment, were they left undisturbed.

The first embankment evidently suffered from the continual erosion of the scarp slope and had to be replaced in the 19th century using material which was apparently imported.

Trench 2 (Fig 4)

Trench 2, some 40m NW of area 2, but similarly placed with respect to the scarp slope and embanked path, was

excavated by hand in an attempt to establish the limits of the graveyard in that direction.

Description

The trench was 5m long and 2m wide and was dug by hand to a depth of nearly 3m (53.0m OD). It contained disturbed soil levels for the whole depth which included clay pipe fragments at 2.5m deep. Arbitrary layers of roughly equal thickness, L2, L6, L8, L12, L16, and L17, were used. All were of soil with some pebbles and stones, becoming more clayey towards the bottom. Disturbed human bone was found at all levels.

Inventory (Vol 3)

Ceramic material

Pottery

Fabric	A3	A4	A5	A6	A7	B1
Sherds	1	7	3	5	9	8
Fabric	C1	C2	E6	G3	G8	
Sherds	7	19	10	3	1	

The pottery fabrics are described in detail in Vol 3 where one sherd is illustrated.

Discussion and dating

The quantity of human bone in trench 2 suggests that the graveyard continued along the river bank at least as far as this point. This was confirmed by the machine scarping of the riverside bank which exposed further human remains in the immediate area. The whole of the area of the trench was presumably disturbed by a large 18th century excavation.

Area 1 (Fig 16)

The remains of a stone wall, F1, could be seen jutting out of the erosion face of the riverside bank at the southern corner of the bailey (Figs 4 and 5). This could not be excavated because of the precipitous slope and a dangerous overhanging tree. Instead, a trench was cut by machine through the modern tarmac path on the apparent line of the wall.

Description

Wall F1 was approximately 1.1m wide and 1m high, apparently uncoursed but with some rough facing stones. The top of the wall was 1.2m below the present ground surface and it ran into the cliffside in a northerly direction. The top of the wall was sealed by layer L4 consisting of brown earth with many small stones and pebbles, and on either side of it was a thick layer of pebble gravel, L5. It sat on L7, a 0.3m thick layer of brown soil, containing some pebbles and animal bone.

A trench was excavated, partly by machine, at a distance of some 5m from the exposed wall-the closest point available. Masonry, F9, was found on the same level and in line with F1, at the SW side of the trench, and above it there were indications of a robber trench, F18 (section C D, Fig 17). Wall F9 was only present for 1 m from the side of the trench where it was totally removed by wall F8. This later wall and the parallel wall F7 were faced on the inside leaving a narrow passage 1 m wide between them which contained 18th century material (L29 and L31). The trench could not be totally cleared but, during the excavation, the hard clean gravel under layer L31 within the passage was thought to be natural.

Inventory (Vol 3)

Small finds

Metal Iron arrowhead L29

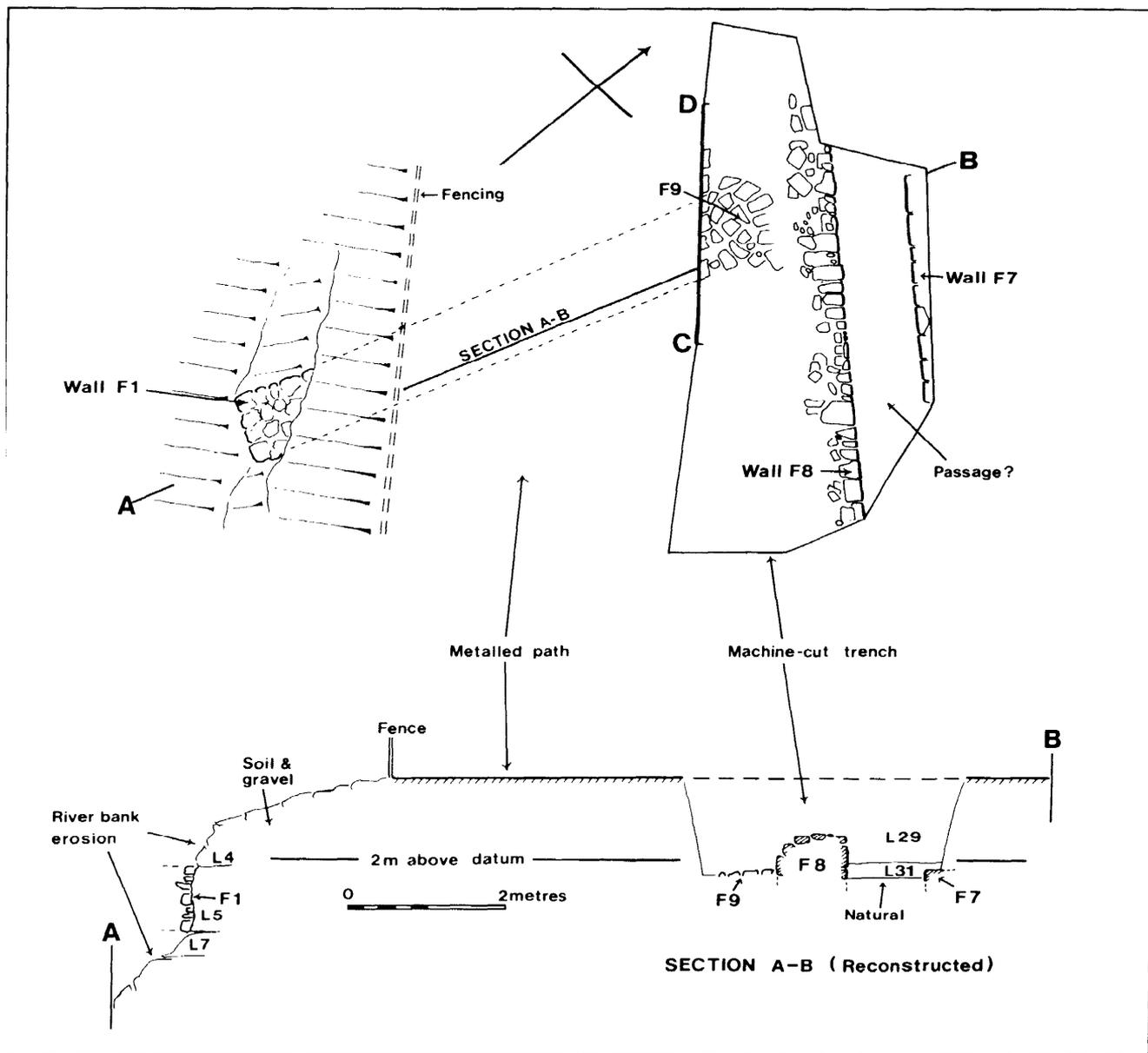


Fig 16 Area 1 Plan of excavation and reconstructed section

Discussion and dating

There was no dating evidence for the underlying soil level L7 or for the walls F1 and F9. They were assumed to be parts of the same structure which must have been at least 8m long. It could have been part of the castle defensive works or an internal building which had been partly lost by bank erosion.

The passageway and walls F7 and F8 were probably part of the 18th century landscaping and are shown on Taylor's map of AD 1757 (Fig 40) as part of an access through the embankment from Castle Green to the castle mill on the moat below.

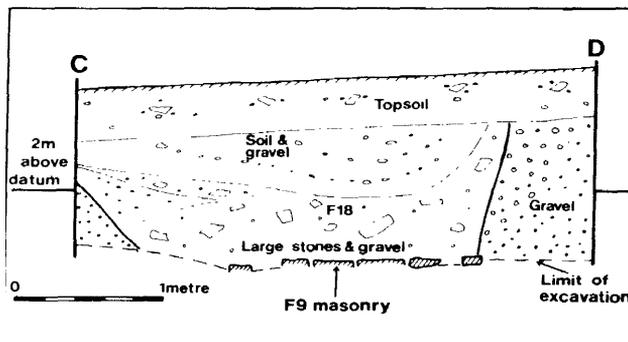


Fig 17 Area 2. Section C-D (see Fig 16 for position)

Unstratified, illustrated finds (Vol 3)

Small finds

- Metal Iron arrowhead
- Jewellery Glass bead

The burial groups

The graveyard was in use for a period of some 400 to 500 years from perhaps the 7th century until about the mid 12th century and during this period there were several distinct changes in the manner and methods of burial. The following section is one of the very few classifications of a mid to late Saxon Christian cemetery and, although the sample is small, it illustrates the potential and provides a basic framework. The various groups are considered in chronological order and an assessment is made of their date range. This is followed by a report on the various types of nails and strapping found in association with the burials and the section is concluded with reports on the charcoals, the skeletal material, and the radiocarbon dating.

Throughout, it is assumed that the presence of nails or strapping indicates that a coffin or possibly a bier was used for the associated burial. The converse need not apply; wooden pegs could be used to join together the various parts of a coffin and no traces would be left for the excavator to find.

Full details of the condition of the bones, the amount of skeleton present, and the depth at which the burial was found are included in Table 7 (p 40) which also lists the age, sex, and stature if known. Many of the interments were fragmentary and others had additional bones inserted in the grave during or after burial. Details of these secondary activities are only considered if they indicate a possible burial practice; others may be seen on the various period plans.

Group 1 - Simple burials [S71, S84, S85 (Fig 7)]

The three burials which comprise group 1 were stratigraphically the earliest on the site and were all external to building A. Other, deeper burials of the same group may still remain unexcavated within area 2 and it is possible that the disturbed bones found in association with S76 of group 2 also represent burials of this earliest group. These disturbed bones included two skulls, S75 and S77.

There were no signs of coffins in any of the interments and it is probable that the two nail heads found with S84 came from the overlying S80.

The three burials were laid out approximately in line forming part of a row (Fig 7). The row was on a slightly different alignment both to the west wall of building A and to the overlying burials of groups 3 and 4. The individual alignments could not be measured accurately but were all approximately 80° -260°.

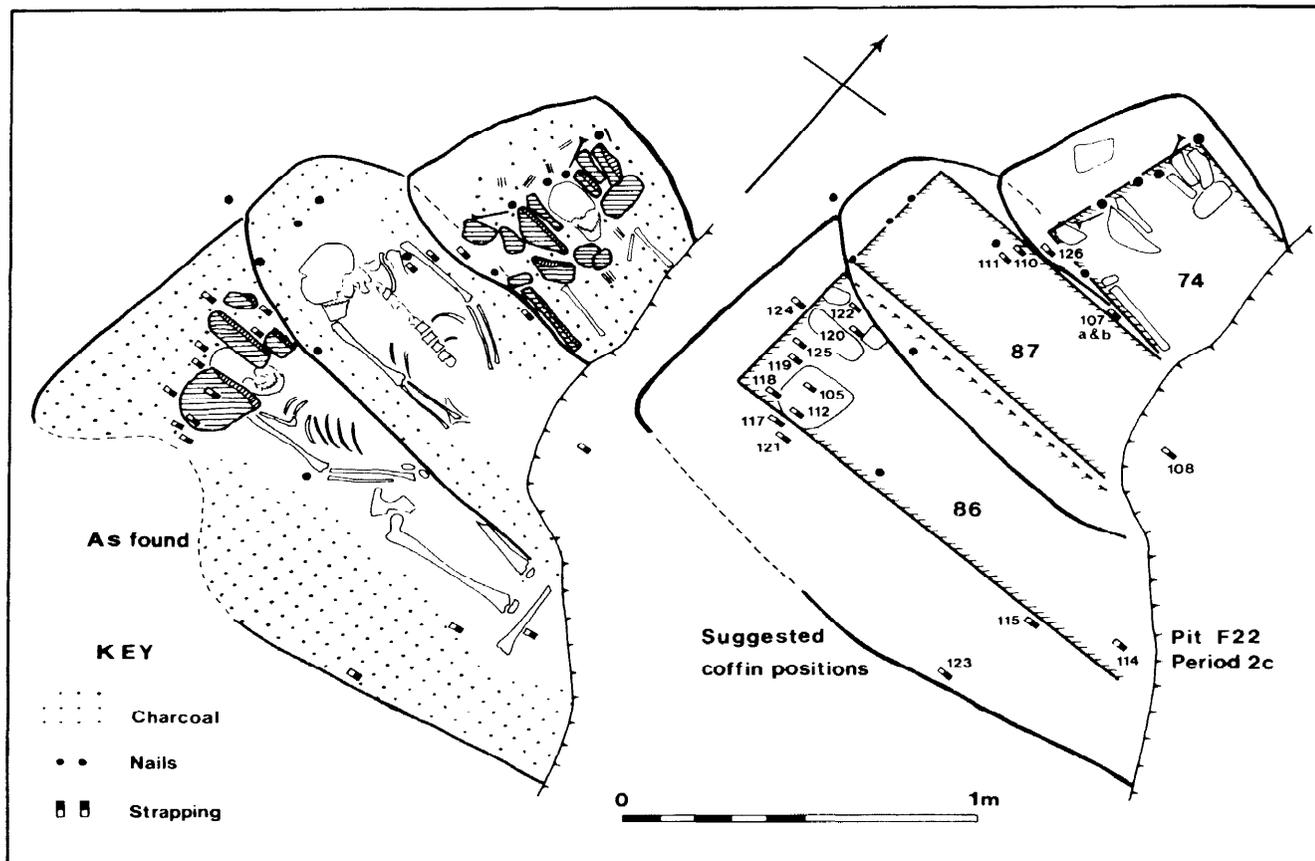


Fig 18 Area 2, Burials S74, S86, and S87 of group 2. The left hand drawing depicts the burials as excavated; the right hand one shows the position of the nails and the iron strapping and indicates the positions of the coffins

The remains known to be part of group 1 consisted of two adult males and one small child. The two skulls, S75 and S77, which belong to group 1 or group 2 were both probably male.

Dating

Bone from S85 provided a radiocarbon date of $ad\ 700\pm70$ (HAR985) (p 39). Using the most recent value of half-life, this becomes $AD\ 663\pm70$. There is thus a 68% probability that the date of burial was in the 7th or early 8th centuries and a 95% probability that burial occurred after the first quarter of the 6th century and before the beginning of the 9th century.

This is the only direct dating evidence for the whole group although it is worth noting that there is a 95% probability that S80, which overlay S84 and S85, was probably buried between $AD\ 820$ and $AD\ 1100$ and a similar probability that S83, which cut away part of S71, was buried between $AD\ 690$ and $AD\ 970$ (p 39).

The evidence is only sufficient to indicate a date range from the 6th to the end of the 8th century for the interments of group 1, although the 7th and early 8th centuries should be considered most probable.

Group 2-Early 'charcoal' burials [S74 (Figs 18 & 19), S76 (Figs 20,21,&22), S86, S87 (Figs 18 & 23)]

These four burials were found in a line within the confines of building A and were probably interred during the use of the building. A fifth burial may remain undiscovered between S76 and S86 (Figs 7 & 9). Three of the burials, S74, S86, and S87, were partly cut away by pit F22 of period 3. Burial S86 was earlier than S87 which, in turn, was partly sealed by S74, the highest burial of the group.

The grave cuts were only visible for the bottom few centimetres and were sub-rectangular in shape. Each grave contained a spread of charcoal, which comprised a thin layer over the bottom of the grave containing S74 but was only present in the central part of the grave cut, underneath the body, in S76. The charcoal outlined the approximate shape of coffins in both S86 and S87, with little in the area of the bodies.

Nails and iron strapping indicated that three of the burials had been in coffins but there were no similar objects associated with S76. One coffin, that for S86, was made using iron strapping, the second, for S74, was made using nails, and in the third one, that for S87, use was made of both nails and strapping. The two burials S86 and S87 were the only ones within the area excavated where iron strapping was used in the manufacture of coffins. Two very large nails were used close to the top of the coffin containing S74.

Two of the burials, S74 and S86, had the skulls supported between stones which were within the coffin. Other stones were used in S74 but placed alongside the body, again within the coffin. Burial S76 contained several stones in the western end of the grave cut at a point where the head of this disturbed burial would originally have been. This grave also contained bones belonging to at least two other individuals indexed as S75 and S77. It is possible that, in digging the grave for S76, the gravediggers came across two earlier burials and moved the bones to one side until the interment ceremony was completed when they replaced them in the grave alongside the new burial. It is equally possible that, in digging the foundations for wall F11 of building B, the builders found, and disturbed, burial S76. This could have been a suitable opportunity to dispose of bones from other burials disturbed during the



Fig 19 Area 2. Burial S74 of group 2

building works. The second possibility is more likely because it would explain why the skull of burial S76 had been moved to a position on top of the rib cage. The two inserted skulls are considered as part of group 1, but could possibly belong to group 2.

The precise alignment of the four burials in group 2 could not be ascertained, but the grave cuts, which were all in a row, were adjacent to and dug at right-angles from the line of wall F10.

S87 was probably male and S76 was female. The other two burials could not be sexed but all four were adult.

Dating

Charcoal, taken from the grave cut for S74, provided a radiocarbon date of $ad\ 920\pm80$ (HAR4 14) (p 39). If the half-life is adjusted, this gives, as an approximation to the calendar date, $AD\ 890\pm80$. Thus for S74, which is the latest of three burials within group 2, there is a 68% probability that interment took place during the 9th or first two-thirds of the 10th century and a 95% probability that it was between $AD\ 730$ and $AD\ 1050$. However there are reasons to suppose that the radiocarbon date for S74 may be earlier than the date of burial (p 39). However, S76 should be substantially earlier than the overlying S46, from which it was separated by the footings of the demolished wall F11 of building B. S46 is given a corrected radiocarbon date of $AD\ 1033\pm80$. The available evidence suggests that the burials of group 2 took place between about $AD\ 700$ and $AD\ 1000$ with a bias in favour of the 9th and early 10th centuries.

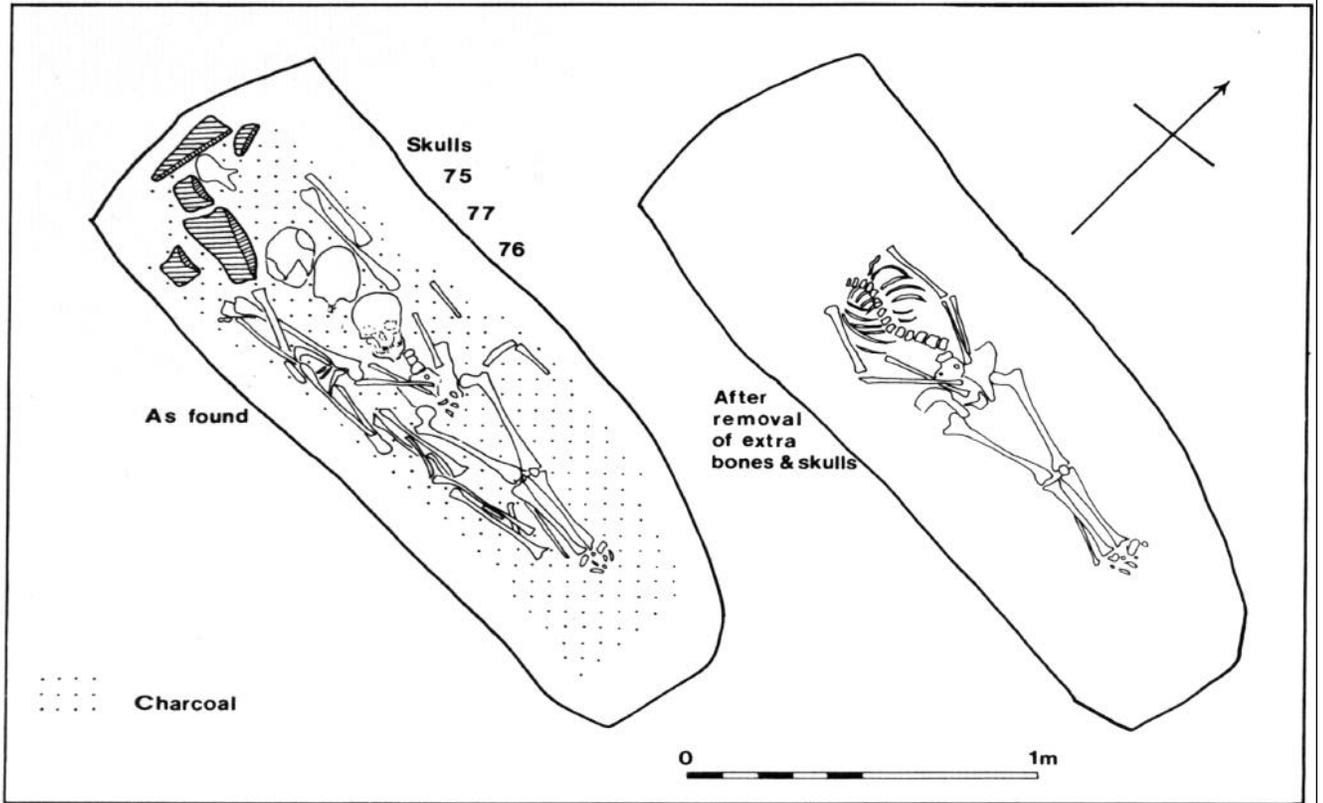


Fig 20 Area 2. Burial S76 of group 2



Fig 21 Area 2. Burial S76 of group 2 as found

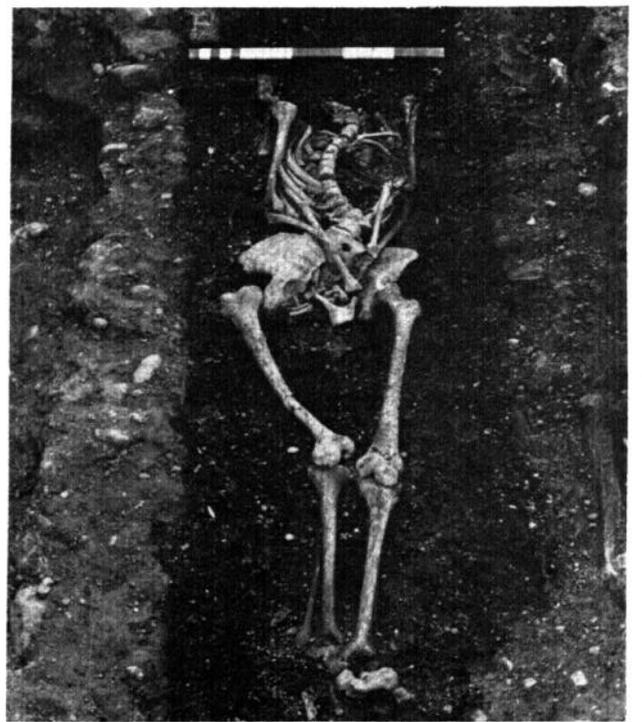


Fig 22 Area 2. Burial S76 of group 2 after removal of non-related bones

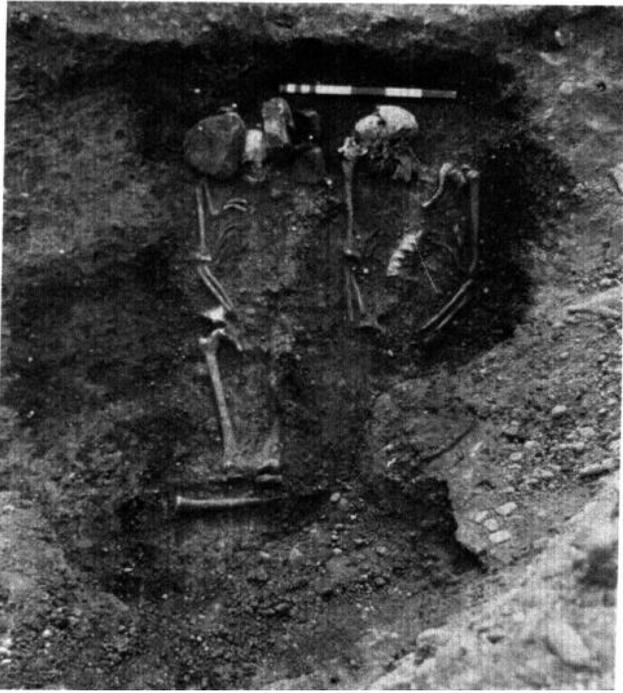


Fig 23 Area 2. Burials S86 and S87 of group 2

Group 3 - 'Coffin' burials

[S62, S63, S66, S81, S82, S83 (Fig 7)]

The interments in this group were all in deep graves and comprised parts of two rows of burials, both to the west of wall F10. The lower parts of the grave cuts were apparent in all cases except for S66 and the contents had suffered only little disturbance from later burials. The grave cut for S83 slightly cut into the grave containing S82, but did not disturb the fill.

