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THE ANGLO-SAXON CHURCH

Papers on history, architecture, and archaeology in honour of Dr H M Taylor

edited by
L A S Butler
and R K Morris

1986

Dr H. M. Taylor at Repton, 1981 (photo: P. A. Rahtz)

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Prologue

Christopher Brooke

This book is the record of a conference held in Cambridge in September 1983 in honour of Harold McCarter Taylor. Its purpose was to gather his friends, disciples, and admirers to do him homage, and to explore with each other and with him current ideas, discoveries, and trends in the study of Anglo-Saxon architecture. The deep respect in which he is held and the magnetism of his warm and kind personality ensured a gathering of almost all the talents in this field, and produced a short conference of unusual worth and merit. It was a privilege and delight to be present, but it was also rather a breathless experience, and its publication gives all of us a chance to sit down and contemplate its message - and first and foremost, its central figure.

Harold Taylor was born in Dunedin, New Zealand, in 1907 and educated at Otago University there; and Dunedin is a town innocent of any building more than 100 years old and of the grime of European antiquities. He left New Zealand for Cambridge in 1928, and completed his university studies and passed much of his professional career in Cambridge, a city of great beauty indeed but surrounded by some of the flattest and dullest country in Europe. If anything can be attributed to challenge and response in human affairs, we may look in these facts for a little of the inspiration which has made him a supreme master of the history of buildings 1000 years old and more, and an amateur of the mountains and the snow. He took his doctorate in Cambridge and became a Fellow of Clare and a University Lecturer in mathematics. He applied his studies in so broad and practical a way that he became University Treasurer at the age of 38, and in so cultivated and humane a way that he and his first wife, Joan Taylor, were presently deep in the measurement and precise recording of Anglo-Saxon buildings. It has been said of him profanely that 'he sowed his wild oats as a mathematician and university administrator'; and indeed he was translated in his 40s to the post commonly regarded as most central of all in the Old Schools at Cambridge, that of Secretary General of the Faculties. In the early 1950s university posts in Cambridge were scarce - not so scarce as now, but few enough - and I particularly treasure the first hope of a tenured post I ever received, in a letter signed H M Taylor, Secretary General. In 1961 he went to be last Principal of the University College of North Staffordshire and in 1962 first Vice-Chancellor of the University of Keele. After six years of creative work in Keele - which saw also the death of Joan Taylor and his marriage to Judith - he retired in 1967 and returned to Cambridge and to Clare, where he is an Honorary Fellow, to the joy of his Cambridge friends.

The aspiration of many a young man coming to Oxford or Cambridge even as late as the 1920s was well expressed in the words of Jane Austen put into the mouth of Edward Ferrers: 'I was therefore entered at Oxford, and have been properly idle ever since'; but not so H M Taylor. He has done a very full share of public service: as a Lieutenant-Colonel in the Royal Artillery in the Second World War, as a Member of the Royal Commission on Historical Monuments for England from 1972 to 1978, as President of the Royal Archaeological Institute and a Vice-President of the Society of Antiquaries; he has had recognition with the CBE (1955), Honorary Doctorates at Cambridge, Keele, and Birmingham, and the William Frend Medal of the Antiquaries; he has pursued two careers and risen to the heights of each; and he is now both the doyen of medieval architectural historians and still also in his prime, in the first vigour of his youthful enthusiasm, as has been witnessed by many who have seen him at work at Deerhurst and Repton.

The conference was held in the Harvey Court of Gonville and Caius College, a stone's throw from Newnham Cottage, which William Wilkins' father built for his family on college land about the time his son was a Fellow. To the same college soon after (in 1821) came the young Robert Willis, who followed the proper pattern of a Cambridge student's life of the day, studied mathematics, took orders, obtained a Fellowship, and resigned it on marriage. But not much later he resumed his Cambridge career as Jacksonian Professor, teaching Mechanical Engineering, and began to make his name and fame as one of the greatest of architectural historians, deploying skills securely based on the precision in measurement and the technological learning of an engineer, combined with a broad and humane and liberal culture. Robert Willis may be said, by a pardonable simplification, to have performed for the Normans much of what Harold Taylor has achieved for the Anglo-Saxons. I was even so incautious as to observe in his presence that Taylor, like Willis, was a cult figure among students of the history of architecture - a phrase to which he objected most vehemently, having listened to eloquent lectures on the cults of the relics of the saints. But a Fellow of Caius may be excused for seeing a measure of fitness in the choice of Robert Willis's college as the background for a celebration of Harold Taylor.

As a mathematician Harold has brought to his studies a devotion to measurement and precision of scale and thought which marks all his work. *Anglo-Saxon architecture* is a book secure of immortality as a corpus of precisely stated knowledge, the vital foundation of future scholarship. It is indeed far more than that, for the precision and clarity of his thought and writing have been an inspiration to very many who study in adjacent regions. The possibilities of his own field have been opened in a profoundly satisfying way, and some of its fruits may be seen in the present volume. To the stature of his work many pay tribute here, and the warmth of personal friendship made it a special joy to so many of us to welcome Judith and Harold Taylor into our midst in those September days. He is indeed a man in whom academic achievement and personality are deeply linked. To a profound religious faith he joins integrity and conscience, and to a warmth of kindness and generosity a scholarly enthusiasm and readiness to help which stays ever young. The historical record shows that (as the world and the Psalmist understand these things) he is advanced in years, yet he is ever ready for new adventures. Not so long ago he revisited his native New Zealand for the first time (I understand) in well over 50 years; and to the young who sit

at his feet in Repton and elsewhere he imparts all the enthusiasm of young men studying a new and exciting subject together.

A new and exciting subject has been unfolded to us in this conference and this book. Sometimes great classics of scholarly literature form a kind of epitaph. Since the publication of one of the notable works of medieval history of this century, a sympathetic scholar once wrote, 'a certain peace has settled on the scene'. Not so with *Anglo-Saxon architecture.* The greatest tribute that can be paid to a work of scholarship is that it stirs the excitement and the skill of younger scholars and breathes new life into an ancient discipline. The moral is obvious: we see in the papers which this book comprises abundant witness of vigour and life working through many channels - and not of one discipline but of a throng, ranging from history and architectural history to remote sensing and computer science.

There was material already for a whole conference in Martin Biddle's presentation of the martyrs and the shrines they inspired. He showed us by the way Sant' Ambrogio at Milan, which I have long regarded as one of the symbols of continuity in Christian history; and he brought it into a single compass with St Albans. It was and is exciting to hear the latest news from St Albans and Repton, and this lecture provided a heady nightcap for the first night. David Rollason woke us the next morning with his remarkable survey of power politics among the medieval saints and their relics, of the promotion of cults, a complex and vital matter, and of how if we wish to understand the mentality of these cults we have to realize that it was the saints who chose where their bones should be and revealed their presence by appropriate acts of kindness and power. These lectures sharpened the edge of a paradox which has long intrigued me: when the cult of relics was at its height so also were the cults for which there could be no relics; in the formal dedication of churches both in the 7th and 8th centuries and in the 11th and l2th, St Mary and St Michael stood high. Peterborough Abbey had relics of Mary's milk and Jesus' manger, but it still remains the case that her churches could not be seriously adorned with her relics, still less the great churches of the Holy Trinity which flourished in the 11th and 12th centuries. On this theme Richard Morris has added to the volume a paper on the fascinating problem of *alma sophia,* Holy Wisdom, a prestigious church which Alcuin tells us was consecrated in York in 780, then disappeared from view. Lawrence Butler has also added a valuable pioneer analysis of a wide range of dedications and cults in Anglo-Saxon England; and Philip Rahtz and Lorna Watts have given a striking analogy from the modern world, in which visions and miracles have inspired a great pilgrimage to a shrine both to Bernadette and to Mary. These reflections remind us of the need to see dedication and design in a broad context both of the interests of the patrons of the churches and of the liturgical practices of the communities which served them. Ian Wood's paper looks at the early evidence from dedication homilies of what lay in the minds of those who gathered to dedicate churches in early medieval Gaul. Carol Heitz has illustrated once again the skill for which he has long been celebrated in relating early medieval and Carolingian art and architecture to current liturgical books and iconographical practices. I11 health sadly prevented the author from coming to the conference, but we enjoyed in compensation a lucid English version furnished by Ian Wood.