All the burials were either in coffins or on open-topped biers and in most cases sufficient nails were found to indicate that the coffin or bier was straight-sided.

The two rows of burials were approximately parallel to wall F10, but the individual alignments of the burials varied. S66 and S81 were almost due E-W but the others were approximately 100°/280° (Fig 37).

One grave cut contained two burials; S63 was a female between 25 and 35 years old and between her legs was a small child, S62, about two years old. Of the others, S83 was female and S81 male. All, apart from the one small child, were adult.

Dating

Bone from S83 provided a radiocarbon date of ad 930+70 (HAR 1875) which, adjusting as before, becomes AD 900±70 (p 39). There is thus a reasonable probability that this burial took place during the 9th or the 10th century. If one takes into consideration that there are at least three distinct levels of burial above this group, and that S83 is one of the later burials in group 3, then it would seem reasonable to assume that the group as a whole should be dated to the 9th or the early part of the 10th century.

Group 4 - Late 'charcoal' burials

[S46 (Fig 24 & 25), S80 (Fig 26), S68 (Fig 10), F12 (Fig 10)]

Three of the four burials in this group were on top of the foundations of buildings A and B and were all in poor condition. The fourth, S80, was some 2m west of the SW corner of the building and above burials S84 and S85 of group 1. Charcoal was found in all the graves, a thin spread in the graves for S46, S68, and F12 but a large quantity in S80. In the latter, the charcoal was apparently put into the grave after the interment in sufficient quantity to cover the coffin completely. The lower part of the grave cut for S46 was irregular, possibly due to the underlying stone foundations of wall F11. Nails, indicating a coffin, were found around the skeleton and, as with S80, the charcoal had been put into the grave after the coffin. The skull of S46 was supported by two large stones set on end. Both S68 and F12 were badly disturbed and no details, apart from the charcoal spreads, could be observed. All the burials, except S68, were in coffins.

The burials of group 4 were not set out in any formal array. The orientation could only be established for S46, which was almost E-W, and for S80, which was about 105°/285° (Fig 37).

The sex could not be established in any of the burials in this group but of the three where bones were found, S68 was an infant, S80 a juvenile, and S46 a young adult.

Dating

Two radiocarbon dates were obtained. Charcoal from grave S80 provided the earlier date of ad 990+70 (HAR 413) and bone from S46 was dated to ad 1060+80 (HAR986). The

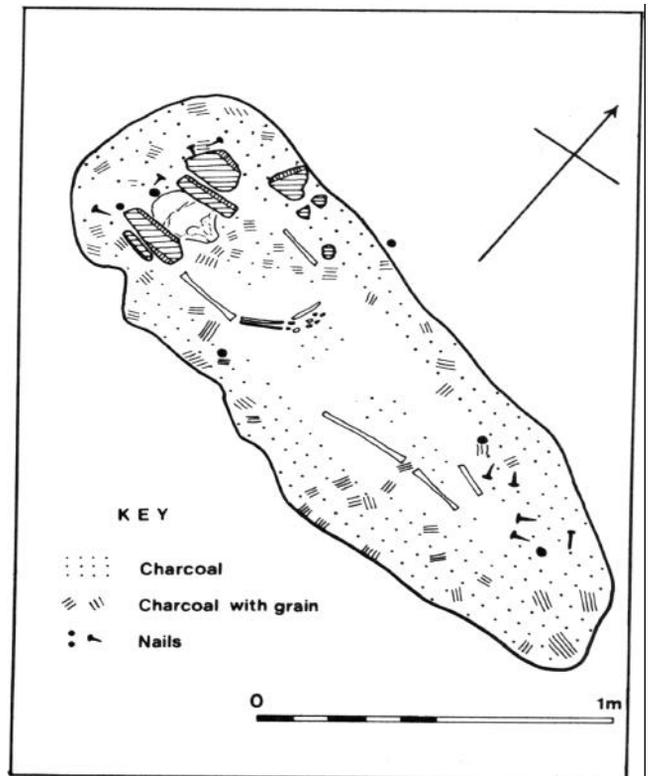


Fig 24 Area 2. Burial S46 of group 4

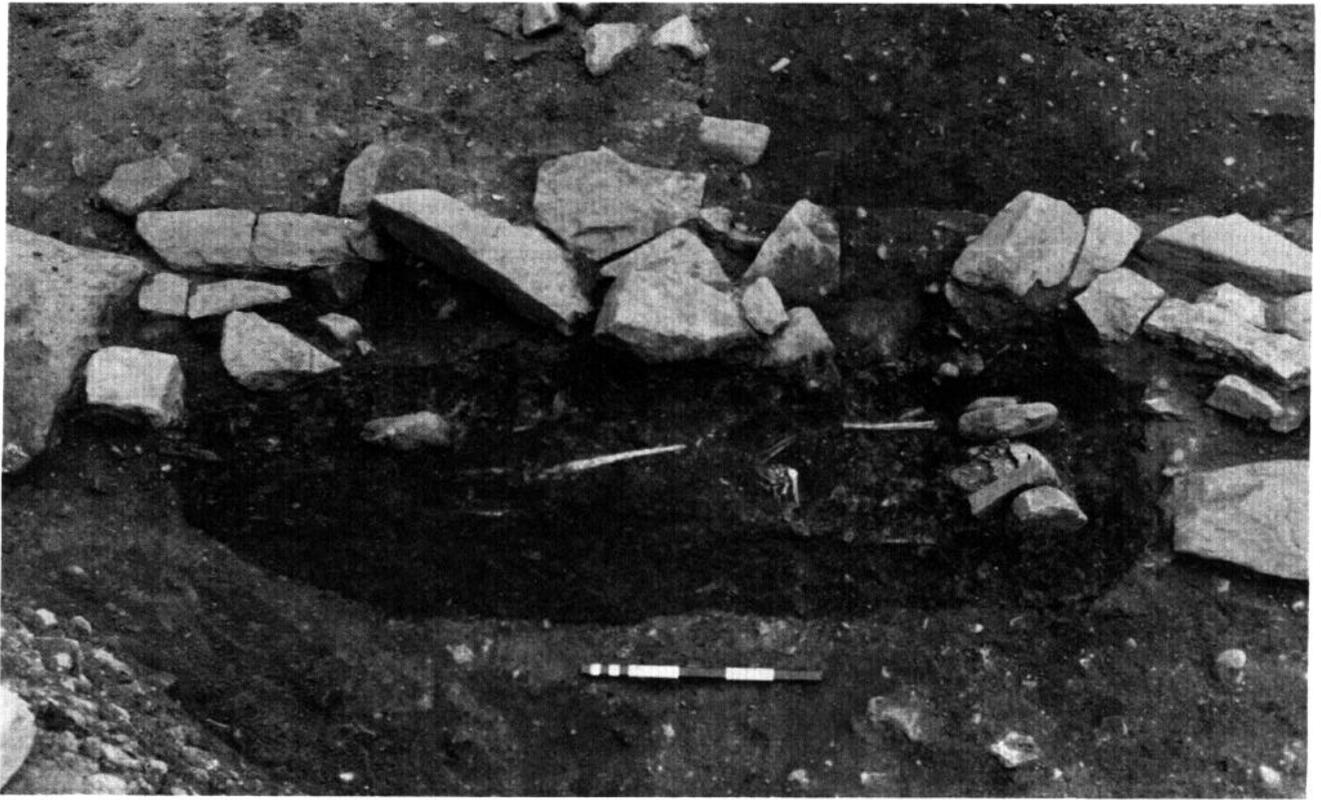


Fig 25 Area 2. Burial S46 of group 4 as found on the top of the foundations of wall F11 of building B

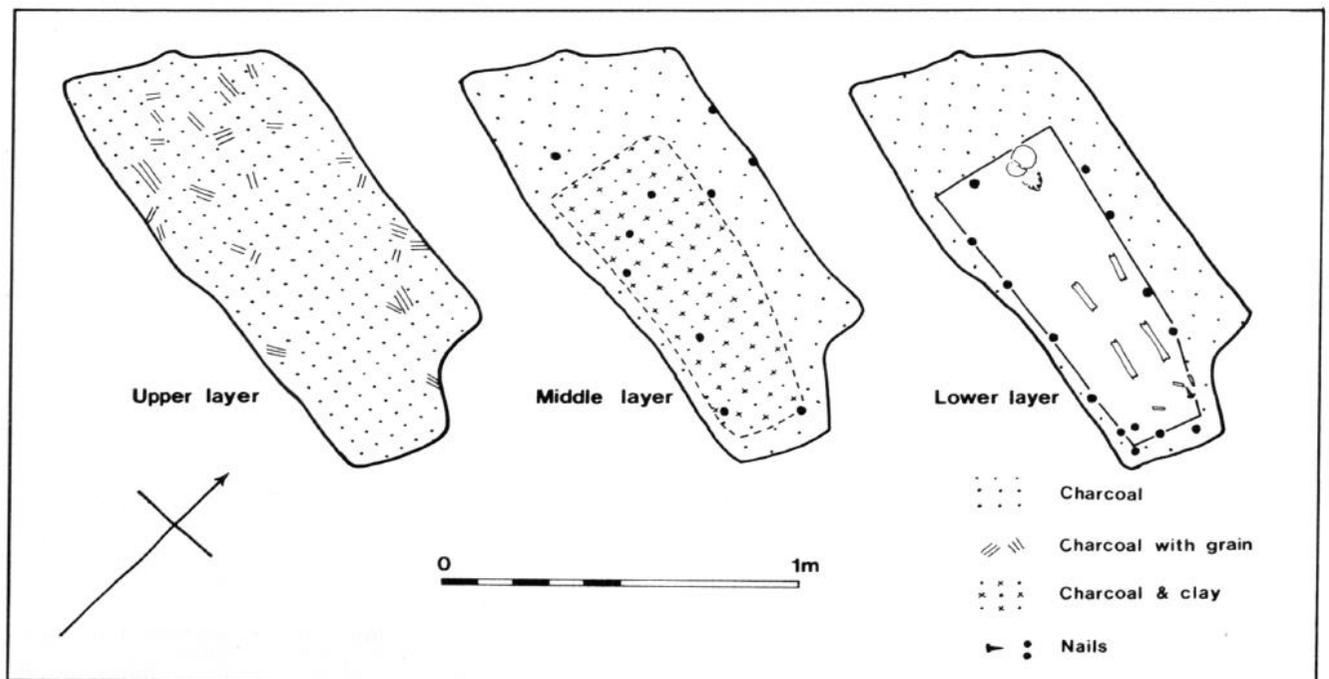


Fig 26 Area 2. Burial S80 of group 4

burials of group 4 are not significantly different in design from those of group 2, but are stratigraphically separate. In this context S46 is significant because it is separated from the underlying 'charcoal' burial S76 by both the construction of wall F11 and its eventual demolition. This indicates that the practice of burying in charcoal-lined graves lasted for a considerable period.

The two dates obtained can be corrected to AD 960±70 for S80 charcoal, and AD 1030±80 for S46 (p 39). S46, S68, and F11 are not sealed or cut by any later burials and there is thus no reason why sporadic 'charcoal' burials should not have continued throughout the life of the graveyard. However, the complete lack of this type of inhumation within the 40 stratified burials of groups 5, 6, and 7 makes this hypothesis extremely unlikely. A date range for the group in the 10th and the 11th centuries would seem most likely.

Group 5 - Late 'simple' burials

Subgroup 5a [S21, S28, S35, S44, S47, S50, S56, S58, S61, S64, S65, S70, S73 (Fig 10)]

Most of the burials in this group, which occupied the western part of the area excavated to the west of wall F10 of building B, were disturbed by later graves and other features. The fragmentary remains comprised three rows, all approximately parallel to the line of wall F10. The row closest to this wall included burial S80 of group 4 and had suffered some damage from trench F14 of period 2. The other two rows tended to intermingle with each other and the third row, in particular, had suffered considerable disturbance. One isolated burial, S50, south of building B, is included in this group only because of its similar depth. Indications of the grave cuts were observed in only three of the burials in the group, of which one, S56, was directly above the group 3 burial, S63, and was the only case which could be considered as a deliberate reuse of a grave rather than the general reuse of the burial ground.

There were no indications of coffins with any of the burials in this group and only one burial, S35, had head support stones. The orientation could only be established for six of the burials. It varied between almost due E-W and 100°/280° (Fig 37).

One of the thirteen burials, S44, was a juvenile and fragments of a second juvenile were found associated with S21. The remainder comprised six male and three female, and three where the sex could not be determined.

Dating

The burials in this group are later than those of group 3 which are considered to be not later than the first half of the 10th century. They could have a similar date range to group 4 but one must allow for two further complete reuses of this part of the graveyard before it finally became disused. The most likely date range thus includes the latter half of the 10th century and the whole of the 11th century.

Group 5 - Late 'simple' burials

Subgroup 5b [S5, S15, S23, S24, S26, S27, S29, S30, S31, S33, S39, S40, S43, S45, S60 (Fig 14)]

The burials of subgroup 5b were in two rows, the one nearest building A/B being immediately above the first row of group 5a. All the burials in this row had suffered some disturbance from trench F14 of period 2. One burial, S33, south of the line of building A/B and above S50 of subgroup 5a, is included in this group because of its similar depth.

There were no visible grave cuts and none of the burials were in coffins with the possible exception of S60. Five individual alignments were measured and all except one

were south of east. The maximum variation from the E-W line was that of S30, which was aligned 110°/290° (Fig 37).

Burials S23 and S45 were badly disturbed and each contained fragments of other individuals. One interment, S40, was an infant probably buried shortly after birth, and one, S43, was a juvenile. The remainder included eleven male and three female adults.

Dating

The burials in subgroup 5b are the latest to include some formal arrangement and probably have a date range from the mid 11th century to the mid 12th century.

Group 5 - Late 'simple' burials

Subgroup 5c [S7, S8, S9, S22, S38 (Fig 15)]

These burials, together with S10 of group 6, comprised the upper level of adult burials in the area excavated. They were interspersed, and in places disturbed, by the infant burials of group 7. This uppermost level of burials was radically different to those of subgroups 5a and 5b. There was little attempt to arrange them in rows and the alignments were apparently more variable. There was no indication that coffins were used and there was no sign of cuts for the graves in the overlying soil level. One burial, S8, included fragments of two individuals, S8a and S8b.

The alignment could only be established with any certainty for S7 which was almost due E-W. The remains were in most cases fragmentary and comprised two juveniles and four adults, of which one was probably male.

Dating

These burials were probably interred towards the end of the use of the area as a graveyard in the mid 12th century.

Group 6 - Cist burials

[S10 (Figs 15 and 27)]

S10 was a high level burial which had been placed in a carefully made stone cist. It was the only burial of this type found within the area excavated, but there are records of other, similar interments being found in other parts of Castle Green (p 7). The cist sealed several burials of group 5 and was apparently one of the latest burials on the site. The alignment was 85°-265° and the burial was an adult female.

Dating

The radiocarbon date for bone from this burial was AD 1130±70 (HAR988) which can be adjusted to AD 1105±70 (p 39). There is thus a 68% probability that S10 was interred between AD 1035 and AD 1175. The burial is later than some of the group 5 burials but was presumably interred before the end of the general use of the area as a cemetery. It should therefore probably be dated to the first half of the 12th century.

Group 7 - Infant burials

[S1, S2, S6, S11, S12, S13, S16, S17, S20, S25, S34 (Fig 15)]

A large number of infant burials were found at approximately the same level as the burials of groups 5c and 6. Two other infant burials, S36 and S42, which were not planned, can be added to the group making a total of thirteen interments.

There was no indication that coffins were used and no sign of any grave cuts. A large bone group, S18, probably associated with the burial of S25, gives a graphic indication of the crowded conditions in the graveyard. The group



Fig 27 Area 2. Burial S10 of group 6

comprised parts of no less than five individuals who were presumably all disturbed during the cutting of the grave for S25. Four alignments were obtained, but because of the small size of the burials they can only be considered as approximate. The alignments varied from almost due E-W to 110°/290°. The group included four who probably died at birth, seven who were less than twelve months old, and two aged between one and two years.

Dating

It is suggested elsewhere (p 51) that infant interments, such as those described above, may indicate that the graveyard had become disused as far as formal burial was concerned. A date range for the group should thus include the 12th century but allow for possible later burial.

Summary

The analysis of the burials into seven different groups and the interrelationship between these groups is shown graphically in Figs 28 and 29. These two diagrams indicate that the individual burial methods had a limited period of popularity and also show how it has been possible to assign relatively narrow date ranges to the various groups.

Fig 28 demonstrates the relationship of burials in any one group to that of the others. Each line means that the higher burial in the chart must be later than the lower one, either because it cuts away part of the lower one or because it overlies it.

Fig 29 relates the depth of each burial to its group and to its most probable date range. The chart demonstrates that the average depth of the various groups is significant in terms of the date range.

Coffins and coffin fittings

The presence of coffins, or possibly biers, was accepted where graves contained nails or iron strapping. In these cases wood often survived in small fragments adhering to the metalwork but it did not occur independently. It is possible that there were coffins made entirely of wood, using wooden pegs rather than nails, and these would not have been identified. Such coffins have been found in later contexts (Shoesmith forthcoming a).

Coffins, or biers, were used in some groups of burials rather than others (Fig 28) and were apparently a feature of 9th and 10th century interments rather than those of earlier or later periods.

Table 2
Burials in coffins

Group	Number of burials	Number in coffins	Percentage in coffins
1	3	nil	nil
2	4	3	75
3	5	5	100
4	4	3	75
5	33	1	3
6	1	stone cist	-
7	11	nil	nil
All groups	61	12	20

Only the burials shown on Fig 28 are used in the above table.

A description of the nails and strapping is followed by a discussion of the types of coffin represented.

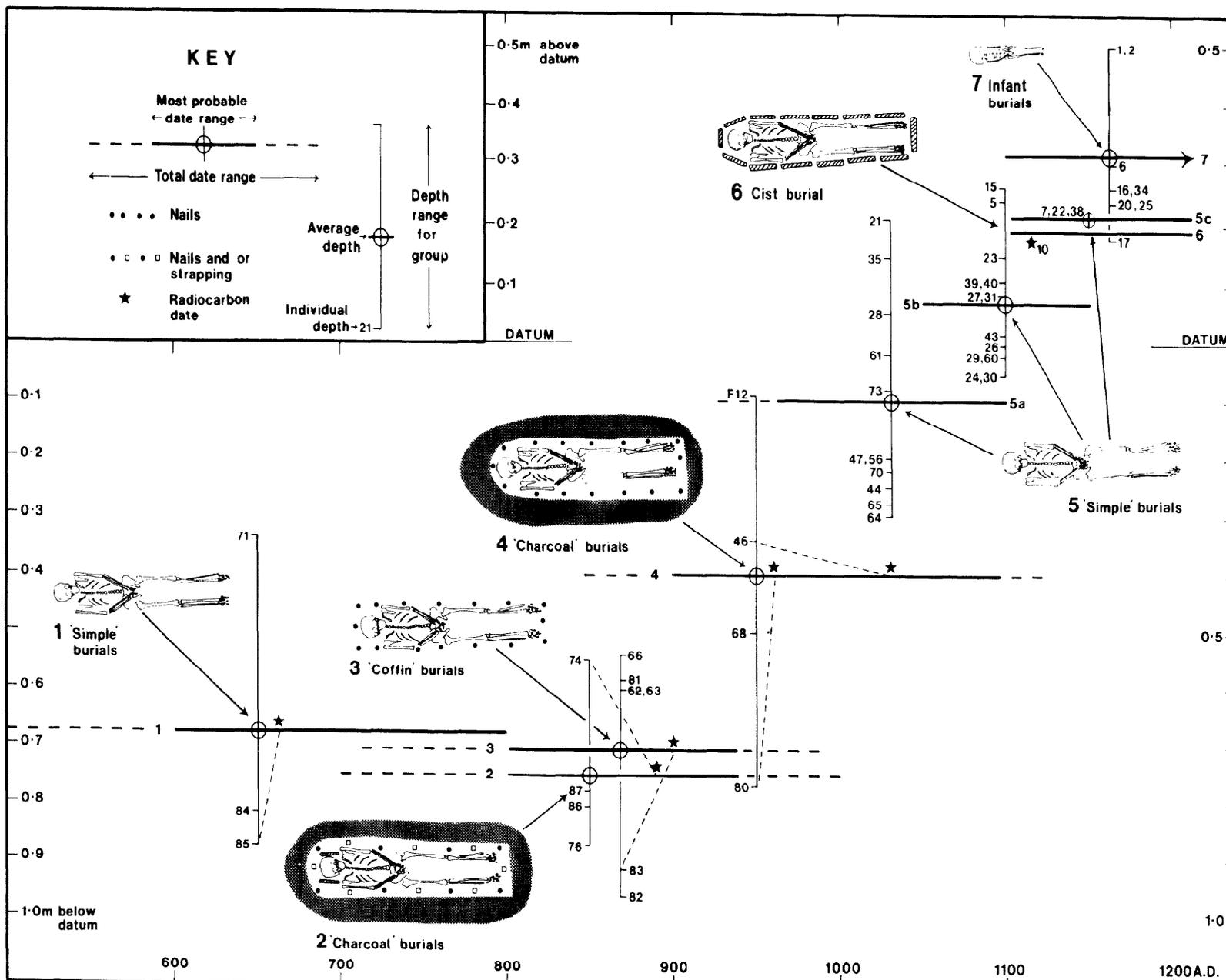


Fig 29 Area 2. The burial groups. A graphical representation of the relationship between the groups, the depth, and the estimated range. The radiocarbon dates used are adjusted to take account of the most recent value of the half-life (p 39)

Table 3
Distribution of nails in burials

Burial	Group	Complete nails	Broken shaft	Head only	Shaft only	Min Total nails	Impressions of wood grain
† **S84	1	—	—	2	—	2	—
† S74	2	3	5	—	—	8	4
† *S87	2	—	5	1	2	7	—
† S63	3	3	16	—	2	21	13
† S66	3	7	—	—	8	15	1
† S81	3	—	4	1	4	8	5
† S82	3	4	12	—	7	23	11
† S83	3	5	17	1	1	23	10
S46	4	6	11	1	1	18	8
S80	4	1	17	1	8	26	6
† F12	4	—	2	—	3	5	3
† S60	5b	2	4	—	2	8	1

* strapping also used

** probably from S80

burial not completely excavated or substantially disturbed at a later date

The iron nails

Nails were found associated with burials in groups 2, 3, 4, and 5b, and a selection only are illustrated. In one or two burials individual nails were not positioned unless they were exceptionally large, but in most cases the positions are shown on the detailed burial plans or the site plans. The nails were not x-rayed but the suggested outline shape is shown on the drawings with dotted lines. In some cases traces of wood, exhibiting the grain, were found adhering to the nails, and in other cases the grain of the wood was preserved in the rust accretion on the nails. Table 3 shows the distribution of nails in the various burials.

Group 1

Burial S84 (Fig 7)

Two nail heads were present. Both are in poor condition and are not illustrated. It is probable that they had fallen from the overlying S80.

Group 2

Burial S74 (Figs 18 and 19)

Only the top one third of the burial survived, the rest being removed by pit F22 of period 2. Two large nails, found above and to the side of the head support stones (Fig 30, 1 and 2), are about 133mm long. Other nails (Fig 30, 3-7) average about 50mm long with heads about 20mm in diameter.

Burial S87 (Figs 18 and 23)

The upper half of the burial was present. The seven nails are fragmentary with heads averaging 16mm diameter and no complete shafts. They are slightly smaller than average. None is illustrated. Strapping was also found associated with this burial (p 36).

Group 3

Burial S63 (Fig 7)

The lower part of this burial was left in the section, but the nails outlined a straight-sided coffin or bier. The size of nail varies with heads from 14 to 27mm across and shafts up to 70mm in length (Fig 31, 8 and 9).

Burial S66 (Fig 7)

The nails are poorly preserved and were not planned at the time of excavation. None is illustrated.

Burial S81 (Fig 7)

All except the upper part of the burial was present. The nails are poorly preserved. The heads have an average diameter of 17.5mm and there are no complete shafts (Fig 31, 10-12).

Burial S82 (Fig 7)

The upper parts of this burial were left in section, but in the remainder the nails were reasonably well preserved and outlined a rectangular shape. The average head diameter is 23mm with a wide variation. Three surviving complete shafts are c70mm long and one is 48mm long (Fig 31, 13-23).

Burial S83 (Fig 7)

This was a complete burial with quite well preserved nails. The positions suggest a straight-sided coffin or bier. The average head diameter of the nails is 22mm and the length of shank varies from c50mm to c70mm (Fig 31, 1-7).

Group 4

Burial S46 (Fig 24)

A complete burial with well preserved nails. The average head diameter is 19mm and the shafts are from 50 to 63mm long (Fig 30, 13-17).

Burial S80 (Fig 26)

The burial was complete and the nails outlined the shape of the child-sized coffin. The nails are mainly fragmentary and in a poor state of preservation. The average head diameter is 18.5mm. The shanks are mostly broken, a length of c50mm being the longest surviving shaft (Fig 30, 8-10).

Burial F12 (Fig 10)

A badly disturbed burial with only a few nails present (Fig 30, 11 and 12). One nail (Fig 30, 11) could have been the same size as the long ones associated with S74.

Group 5b

Burial S60 (Fig 14)

A disturbed grave with nails in poor condition. They are more irregularly made than those from earlier periods (Fig 30, 18-21). The positions are not shown on the plan.

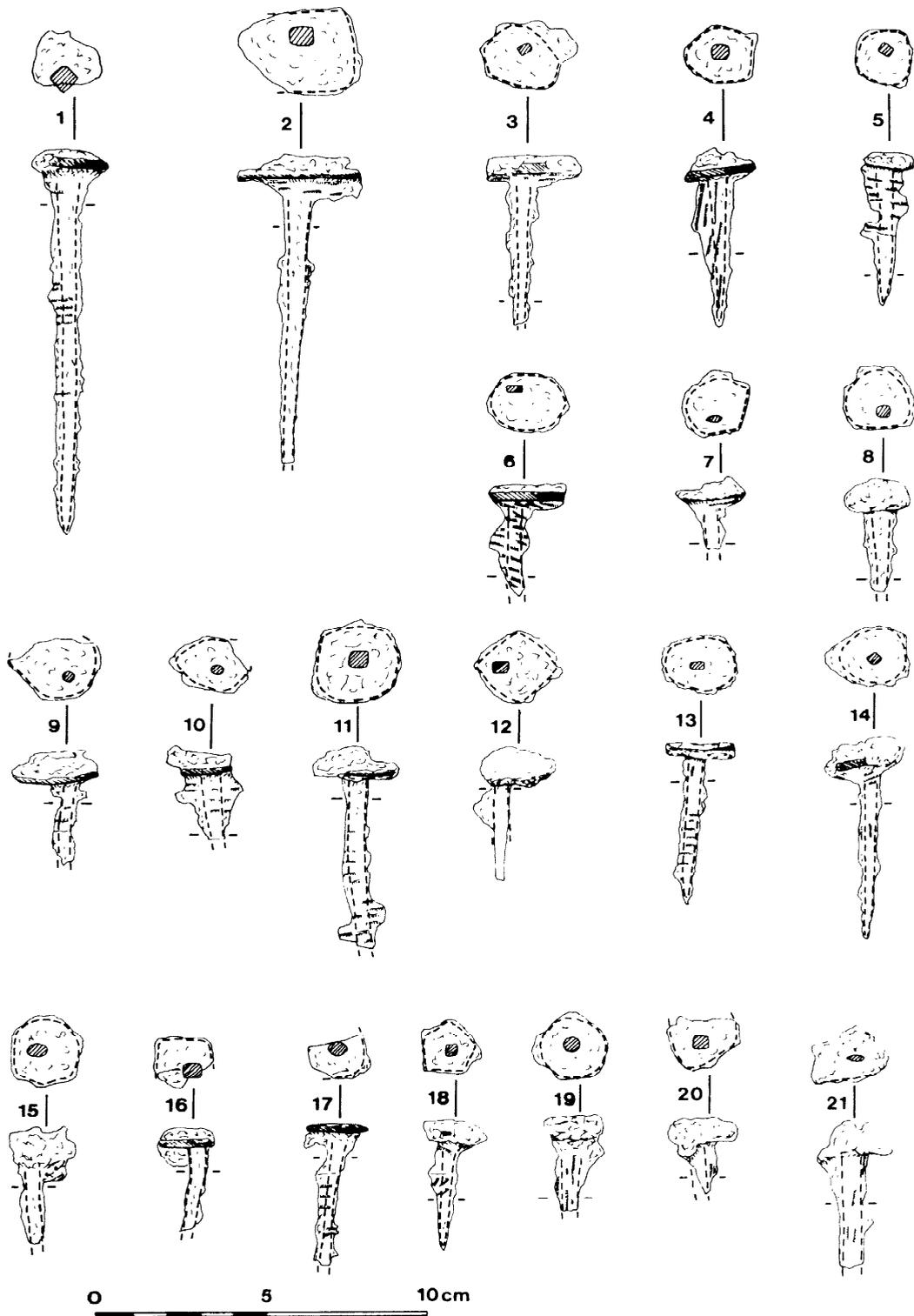


Fig 30 Area 2. Coffin nails: 1-7, S74, group 2; 8 10, S80, group 4; 11 12, F12, group 4; 13 17, S46, group 4, 18 21, S60 group 5b

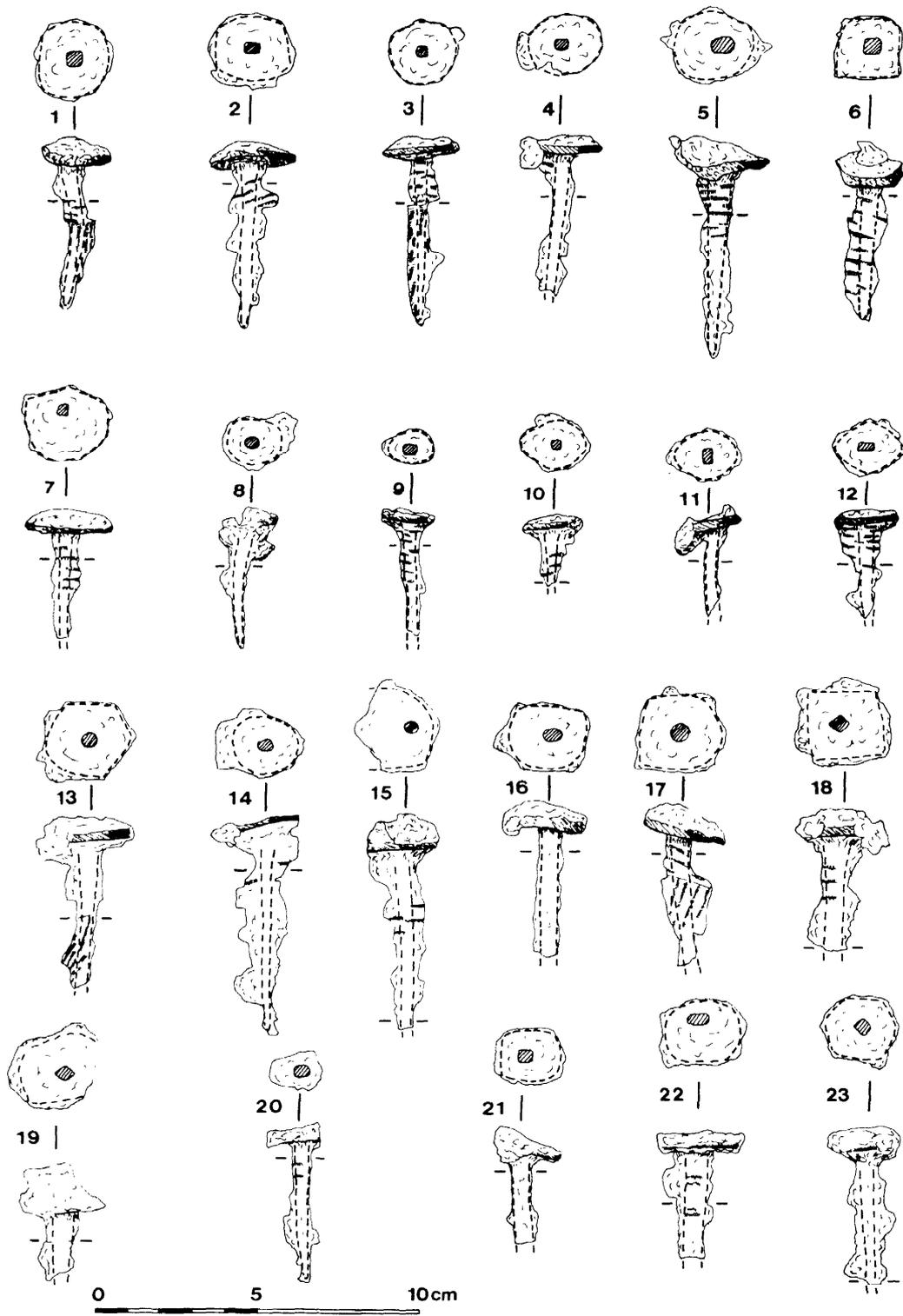


fig 31 Area 2. Coffin nails, all of group 3: 1-7, S83,8-9, S63; 10-12; S81; 23,S82

Table 4
Inventory of illustrated nails

Group	Burial	Fig	Number	Length (mm)	Indicated thickness of wood (mm)	
2	S74	30, 1-7	1	133		
			2	>100	25	
			3	>52	-	
			4	52	-	
			5	47	22	
3	S63	31, 8 & 9	8	40		
			S81	12	-	16
			S82	13	-	23
			14	65	-	
			15	-	22	
	S83	31, 1-7	17	-	18	
			20	48	22	
			1	50	23	
			2	60	16	
			3	57	17	
			5	65	25	
			6	50	-	
			7	-	20	
4	S46	30, 13-17	13	50		
			14	60		
			17	-	15	
			9	-	20	
			F12	30, 11&12	-	-
5b	S60	30, 18-21	18	40	-	

Discussion

The plank sizes indicated by the impressions of wood on the nails varies from 15mm to 25mm in thickness. There are no standard measurements for individual coffins. Apart from the three large nails with heads in excess of 25mm diameter and lengths of over 130mm, the remainder are reasonably consistent in size. Heads vary from 15mm to 26mm but most are in the centre of the range. Apart from two shorter nails (40mm long) the remainder are in the range 47mm to 65mm. They would thus be eminently suitable for the thickness of wood used. It is difficult to imagine a use for the larger nails. They would normally be used for wood not less than 70mm thick. It may be that the end piece at the top of the coffin was of thick wood, nailed on after the remainder had been constructed. It is also possible that they were used to fix short legs on to a bier.

The iron strapping (Fig 32)

Iron strapping, to hold the coffin together, was only used in two burials within the excavated area, S86 and S87, both of group 2. Both were charcoal burials, within the limits of building A, and both were incomplete, being cut by pit F22. S87 partly cut S86 and removed part of the right hand side of the coffin and skeleton. There were no nails present with S86, but S87 had eight nails as well as the strapping. They were slightly smaller than average (p 33).

As with most ironwork from Hereford, the strapping is fragmentary and in poor condition. Only the better preserved examples are illustrated. They comprise a selection from each grave and also include several fragments found in surrounding layers and not connected with any individual interment. In most cases the impressions of the grain of the wood can be seen and this has been indicated on the drawings. The inside face is shown in each case, together with a cross-section. All fragments have been

x-rayed and an indication of their original shape is given, together with the probable positions of the small nails used to fasten the straps to the coffins. The drawings are based on both visual examination and on the x-rays. The position of each piece of strapping is shown on Fig 18 by the small finds number which is given in brackets in the inventory.

Inventory (Fig 32)

Burial S86

- (125) The fragment is in two pieces which are broken at both ends. It is c28mm wide and 3mm thick and part of one nail survives. The wood grain runs parallel to the strap. The fragment came from just above the head of the burial.
- (123) The fragment is in two pieces, probably broken at the left end, although the right end appears to be complete. It is c32mm wide, narrowing to the left, and about 2mm thick. An oblong hole in the centre is 30mm long and 10mm wide with a slight metal tongue at its left hand side. There are no signs of nails or wood grain. The fragment was outside the postulated limit of the coffin and may thus not be associated, but it could be some form of coffin fastening involving a hasp and staple.
- (118) A small fragment which is probably complete at the right hand side. It is c27mm wide and 2mm thick and part of one nail survives. The wood grain is parallel to the strap. The piece came from the top right hand corner of the coffin.
- (115) This large fragment was found in three pieces and includes a right angle bend. It is probably broken at both ends and has an average width of 35mm and is 3mm thick. The remains of two nails are present and there are strong indications of wood grain at right angles to the strapping on both sides of the angle. The piece came from the right hand side of the coffin.

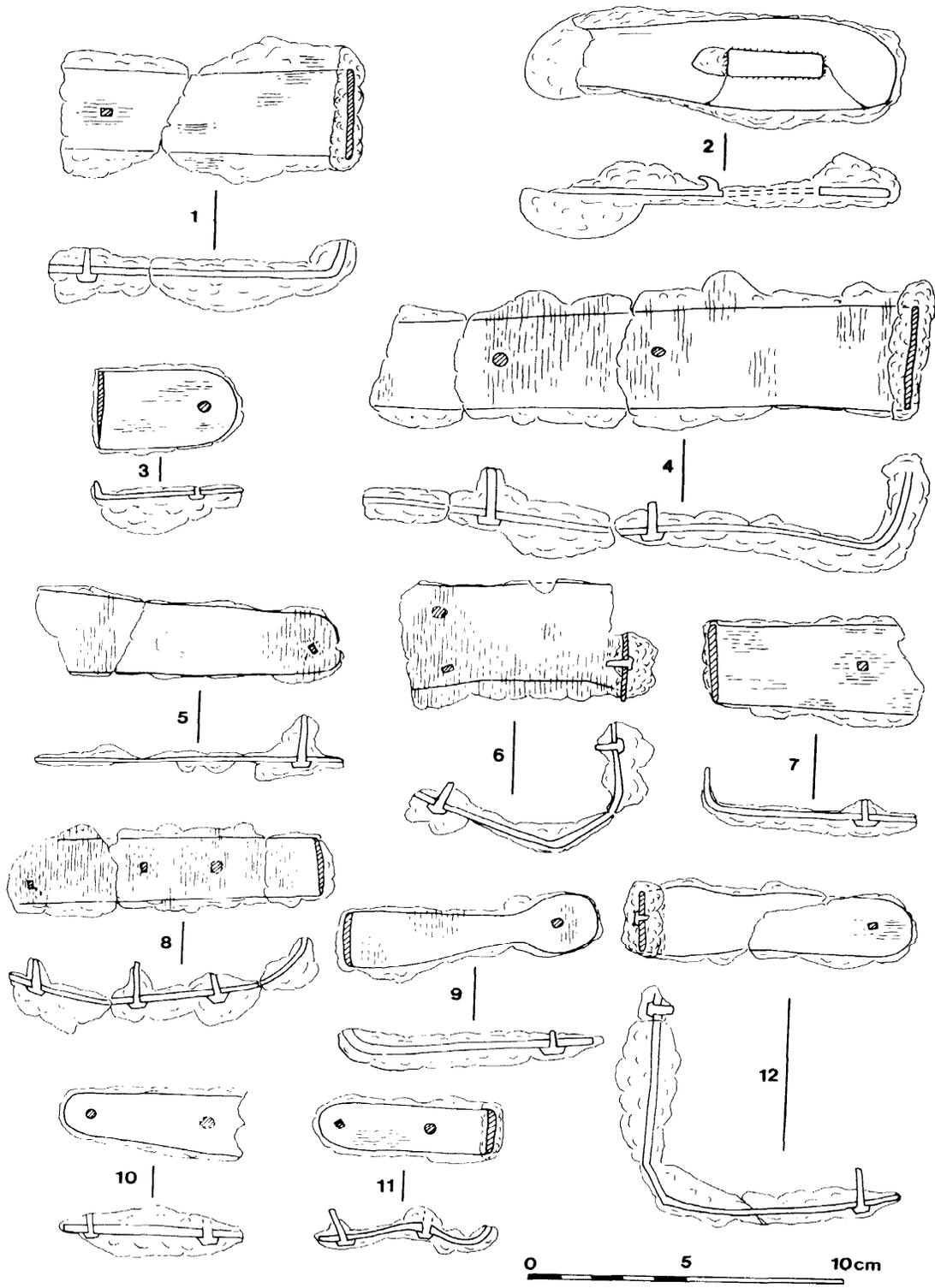


Fig 32 Area 2. Iron strapping for coffins: 1 4, S86, groups 2; 5 8, S87, group 2; 9 12, from soil layers

The following fragments of strapping from S86 are not illustrated:

(105) Many fragments were found which comprise a large piece of angled strapping. One side is c80mm long and 26mm wide, the other c70mm long and 32mm wide. It is c1.5mm thick and has two nails on each side. On both sides of the angle, the grain of the wood is at right angles to the strap. It was found on top of the stone at the right of the skull.

(112) A fragment of strap 35mm wide and 2mm thick, with one nail and the grain across the strap. It was found close to 105.

(114) A small piece of strap 28mm wide and c1.5mm thick, with one nail and grain across the strap. It was found close to 115, but could have been disturbed by F22.

(117) a very small piece of strap found close to 112.

(119) A flat piece of strap 85mm long, 32mm wide and 1.5mm thick, with one nail position. It was found close to 125.

(120) A very small piece of strap found close to one of the head support stones.