A group of papers surveys a variety of geographical areas. Charles Thomas takes the whole British Isles as his parish, and gives us an impressive survey, first of the traces and evidence of church buildings from early centuries, and of the problems in identifying specifically Christian buildings and of relating them to their sites. His paper includes a rich sample of the Cornish evidence. Michael Hare and Anne Hamlin look at early Christian architecture in Ireland through Anglo-Saxon eyes, showing how a knowledge of the history and monuments on both sides of the Irish Sea may sharpen our focus on the stone buildings of Ireland.

Olaf Olsen's paper may seem from its title to discuss how pagan and Christian sites in Scandinavia were related. But indeed it rather expounds, with delicate irony, that they were not. He thus marks a transition from papers showing the geographical variety of the themes of the book to studies concentrating on methods of enquiry. The distinction is not complete, for all the papers in this volume illustrate methods, whether of saintly intervention or historical or archaeological enquiry. If two bones made a saintly presence in a medieval church, then - as Olaf Olsen shows us - one and a half postholes make a temple for modern archaeologists. And he gives us much more, some of it of a character far from negative. David Parsons' paper may be calculated indeed to restore our faith in holes in the ground, and he follows one of Harold Taylor's most thought-provoking papers - on the siting of the altar in Anglo-Saxon churches - to lay a fascinating trail of lines of enquiry into the shape and furnishing of medieval churches.

The most comprehensive of the papers studying the principles of scholarly advance is Richard Gem's. He is a brave man, who dares to apply strict criteria of logic to architectural, cultural, and art historical techniques, and like Sisyphus he seems to be rolling a great stone up a long hill, time and again. It was a tribute to the depth and clarity of his exposition, and the friendly mood of his audience, that he won and held its sympathy. Now he can give a wider audience a whole world of ideas to ponder and weigh. Hugh Richmond has given us a succinct and clear account of the exciting new approach devised by himself and his colleagues in the Royal Commission, especially of the way in which the study of ghosts - of the traces of churches whose original structure is lost or deeply hidden - by himself and Thomas Cocke can be dovetailed into the historical, documentary researches of Michael Franklin, who has found like shadows of Anglo-Saxon origin in documents often many centuries later. Another revelation of technical advance on the frontiers of knowledge comes from the fascinating account of remote sensing provided us by my namesake, Christopher Brooke. Here we were shown not only a technique for detecting ghosts from the past but a vision of the archaeological methods of the future; and by a natural confusion I myself basked for a few hours in a very short-lived reputation for having taken to serious scientific enquiry at last. Warwick Rodwell describes his contribution as a series of footnotes; but I would rather call them footprints, for they carry the marks of a substantial scientific reconstruction of the methods by which Anglo-Saxon masons worked. He so much

convinces me that he understands their working I can only suppose he has built Anglo-Saxon churches himself. His techniques on the whole illuminate the basic work of building. But it is a striking feature of some Anglo-Saxon churches, even small ones, that they were richly adorned and decorated with sculpture; and Rosemary Cramp gives us a view of some of the riches of the *Corpus of Anglo-Saxon sculpture* in a vivid presentation of some of the suites of decorative themes.

Finally, we were shown some samples of recent work on three major churches. Carolyn Heighway and Richard Bryant reconstructed St Oswald's, Gloucester, from their own careful excavations. But they also showed how an extra dimension can be added to an extensive excavation by the presence of some remnant of a standing building - as Birthe Kjølbye-Biddle enviously observed. But this was in the context of a dazzling presentation of her 7th century cathedral at Winchester. Here again we had a preview of a great enterprise, of her volume in *Winchester studies* on the Old Minster. In the Cambridge History Faculty building of the 1960s (so thin are the partitions) an earnest student may hear three lectures at once. It is startling to be reminded that even in 10th century Winchester the singing in the New Minster confounded the singing in the Old. But indeed her brilliant discussion of the problems of interpreting the foundations of an ancient church drowned for a time, even among the arts buildings of modern Cambridge, disputes about the technical and aesthetic merits of our modern buildings.

As with any collection of essays, there are many threads interwoven here, many loose ends untied. It helps us to view an active field of research, to see, as in so many paths of historical and archaeological enquiry, a rich, varied, and confusing promise. What is unusual in this case is the sure nature of the base and starting point. *AngloSaxon architecture,* begun by Joan and Harold Taylor in collaboration, concluded by Harold alone, is a substantial, lasting achievement; a work accomplished. The special inspiration of this volume is that Harold Taylor is still present, in its midst, directing, guiding all its authors. Long may it be so; and let us all meanwhile hope that he will accept this book as a tribute of admiration and affection, warm and deep, from many of his friends and colleagues.

Archaeology, architecture, and the cult of saints in Anglo-Saxon England

Martin Biddle

For all the Saints who from their labours rest,
Who thee by faith before the world confest,
Thy name, O Jesu, be for ever blest.

O may thy soldiers, faithful, true, and bold,
Fight as the Saints who nobly fought of old,
And win, with them, the victor's crown of gold.

O blest communion! fellowship divine!
We feebly struggle, they in glory shine;
Yet all are one in thee, for all are thine.

But lo! there breaks a yet more glorious day;
The Saints triumphant rise in bright array:
. . *

From earth's wide bounds, from ocean's farthest coast,
Through gates of pearl streams in the countless host
Singing to Father, Son, and Holy Ghost.

William Walsham How (1823-97)

For the first bishop of Wakefield (1888-97), the saints were the precursors, the example, perhaps the justification, of a distinctively Victorian, imperial view of the church militant and Anglican. Bishop How's idea of the saints, like that in most Protestant circles today, has devolved so far from medieval concepts that it is difficult for us to comprehend the nature of the cult of saints in the early medieval church, and especially the role of relics. To do this, and to understand the topographical evolution and architectural setting of the shrines of saints in Anglo-Saxon England, we must reach back into the world of Late Antiquity.

Here our guide should now be Peter Brown who in a long series of writings, and notably in his Chicago Haskell Lectures of 1978, since published as *The cult of the saints* (Brown 1981), has charted the way through both the ancient sources and the even more extensive works of subsequent commentators.[1] Almost all of what I have to say in the next two sections is derived from Professor Brown, a derivation intended as a tribute from someone who has approached his results from a different angle and found them congruent with the patterns derived or potentially derivable from the evidence of archaeology, as well as being (as I hope to show) an invaluable guide to the interpretation and to the comprehension of the significance of that evidence itself.

There are three concepts with which we must grapple: the saint as patron *(patronus)* who exercises his ideal power *(porentia)* through his physical presence *(praesentia).*

The idea of an invisible protector, a personal *daimon* or *genius,* entrusted with the care of the individual from birth to death, had its roots deep in the past of the Mediterranean world. Plutarch (before AD 50 to after AD 120) saw the soul as a composite of many layers: '. . . in the same degree as soul is superior to body, so is "true soul" (voûs) better and more divine than soul. '

Thus, as Brown comments, 'the self is a hierarchy, and its peak lies directly beneath the divine. At that peak, late-antique men placed an invisible protector.'[2]

In the 3rd century Origen *(c* l85 - *c* 254) believed that these invisible protectors pressed in around the average Christian, guardian angels who could yet be treated as his 'kinsfolk and friends . . . who make their presence felt intimately to those who pray to them' (Brown 1981, 52). Yet such guardians were not only invisible, they were non-human. By the end of the 4th century, however, men such as Sulpicius Severus *(c* 363 - *c* 420/5) and Paulinus of Nola (353/4 - 431) had transferred 'to a dead human being all the sense of intimate involvement with an invisible companion that men had looked for in a relationship with the *non-human* figures of *gods, daimones,* or angels' (Brown 1981,53).

Paulinus turned to the long-dead St Felix of Nola (d *260):*

Nunc ad te, venerande parens, aeterne patrone,
susceptor meus, et Christo carissime Felix,
gratificas verso referam sermone loquellas. [3]

Sulphicius in contrast chose a man recently dead, his friend Martin (? 335-97), bishop of Tours, whose life he wrote: *praemisi quidem patronum,* 'I have sent my patron on ahead' was his reaction to the news of Martin's death[4]

By identifying such patrons for himself, the Christian of the later 4th and 5th centuries was able to multiply intercessors on his behalf with the divine. By expressing the relationship as one between two human beings, he brought it within the well-tried antique bonds of patron and client, *patronus* and *famulus.* By so doing, Paulinus and Sulpicius 'set western Christian attitudes to the saints on a steady course from that time onwards' (Brown 1981, *55).*

The ability of invisible patrons to intercede with the heavenly powers was expressed on earth through their *potentia,* ideal power exercised without the violence which so frequently characterized the use *of potentia* in the world of Late Antiquity *(ibid,* ch *6, passim).* The exercise of a saint's *potentia* was demonstrated most clearly (and his physical *praesentia* most clearly felt) in acts of healing and exorcism *(ibid,* 107). Such acts were as essential to the growth and continuation of a cult as were the tomb and the corporeal relics through which the saint was physically present.