(12 1) Several pieces were found forming part of a strap 45mm long, 32mm wide, and 2mm thick. One nail survives and the grain is parallel to the strap. It was close to 112.

(122 and 124) The two pieces of strap were found to join, making a piece 70mm long, 32mm wide, and 1mm thick. The grain is at right angles to the strap. They were found close together at the upper left hand corner of the coffin.

Burial S87

- 5 (107a) The piece comprises two fragments of strap averaging 22mm wide and 1.5mm thick. The right hand end appears to be complete with a nail hole but the left hand end is broken. Wood grain is at right angles to the strap. It was found half way down the left hand side of the coffin.
- 6 (107b) An angled piece of strap, 33mm wide and c2mm thick with three nails and the grain at right angles to the strap. Found next to 107a.
- 7 (113) An angled piece of strap with one nail. It is 30mm wide and 1.5mm thick with the grain parallel to the strap. The position is not recorded.
- 8 (126) An angled piece of strap, 22mm wide and 2mm thick, with three nail positions. The wood grain is at right angles to the strap. It was found at the left hand side of the coffin close to, but under, the grave cut for S74.

The following fragments from S87 are not illustrated:

(108) Many small fragments of strapping, all disturbed by F22.

(110) A small piece of strap 30mm wide, without grain, found near 126.

(111) A very small fragment of strap found close to 110.

Other strapping

- 9 A strap, broken at the angle but otherwise complete and shaped at the right hand side where there is one nail position. The strap is up to 18mm wide and 3mm thick with wood grain at right angles. It may not be associated with the burials (Trench 3, period 2a, L27).

10 An end piece of strap with two nails. It averages 18mm wide and c2mm thick (L36).

11 An end piece similar to 10 but more bent. It is 16mm wide and 2.5mm thick with grain parallel to strap (L36).

12 An angled strip found in three pieces. It is 22mm wide and 3mm thick with the grain at right angles to the strap and has two nail positions (L14).

Discussion

The strapping shows the grain in the wood but none of the pieces give any indication of the thicknesses of the planks used. The longest piece of strapping is about 80mm long on each side of the angle and each half contains two small nails. The strapping occurs in two width groups in each burial: in S86, the narrow strapping is 26 to 28mm wide and the broad 30 to 33mm; in S87 the narrow is 22mm and the broad 30 to 33mm. The straps were apparently narrower on one side of the angle than on the other. The thickness varies from 1.5 to 3mm and none of the nails used is longer than 20mm.

The direction of the wood grain shows that the straps were used both for fastening the sides of the coffins together, where the grain is at right angles to the strapping, and for fastening the ends of the coffin to the sides, where in some cases the grain runs parallel to the strapping. Some of the straps have a waist (no 9) and others have shaped ends (nos 3 and 5) so the total effect was decorative rather than simply utilitarian. One piece (no 2) was probably part of a hasp and staple or some similar arrangement for closing the coffin. There were no traces of hinges but these could have been made of leather. In S86 most of the pieces of strapping were found close to the head of the coffin which may reflect the extra weight at this end, caused by the head support stones. In S87 most of the strapping was found down the relatively undisturbed left hand side of the coffin and the end pieces were probably fixed in place using nails.

The pieces of strapping which are illustrated but do not have a firm burial context (nos 9-12) tend to be narrower than those of S86 and S87. They indicate that there were probably other burials which made use of this method of fastening coffins.

Summary

Burials in coffins are a feature of groups 2, 3, and 4 and were often associated with a layer of charcoal in the grave. They also tend to be associated with interments where stones were placed at either side of the head. Twelve of the 61 reasonably complete burials were in coffins and of these twelve, six had a layer of charcoal in the grave and three had head support stones.

The coffins were usually made using nails but in two cases iron strapping, which was apparently a decorative feature, was used. In all the examples where the coffin shape could be established it was straight-sided and, in the case of adults, about 0.4m wide. All the coffin burials except S80, which was a juvenile, and possibly F12, were adult. There were two male and two female interments identified. It is suggested later (p 51) that in some cases a bier was used, on which the body was lowered into the ground, rather than a complete, sealed coffin.

Charcoal associated with burial groups 2 and 4

by Carole A Keepax

Samples of the charcoal found with the grave cuts of all the group 2 and 4 burials were examined and the results are shown in Table 5.

Table 5
Charcoal identifications

Group	Burial	Description
2	S74	All Oak (<i>Quercus</i> sp.) from fairly large timbers.
2	S76	All Oak from fairly large timbers Several fragments of heartwood display holes about 1mm in diameter caused by a wood-boring insect prior to burning.
2	S86	All Oak from fairly large timbers.
2	S87	All Oak from fairly large timbers.
4	S46	All Oak from fairly large timbers.
4	S68	Mainly Oak with several fragments resembling bark
4	S80	Mainly Oak with some fragments which are probably bark, but also a few fragments of <i>Acer</i> sp (probably Maple). All are from fairly large timbers
4	F12	All Oak from fairly large timbers.

Radiocarbon dates

Table 6 summarizes the radiocarbon dates obtained from Castle Green.

The Age BP used is the conventional radiocarbon age of the sample based on the old (W F Libby) value of 5570 years for the half-life. Stable isotope corrections are taken into account in calculating the Age BP but no consideration has been taken of bristlecone pine corrections to adjust the Age BP closer to the true calendar age. Most of the calibration curves suggest that such a correction, during the Saxon and early medieval periods, is quite small and of the order often to fifteen years (Information R L, Otlet).

Dates are given as BP 1950 because they are the standard date used by the publishers of Radiocarbon. They are recorded as dates ad, using lower case characters, to emphasize that no corrections have been applied to adjust the result nearer to the true calendar date. The accuracy of the measurement is expressed as one standard deviation and is the error inherent to the measurement process. This means that 68% of all identical samples are expected to give results within the limits quoted and that 95% are expected to give results within two standard deviations. It does not allow for any contamination of the sample or any judgement based on archaeological information.

The most recent value of the half-life is 5730±40 years and a correction allowing for this is obtained by multiplying

Table 6
Radiocarbon dates

Number (S number in text)	Group	Material	Age BP	BP-1950	Date adjusted for more recent half life value	Harwell Reference	Notes
85		Bone	1250±70	ad 700±70	AD 663±70	985	
74	2	Charcoal	1030±80	ad 920±80	AD 890±80	414	
83	3	Bone	1020±70	ad 930±70	AD 900±70	1875	
82	3	Bone				1625	Replaced HAR1625 below Sample too small and replaced by HAR1875 above
46	4	Bone	890±80	ad 1060±80	AD 1033±80	986	
80	4	Charcoal	960±70	ad 990±70	AD 960±70	413	
10	6	Bone	820±70	ad 1130±70	AD 1106±70	988	

the Age BP by 1.03. This produces a date nearer to the true calendar date and is shown in the table and used in the text. Such dates are identified by the prefix AD in italic capitals.

Charcoal and bone samples from Castle Green were used for radiocarbon determinations. It has been shown that the charcoal, used for the S74 and S80 measurements, came from fairly large timbers. The samples were not deliberately chosen to represent either the inner or the outer parts of the timbers and must therefore be considered as a mixture of the two. The radiocarbon dates obtained are thus somewhere between the dates at which the earliest trees used started to grow and the dates when they were cut down. There was no evidence to show that the timbers were in use between the date of felling and the date that they were burnt and the presence of bark in the S80 sample may be considered as evidence that they were not so used, but this is not conclusive and the possibility exists. Both these factors may have affected the samples and thus the two dates obtained for S74 and S80 are likely to be earlier than the date of burial.

The human bone, used for the remaining samples, should be more reliable. Although a greater weight of bone is required, as compared with charcoal, and more laboratory preparation is necessary, the date obtained should be that of the death of the individual concerned.

The skeletal remains

by Justine Bayley

Sixty-two articulated skeletons and twenty-one non-articulated bone groups were examined. A scatter of miscellaneous bones from various layers on the site was also examined. They presumably came from disturbed graves and could therefore be further parts of individuals already examined. Some of the bones, particularly those from charcoal burials, were in a poor state of preservation, but the majority were in fair state, although rather fragmentary and with varying amounts of surface erosion. Most of the non-articulated bone groups contained the remains of more than one individual although some are only represented by one or two bones. The details of the articulated burials and bone groups are set out in Table 7 (pp 40-41).

The individuals represented by the articulated skeletons and those represented by the bone groups have been combined for analysis as the two groups are very similar in their composition and a larger population can thus be considered. Variations of both sex distribution and group distribution with age at death have been considered (Figs 33 and 34).

Table 7

The skeletal remains from the 1973 Castle Green excavation

Number (S number in text)	Group	Number of individuals	Height above or (-) below natural (metres)	Conditions of bones			Amount of skeleton	Age at death (years)	Sex	Stature (metres)	Type of burial	Notes
				A-articulated a-good b-medium c-poor	A-complete B-more than 1/2 C-less than 1/2 D-fragments							
1	7	1	0.50		c	D	1/2±1/4	—	—			
2	7	1	0.50	some	A b	C	1 1/2-2	—	—			
3	—	1	0.50		b	D	adult	—	—		Disturbances by S1 and S2	
4	—	1	—		b	D	25-35	F	—		Skull from Trench 2 L 12	
5	5b	1	0.24		A a	B	25-35	F	1.65		Lower legs disturbed	
6	7	1	0.30		b	D	1±1/4	—	—			
7	5c	1	0.21		A a	B	6±1	—	—			
8a	5c	2	—		b	D	8±1	—	—		Bone group	
8b	5c	—	—		b	D	35+	poss M	—			
9	5c	1	—		b	D	adult	—	—			
10	6	1	0.19		A b	B	17-25	F	1.57	stone cist	ad 1130±70	
11	7	1	—		b	D	birth	—	—			
12	7	1	—	some	A a	B	birth	—	—			
13	7	1	—		b	C	1/2?	—	—			
14	5c	1	—		c	D	adult	—	—		Skull & rib fragments	
15	5b	1	0.26	some	A b	D	adult	prob M	1.71			
16	7	1	0.26		A b	B	3/4±1/4	—	—			
17	7	1	0.18		A b	B	birth?	—	—			
18a	—	5	0.24-0.15		b	D	5-10	—	—		Bone group probably associated with the burial of S25	
18b	—	—	—		—	—	adult	poss F	—			
18c	—	—	—		—	—	adult	F	—			
18d	—	—	—		—	—	adult	M	—			
18e	—	—	—		—	—	35-45?	M	—			
19	—	1	—		b	D	35-45	—	—		Mandible only	
20	7	1	0.24		A b	B	3/4±1/4	—	—			
21a	5a	2	0.21	some	A b	D	20-25	—	—		Disturbed group of bones with some evidence of articulation	
21b	—	—	—		—	—	2-7	—	—		Cut by section	
22	5c	1	0.20		A a	C	25-35	—	—		Bone group possibly associated with S15	
23a	5b	2	0.15		b	D	adult	M	—		Cut by F14	
23b	—	—	—		—	—	old	M	—		Associated with group S18	
24	5b	1	-0.06		A a	B	19-23	poss M	—		Skull and feet cut away	
25	7	1	0.24		A a	A	2±1/2	—	—		Bone group in section C-A	
26	5b	1	0		A a	B	30-35	M	1.79			
27	5b	1	0.07		b	D	35-45	M	—			
28	5a	1	0.05		A b	A	18-20	—	—			
29	5b	1	-0.02		A a	C	?30s	prob M	1.79		Cut by F14	
30	5b	1	-0.06		A a	B	27-30	M	1.75		Cut by F14	
31	5b	1	0.08	some	A b	D	adult	—	—		Bone group from S26 or 45	
32a	—	4	—	some	A b	D	adult	poss F	—		Bones found in machine clearance of L14 in Trench 3	
32b	—	—	—		—	—	adult	—	—			
32c	—	—	—		—	—	7-10	—	—			
32d	—	—	—		—	—	4±1	—	—			
33	5b	1	—		A b	C	17-25	M	1.73		Isolated S of building	
34	7	1	0.26		A b	B	birth	—	—			
35	5a	1	0.15		A a	B	45-50	M	1.75	Stones at head	Cut by F14	
36	7?	1	—		A c	C	1±1/2	—	—		Not planned	
37	—	1	—	some	A b	D	8±1	—	—			
38	5c	1	0.21		A b	C	20-25?	—	—		Legs only	
39	5b	1	0.1	some	A b	D	35-45	M	—			
40	5b	1	0.11		A c	B	birth	—	—			
41	—	1	—	some	A b	D	25-35	prob F	—		Skull and associated bone	
42	—	—	—	—	—	—	—	—	—		Infant burial vandalized	
43	5b	1	0.01		A b	B	6±1	—	—			

Table 7 continued

Number (S number in text)	Group	Number of individuals	Height above or (-) below natural (metres)	Conditions of bones			Age at death (years)	Sex	Stature (metres)	Type of burial	Notes
				A-articulated a-good b-medium c-poor	A-complete B-more than 1/2 C-less than 1/2 D-fragments						
44	5a	1	-0.25	A b	B	6±1	—	—			
45a	5b	3	—	A b	C	15-20	prob M	—			
45b				b	D	20-35?	F	—		Cut by F14 and further damaged by vandals	
45c				b	D	30+	prob M	—		overrught	
46	4	1	-0.34	A c	A	17-25	—	—	Charcoal/coffin	ad 1060±80	
47	5a	1	-0.20	A b	C	18-20	prob F	—		Part removed by F14	
48	—	1	—	b	D	25-35	—	—		Mandible only	
49a	—	2	—	b	D	20s	prob F	—		Bone group	
49b						adult	—	—			
50	5a	1	—	A b	C	20-30?	F	—		Isolated S of building	
51	—	1	—	A b	C	12-15	—	—		Disturbed by vandals	
52a	—	6	—	— b	D	adult	M	—		Located by contractors	
52b						adult	prob F	—		in work on river bank to N W of area 2	
52c						adult	M	—		Mainly skulls	
52d						adult	—	—			
52e						17-25	—	—			
52f						6±1	—	—			
53	—	1	—	b	D	old	prob M	—		Skull only	
54	—	1	—	b	D	35-45	poss M	—		Skull & fragments	
55	—	—	—			—	—	—		Infant burial vandalized	
56	5a	1	-0.20	A a	B	30-35	M	1.76		Cut by F14	
57	—	—	—			—	—	—		Vandalized—feet only	
58	5a	1	—	A a	C	18-21	M	1.68		Cut by section	
59	—	—	—			—	—	—		Part of S61 (S59 not used)	
60	5b	1	-0.02	A a	C	20-25	prob F	—	Coffin	Part in section	
61	5a	1	-0.02	some A a	C	35-40	M	—		Includes S59. In section	
62	3	1	-0.62	some A b	B	2±1/2	—	—	Child & adult	Found with S63	
63	3	1	-0.60	A a	B	25-35	F	1.76	Coffin	With S62. Cut by section	
64	5a	1	-0.30	A a	C	35-40	prob M	1.80		Cut by F14	
65	5a	1	-0.28	A b	C	35+?	poss M	—		Cut by F14	
66	3	1	-0.54	A a	A	25-35	?	—	Coffin		
67a	—	2	c-0.15	some A b	D	adult	poss F	—		Bone group with some sign of articulation	
67b						juvenile	—	—			
68	4	1	-0.50	A c	B	infant	—	—	Charcoal		
69	—	1	—	some A b	C	35-40	prob M	1.74		Not planned by error	
70	5a	1	-0.22	A a	B	20-25	F	1.68			
71	1	1	-0.34	A a	C	35-45	M	—			
72	—	1	—	some A b	C	1/2-3/4	—	—		Skull and fragments	
73	5a	1	-0.09	A c	C	adult?	—	—		Cut by section	
74	2	1	-0.55	A c	C	17-25	—	—	Charcoal/coffin	ad 920±80: headstones	
75	—	1	-0.88	b	D	adult	prob M	—		Skull with burial S76	
76	2	1	-0.88	A a	A	20-25	F	1.57	Charcoal	Includes skulls S75 & S77	
77	—	1	-0.88	b	D	17-25	M	—		Skull with burial S76	
78	—	1	-0.60	some A b	C	adult	M	1.89		Cut by sections; by S80	
79	—	1	-0.60	b	D	?young	—	—		Skull frags	
80	4	1	-0.77	A c	A	juvenile	—	—	Charcoal/coffin	ad 990±70	
81	3	1	-0.59	A a	B	adult	M	1.74	Coffin		
82	3	1	-0.97	A b	C	adult	—	—	Coffin		
83	3	1	-0.92	A a	A	17-25	prob F	1.64	Coffin	ad 930±70	
84	1	1	-0.82	A b	C	4±2	—	—		Only part excavated	
85	1	1	-0.88	A b	C	adult?	prob M	—		ad 700±70; part excavated	
86	2	1	-0.81	A c	C	13-16	—	—	Coffin/charcoal		
87	2	1	-0.78	A c	B	17-25?	prob M	1.80	Coffin/charcoal		

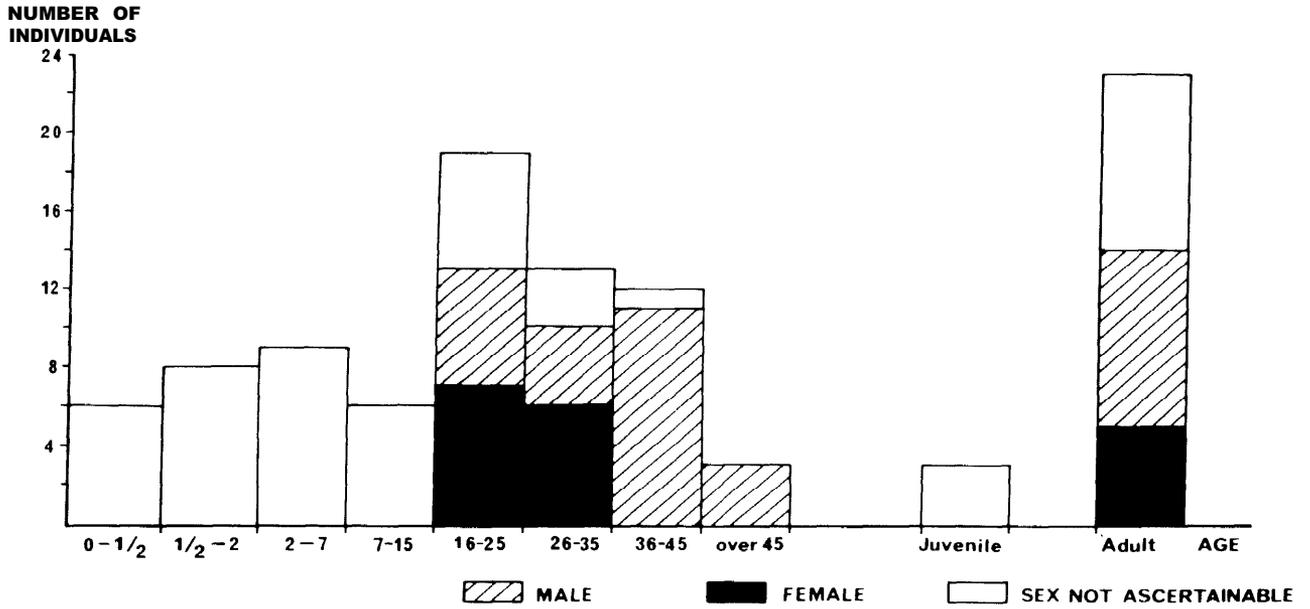


Fig 33 Area 2. Age at death related to sex

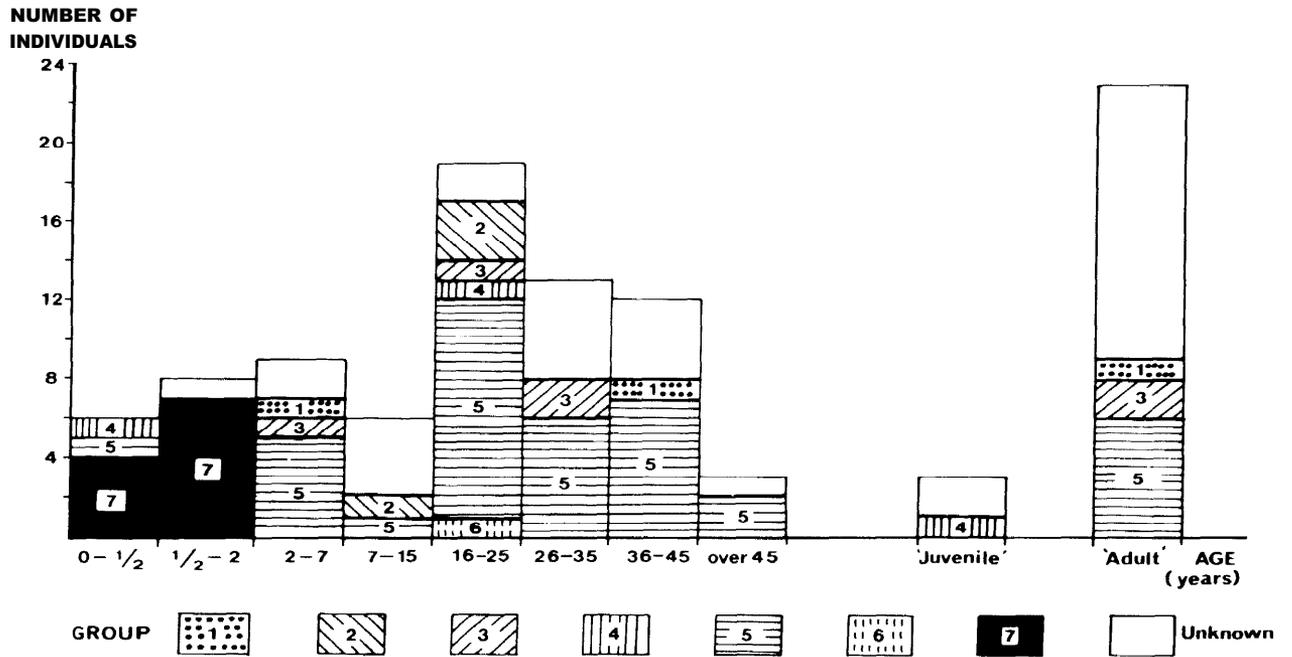


Fig 34 Area 2. Age at death related to burial group

Sexing

Because of the fragmentary nature of the remains it was not always easy to make a definite sexing. The most useful parts of the skeleton are the skull and pelvis but when these are missing an estimate can be made, based on the general robustness of the other bones. On Castle Green all the adults were fairly large and well-built so this criterion was harder to apply. As a result some of the skeletons described as probably male may in fact be the larger and more robust females.

Age at death

Ageing for those individuals under twenty was based on epiphyseal fusion and tooth eruption, and for older individuals on dental wear and the appearance of the pubic symphysis (Brothwell 1972).

From the small sample it would seem that the males tended to live longer than the females. There is also an apparent male to female ratio of 2: 1, but see the comments above. The juveniles and infants formed nearly one third of the population and most of these died as infants (23 under 7 years old as compared with 6 between the ages of 7 and 15).

The archaeological evidence shows that most of the infant burials were late in the use of the site but the other age ranges are equally represented in all groups.

Stature

The male-female divide is quite marked in the chart of stature distribution (Fig 35), reinforcing the view that the larger and more robust females may have been misclassified as male. This will have accentuated the bimodal form of Fig 35, as Trotter and Gleser's stature formulae give taller heights for males than females with the same long bone measurements (Trotter & Gleser 1958).

The 'charcoal' burials (Groups 2 and 4)

These seven burials were a mixed group with one infant, two juveniles, and five adults. Sexing was difficult because of poor preservation, but S76 was female and S87 probably male. Those adults for whom an age estimate could be made were all under 25 years old. Burials S80 and S76 contained other bones besides the main burial.

In general the bones from the 'charcoal' burials were more poorly preserved than for the site as a whole and some of the bones were very severely eroded.

Skeletal abnormalities

Burial S50 has two congenitally fused lower thoracic vertebrae. S56 has six sacral vertebrae (instead of the usual five) and in S5 and S58 the fifth lumbar vertebra is partly sacralized. S45c has only four sacral vertebrae. Burials S24, S50, and S61 all show Schmorl's nodes in the thoracic and lumbar vertebrae. These are due to a normal but genetically linked degenerative change of the intervertebral disc material.

The skulls of S74 and S75 have unfused metopic sutures and those of S7 and S45a have wormian bones in the lambdoid suture. S60 has perforate coronoid fossae in both humeri.

Burial S5 has the lower lateral premolars congenitally absent. The corresponding milk teeth were, however, lost ante mortem. In S76 the lower left third molar is impacted and the lower left canine malpositioned.

Pathology

There is evidence of degenerative joint disease (osteo-arthritis) in most of the older individuals, with bony lipping of the vertebrae and long bone articulations.

Two individuals (S26 and S87) show clear evidence of a chronic arthritis of the spine with several of the vertebral bodies fused giving the 'poker spine' which is characteristic

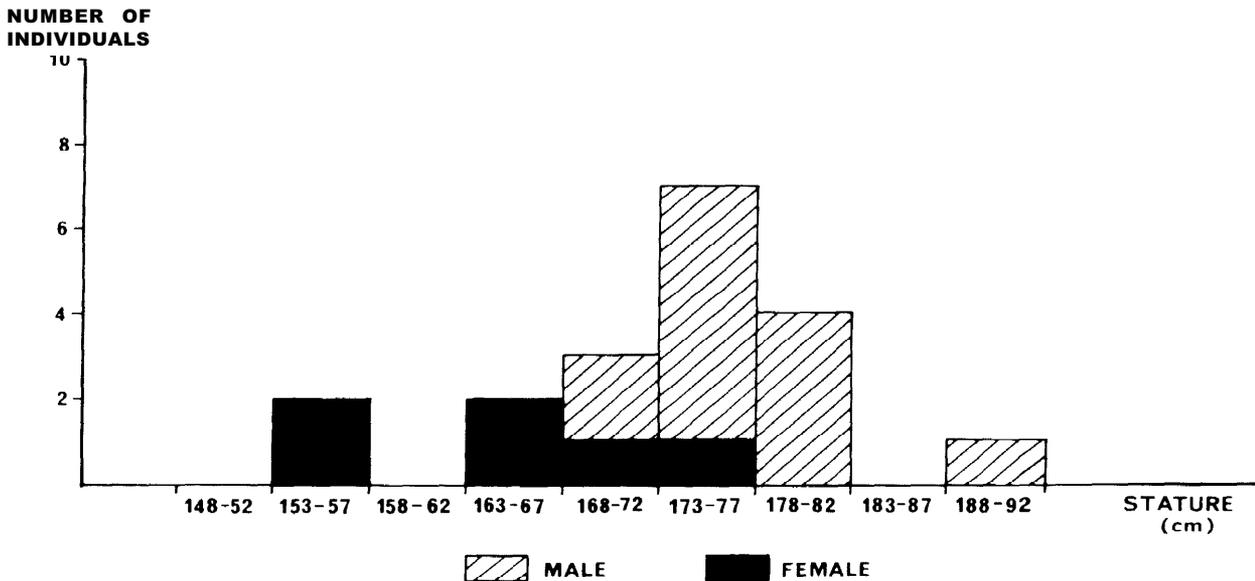


Fig 35 Area 2. Stature of individuals

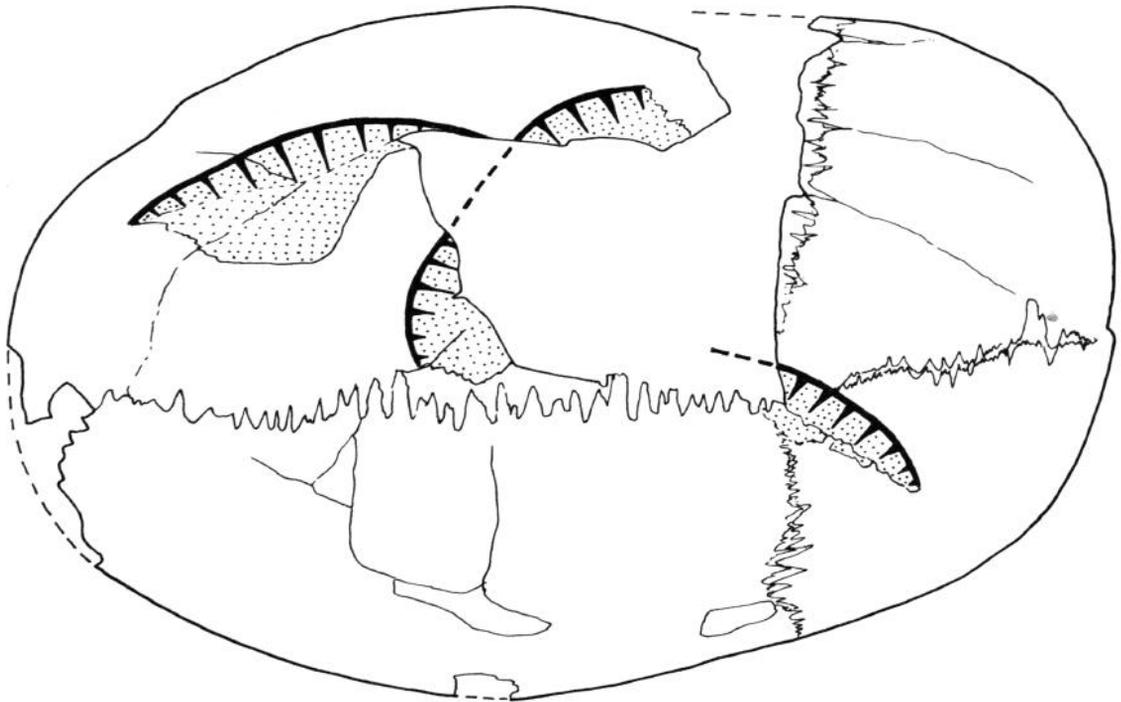
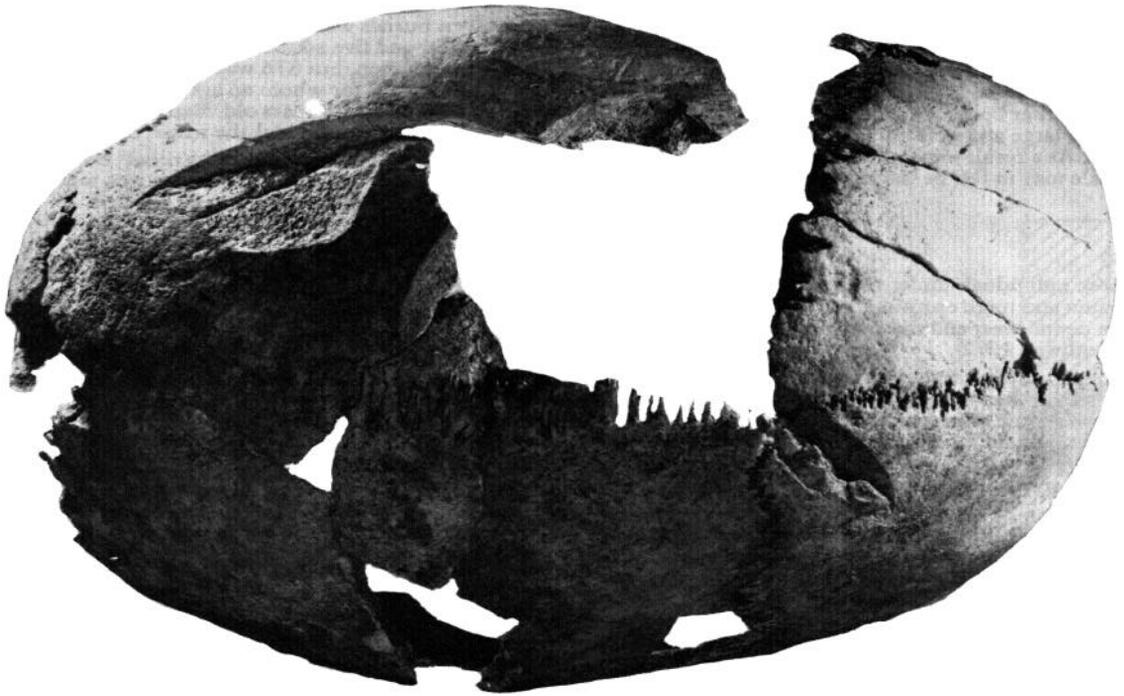


Fig 36 Skull from L17, Trench 2, showing cuts caused by a sword or similar weapon

of the later stages of such diseases. In S26 four lumbar vertebrae are fused, the extra bone extending from the ventral to lateral parts of the bodies. In S87 seven thoracic vertebrae are fused with a single band of extra bone extending down the right lateral side of the vertebral column. A third individual, S69, may also have been affected but only a few fragmentary vertebrae remain.

S81 also shows what may be a chronic arthritis of the spine but, instead of the usual ankylosis (fusion) of the vertebral bodies, it is the neural arches that are fused.

S85 shows extensive periosteitis on the pelvis, femora, and distal parts of the arms. This widespread infection could not be trauma induced and so indicates a generalized infection of some sort.

Burial S78 shows widespread bone changes which Dr J L Price describes as follows: 'There is trabecular thickening and widening of the cortex of the femur which has a spongy appearance, and the changes are suggestive of Paget's disease. This is supported by the presence of similar changes in a rib. The distribution of changes is unlike that of mixed metastatic deposits.'

Among the miscellaneous bones are two femora showing abnormal bone deposits. The first, from L36, was also described by Dr Price: 'There are irregular erosive cortical changes on the lower lateral margin of the femur. There is some reactive sclerosis present. The changes are probably inflective and could result from soft tissue infection rather than primary bone infection.' The other, from L37, shows extra bone laid down on the surface along the linea aspera and on the lower side of the femoral neck. The femoral head shows some osteo-arthritic lipping so these extra bone deposits may also be degenerative changes, although not of a normal type.

Dental pathology

In general the teeth are in a good state of preservation with few caries or abscesses, although most of them show a fair amount of wear. Calculus deposits vary from slight to severe.

Trauma

A left femur associated with S5 has an ossified haematoma on the medio-ventral side about half way down the shaft.

S66 has a fractured rib which had mended several years ante mortem.

A skull from L17 (Trench 2) shows clear evidence of having been attacked with a sharp cutting instrument such as a sword (Fig 36). There is no apparent healing of the injuries which suggests that they were inflicted immediately prior to death. There are at least three distinct cuts.

The 1960 excavation-a reassessment

Introduction

In 1960, the Woolhope Naturalists' Field Club sponsored a small excavation on Castle Green under the direction of F G Heys MA (Heys 1960). The main aim of the excavation was to examine an E-W oriented building, thought to be a church, which had been indicated by parched grass marks (Watkins 1933) (Fig 2). The excavation only lasted for a week and was limited in area. It comprised a trench 9.1 m long and 1 m wide across the eastern end of the nave, and a 3m square, separated from the trench by a

0.6m baulk, which uncovered part of the northern wall of the chancel and its junction with the nave (Fig 4).

Summary of the excavation

Ten burials were found earlier than the stone building foundations. Burials 1-5 were situated south of the south wall of the nave and were stratigraphically related to each other; 6 was under the junction of the east and north walls of the nave; 7 and 8 lay north of the north wall of the chancel; and 9 and 10 were within the chancel area. The lowest burials, 1, 4, 9, and 10, lay in shallow depressions in the natural red gravel. All the burials were E-W aligned and in most cases only portions were exposed in the trenches. Burials 2, 4, 6, 7, and 10 were lying on what appeared to be pure charcoal layers. Pieces of iron strapping were found associated with burial 4. All the skeletons were adult males. The details are set out in Table 8.

The wall foundations had an average width of 1.1m and consisted of a firm base, 0.5m thick, of closely packed stones often more than 0.25m square with a gravel filling topped by a layer, 0.6m thick, of smaller stones and much mortar.

The foundation was shallow near the NE corner of the nave where it crossed burial 6. The chancel wall and east wall of the nave were of the same build and were well bonded. There was no evidence of subsequent alterations or additions to the foundations. A large stone block, which was mortared to the inner side of the chancel wall, 2.1m from the east wall of the nave, had a roughly worked surface. There was no other indication of a floor level within the building. Holes, which contained plaster and mortar fragments and were thought to be for scaffolding poles, were found inside the nave, 0.6m from the north and south walls. Traces of construction trenches for the walls were seen at various places. Parts of thirteen burials were found which were associated with the building, and of these all but two were infant or young. The two exceptions, 21 and 22, were fragmentary. Four of the infant burials were in stone-lined graves, three consisting of slabs and the fourth, 17, comprising a small wall of flat sandstones in the angle between the nave and chancel. A sherd of fabric G1, thought at the time of excavation to be 13th century, was found in the fill of burial 18, a young interment disturbed by the construction of the stone-lined grave 17. The destruction layers above the foundations contained pottery sherds of 12th century and later date. Burial 24, within the chancel, had the area of head and shoulders packed with clay.

Summary of the conclusions

The author considered that the pre-building graveyard was of Anglo-Saxon or early post-Conquest date and suggested that, because the burials were all male and some in the prime of life, they should be associated with Ralph's castle rather than St Guthlac's collegiate church. He thus assumed that these burials took place during the middle of the 11th century. He also decided that the charcoal layers underneath some of the burials were the carbonized remains of the undersides of the coffins.

On documentary evidence and the character of the foundations and the plan of the building, Heys considered that the church was Norman and assigned a date in the mid 12th century for its construction. He assumed, tentatively, that the building was the mother church of St. Guthlac. On documentary evidence he assumed that the church was pulled down soon after AD 1630, but could not demonstrate this by archaeological methods. He considered that three of the burials, 23, 24, and 25, were not more than 200 years old and therefore could have been from the nearby General Hospital.

Problems of interpretation in light of the 1973 excavation

The burials earlier than the stone building foundations have a similar stratigraphic sequence to those of groups 1, 2, 4, and 5 in the 1973 excavation. The burials on 'pure charcoal layers' can be equated with those of group 2 or group 4 and this is confirmed by the presence of strapping, associated with burial 4, which is identical to that found in two burials of group 2. The main difference is that the burials from the 1960 excavation were much shallower than those of similar type found in 1973. Considering groups 1, 2, and 4 only, the average depth below the level of natural gravel for the burials found in 1973 was 0.61m but for the seven burials in these groups found in 1960 the average depth was only 0.01 m. It is very unlikely that two collections of burials of similar type and date, within the same general area, would have been buried at such widely different depths.

The arrangement of the early burials within the excavated area is significant. Five of the burials were found in the 1.4m width, excavated south of the south wall of the stone church. There was then a distance without burial of some 6m to the north before three other burials were found, under or close to the north walls of the nave and chancel. The remaining two burials were within the chancel. Heys mentions the problem of this disposition and suggests that the stone foundations could have entirely obliterated the less substantial remains of an earlier structure. This may not have been the case as it is possible that the 'scaffold holes' within the nave were wrongly interpreted. They are not described in detail, but two are apparently shown on the drawn section of the west face of the trench which crossed the nave. The upper levels have been lost in both cases but the diameters are of the order of 0.25m and the surviving depth is 0.4m. The width of the trench in which these postholes were seen was only 0.5m and it would seem quite possible that they could have belonged to an earlier building. If they were the postholes for an earlier building, its width would have been about 5m and the two rows of posts would then have aligned with the centres of the north and south chancel walls of the stone church. All the early burials, with the possible exception of the two found inside the chancel, would have been exterior to this narrow timber building.

It should be emphasized that there was no direct dating evidence for any phase in the 1960 excavation, with the exception of one sherd of pottery in burial 18. This was thought to be of 13th century date but is now known to be earlier. It indicates that burial 18 is probably of mid 10th century date or later.

There were no post-medieval burials found in the 1973 excavation and it is questionable that three burials should have been assigned to this period in 1960. Burials 23 and 25 consist of isolated skulls at a high level, and are most likely to be parts of disturbed earlier burials. Burial 24, within the chancel, is the only example of a 'pillow' burial found on the Castle Green. It is described as being within the destruction levels, but this area is also noted as being disturbed to below the floor level of the stone building. The type of burial is one which would normally be associated with the medieval period.

The proposed sequence

An attempt is made in this section to relate the 1960 excavation to the periods and burial groups used as a basis for the 1973 report. There are two new types of burial which are indexed as groups 8 and 9.

Periods 1a, 1b, and early 1c— The timber church and burial groups 1, 2, 4, and 5

It is postulated that an artificial platform was constructed on which was built a timber building, possibly of posthole construction, and that the ten early burials were associated with this structure. The remains of the platform are evident on the drawn section through the nave as a 0.45m thick layer of stony red clay topped by a similar thickness of brown soil. These layers are evidently earlier than the stone building because the foundations cut through them. They would have comprised a platform almost 1m in thickness. The postholes found within the nave of the stone church cut through the brown soil layer and, if it is accepted that they represent a timber building, then it would also have stood on top of the platform. The northern and southern limits of this building are fixed, with a width of about 5m, but the western end was unexcavated and the eastern end could have been under the division between the stone nave and chancel, or further east and again outside the excavated area. The platform would have had to be substantially larger than the building which occupied it, and the burials of groups 1, 2, 4, and 5, close to the building, could then have been buried at a sufficient depth with hardly any disturbance to the natural gravel. The disposition of the burials to the north and south of the postulated timber building suggests that interments were not normally accepted inside, although the two burials found within the stone chancel could have been inside the earlier building.

The timber building need not have been a church, but its relationship to the burials and to the stone church, together with the elevated position, gives considerable weight to this hypothesis. Ten burials of groups 1, 2, 4, and 5, were found associated with the timber building (Table 8). All were adult and probably male. There were no burials of group 3, which was only present in a limited area in the 1973 excavation and may thus be an uncommon type, with no examples at all amongst the small sample examined in 1960.

period late 1c— The stone church and burial groups 7, 8, and 9

The timber building was replaced in stone to a slightly larger scale. At least eleven burials were associated with the new structure.

The stone building, which comprised nave and chancel, had been destroyed to below the floor level except for a large stone in the chancel which may have been a footing for a step leading to the sanctuary. The nave was 5.9m wide and parching of the grass suggests that the length was about 8.2m. The chancel was 3.5m wide and 5.2m long with possibly a semicircular apse at the eastern end.

The eleven burials found close to the outside of the nave and chancel walls were all infants or small children. Two different interment techniques were used; most were simple burials, similar to group 7, but four were in stone cists and are catalogued as group 8. Fragments of several adults, thought by the excavator to be associated with the stone building or later, were probably disturbed burials of-period 1. One burial, 24, which was found in the chancel, had the area of the head and shoulders packed with clay. It is described as a 'pillow' burial and is the isolated member of group 9.