'The physical presence of the holy, whether in the midst of a particular community or in the possession of particular individuals, was the greatest blessing that a late-antique Christian could enjoy' *(ibid, 88).* The acquisition of this blessing was however in stark contravention of contemporary prohibitions against the disturbance of the dead,[5] for it involved not only moving

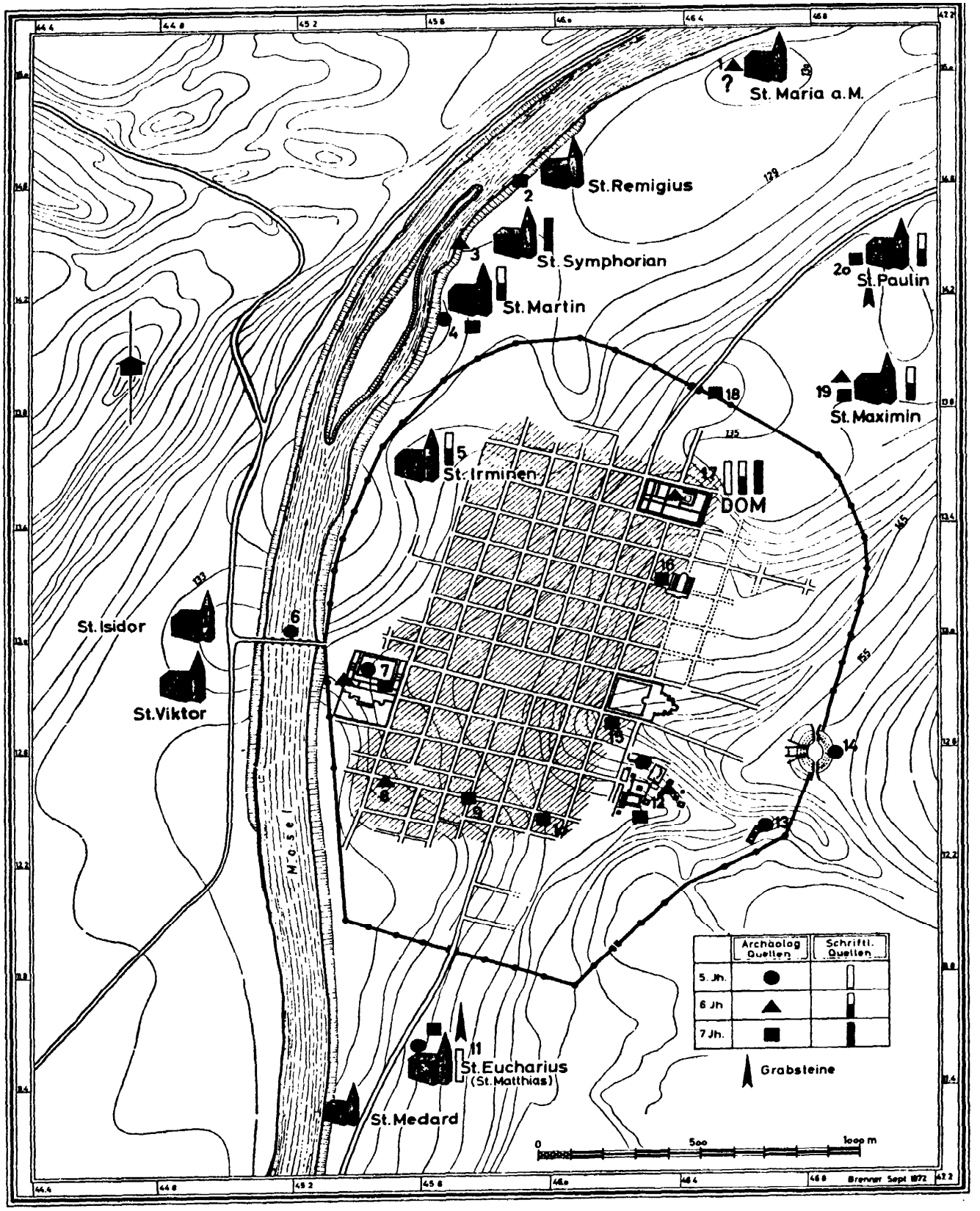


Fig 1 Merovingian Trier (after Schindler)

and touching, but even the dismemberment and fragmentation of human bodies. The distaste which this aroused was only slowly overcome and in its passing broke down immemorial barriers between the altar and the tomb, between the private grave and the public shrine, between the cities of the living and the cities of the dead outside their walls. Only an idea of great power could have been the catalyst of so great a change, and the idea was no less than that heaven and earth were joined at the grave of the very special dead. The saint in heaven was believed to be 'present' at his tomb on earth. An inscription beside the tomb of St Martin at Tours made this explicit:

> *Hic conditus est sanctae memoriae Martinus episcopus*
> *Cuius anima in manu Dei est, sed hic totus est*
> *Praesens manifestus omni gratia virtutum.*
>
> Here lies Martin the bishop, of holy memory, whose soul is in the hand of God; but he is fully here, present and made plain in miracles of every kind.[6]

To take part in ceremonies at such a grave, to look upon, touch, and even kiss the relics of the saint was thus to be in the presence of the holy and at a bridge between the worlds of earth and heaven. Only a concept so full of power and promise could have brought about the transformation of the existing order of the living and the dead.

It was not only in the remains of his whole body, however, that the saint was fully present. Victricius *(c* 33O - *c* 407), bishop of Rouen from *c* 380, spoke of the bodies of the saints whose every fragment 'is linked by a bond to the whole stretch of eternity'.[7] Thus, when Germanus *(c* 378-448), bishop of Auxerre from 418, visited Britain in 429, he opened the tomb of Alban and placed in it *membra sanctorum ex diversis regionibus collecta* ('limbs of saints brought together from various countries') (Bede, *HE,* i. 18; see also below, p 13 and n 62). Even the dust from his tomb or cloths which had been lowered into it were believed to be as full of the *praesentia* of a saint as any of his physical remains. Germanus took dust from Alban's grave, *de Loco ipso, ubi beati martyris effusus erat sanguis* ('from that place where the blood of the martyr had flowed out') *(HE,* i-18). And when in 519 the young Justinian (483-565) wrote from Constantinople for a fragment of the body of Peter, he was sent instead a cloth inserted through a special window.[8] Little cloths, known as *brandea,* lowered on to the tomb of Peter and drawn up literally, it was believed, heavy with his blessing, were a feature of the Roman pilgrimage throughout the Middle Ages and are recorded already by Gregory of Tours *(c* 540-94), on the basis of a report given by his deacon Agiulph.[9]

By the end of the 4th century the ideology of *praesentia* was established. In a very short time the practices which flowed from it were in full flood: the bodies of the holy were translated, dismembered, distributed; 'contact relics' such as dust and cloths were multiplied; and the power of the saints to mould even the physical fabric of contemporary urban life was made manifest.