The burial groups

The burials from the 1960 excavation are described in the 1973 grouping and are prefixed by 60/ in the following comments and in Table 8 to avoid confusion. For

Table 8

Skeletal remains from the 1960 Castle Green excavation

Number	Group	Height above or () below natural (metres)	Amount of skeleton A-complete B-more than 1/2 C-less than 1/2 D-fragments	Age at death (years)	Sex	Type of burial	Notes
60/1	1	0.15	C	Adult	M		Under 60/2
60/2	2 or 4	+0.15	B	16-17	M	Charcoal	
60/3	5	+0.31	B	40	M		Above 60/2
60/4	2	0.23	C	20+	M	Charcoal/coffin	
60/5	5	+0.05	C	18+	?M		
60/6	2 or 4	+0.21	B	25-40	M	Charcoal	Under nave foundations
60/7	2 or 4	+0.15	C	20+	M	Charcoal	Left <i>in situ</i>
60/8	5	+0.21	B	?50	M		Disturbed by chancel construction. Left <i>in situ</i>
60/9	1	c-0.10	B	20+	M		Under nave and chancel foundations
60/10	2 or 4	c-0.10	C	Adult	?	Charcoal	Under nave foundations
60/11	8	+0.26	Not examined	infant	-	Stone slab coffin	Left <i>in situ</i>
60/12	7	+0.15	B	5-7	-		
60/13	8	+0.26	A	1	-	Stone slab coffin	
60/14	7	+0.15	C	4	-		
60/15	7	+0.31	B	2-3	-		
60/16	7	+0.54	B	2-3	-		
60/17	8	+0.26	C	2-3	-	Stone lined grave	Fragment of bronze in ribs Above 60/7 and 60/8
60/18	7	+0.31	C	3-5	-		Contained one sherd of fabric G1. Disturbed by 60/17
60/19	7	+0.54	C	1 1/2-2	-		Disturbed by 60/17
60/20	8	+0.54	B	1	-	Stone slab coffin	Left <i>in situ</i>
60/20a	7	+0.43	Not examined	Infant	-		Under 60/20
60/21	?	+0.48	D	25+	?M		Disturbed
60/22	?	+0.54	D	30-40	M		Skull only
60/23	?	+1.02	D	40+	?M		Possibly skull only. Left <i>in situ</i>
60/24	9	-	B	?50-60	M	Pillow burial	In chancel. Area of head and shoulders packed with stone and clay
60/25	?	-	D	Adult	?M		Skull only. Possibly Paget's disease

convenience their position is described relative to the stone church. There are no burials of groups 3 or 6 and the burials of-groups 2 and 4 are considered together'

Group 1 — Simple burials

[60/1, 60/9-]

Burial 60/1 was south of the nave in a shallow depression in the natural gravel and was stratigraphically earlier than the group 2/4 burial 60/4. Burial 60/9 was in the north-western corner of the chancel at a similar depth but was disturbed by the walls of both the nave and chancel. There were no traces of coffins and the remains comprised two adult males.

Groups 2 and 4 — 'Charcoal' burials

[60/2, 60/4, 60/6, 60/7, 60/10]

The five burials were all on beds of charcoal but only one, 60/4, included iron strapping indicative of a coffin. They could be either of group 2 or of group 4. Burials 60/2 and 60/4 were south of the nave; burial 60/6 was partly underneath the north wall of the nave; burial 60/7 was north of the chancel and burial 60/10 was within the chancel, partly sealed by the foundations separating the nave and chancel. The burials were all male adults, although 60/2 was only 16 - 17 years old.

Group 5 — Late 'simple burials

[60/3, 60/5, 60/8]

Burials 60/3 and 60/5 were both south of the nave wall, within graves which were partly cut by the foundation trench for the wall. Burial 60/8 was north of the north wall of the chancel. They were all adult males.

Group 7 — Infant burials

[60/12, 60/14, 60/15, 60/16, 60/18, 60/19, 60/20a]

The infant and small child burials were slightly older than those indexed as group 7 in the 1973 excavation. Four were found south of the nave and three north of the chancel. 60/18 and 60/19 were disturbed by 60/17 of group 8 and 60/20a was underneath 60/20 also of group 8. There was no indication that coffins were used for any of these burials.

Group 8 — Infant cist burials

[60/11, 60/13, 60/17, 60/20]

These four infants, which were among the latest interments on the site, were all buried in stone cists. 60/11 and 60/12 were south of the nave and 60/20 was north of the chancel. These three burials were in cists made of stone slabs set on end with similar slabs laid on top. The most elaborate stone-lined grave was 60/17 where two small walls had been constructed of small flat sandstones in the external angle between the nave and the chancel. The church foundations were used as two other sides of the grave. There were no slabs on top of this grave.

Group 9 — 'Pillow' burials

[60/24]

Burial 60/24 was described as being in the destruction levels within the chancel. It lay across the presumed line of the step leading to the sanctuary. The area of the head and shoulders was packed with stone and clay, acting as a form of pillow. The burial was an elderly male.

Dating

There is no direct dating evidence for the construction of the postulated timber building or the construction and eventual demolition of the stone building. However, a date

range can be established by comparing the associated burials with those from the dated sequence in the 1973 excavation. The character and plan of the stone building may also be used to indicate a date range.

It has already been indicated that, because of the shallow depth of-the interments, burial could not have taken place in the area excavated before the platform for the timber church was built. The earliest burials, those of group 1, have been given a most probable date range, on the 1973 site, of the 7th and 8th centuries. They were followed by group 2 burials probably at some time in the 9th century. Accepting these dates, the earth platform must have been built before the end of the 8th century and presumably the timber church was erected at the same time or possibly slightly later after some consolidation had taken place, but before the area was in general use for burial.

The date of demolition of the timber building and its reconstruction in stone is also uncertain. It is assumed that these two events are contiguous but this may not be so. The burial groups associated with the timber building suggest that it continued in use until the late 'charcoal' burials of group 4 had ceased to be popular and probably until the time when the 'simple' burials of group 5 were fashionable. Using the evidence from the 1973 excavation, a date during the 10th and 11th centuries is indicated for this event, with the greatest probability being during the 11th century.

The dimensions and ground plan of-the stone church, especially if one includes an apsidal east end, are similar to those of the 12th century churches at Kilpeck and Moccas (RCHM 1931, 156 and 204) and the massive nature of the foundations is characteristic of the Norman period. A construction date in the latter half of-the 11th century or possibly early in the 12th would seem to be most probable on the architectural evidence.

The archaeological and architectural evidence taken together indicates that the most probable date for the rebuilding of the church in stone, assuming this was contiguous with the demolition of the original timber building or of any timber replacement, is during the second half of the 11th century.

The stone church, with its apsidal east end, is presumably the one described by Leland (p 5) as the 'chapel of St Cuthebert'. It is apparently the building shown within Castle Green on Speede's map of the early 17th century (Fig 3) although there is no indication of the apse. Foundations may have been visible in 1677 when a plan showing proposed alterations had, at the approximate position of the church, a comment 'if built round for a market granary' (Lloyd 1884, 162). This could refer to the stone church and its apsidal eastern end, presumably then in ruins for such a comment to be made.

Conclusions

The cemetery

Burial methods

Nine different groups of burial have been isolated and an indication of the date range for each has been given in the previous sections. This information is summarized in Table 9.

Table 9
Burial groups

Burial Group	Probable date range	Type	Number of interments			Average **orientation (Fig 37)	Special characteristics
			1960	1973	Total		
1	7th and 8th centuries	simple	2	3	5	80° (est)	Usually in coffins. Head support stones common. The 1973 burials were inside building A.
2	9th to early 10th century	early 'charcoal'	5*	4	9	80°—95°	
3	9th to early 10th century	coffins	—	5	5	90°—100°	Usually in coffins
4	10th and 11th centuries	late 'charcoal'	*	4	4	90°—105°	
5	Late 10th-mid 12th centuries	simple	3	33	36	85°—110°	Burials in three sub-groups in 1973 excavation
6	Late 11th-mid 12th centuries	adult cist	—	1	1	85°	
7	12th century or later	infant	7	13	20	90°—100°	Simple burials Adjoining stone church found in 1960 Head and shoulders packed with clay
8	12th century or later	infant cist	4	—	4	—	
9	12th century or later	'pillow'	1	—	1	—	

from the 1960 excavations are included in group 2 in this table but could be from group 2 or group 4

** The orientation of the burials (Fig 37) was estimated by constructing a line from the centre of the skull to the central point between the feet (Rahtz 1978) or, where the feet were lost, to the central part of the pelvis.

The individual groups have been described in some detail as part of the excavation reports and the burials are considered here in chronological order to demonstrate the gradual changes in burial method and ritual.

The earliest burials, probably during the 7th and 8th centuries, are all simple interments of group 1. They were all in the open and are apparently not directly related to any of the buildings found during the excavation in 1973 although this could not be confirmed. However the burials found in 1960 were associated with an earth platform on which, it is suggested, a timber building stood. The average orientation of the burials in this group is different from the majority on the site, being slightly north of east. There is no evidence to indicate that any form of grave marker was used.

The ritual of burial was of importance during the 9th and 10th centuries. During this period, burials of groups 2, 3, and 4 were present, several in close proximity to the possible timber building of the 1960 excavation and four within building A of the 1973 excavation. Of the eighteen burials in these three groups, twelve were in coffins, four made use of head support stones, and thirteen were associated with charcoal. The charcoal was examined from all of the burials of groups 2 and 4 in the 1973 excavation and in almost every case it was from fairly large timbers of oak and in two cases material resembling bark was also present. The burning took place elsewhere and not in the grave and the amount of charcoal used varied from burial to burial. It has been suggested that the use of charcoal in a grave was to absorb the body fluids and prevent the decaying corpse from smelling (Thompson 1979). This may be applicable for the burials are within a building A but would not be necessary for those outside. Some of the earlier Castle Green 'charcoal' burials are within building A but the later ones are outside or on top of the foundations. It could be argued that the original sanitary use for charcoal was forgotten and the method then became ritualistic, and indeed the evidence from Hereford is apparently in agreement with this theory. However, when the use of charcoal is associated with other burial practices, then one must consider that it may have had a purely ritualistic purpose. The use of charcoal as an absorbent, if the body was buried in a coffin, would only have been effective had it been either inside the coffin or completely surrounding

it. Seven of the thirteen charcoal burials were definitely in coffins, including three of the earlier group 2. Only in one of these coffin burials, S80, was there enough charcoal to have covered the coffin, and this burial was in the open. In several burials, particularly those inside building A, it was apparent that the charcoal comprised a thin layer in the bottom of the grave or along the sides of the coffin but not in close proximity to the body. The evidence from Hereford thus suggests that the use of charcoal during burial was more likely to have been of a ritualistic nature rather than for absorbing smell. The use of charcoal in graves has been noted in several late Saxon and early Norman graveyards throughout the country, notably at Cambridge, Exeter, Gloucester, London, Oxford, Repton, Winchester, Worcester, and York (pers comms).

As previously mentioned, seven of the charcoal burials of groups 2 and 4 were found with traces of coffins. All the burials of group 3 were also apparently in coffins, making a total of twelve. It is possible that some of these apparent coffin burials were of a more simple nature, where the corpse was lowered into the grave on a bier or was contained in a lidless coffin. It has been shown (Shoesmith forthcoming a), in a later context, that in burials without coffins the skeletons tend to be in good condition, but where there are indications of well-built, air-tight coffins, the bones tend to disintegrate to a white powder. It is suggested that in such a sealed environment some form of autolysis occurs between the bones and the body acids causing the former to dissolve. The breakdown of the bone material nearly always occurs at the joints and in the parts of the bones touching the base of the coffin. A similar pattern is apparent with the charcoal burials found in 1973. Those in which coffins are postulated had bones in poor condition (Fig 23) whilst the adult charcoal burial, S76, with no trace of coffin, had bones in good condition (Fig 22). The same was apparently the case for the charcoal burials found in 1960. It should, however, be noted that the two charcoal burials, S74 and F12, where long nails which may be indicative of a bier were found, had bones which had either disappeared or were in poor condition (Fig 19).

The burials of group 3, where many nails were present, had bones which were all in medium or good condition

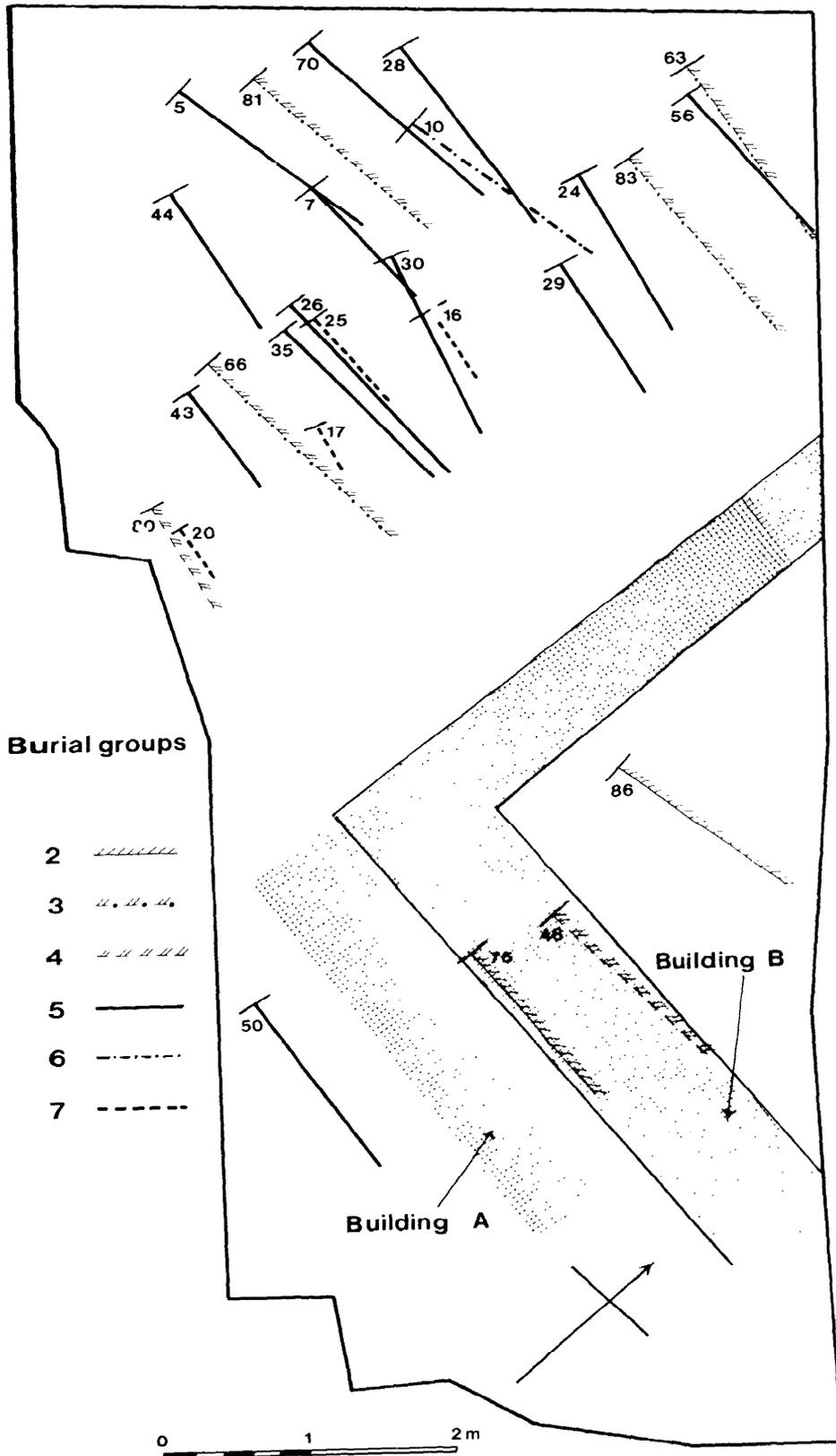


Fig 37 Area 2. Orientations of burial

(Table 7). The available evidence suggests that the wooden structure, of which the nails are only an indication, could not have been an air-tight coffin. It is perhaps more likely that they were open-topped boxes or simple biers. The use of stones associated with the interment, normally to support the head (Fig 18) but occasionally to support the body as well (Fig 19), was noted in five burials, one in group 5 and the remainder in 'charcoal' burials of groups 2 and 4. In three cases the burials were also in coffins or on biers. The stones would have substantially added to the weight of the coffin and may explain why large nails were used, particularly in the case of S74 (Fig 19) where there were many stones.

To summarize, there is evidence to show that burial ritual was important during the 9th and 10th centuries and possibly for some time in the 11th century. The majority of burials were in coffins or on biers, and several had head support stones. Charcoal was used in all the internal burials and some external ones, normally to line the grave after the coffin had been inserted. There were no indications of grave markers except that a slab of stone between S76 and S86, within building A, may have covered an unexcavated burial. However, the burials of group 3 were in rough rows which suggests that either grave markers or the mounds left after the earlier interments were still visible when the later burials were interred. The burials of group 2 were oriented with building A, but those of groups 3 and 4 had an average orientation slightly to the south of east. The new orientation continued in use during the 11th and 12th centuries in both groups 5 and 7 (Fig 37).

From the late 10th century until the graveyard became disused in the mid 12th century the predominant type of burial was the simple one of group 5. Of the 36 burials in this group, only one, S60, was associated with nails indicating a coffin or bier, and only one, S35, used head support stones. However, this latter burial may indicate that a coffin or bier constructed without nails could have been used. It is possible, though not very dignified, to lower a corpse into a grave without the use of a wooden support. To put stones to support the head of such a burial would have involved someone climbing into the grave, on top of the corpse, to position them. This would seem to be an unlikely event during the actual interment ceremony and would hardly be necessary thereafter. One possibility is that the corpse was put in the grave before the ceremony started but it is also possible that this burial, and perhaps others of group 5, was lowered into the grave on a flat platform or bier. The burials which comprise the earlier parts of group 5 were in distinct rows, which aligned with some of the burials in groups 3 and 4 (Figs 7 & 10). It is apparent that some form of grave marker, be it only the grave mound, was visible for some time after each interment to achieve this regularity. There were no signs of any marker in this or any other group; and if they existed they are likely to have been of timber. During the 150 to 200 years encompassed by group 5, the part of the burial group within was totally used at least three times and it was only towards the date of abandonment of the graveyard in the mid 12th century that the alignment of the rows of burial was no longer followed (Fig 37).

Two other adult burials should be considered as being of similar date to the later interments of group 5. These are the cist burial, S10, of group 6 and the 'pillow' burial, 60/24, of group 9. Each one is the sole representative of its group although other cist burials have been noted in the Castle Green area, some of which had cap stones surviving (p 7). The cist burial is a reasonable common late medieval type and two similar burials were found amongst 24 simple ones in a small area of the post AD 1150 St Guthlac's monastic burial ground in Hereford

(Shoosmith forthcoming b). The 'pillow' burial was not in a datable context but others of a similar kind have been found at St Nicholas-in-the-Shambles, London (Thompson 1979), at Bordesley Abbey, Worcestershire (Rahtz & Hirst 1976) and at Rivenhall, Essex (Rodwell & Rodwell 1973). It is possible that this burial is of post 12th century date and thus associated with the stone church which probably remained standing until the 17th century. Both these interments, and probably the majority of those of group 5, were shallow as compared with the burials of groups 1-3 and as compared with most modern burials. The groups 6 and 9 burials may have been carefully laid out in the ground before commencement of any burial ceremony but could have been lowered into the carefully prepared grave. The average orientation of the group 5 burials was slightly south of east, with some rather large variations in the latest burials in the group. The 'pillow' burial of group 9 was approximately in line with the surrounding stone church. The cist burial was oriented slightly north of east.

The sample is too small for any great significance to be attached to the slight changes in orientation recorded between group 2 and the succeeding groups. It has been shown (Rahtz 1978) that many factors, apart from the orientation of the associated church, can affect the orientation of the graves, even in the immediate vicinity of the building. Thus the change in orientation, indicated on Fig 37, between the two rows of burials to the west of buildings A and B may be due to the presence of a path, further buildings, or other unidentified topographical features. S86, within building A, demonstrates that the orientation of an internal burial need not be that of the surrounding building.

The latest burials on both sites were nearly all infants or very small children. Some of them, particularly those of group 8 found associated with the stone church in the 1960 excavation, were buried with some care, but most of the others were in small, shallow graves dug with little or no attempt at regularity and with a wide variety in orientation. There was no conclusive evidence to show that these infant burials were stratigraphically earlier than the occupation of the area as a castle, owing to the total removal of the period 2 layers over a large part of the site by the landscaping works of period 3. It is therefore suggested that the 24 infant interments are an indication of the late use of this consecrated piece of ground for the burial of small, unbaptized children. It could have been a result of the royal licence given in AD 1398 to the Dean and Chapter to enclose the Cathedral cemetery and to keep the gates locked at night. The reasons stated for the measures were the secret burials of unbaptized infants, the mischief done by swine and other animals that dragged the dead bodies from their resting place in the ground . . .' (Capes 1871).

All the burials were in an extended supine position with the head approximately towards the west, with the exception of the child burial S62 found associated with S63. The arms were arranged apparently at random, throughout the various groups. In three burials, S26, S63, and S81, comprising two males and one female, they were extended by the sides of the body, and in the others they were crossed, often asymmetrically but usually with the hands on the pelvis. One male burial, S35, had the arms crossed at the waist.

In approximately one-third of the burials the skull was found in a central position. In others it was looking to the right or to the left. Where stones were used to support the skull it was always central and it would seem likely that the sideways-looking ones are due to movement of the skull after burial.

Age, sex, and stature

The age at death for all the interments is shown in Tables 7 and 8, and is graphically represented by group in Fig 34 and by sex in Fig 33 for the 1973 excavation only. Except for the infant burials of group 7, the groups appear to be equally representative of all age ranges. If one considers the population as a whole, taking the results from both excavations but excluding the infant interments of groups 7 and 8 and other burials aged under 16 years, the average age at death from the 1960 excavation was 31 and from the 1973 excavation 30. For the purposes of calculating the average age at death, the central point of each individual age range is used except for ages given as 'over 45' where an age of 50 is assumed. The calculated figures may be slightly younger than the actual figures because of the large number of adults of uncertain age. The two figures give an average age at death, irrespective of sex, for the whole of the examined population, of 30 years. The graphical representation of the 1973 burials by sex (Fig 33) shows that the males tended to live considerably longer than the females, the two average ages being 34½ years and 24½ years respectively. These ages are quite young, especially as the infant and small child burials have been excluded. They are, however, comparable with the result from Beckery Chapel, Glastonbury, where the burial were considered provisionally to be of middle Saxon date. using a similar calculation to the one above, the average at death was 33 years, the burials all apparently being male (Rahtz & Hirst 1974, 85).

Apart from the late burials of groups 7 and 8, there were only three infant burials (under 2 years old), nine child burials (between 2 and 7 years old), six young burials (between 7 and 15 years old), and three juveniles of uncertain age.

The figures show that a considerable proportion of the deaths in the 'over 16' age bracket were between the ages of 16 and 45. Even if all the individuals classified a 'adult' are considered as being 'over 45', more than 60% of the 'over 16' adult population died by the age of 45. Thus few parents would have lived long enough to see their children grow to maturity and this, as a factor, may have been responsible for further early deaths in the succeeding generation. This is comparable with the average age of death for an upper class adult in the late 17th century which has been calculated as 34.7 years (Glass & Eversley 1965, 359).