With very few exceptions, burial in the Roman world took place away from the homes of the living and in the case of walled cities almost invariably in cemeteries which lined the roads outside their gates: in the words of Cicero: *hominem mortuum in urbe ne sepelito neve urito.*[10] As the graves of Christian 'very special dead' began to attract increasing attention, it was therefore inevitable that the basilicas which were erected over them should be in the suburbs, well away from the cities of the living. A lesser city might have only a single shrine, but the capitals of the later empire were now ringed with cemetery churches, some over the graves of martyrs great and small, others above the less dramatic graves of those who had yet left behind them a special remembrance of the part they had played in the earlier days of the church. Around the walls of Rome there was a veritable crown of saints; St Peter, St Paul, and St Lawrence were only the greatest of the Roman martyrs.[11] Around a lesser capital such as Trier the crown was equally complete (Fig 1).[12]

Some of these graves had begun to attract, perhaps had never ceased to attract, special attention, in much earlier times, but it was the bishops of the later 4th century who in the west at least acted as *impresarios* (Brown 1981, 38, 63-8) in drawing attention to the graves of those saints with whom they felt the especially close relationship of a *famulus* for his patron. Foremost amongst them was Ambrose *(c* 339-97), bishop of Milan from 374. In 386 Ambrose translated the remains of Saints Gervasius and Protasius within days of their discovery from the church in which they were found to his new basilica, and placed them under the altar where they 'were linked to the communal liturgy, in a church built by the bishop, in which the bishop would frequently preside' (Brown 1981, 36, drawing on Dassman 1975,49-68, esp 52-7). By this act Ambrose provided a point of concentration 'in a graveyard where, previously, holy graves had existed, but had lacked a clear focus' (Brown 1981, 37). The ultimate success of his initiative stands reflected in the great church we know as Sant' Ambrogio; the sculptured sarcophagi which crowded its cemetery already in the time of Ambrose and his early successors testify to its immediate appeal *(ibid, 37).*[13]

Ambrose was only one of the first to take such steps. Others did so elsewhere, for example Paulinus at Cimitile in the Campania,[14] Alexander at Tebessa,[15] and Augustine at Hippo in Africa.[16] Far away to the north the successors of Martin erected a basilica over his tomb at Tours;" and in Maxima Caesariensis of the diocese of the Britains a church *mirundi operis atque eius martyrio condigna* arose over the grave of Alban (Bede, *HE,* i.7).

By the early 5th century accumulated endowments had given the bishops of the Latin church a wealth undreamed of in previous generations.[18] The construction of vast basilicas, surrounded by complexes of new buildings, adorned with precious materials and all that the arts of the age could furnish, was a literally sanctified outlet for the display of episcopal wealth, and the cemetery areas in which these shrines arose provided ample space for expansion. Yet so huge were these new churches and their attendant buildings, and so thronged by vast crowds, that the city of the living itself seemed to be shifting its site. *Movetur urbs sedibus suis* wrote Jerome *(c* 342-20), 'the city is changing its address'.[19]

The presence of a saint could move a city as effectively as the growth of his cult might transform its society." In places throughout the former Roman world, as towns decayed, settlement shifted definitively to cluster *ad sanctum,* abandoning the former inhabitations of the living in favour of the cities of the dead. At Ephesus, it is

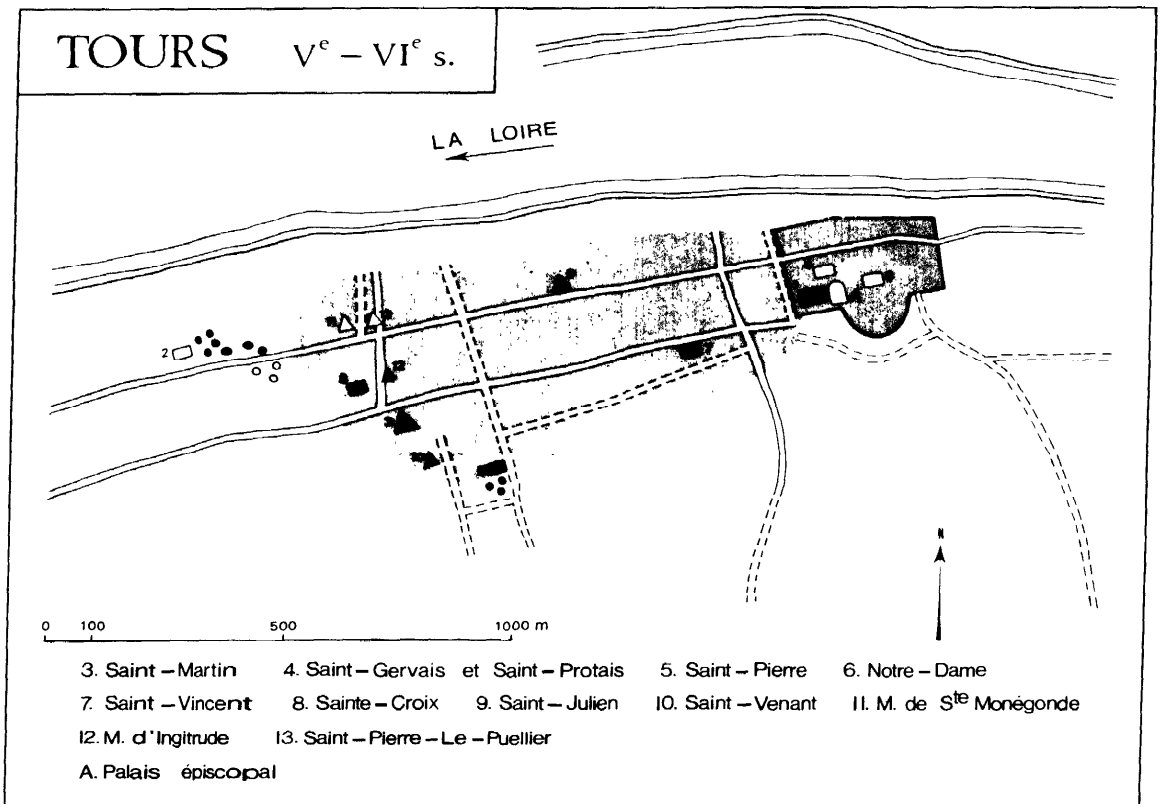


Fig 2a Tours in the early Middle Ages: 5th-6th century (after Galinié)