In the 1973 excavation, the sex was determined for 48 of the burials. Thirty were probably male and eighteen female but it has been suggested that some of the females are mis-classified as male (p 43). In the 1960 excavation, all the fourteen identified burials were probably male. There were insufficient identified burials in the early groups to establish any variation of the sex with the approximate date of burial but it was noted that males and females were buried within building A and, apart from the few burials in group 1, which were all male, no group had burials exclusively of one sex.

It is apparent that the area exposed around the building in the 1960 excavation was exclusively reserved for adult male burials until late in the use of the burial ground when infant burials predominated on both sites. It is suggested that the reserved area for male burials and possibly the imbalance sexes in the 1973 excavation is in part due to the religious use of the site.

The estimated maximum stature was established for six females and thirteen males, all from the 1973 excavation (Fig 35). The average heights were 1.64m (5 ft 4½ ins) for the females and 1.77m (5 ft 10 ins) for the males. The male population was very tall by modern standards and by

comparison with the males from Beckery who averaged 1.72m (5 ft 8 ins) (Rahtz & Hirst 1974, 8-9). The tallest male, S78, was 1.89m (6 ft 2 ins) in height.

In the above calculations, skeletons which are 'definitely' and 'probably' male or female are used (Table 7). The same results (within 0.01m) are obtained if only the 'definitely' sexed individuals are used. In some individual cases, where the number of measurable bones was limited, the error *may* be greater than the normal one which is of the order of + 0.05m. It should be appreciated that the sample available was very small and therefore the standard deviation is large and also that the computed stature is a maximum value.

The period of use

The date of foundation of the cemetery can only be considered in the broadest terms as it is entirely based on the radiocarbon date for one burial, S85. This date, corrected for the recent value of half-life, gives a 95% probability of interment between AD 520 and AD 800. This date range represents one burial which is unlikely to be the earliest on the site. Because of this, the radiocarbon date cannot be used to establish a date for the foundation of the cemetery but it does indicate that there is, at the very least, an 84% probability that it was founded before AD 730. If one accepts that burial S85, one of the earliest found in the area excavated, is also one of the earliest in the cemetery, then a foundation date during the 7th century would be probable. It was between AD 730 and 740 that, according to the indication of Bishop Cuthbert's cross, a new burial place was constructed for some of his predecessors, either at Castle Green or associated with the cathedral (p 3).

The evidence from the radiocarbon dates indicates that the area was continuously used for burial at least until the 12th century, but it is suggested elsewhere (p 51) that the burials of groups 7, 8, and 9 may be of a later date.

The extent and density

Previous reports can be used to suggest an area within which burial took place. The various observations (p 6) are shown on Fig 4 together with the area which can be considered as the minimum extent of the cemetery. It is apparent that part of the burial ground has been lost by erosion of the river bank. With the exception of the reference to bones found between St Ethelbert's well and Castle Green (p 7), there are no recorded observations north of the Nelson memorial and there are none within the area of the bowling green, but these areas have not recently been disturbed. It is evident that the area shown on the plan, which comprises some 6000 sq m (c 1.5 acres), is likely to be less than the total area of the cemetery.

If St Ethelbert's well represents the site of the burial of St Ethelbert, a tradition already ancient by the early 13th century, then the graveyard may have been much more extensive (Whitehead 1978, 11). Such an extension, to the north-west, would also agree with the observations made during the construction of the main sewer (p 6).

There is no direct evidence to show that there was a formal boundary to the cemetery. It is probable that any such boundary would have consisted of a ditch or a bank and ditch and as such would have been likely to disappear during the castle occupation of-period 2. It is possible, however, that the south-eastern boundary eventually became the line of the late 9th or early 10th century city defences (p 53).

It is apparent from the earlier records that burials, even towards the periphery of the known area, were on two or three different levels and this suggests that the whole area

was reused two or three times. This is corroborated by the excavations in both 1960 and 1973 where the areas external to the buildings can be shown to have been reused at least four times. It is thus possible, by using the density of burials within the two areas excavated, to obtain some indication of the total use of the graveyard.

In both the areas excavated there were remains of buildings within which there were few burials. The greatest density was in the western part of area 2 and in the ground close to the walls of the stone church found in 1960. To establish an average density, the total extent of each excavation is used in the calculations and it is assumed that this will make an allowance for any other buildings within the graveyard.

The 1973 excavation, area 2, comprised some 50 sq m and within this area there was a total of 92 identified individuals of which 63 showed some evidence of articulation. The 1960 excavation, which was only 18 sq m in area, contained 26 identified individuals of which 22 had some articulation. The density, making no allowance for the buildings, is very similar with about 1.7 identified individuals or 1.2 articulated burials per square metre of ground excavated.

The density calculated from articulated burials is likely to be too low because some burials were so disturbed that no articulation existed and the density calculated from the number of identified individuals is probably too high because some of the non-articulated bone groups are doubtless further parts of individuals already recorded as articulated skeletons (p 39). Accepting these provisos, the following calculations can be made.

If the results are extrapolated over the total known area of the graveyard a figure of 10,200 individuals, of which 7200 would be articulated burials, is obtained. If the areas occupied by buildings are excluded from the calculations then an upper figure of 15,000 individuals could be present.

These figures must be treated very approximately but are nevertheless important in establishing the nature of the graveyard during the 500 years or so it probably remained in use. To obtain some impression of the use per year, the infant burials of groups 7 and 8, which may be later than the mid 12th century, should be excluded. The lower and upper estimates of total use are then 6000 articulated burials and up to 12,500 individuals. Using these figures and the estimate of 500 years' use, the number of burials per year was probably between 12 and 25.

It has been suggested that an average parish of about 200 people and a history of 1000 years would have had some 6000 burials (Rahtz 1976, 41). If these figures are accepted, then the Castle Green graveyard could have served an average population of between 400 and 800 people for the 500 years during which it was in use.

It is evident from these figures that the burial ground on Castle Green was one of the principal places of interment for the citizens of Hereford from the beginnings of the city in the 7th century until after the Norman Conquest. The gradual increase in the number of burials from the 7th century to the 12th century, as shown in Table 9, gives some indication of the increase of the population of the city during this period. The excavations were not sufficiently extensive to quantify this increase in detail but an indication can be given. During the first half of the period, up to the beginning of the 10th century, 19 burials were found, and in the second half; up to the mid 12th century, at least 41 interments were present. This suggests that the average population of the city between the beginning of the 10th and the middle of the 12th century was approximately double the average population in the preceding 250 years. If these figures are applied to the previous calculations then

it can be suggested that the average population increased from between 250 and 500 people in the first 250 years of the city's life to between 500 and 1000 people in the second quarter millennium up to the mid 12th century.

It must be emphasized that these figures are only the broadest of approximations to the true population. Apart from the obvious approximations, many other factors have been completely ignored. For example, there may have been other cemeteries in or close to the city and it is quite possible that some people living outside the city boundary were interred in the Castle Green burial ground.

The cemetery and the community

It has been shown that the origins of the cemetery on Castle Green should probably be sought before the beginning of the 8th century, and that it continued in regular use until the 12th century. The relationship of the cemetery to the town and the cathedral is of crucial importance in the understanding of the early development of Hereford in terms of its street plan and defences.

It is suggested in volume 2 that the original centre of the town was the crossroads of an east-west road which ran north of the cathedral grounds and Castle Green, with a north-south road which probably crossed the river by a ford downstream of the present Wye bridge (Fig 38). If this is accepted, then the cemetery was just outside the city area to the east, being some 300m from the cathedral. It occupied the part of the gravel terrace which stretched between the road leaving the city on the east and the river.

The excavations on the western and northern defences of the city have shown that the earliest identified fortification was a gravel bank which, it is suggested, was built during the 9th century. This bank was not present at the Cantilupe Street site, north of Castle Green, and it is probable that it returned to the Wye, on the eastern side of the city, on a line, as yet unknown, which excluded the area of the cemetery.

The gravel bank was replaced, probably in the late 9th or early 10th century, by a turf and clay rampart with a timber face which extended the defended area to the east, thus including the cemetery within the fortifications (Fig 38). The remains of this turf and clay rampart are probably concealed underneath the eastern defenses of the late castle bailey (see Vol 2).

The establishment of the Castle Green cemetery outside the town followed the 'pagan' Anglo-Saxon custom of burying the dead on open ground at some distance from the settlement. The position of the site is paralleled at Winnall II, just outside Winchester, but that cemetery went out of use in the early 8th century about the same date as burial in the Cathedral graveyard began (Meaney & Hawkes 1970, esp 100-7; Kjølbye-Biddle 1975). In Hereford, we do not know when the cathedral church obtained control over the right of-burial but it would be surprising if it possessed this right and still allowed burial in the Castle Green cemetery. At a much later date the cathedral controlled burial so completely that there were no graveyards attached to the post-Conquest parish churches within and close to the city defences. The right of burial was jealously guarded until 1791 when small burial grounds, situated in the suburbs, were established for the parish churches (Watkins 1931).

We can thus postulate a sequence for the development of graveyard burial in Hereford. In the early Christian period burials were outside the limits of the city in an undefended area to the east of the town. During the late 9th or early 10th centuries the defences were extended to include the cemetery and this area continued to be the principal burial

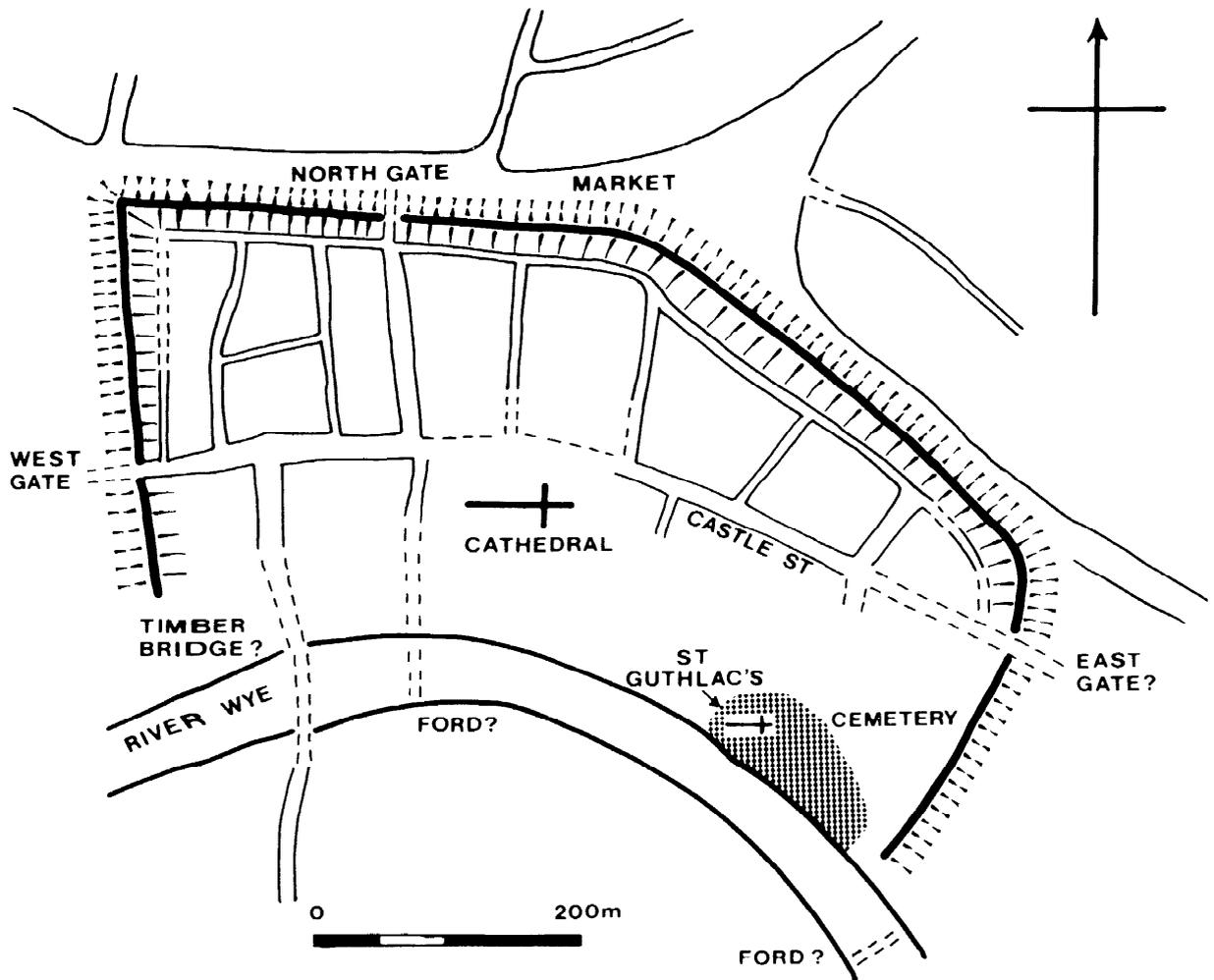


Fig 38 The city of Hereford in the early 10th century showing the relationship between the cathedral and St Guthlac's the minimum extent of the cemetery, and the line of the then recently built turf and clay rampart with timber face

ground for the city possibly until the 12th century when Exclusive rights for burial were established by the cathedral. In 1791 each city parish provided itself with a new graveyard hut all these were closed in 1860 when the present cemetery came into use (Watkins 1931). The detailed pattern will not be common to the rest of the country but may illustrate gradual social changes which should have a countrywide basis.

The religious establishment

The excavated buildings

Both excavations on Castle Green were small and revealed only small fragments of the buildings which are apparent as parch marks. In places the building remains were disturbed by later burials and by digging and building operations whilst the area was part of the castle and afterwards when it was landscaped. The total lack of normal dating evidence, such as pottery and coins, means that the buildings can only be dated by their style and by their relationship to dated burials.

It is apparent that all the excavated buildings, with the probable exception of the stone church found in 1960, are of pre-Conquest date and relate to the use of the area either as a city graveyard or as St Guthlac's collegiate settlement and its predecessor. It has been shown that the burials are, so far as it is known, concentrated in the south and south-western part of the castle bailey but not in the northern part. A consideration of the parch marks over the whole of Castle Green (Fig 2) indicates that the buried buildings are on two different alignments. In the north of the bailey the buildings tend to be aligned parallel to the river, whilst in the southern part the buildings which were partly excavated, and the complex building between them, are all aligned approximately east west. The orientation of the northern buildings follows the line of a slight depression which crosses the Green from approximately the site of the castle gate in the northern defences. If this depression is accepted as a road or track leading across the Green during its use as a castle, then the buildings which align with it should be considered as relating to the castle occupation of the site. The east-west oriented buildings,

surrounded by the graveyard, are more likely to be part of the earlier religious use of the site although it must be appreciated that there was at least one church, St Martin's, within the circuit of the castle.

Accepting the above argument, the religious buildings comprise the stone church and its probable timber predecessor, both found during the 1960 excavation, building A and its replacement B, found in 1973, and the complex building between the two sites revealed by crop marks.

The available evidence suggests that the timber building, constructed not later than the beginning of the 9th century, is one of the earliest in the area. It has been shown that this building was erected on an artificial platform at least 1m high and that it was probably of-posthole construction. The platform would not have been necessary for drainage purposes as the site is part of a gravel terrace which rapidly absorbs any moisture, so it would seem far more likely that it was constructed to give more prominence to the building which eventually surmounted it. The elevated position, the relationship with the burials, and the eventual replacement with a stone church may be accepted as sufficient evidence that the 5m wide timber building was originally constructed as a church.

It is important to realise that only the latest date of construction has been suggested for this timber church. Its relationship to the burials of period 1, and its position on an elevated platform constructed before burial commenced in that immediate area, may indicate that the building was erected before the area was used as a cemetery. If this is accepted then the timber church could be of 7th century or earlier date.

The size of the trench excavated in 1960 was insufficient to indicate conclusively the presence of this timber church and was far too small to establish any possible rebuilding phases. Such phases should be anticipated if the original construction date is as early as suggested in the previous paragraph.

Only a few examples of wooden churches have been found in this country as a result of excavation. This may not be an historical reality but merely because our sample of excavated churches is very small (Biddle in Addyman & Morris 1976, 70). The remains of this timber church on Castle Green are therefore of important structural significance, especially as the building apparently contains few burials and is sealed by a single period stone-building which may have helped to preserve postholes and other traces rather than obliterate them.

Building A and its replacement B are close to the river some 50m to the south-east of the platform. There is no evidence to indicate the date of construction for building A, but it has been shown to have been in use in the 9th, or at the latest the early 10th century. As with the timber church, building A had burials of group 1 in close proximity but not within or disturbed by it, and it can also be suggested that it could be of pre-cemetery origin.

Building A was demolished at some time between AD 800 and AD 1000 and the replacement building B was probably demolished before the beginning of the 12th century:

Building A contains several burials of 9th or early 10th century date. It could possibly have been a second church but was more likely to have been a mortuary chapel or *porticus*. Burial within the ceremonial part of the church was forbidden probably until the late 10th century. The Council of Nantes, as late as AD 896, was quite specific: 'No-one may be buried in a church, only in the atrium, the *porticus*, or the *exedra* of a church' (Mansi 1960). The crop marks indicate something of the size of the building and

suggest a rectangular shape perhaps 8m wide and 20m long. The relationship of the crop marks to the excavated walls was not appreciated until after the excavation was completed but is unlikely to be coincidental. The parch marks are doubtless a considerable simplification of the shape of the original building so it may be postulated that the burials were in a side chapel or *porticus* on the southern side of a second church on Castle Green.

If this is accepted, then building B is simply the replacement of the side chapel and its eventual demolition, probably before AD 1100, need not mean that the associated church was also demolished.

The survey of parch marks (Fig 2) has established a complex building in the area between buildings A and B and the platform church. It has an east-west orientation and apparently consists of several small rooms surrounding one or two larger ones. The smaller rooms are about 4m square and one of the larger ones is about 6m by 12m. Part of this building may be underneath the bowling green, an area which is regularly watered so that parch marks do not show. The complexity of the structure and the presence of small rooms makes it probable that the remains represent the domestic buildings or communal living quarters associated with the religious settlement.

The stone church, examined in 1960, is the latest of the succession of religious buildings found on Castle Green. The relationship to the burials and to the earlier timber church makes it most probable that this stone building was an immediate replacement of its timber predecessor and not a fortuitous reuse of the same site. It has been suggested that this church was most probably built in the second half of the 11th century and that it survived, perhaps in ruins, until the end of the 17th century.

The origins of the religious settlement

The evidence from the excavations on Castle Green is insufficient to indicate the date of foundation or the nature of the religious settlement which is well documented after the early part of the 11th century as St Guthlac's collegiate church. The foundation is most likely to have been of an earlier date. In the late 9th or early 10th century the whole site was of sufficient importance to be included within the bounds of the city defences, a policy which would not have been necessary had it been simply a cemetery. It has been suggested that the timber building, situated on an artificial platform, was built not later than the beginning of the 9th century and it is thus within the 8th century, or possibly earlier, that the foundation of the religious settlement should be sought.

It has been shown that the cemetery was probably in use before the beginning of the 8th century (p 52). Would this then have been chosen as the site of a religious settlement? It would seem far more likely that the religious use of the site was established before the cemetery came into existence and it may be, as Whitehead suggests (p 3), that the origin of the settlement on Castle Green is of greater antiquity than the cathedral and that it was one of the early Welsh *clas* churches which later became a collegiate establishment.

There has been no direct archaeological evidence from the two excavations to support this suggestion but it has been shown that there is at least a reasonable possibility that the timber church and building A were both constructed before the area was used as a cemetery. If this is accepted then it follows that the origins of the religious use of the Castle Green area should be sought in the 7th century or even earlier.

The first reference to indicate that the establishment was dedicated to St Guthlac is in the late 10th century, but it

has been suggested that this could be an additional 9th or 10th century dedication for an already ancient establishment (p 3).

The inclusion of the whole area within the new defences of the city in the late 9th or early 10th centuries suggests that by this date the monastery had achieved a collegiate status and, with the addition of relics of St Guthlac, had become of sufficient importance as part of the growing city to be included within the fortifications. The importance of the religious settlement is confirmed by the will of Wulfgeat (ob c AD 975) and the early 11th century legal document (p 1). It would seem that during the 10th and early 11th centuries St Guthlac's achieved its peak importance and was well endowed with land but that after the Conquest it gradually declined and was eventually given to St Peter's at Gloucester (p 4).

The identity of the buildings

In the previous pages the most likely use for the various excavated buildings has been indicated and their period of use discussed. This information is summarized in Table 10.

It has already been indicated that the timber church and the remains of building A were the earliest structures found during the excavations and that they both represent the religious use of the site. The archaeological evidence suggests that building B replaced A with no significant gap in time and that the timber church was an immediate predecessor of the stone church. If the suggested uses of the buildings are accepted then it seems inescapable that there were two churches or chapels in this area of Castle Green for a substantial length of time.

The area around the timber and later stone church was used for adult male burials from the foundation of the cemetery until the 11th or early 12th century. All of these burials, with the single exception of the pillow burial, 60/24, could have been interred before the timber church was replaced in stone probably during the second half of the 11th century. It would seem likely that the adult male burials are those of the community of St Guthlac, and this should indicate that the timber building was the collegiate church which, according to the documentary evidence, was finally abandoned in c AD 1143. It seems impossible to avoid the conclusion that the stone church which replaced this timber church was the chapel of St Martin, first referred to in c AD 1150 but possibly of an earlier date. With the establishment of the new monastery of St Guthlac in the Bye Street suburb of the city, the earlier collegiate church may have been demolished and a new church erected for the purposes of the garrison and dedicated to

St Martin, or alternatively the existing church may have been rededicated and used by the garrison. The reuse of the site could well have confused Leland who perhaps, as Whitehead believes, mistook the 11th or 12th century stone chapel for St Guthlac's (p 5).