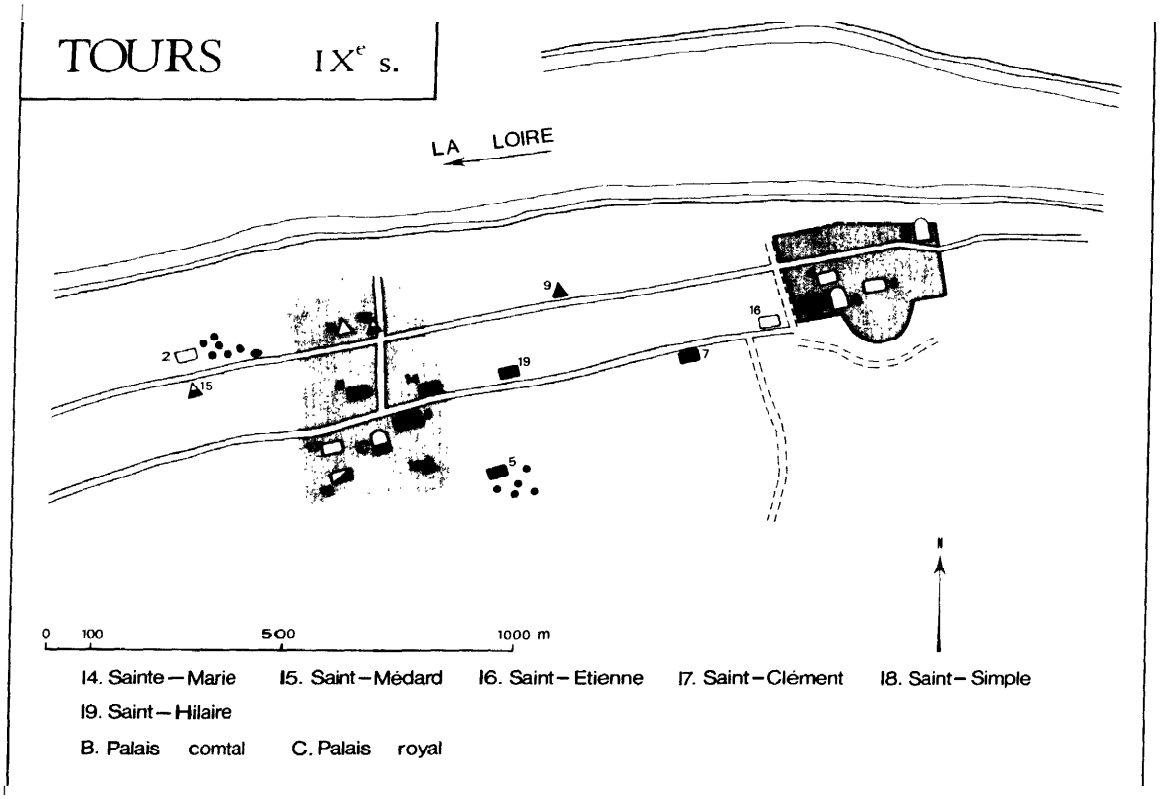


Fig 2b Tours: 9th century

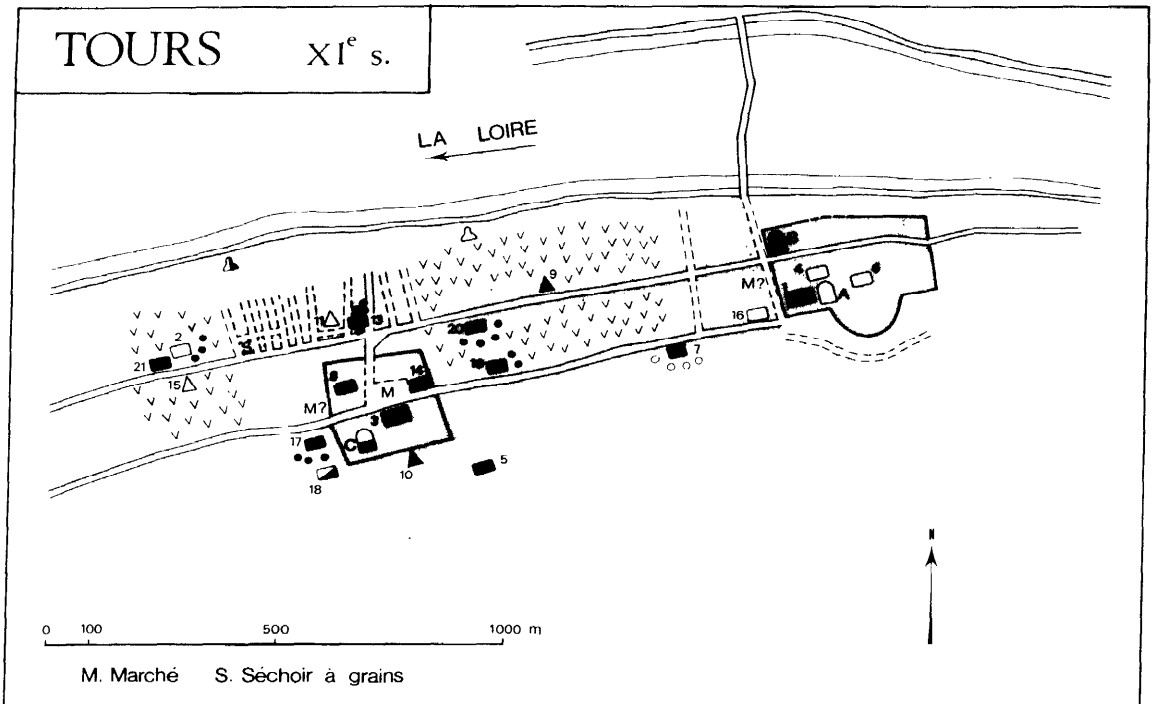


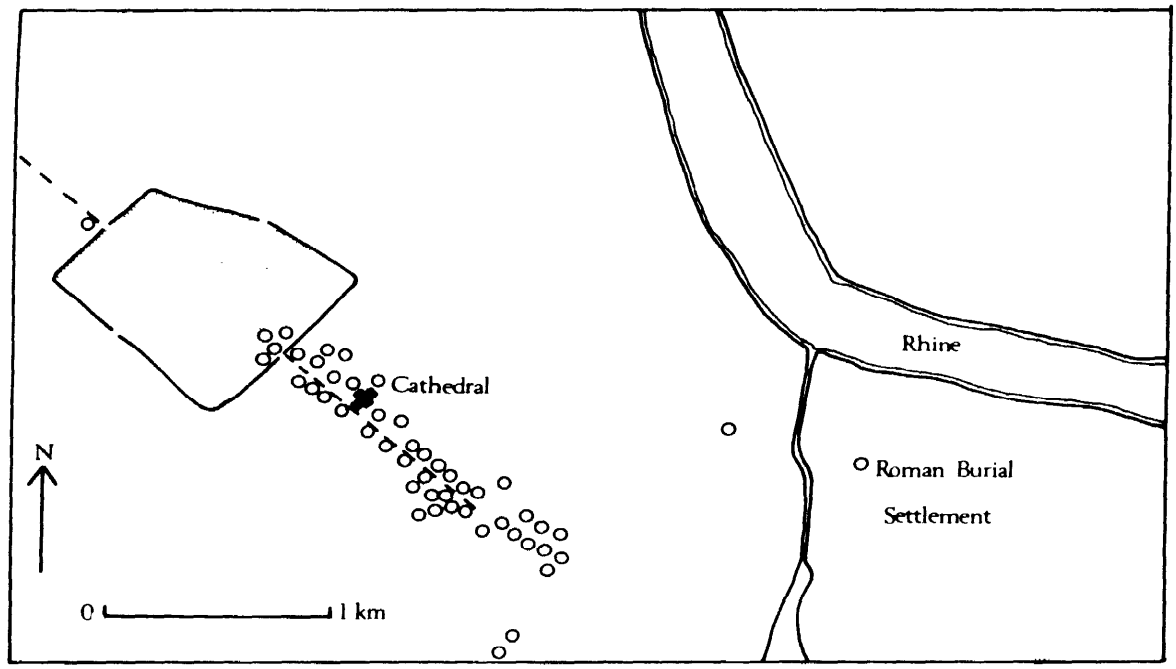
Fig 2c Tours: 11 th century

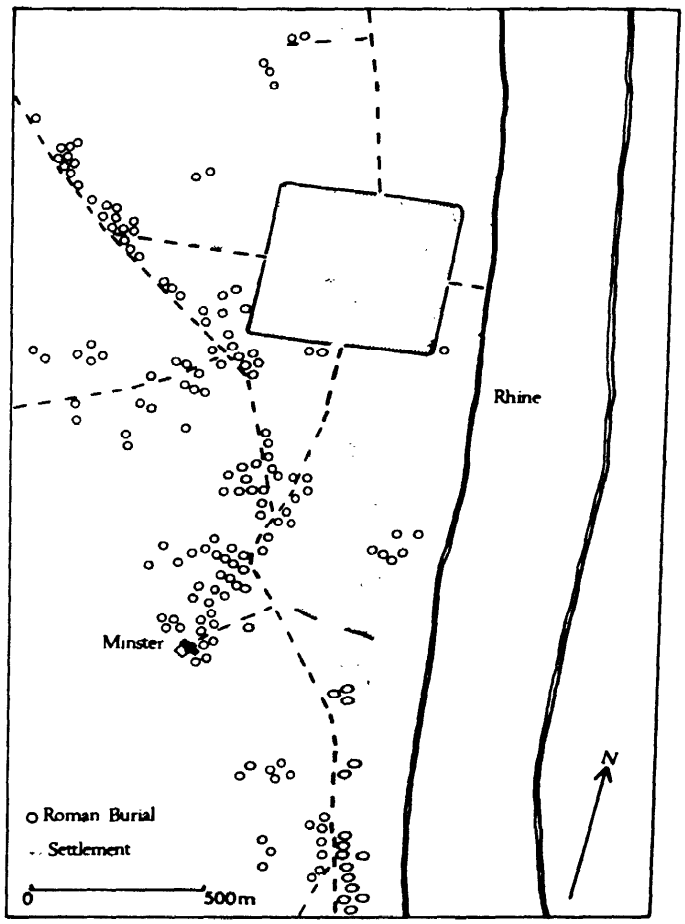
Ayasuluk at the tomb of St John which has survived; the ancient city is deserted (Foss 1979). Medieval Augsburg grew up in part around the cemetery church of St Ulrich and Afra, by the second milestone south of Augusta Vindelicum on the Via Claudia (Böhner 1975,53-63, esp 58-9; Weber 1975, 113-28). At Tours, St Martin drew around himself a separate and eventually fortified settlement, the Bourg St Martin (Fig 2).[21] Xanten *(ad* stands at the double grave of two executed men (Fig 3A) (Böhner 1975, 57, with bibliography). Bonn south of Castrum Bonna (Fig 3B) (Borger 1970, 52-89). hilltop city, leaving Verulamium deserted in the valley 138-42; see also below, pp 13-16). Shifts such as these stimulus and the continuing attraction lay in of a saint.

founded in the practice of Late Antiquity. Almost all its in- - can be traced back to, and be seen to be reflections, begun to gather pace around the shores of the Mediterra- cause no surprise. The mechanisms which powered both Britain, and which refuelled it on innumerable occasions

ecclesiastics [22] 'to the thresholds of 1946,37-8; Krautheimer 1980,79-83; cf Albertson 1967, women of all sorts and conditions to the great shrines of 1967, 92; cf Wilkinson 1977). The use of crypts of the type derived from Pope Gregory's reordering of influence of Rome on the architecture of the cult of saints[23] twisted columns supporting the vault of the crypt at more surprising, derived as they must be from the twisted Gregory later repositioned at the grave of the Apostle 212-19, fig 22).

My purpose here is to examine briefly the surviving ment of the graves of saints in Anglo-Saxon England. It is written evidence where this is not accompanied by the housing of movable relics, whether imported from[25] whether there is any architectural or archaeological during the Anglo-Saxon period. This may be done by Saxon England with the entries in Harold and Joan





Taylor's *Anglo-Saxon Architecture* and in the subsequent literature.

be þam Godes sanctum þe on Engla lande ærost reston, consists of two parts, the first derived from a list of Northumbrian and Midland interest and of pre-Viking date, the other an essentially Wessex production relating 'to southern and eastern England in the period of West Saxon domination and of the tenth-century ecclesiastical reform' (Rollason 1978, 68). The earlier part records 29 saints in 27 locations, the later 60 saints in 30 locations; altogether (since Peterborough occurs in both) 56 locations *(ibid,* 87-93). To the *Secgan,* other lists of post-conquest date add a further 29 locations *(ibid,* 69-74). In total, therefore, the lists provide an indication of 85 places in which the bodies (or relics)[27] of saints were believed to rest in England.[28] To this number, a few more places can be added from other sources[29] and further research will perhaps add others, but for present purposes it will be sufficient to examine the 85 places named.

Of the 56 locations provided by the *Secgan,* only 15 have entries in *A-S Arch,* 1, 2, and of these 15 entries, only 9 provide any structural information. To these 9, we can today add 8, for a total of 17. Of the 29 locations given in the later lists, there are entries in *A-S Arch,* 1, 2 for 7, only 5 of which provide any structural information. To these 5, we can today add 2. This means that we have some structural evidence for the Anglo-Saxon church itself in 24 of the 85 locations named in the lists. As the following brief notes will show, there are only a few of these in which there is any direct evidence for the grave of the saint or saints concerned.

Fig 3 Martyr burial and settlement shift on the lower Rhine: above, Xanten, the cathedral in relation to the topography of the Roman period (the Rhine is shown in its present course); below, Bonn, the minster in relation to the topography of the Roman period

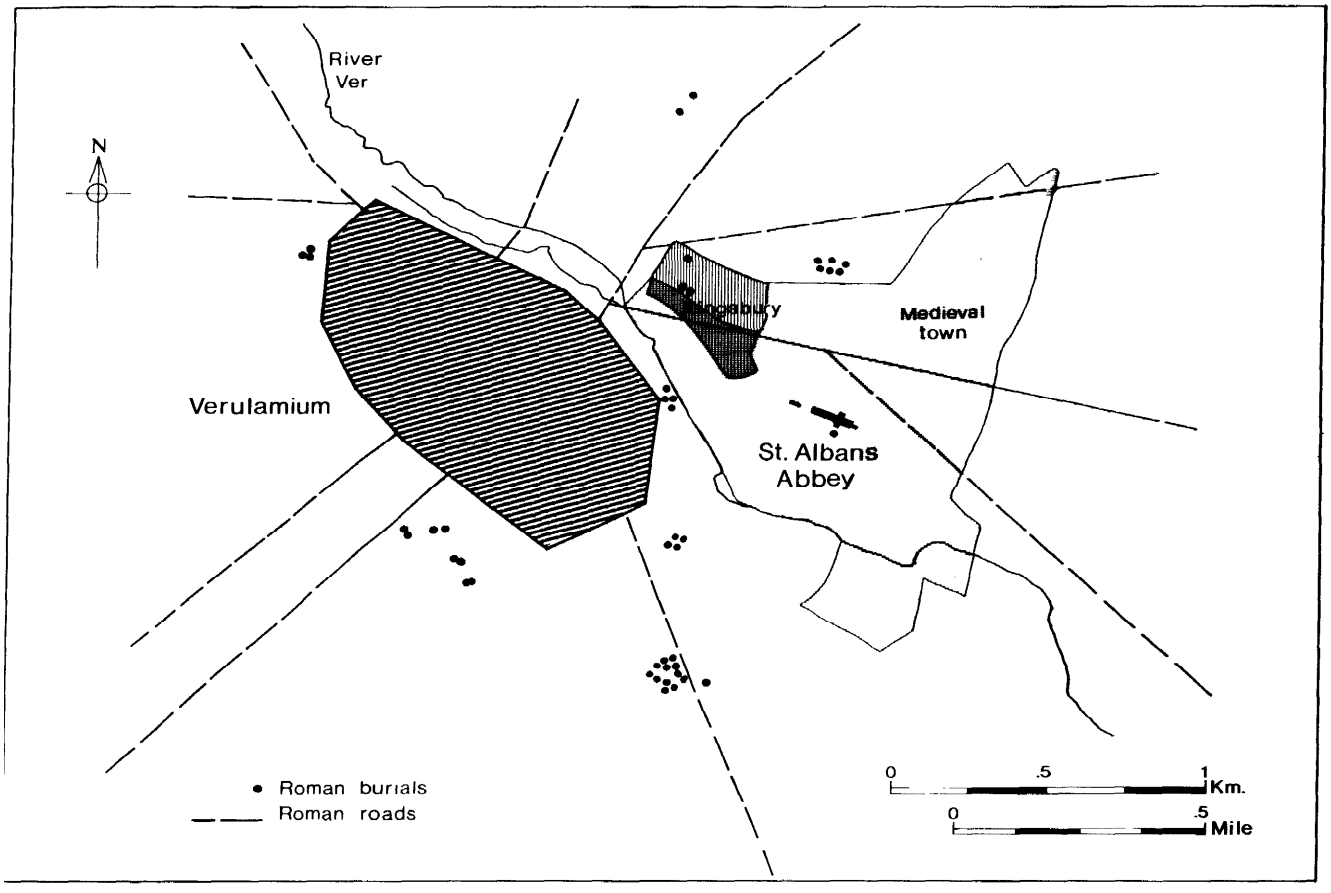


Fig 4 Verulamium and St Albans

Abingdon The remains of an eastern apse, possibly the central chamber of a ring crypt, were found in excavations at the abbey in 1922 (Biddle 1968, 60-8). There is no evidence to indicate whether this was a *confessio* associated with the relics of St Vincentius.[30]

Bedford There is evidence for Anglo-Saxon work in both St Mary and St Peter *(A-S Arch,* 1; cf *A-S Arch,* 3, 1078), but no indication in either as to how the remains of St Æthelberht were housed, even supposing they were placed in one of these churches.

Canterbury, St Peter and St Paul (St Augustine's) The tomb of St Augustine (and of his five immediate successors as archbishop) was in the north porticus of the church until translated by Abbot Wido in 1091 *(A-S Arch,* 1) .[31] It seems probable that Abbot Wulfric would have translated Augustine into the centre of the octagon which he built between the church of St Peter and St Paul and that of St Mary, had he not died in 1059 before it was complete.[32]

Canterbury, Christ Church There are no visible remains of the pre-conquest cathedral, but Eadmer's description explicitly states that beneath the altars at the east end of the church there was a crypt which the Romans call a *confessio,* fabricated in the likeness of the *confessio* of St Peter *(cripta, quam confessionem Romani vocant, subtus erat, ad instar confessionis sancti Petri fabricata),* and that St Dunstan was buried below the matutinal altar at the end of a passage which ran westward from this crypt.[33] The exact meaning of Eadmer's description has been much debated and different dates have been proposed for the crypt (Parsons 1969; Gem 1970; Gilbert 1970; Taylor 1975, esp 154-8). Without excavation, further debate seems pointless.