However, although the church of St Guthlac was superseded, a wooden shrine which covered the saint's body survived until it was accidentally destroyed by fire during the reign of Edward I (p 5). The excavations did not produce any evidence for the destruction by fire of any of the buildings during the 13th century and it must be accepted that the shrine of St Guthlac remains undiscovered. It may be that the shrine was in the main part of the building, of which A and B were merely side chapels used for burial purposes. If this is the case, then the main building must have survived building B by at least 200 years.

The above discussion leaves many questions unanswered. Did one of the buildings on Castle Green originally hold the remains of Bishop Cuthbert's predecessors and, as Whitehead suggests (p 1), the body of St Guthlac? What was the significance of the two separate churches, or was one simply a mortuary chapel? Did the collegiate establishment indeed replace an earlier Celtic Christian community on the same site? It is evident that the whole area served a dual purpose both as a religious settlement and as a town cemetery and that, although the latter can be shown to have been probably established before the beginning of the 8th century, the foundation date for the former is still uncertain.

The castle

Origins

The turf defences of the city were strengthened and improved by the addition of a 2m wide stone wall in front of the timber face, probably during the first half of the 10th century (Fig 38). After this refurbishment the defences were apparently allowed to fall into decay during the remainder of the 10th and early 11th centuries and it is suggested that by the mid 11th century the defensive potential was minimal (see Vol 2) and the appearance was that of a smooth bank with only occasional stones showing. It was at this time that the first castle was built.

Ralph, the son of the Count of Vexin, became Earl of Hereford in c AD 1046 and is accredited with the construction of a castle at Hereford and the installation of a Norman garrison at some date before c AD 1052 (Lobel 1969, 2). This was one of the earliest Norman castles in

Table 10
The excavated buildings

<i>Excavation</i>	<i>Building</i>	<i>Construction</i>	<i>Demolition</i>	
1973	A	Could be 7th century or earlier and certainly present in the 9th century	Between AD 800 and 1000	Either a <i>porticus</i> on the south side of a church or a mortuary chapel
1973	B	Replacement for A between AD 800 and 1000	Probably before AD 1100	Either the replacement of A as a side chapel on the south side of a church or as another part of a church building
1960	Timber building	Could be 7th century or earlier and certainly present in the 9th century	Second half of 11th century	Church
1960	Stone building	Second half of 11th century replacing timber building	End of 17th century	Church
-	Building complex to north of buildings A and B	Not known	Not known	Domestic buildings

England, as distinct from the private *burghs* of the late Saxon period. The problems involved with the design and siting of this castle within the existing Saxon town have been largely ignored by contemporary writers who have assumed, if anything, that the castle occupied the same area throughout the whole of its life.

Ralph's castle is unlikely to have been of the same size as the great royal fortress created by Henry III in the 1240s which became 'one of the fayrest, largest and strongest castels in England' (Smith 1964, 2, 64). It must have been built on a much smaller scale and as such could have been established within the existing framework of the city.

The main assumption, which has to be made before the extent and design of Ralph's castle can be considered, is one of situation. The castle could have been built in any part of the city and the site then totally lost after the Welsh raid in AD 1055. The heavily built-up areas to the north and west of the cathedral would have provided little space for any form of castle and the more open and recently enclosed area to the east must have been the most likely choice (Fig 38). It is also likely that there would have been a continuity of site usage after the Conquest and it is therefore suggested that Ralph's castle was built within part of the area which later became the royal fortress. If this assumption is accepted, then an examination of the constraints which existed in the area before AD 1052 enables a series of hypotheses to be constructed for the gradual development of the whole of the Castle Green area.

The decayed town defences on the eastern side of the extended area would probably have included a gate where they intersected a projection of the line of Castle Street, the presumed main west east thoroughfare of the Saxon town (see Vol 2). To the west of the area was the cathedral precinct, and to the south, along the river bank, was the city cemetery and the collegiate establishment of St Guthlac's.

Even after the sack of AD 1055, the city had a sufficient population, by the time of the Domesday survey, to include burgesses who lived within and without the walls, and this suggests that the defended part of the city was becoming crowded even before the Conquest. It can therefore be assumed that there would have been houses on both sides of Castle Street, within the east gate, and it is possible that there were other residential areas between the cathedral and St Guthlac's. Unless Ralph was prepared to undertake large scale demolition, the areas even within the eastern part of the defended city where a castle could be built were severely restricted.

It has long been considered that the earliest Norman castles built in England were earth and timber fortifications of the motte and bailey type (Armitage 1912). The castle was an introduction into England from Normandy and the evidence there indicates that many of the early 11th century earthwork castles were simple enclosures and there were few of the classic motte and bailey design, although the type is known in pre-Conquest contexts (Davison 1969 a; Bouïard 1967). There is no definite example of a motte and bailey castle of pre-Conquest date in the British Isles although Hen Domen, built between 1070 and 1074, is of this type and the same seems true of Baile Hill at York, traditionally built by 1069 (Saunders 1977). Mottes are sometimes secondary to ringworks as at Castle Neroche, Somerset (Davison 1972) and Aldingham, Cumbria (Davison 1969b). It would seem that Ralph's castle in Hereford would probably have been of ringwork design but it could have been of motte and bailey form.

There are two possible positions for a ringwork within the eastern part of the town. The first is between the cemetery and the cathedral where it would eventually have

been covered by the later large motte and then destroyed during the removal of the mound in the 18th century, and the second is in the northern part of the present bailey area, on the outskirts of the cemetery, where the town defences formed the eastern boundary. Any traces of such a ringwork which survived the construction of the 13th century fortress would doubtless have been removed or buried during the 18th century landscaping.

However it is also possible that Ralph included a motte as part of his castle. This could have been incorporated within the large western motte and eventually destroyed, but it could also have been built on top of the eroded city defences, to the south of and guarding the eastern gate. If this was the case, then the motte still survives as Hogg's Mount at the north-eastern corner of Castle Green (Fig 2). Hogg's Mount is shown as 'the Mount' on Sylvester's survey of 1677 (Lloyd 1884) when, according to his scale, it was some 15m in diameter at the top. Hogg may come from the OE *ho(h)e* or ON *haugr--a* hill or mound (Smith 1970, 1, 235).

The two suggested sites for Ralph's castle have different characteristics and would therefore have produced different effects on the development of the city. The construction of a castle in the area which was eventually occupied by the 13th century motte and stone tower would have separated the two religious enclosures of the cathedral and St Guthlac's by a military presence, and although the castle would have been secured within the first line of defence of the city wall and ramparts, it is likely to have been surrounded with other buildings and would therefore have had a poor defensive capability. The alternative site to the north, adjoining the city defences, would have had more open ground in the immediate area but could have suffered in any primary attack on the city. It would however have left unimpeded the access to the cemetery and to St Guthlac's from the centre of the city,

There is no documentary evidence to indicate which of the two suggested areas was the site of Ralph's castle, but it is apparent that the site adjoining the east gate of the city would have created the least disturbance both to the inhabitants and to the strong religious communities. However, until further evidence is obtained, both areas should be considered as possible sites for this pre-Conquest castle.

Ralph's castle was overrun and destroyed by the Welsh in AD 1055 and there is no record of it being rebuilt until after the Conquest. In AD 1066, William Fitz Osbern became Earl of Hereford, and his reputation is such that he was doubtless responsible for the rebuilding of the castle. He may well have built or refurbished Hogg's Mount or he could have built on a grander scale with the motte at the western end of a large bailey. A castle was certainly in existence in AD 1067 when it was harassed by Edric the Wild. Was this the time when the cemetery and the collegiate church of St Guthlac's became unsuitably situated within the circuit of the castle? (Hart 1863-7,3, 236) It has been demonstrated that St Guthlac's lost much of its holdings in land after the Conquest (p 4) and probably also lost much of its power. William would have had little opposition from this source if he built or refurbished the western motte, together with a northern rampart to join the motte to the existing city defences. St Guthlac's would then have become isolated from the city with no infringement of its land ownership.

There is no evidence for any major castle building between the time of William Fitz Osbern and the reign of Stephen, when there is the first documentary reference which gives some indication of the extent of the castle. In AD 1138 the castle, which was held by Talbot, was besieged by the King and finally surrendered. In AD 1140,

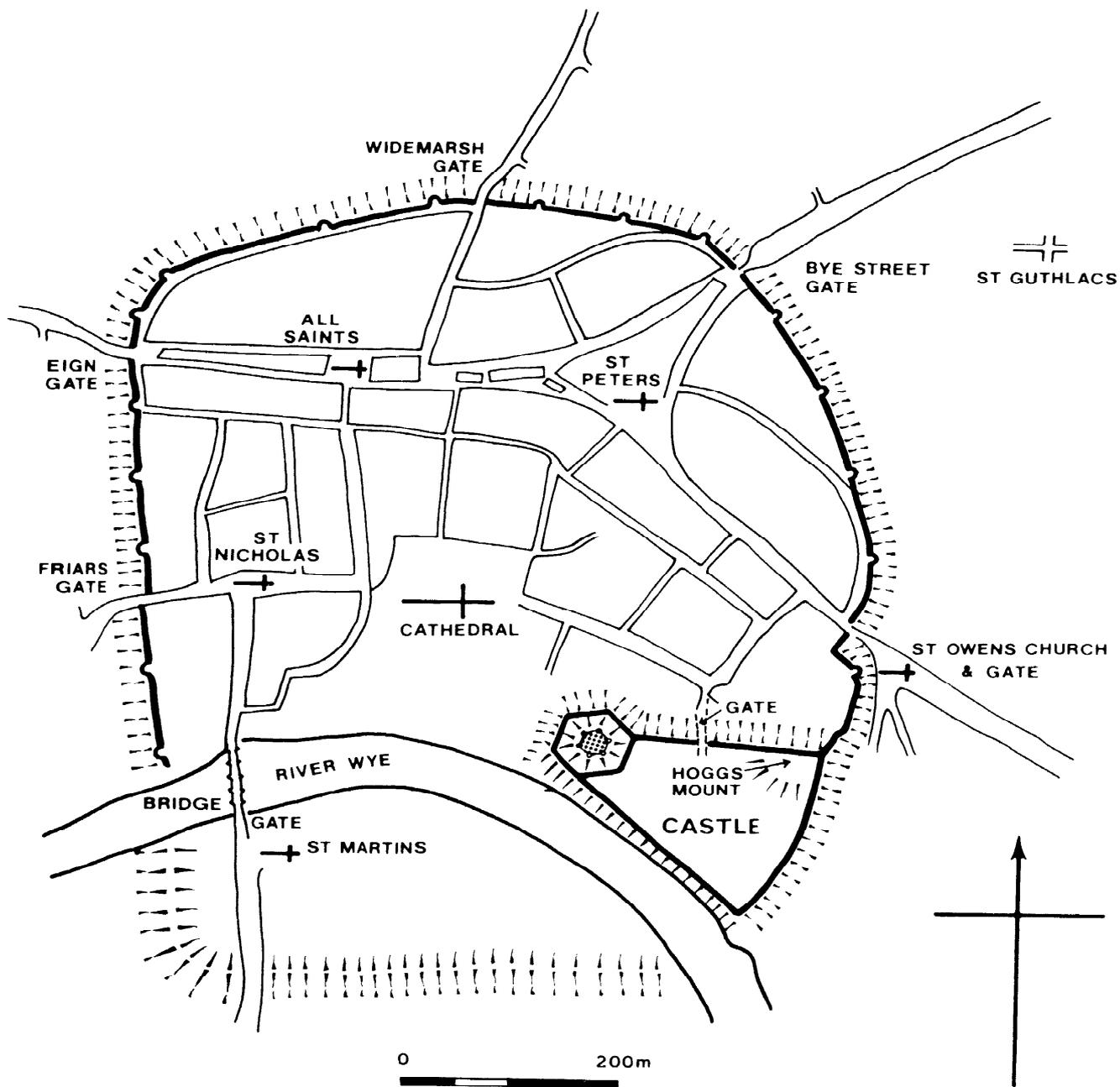


Fig 39 The city of Hereford in the 13th century showing the relationship of the castle to the afound to the defensive walls

the King's soldiers were in the castle and Talbot took over the cathedral and used the top of the tower for siege weapons. He also dug a ditch 'through the cemetery (Thorpe 1848-9) throwing the bodies up 'against the ramparts of the castle' (Potter 1976). At the same time the castle was attacked 'from another side' by Milo of Gloucester using siege machines. Under this dual attack it finally had to surrender.

From these descriptions it is possible to obtain some impression of the size and position of the castle. The

distance from the cathedral to the western mound is some 200m and to Hogg's Mount 350m. Certainly by the mid 13th century, siege machines had a range of at least 400 to 500m, as is indicated by the Kenilworth siege of 1263 where the position of the lake fixed this distance as a minimum (information P A Rahtz). The range would have been substantially increased at Hereford by the height of the cathedral tower and it would seem probable that either the western mound or Hogg's Mount would have been within the range of Talbot's siege weapons. The cemetery

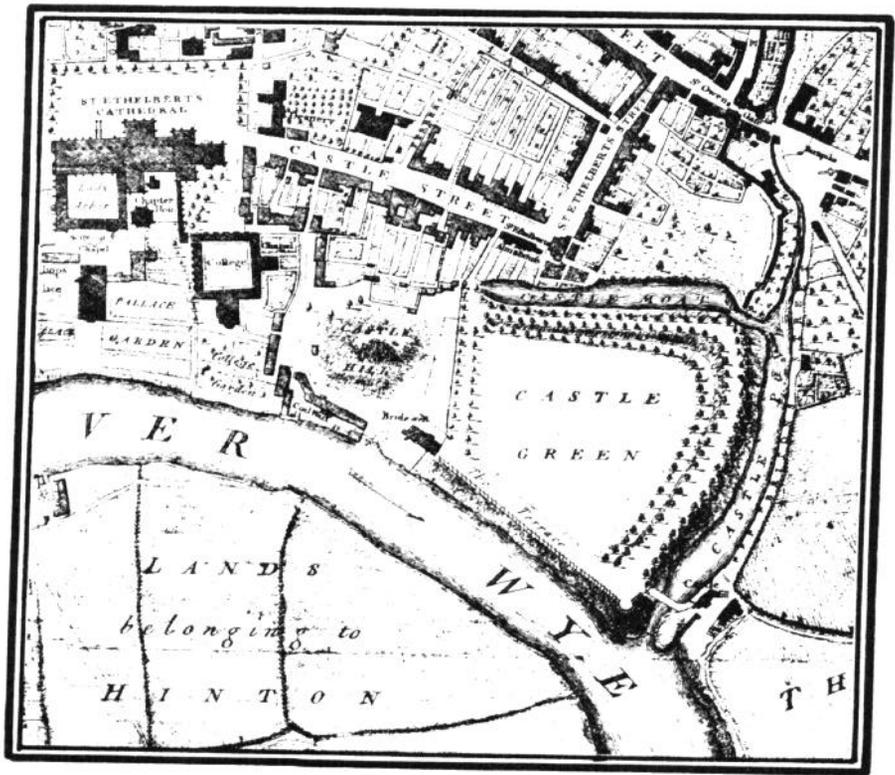


Fig 40 Taylor's plan of Hereford in 1757: the area of the castle

through which the ditch was dug was presumably the one on Castle Green. The ditch may be represented by the slight north-east/south-west depression which can still be seen on the Green (Fig 2), although this has been suggested as the site of a road leading through the bailey (p 54).

The evidence from the description of the civil war in AD 1140 taken together with the comment that St Guthlac's was 'within the castle' leads to the conclusion that Fitz Osbern was responsible for the large scale design of the castle with a large motte at the western end and that he most probably built the northern defence of the bailey with its associated gate.

It is evident that the principal buildings of the castle during the 11th and early 12th centuries were all to the north and west of the areas excavated and therefore the archaeological work does not add any information to our knowledge of the military occupation of this period.

The late 12th and 13th centuries

The defilement of the cemetery and doubtless also of the monastic settlement of St Guthlac's in AD 1140 by Talbot, together with the gradual encroachment of the castle on the ancient site, led to several changes.

The main market area of the city had, at least in part, moved outside the north gate of the Saxon defences and was contained in a new, wide, west-east road which still exists as Eign Gate Street, High Street, and High Town and includes the churches of All Saints and St Peter's (see Vol 2). As this area increased in use, the original west-east road through the centre of the Saxon town would have become less important as a thoroughfare, especially with

the construction of the new cathedral begun by Bishop Reinhelm (1107-15) at the central crossroads. The cemetery in Castle Green was abandoned and a graveyard established in the new cathedral precincts. The monastic settlement of St Guthlac's was united with St Peter's in the market place and a new monastery was built on virgin ground to the north-east of the city.

In the late 12th century a new and larger defensive circuit was established around the city to include the new market place and during the first half of the 13th century walls and bastions were added (Fig 39). The castle continued to have improvements and a gate was built or repaired about AD 1190 (*Pipe R* 1190, 49). It received almost continuous attention during the first half of the 13th century (Colvin 1963, 2, 673-7) during which period virtually all traces of the earlier monastic occupation of the area must have disappeared, except for the shrine of St Guthlac which was burnt later in the century during the reign of Edward I.

The buildings shown as crop marks (Fig 2) give only a limited impression of the elaborate series of buildings which stood within the bailey surrounded by a strong wall and towers (*Cal Lib* 1226-40, 230). A detailed account of the castle can be found in Colvin 1963 (2, 673-7) and Lobel 1969 and, after the Civil War, in Smith 1964 and Duncumb 1804. The 1973 excavations give some indication of the extent of the castle buildings in the southern part of the bailey and demonstrate a succession of building periods during the late 12th and 13th centuries. These, taken together with the buildings shown by crop marks and the excessive parching around most of the circumference of the bailey, indicate a reasonable degree of preservation of both

floor levels and foundations. Even more may remain buried, for the passage observed by Pilley which contained skeletons was probably some 10m deep (p 7). This was in the part of the bailey more likely to be associated with the castle than with St Guthlac's collegiate establishment. The size of the passage, which was presumably a main drain for buildings in the bailey, gives some impression of the number and size of the structures it must have served.

By the end of the 14th century the castle was in poor repair, and although some work was undertaken during the Civil War (Duncumb 1804, 343 -86), it suffered more damage and most of the buildings were demolished shortly afterwards. The chapel of St Martin's, within the castle bailey, was apparently one of the few buildings to survive this demolition and lasted until the early 18th century.

The landscaping

After the Civil War the castle was sold for £600 'for publique use and benefit' (Lloyd 1884, 162). Stone from the buildings was sold and the 'gravell of the Castle Mount disposed of. The £600 was apparently not paid and the debt was discharged in the mid 18th century, by which time all the buildings had disappeared and the grounds had been landscaped as a public open space (Fig 40).

The extent of the landscaping was not fully appreciated until the excavation of 1973. This demonstrated that most of the earthen bank on top of the scarp slope above the river was of 18th and 19th century date and that, during its construction, parts of the interior area of the bailey were probably lowered. On the north and east of the Green it may be that the earthen ramparts, which are still prominent, are part of the defensive circuit of the bailey and do not reflect the ideals of the 18th century landscape artist. If this is so, they conceal on the north the remains of the original gatehouse into the castle, and they seal on the east the eroded remains of the Saxon defences of the city (Figs 38 and 39).

The site in the future

The archaeological work on Castle Green has been of a very limited nature and, in the case of the 1973 excavation, was carried out under far from satisfactory conditions. Nevertheless, the results have established the national importance of this site in several areas of current research.

The lack of settlement continuity between Roman and Saxon sites in the Hereford area is noteworthy when compared with other areas on the Welsh borderland to the north and south (Biddle in Addyman & Morris 1976, 67). Why were the two religious communities, later to become St Guthlac's minster and St Ethelbert's cathedral, founded on a new site rather than within the ruins of the Roman town of Magnis some 7km to the west? Was there some previous religious establishment in the Hereford area, yet to be discovered, of which the several Roman altars found in the city (see Vol 2) formed a part? If this is not the case, then the foundation of a religious community in Hereford in the 7th century, or possibly earlier, must have been an event of some significance and could well have been a forerunner of urban regeneration in the middle Wye valley.

The minster church of St Guthlac had large holdings of land in Herefordshire and salt rights at Droitwich and Dunclent in Worcestershire before the Conquest. In AD 1143, the prebends of Hope juxta Magene (Maund), of Ocle 'below the parish of Ocle Pychard', and Older and Lesser Thinghill, together with the chapel of Felton, are said to have belonged to St Guthlac's 'since their foundation' (*St Guthlac's Cart*, 499). It may be that the minster church had ecclesiastical control over relatively large areas of the

surrounding countryside and perhaps established daughter churches which led eventually to the evolution of the parochial system (Biddle in Addyman & Morris 1976, 69).

The site has already provided important evidence for the origin of churchyard burial. Although the relationship between the religious buildings and the cemetery in their earliest phases has not been firmly established, it seems likely that a church or monastic establishment was founded on the site in the first instance and that use of the surrounding area for burial was secondary. There is no evidence from Castle Green or from the surrounding areas to suggest that a site in the vicinity was used for pagan burials, as is the case in other parts of the county (Biddle in Addyman & Morris, 1976, 69). Although the excavations have shown that burial methods and practices changed throughout the life of the cemetery, the evidence is too fragmentary to establish details of the growth of the graveyard during its period of use and there has been no indication of any boundary. If one accepts that buildings A and B were a lateral *Porticus* or mortuary chapel, then it is apparent that burial within the 'liturgical' fabric of the church did not occur in Hereford, at least in relation to the buildings excavated, during most of the pre-Conquest period.

It is evident that Castle Green was the site of a developed religious complex whose origins probably lie in a Celtic Christian community in existence from the 6th or 7th century. The stratification is deep and, as a whole, the site is well preserved. It is now a 'public open space' and the whole area is scheduled as an ancient monument. However, damage to the buried remains can still occur. Within the last 100 years or so the site has suffered from continuous erosion by the River Wye, from the excavation for a main sewer, from the construction of the bowling green, and from many minor works associated with these features. In the future, electric light cables will probably have to be renewed and drains, both for surface water and for mains sewage, may have to be replaced.

This report has established the national importance of the site and the quality of preservation of the remains. It is essential that any future archaeological work is more than the examination of small, destructive trenches cut by workmen, but is preferably on a sufficient scale to establish a more complete picture.

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