Derby, St Alkmund A carved stone sarcophagus (with a fragment of its carved lid) was found in 1967-8 buried below the later medieval floor in the south-east angle of the pre-conquest nave. The elaborate decoration on all four sides shows that the coffin was intended to be seen and cannot therefore be in its original position. It was perhaps buried and filled with rubble when the eastern arm of the pre-conquest church was extended in the 12th century by the construction of a crypt which may have been associated with a translation of the body originally in the coffin. This has been identified as that of St Alkmund (Ealhmund, a Northumbrian prince murdered *c* 800 (Rollason 1983, esp 34)) and it has been suggested that the disused coffin, its lid still at first visible above the ground, might have

formed a secondary focus of devotion to the saint (Radford 1976, esp 35, 37, 45-6 ('Shrine'), and pls 4, 5). This would be entirely consistent with the veneration accorded elsewhere to an original grave even after the translation of the body (cf below, St Swithun at Winchester). But the body of Ealdorman fithelwulf of Berkshire, who was slain at Reading in 871, 'was carried away secretly, and was taken into Mercia, to the place called Northworthig, but in the Danish language Derby' *(Chron Ethelweard,* 37) and was probably buried in this church *(ASC,* 46, *sa* 871). We do not yet know enough about high-status Anglo-Saxon burials to be certain that the carved stone sarcophagus was for the burial of the saint rather than the earldorman, nor can the style of the carving of the sarcophagus be used to decide between a burial *c* 800 or in 871.

Glastonbury Excavations at Glastonbury Abbey have established the plan and sequence of the pre-conquest church *(A-S Arch,* l), but nothing is known of the way in which the relics of Aidan and Patrick were housed. A crypt or 'shrine' was found enclosed in (and earlier than) the foundations of what is usually regarded as the tower built by Dunstan (abbot, *c* 943-56): 'Dunstan . . . apparently filled in the crypt, having collected the bones of those buried there and placed them together in a large stone coffin, which he deposited in the middle of the former staircase leading down to the crypt. '[34]

Gloucester, St Oswald's Excavations at St Oswald's Priory in 1967 and from 1975 to 1983 revealed the plan and sequence of the church to which the body (but not the head, arms, or hands) of St Oswald, king and martyr, was translated in 909.[35] It is not known, however, where or how the relics were accommodated in the new church of *c* 900 (Period 1). Carolyn Heighway has suggested that the western apse may have been the place where Æthelflæd (and her husband Æthelred?) sat in state and that the pillared crypt added in Period 2 *(c* 918?) may have been for their burial and memorial, and/or a relic crypt for the remains of Oswald (Heighway 1984).

Hackness, St Peter (?) Although there are remains of pre-conquest work at St Peter's *(A-S Arch,* l), there is no indication where or how the relics of St Ethelburg of Hackness were housed, or whether they were in this church or the now lost St Mary's

Hexham King Ælfwald of Northumbria (murdered 788) was buried inside the church at Hexham (Rollason 1983, 4),[36] but nothing in the remains of the pre-conquest church found below the abbey shows how his tomb was treated or where it lay *(A-S Arch,* 1). It is not possible to assume that Ælfwald was buried in the crypt at Hexham, and his burial inside the church probably precludes the idea that he was buried in the originally(?) detached eastern apsidal chapel, although this would be attractive. It is possible, but perhaps unlikely, that Ælfwald was buried in one of the two other churches built by Wilfrid at Hexham, St Peter's and St Mary's, both now lost.

Iona Columba lay at Iona, before being translated in the 9th century to Dunkeld to avoid Viking raids. There is a long-standing tradition which holds that the small, steep-roofed building which stands a little to the north of the main west door of the early 12th century abbey church marks the original site of the saint's tomb. This is possible, but the structure itself, restored in 1962, is perhaps an oratory of the 9th or 10th century and the burial-cists visible within are undatable (RCAHM(Scot) 1982, 41-2, 45, 47-8, 137-8).

Jarrow Bede died on the evening before Ascension Day 735 and was buried in a porticus on the north side of the church of St Paul. A memorial stood in the porticus in the 11th century and as late as 1540 Leland was shown an oratory on the north side of the church with an altar said to be that of the Venerable Bede. Bede's remains were removed to Durham in the 11th century. The nave and porticus were demolished in 1782, but their plan and general appearance are known *(A-S Arch,* 1). No details of Bede's tomb are recorded. [37]

Lyminge St Æthelburg founded a monastery at Lyminge following her return to Kent after the death of her husband, Edwin of Deira, in 632 and was eventually buried there (Rollason 1982, 9, 44, 62-3, and summaries of the texts, 75, 80-5). St Eadburg, apparently the abbess who ruled Minster-in-Thanet from 716 to her death in 761, was probably first buried at Minster, but her body had been translated (perhaps in the face of Viking attacks) to Lyminge by 804 (Rollason 1982, 21-4, 35-6, 44, 62-4, and summaries of the texts, 79, 81, 83-5, 87). The fragmentary plan of a large and complex church of possible 7th century date was recovered in the 19th century and has long been the subject of controversy *(A-S Arch,* 1; revised in *A-S Arch,* 3, 1074, 1082). Goscelin describes the monument of St Ethelburg as standing under an arch in the north porticus beside the south wall of the church *(eminentiusque monumentum. . . in aquilonali porticu ad australem parietem ecclesiae arcu involutum).* [38] This apparent contradiction can be resolved with the help of the plan of the 19th century discoveries, if Goscelin's description is taken to mean that the monument stood originally over the tomb of St Æthelburg in the north porticus of the original church, and that by his time it was under an arch in the south wall of the later church which had been built on a site north of and across part of the north porticus of the earlier church (Taylor 1969d). Nothing seems to be known of the tomb of St Eadburg; already in the 11th century she could be confused with St Æthelburg, and this confusion appears again in the most recent discussions of Lyminge (Taylor 1969d; cf Gilbert 1964, 143). It is perhaps not impossible that St Eadburg was buried on her translation in a grave close to the foundress of Lyminge in the same north porticus; the canons of St Gregory's of Canterbury thought they had found her body in 1085, along with that of St Æthelburg and by inference in the same place, but they also thought they had found St Mildrith's body, which they almost certainly had not (Colker 1977, 60-l).

Much Wenlock This double monastery was founded *c* 680, perhaps by Merewalh, king of the Magonsæ-

tan, for his daughter Mildburg who became the second abbess before 690, died after 727,[39] and was buried there (Rollason 1978, 62, 89; cf 1982, 93). The foundations of an early church, supposedly of the 7th century, have been found in excavation under the 13th century priory church *(A-S Arch,* 1) (but see also Jackson & Fletcher 1965), but there is no pre-conquest evidence for the location of St Mildburg's tomb. On 24 June 1101 a grave was discovered near an altar in the church of the Holy Trinity, 150 yards south-west of the main church, at a spot identified as the burial place of Mildburg by a document discovered in the church shortly before. On digging, bones were found which had been buried in a wooden coffin of which only the rusted iron bindings survived. The remains were accepted as those of St Mildburg and were translated to the main church (Edwards 1961-4). Because the south wall of Holy Trinity, now the parish church of Much Wenlock, is of Anglo-Saxon date, it has been suggested that this church was originally the nuns' church of the early double monastery (the monks' church being that on the priory site), and that Mildburg was buried within it (Jackson & Fletcher 1965, 35-8; Edwards 1961-4, 141). The iron binding of the coffin suggests that this was indeed an important Anglo-Saxon burial,'" but the archaeology of the priory site and of Holy Trinity require much further investigation before the contemporaneity let alone the identification of the two (early?) churches can be established.

Peterborough The remains of St Botulf (d *c* 680) recorded at *Medeshamstede* in the first part of the *Secgan* may or may not be identical with those translated to Thorney in the reign of Edgar (959-75) which appear in the second part (Rollason 1978, 62, 66, 68, 89).[41] In that part *Burh* is given as the resting place of three saints all of whom had been translated there from elsewhere: Cyneswith and Cyneburg in 963 and Florentinus in 1013 *(ibid,* 62, 64-6, 68, 90). Foundations of the east end of an earlier church were found below the present cathedral in 1883 *(A-S Arch,* 2), but provide no evidence for the housing of the saints. It has been suggested (Radford 1955, 58-9) that the Hedda stone was originally placed above a chest containing relics, probably set on the east side of the altar, and that 'it is not impossible that it was over' the right arm of St Oswald.[42] But these are speculations and not evidence as to how the relics of the saints were housed.

Repton *See* below, p 16.

Ripon St Wilfrid (634-709) was buried at Ripon on the south side of the altar of St Peter's church *(in ecclesia beati apostoli Petri iuxta altare ad austrum)* and an epitaph of twenty hexameters was written above him *(HE,* v. 19).[43] His burial at Ripon is listed in the first part of the *Secgan* together with those of St Egbert (d 729) and St Wihtberht (Rollason 1978, 62-3 89).[44] Of the church which Wilfrid founded and built between 671 and 678 (Plummer 1896, ii, 318) virtually nothing survives except the crypt *(A-S Arch,* 2). It is perhaps significant that Bede's account of the place of Wilfrid's burial probably implies that it was not in the crypt. Nothing is known of the place of burial of St Egbert or St Wihtberht.

Rochester St Paulinus, the first archbishop of York (d 644) 'was buried in the *secretarium* of (the church of) St Andrew which King Ethelbert had constructed from the foundations in the city of Rochester' *(in secretario beati apostoli Andreae) (HE,* iii. 14; cf Rollason 1978, 65, 91). The word *secretarium* as used here and of the place of burial of Pope Gregory in Old St Peter's meant, in Plummer's view, 'a vestry or sacristy' (1896, ii, 71), but Colgrave and Mynors have preferred 'sanctuary' (1969, 132n). This is one of those problems which can only be settled by the discovery of Paulinus' grave. The remains of three early churches have been found below the cathedral at Rochester *(A-S Arch,* 2; 3, 1083), of which the most north-westerly has been identified as King Ethelbert's church of St Andrew. It possessed an apsidal eastern porticus (which could possibly be the *secretarium* if this means 'sanctuary') and a wider nave. No evidence for flanking porticus to north and south has been recorded. If they existed, as is likely in a Kentish church of this date, one of these side rooms, perhaps that to the north (cf the burials of St Augustine at the church of St Peter and St Paul, Canterbury, Ethelburg at Lyminge, and Bede at Jarrow), would seem to be both a more likely place of burial at this date,[45] as well as more suitably described as a 'vestry' or 'sacristry'.[46]

Romsey The saints at Romsey (founded 967) listed in the second part of the *Secgan* are Balthild, wife of Clovis II (638-57) and foundress of Chelles and Corbie (James 1982, 111, 146-7), and Mærwyn and Æthelflæd (Rollason 1978, 64-6, 92), abbesses of Romsey (Liveing 1912, 14, 17-27).[47] Æthelflæd was buried *in atrio* and later translated into the church. Balthild must have been in a reliquary. Remains of the pre-conquest nunnery church are known from excavations below the floor of the present abbey in 1900 *(A-S Arch,* 2; 3, 1083; see also Hearn 1969) and from excavations in 1973-9 outside to the north and south.[48] These indicate an apsidal church with north and south porticus. There is, however, no evidence from written sources or archaeology to indicate how or precisely where the saints were buried.

St Albans Abbey *See* below, p 13.

Stafford Hugh Candidus recorded that St Berthelm rested in Stafford (Mellows 1949, 61). He is an obscure saint whose *vita* is fictitious. The church of St Bertelin at Stafford was excavated in 1954 when a three-stage sequence was suggested for the earliest structures: first, an open-air Middle Saxon timber preaching cross with surrounding burials; second, an early 10th century wooden church in which the now disused oaken cross was buried; and third, a replacement of the church in stone not later than the early 11th century (Oswald 1955, 15-18, 26-7, 59). No evidence of the burial of the saint was recovered, unless the interpretation of the excavation were to be radically reconsidered. Martin Carver has in fact suggested a simpler sequence, with a pre-conquest timber church followed by a post-conquest stone church associated with wooden coffins. He has also suggested that the 'cross', for which a radiocarbon

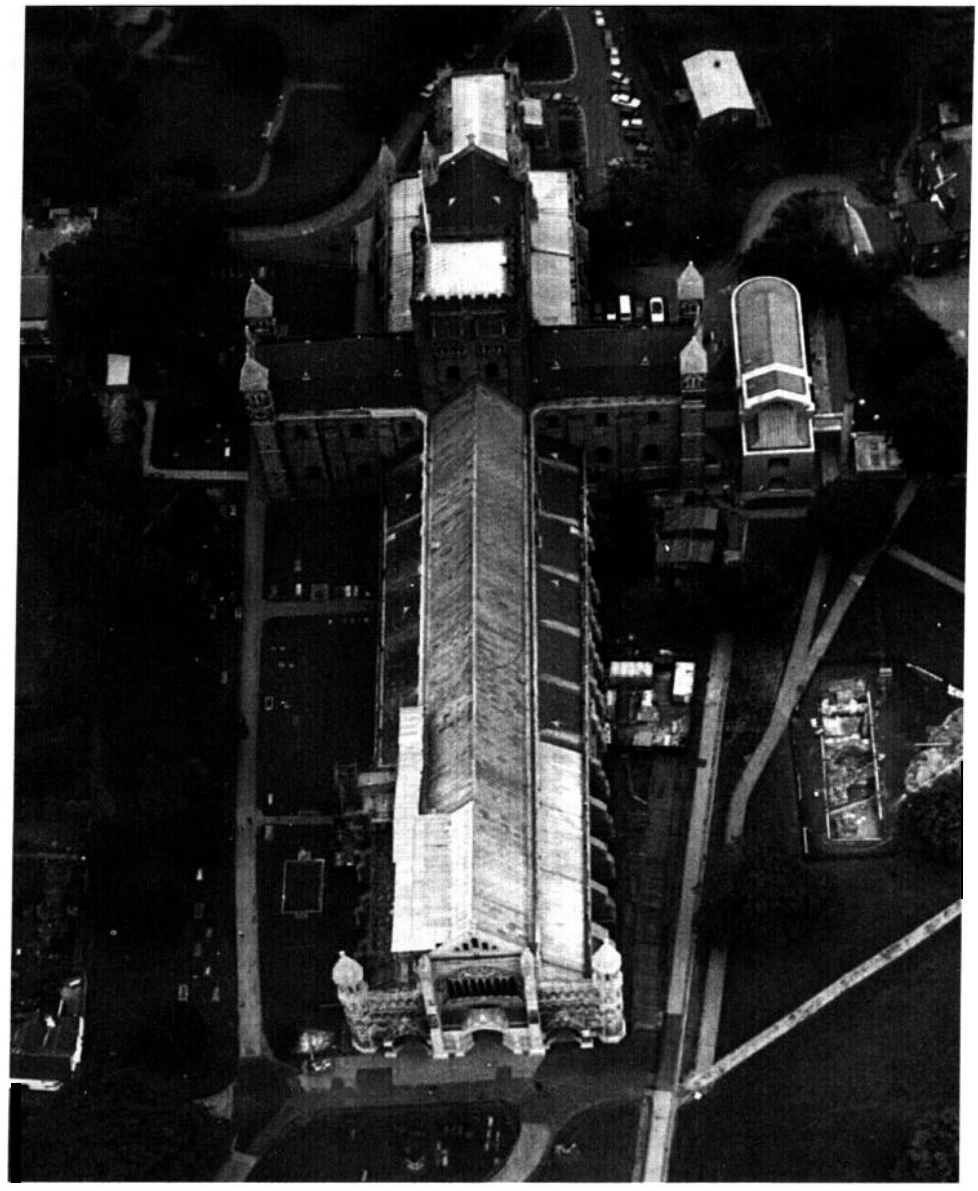


Fig 5 St Albans Abbey from the air, looking east, 1982: excavations in progress across the west range of thecloister, on *the site of a cemetery of the 4th century AD (photo: Martin Biddle)*

date of ad 1180 ± 78 has been obtained, could be regarded as the remains of such a coffin, as the excavators themselves first thought (Oswald 1955, 17).[49] The carbonized condition of the wood may suggest, however, that the so-called 'cross' was in fact the charcoal bed of a 'charcoal burial' of the kind now well known from pre-conquest cemeteries, datable from the 9th to the 1lth centuries, and believed to be an indication of high status. The excavation report does not make clear *(ibid, 59,* cf 17) whether the oak charcoal of the 'cross' was part of a single timber, or the charcoal of small oak branches as is usual in charcoal burials.[50] If this was originally a charcoal burial, as its position in a pit may also suggest, the body had been removed, presumably as part of a formal translation; a coin of Æhelred II's crux type incorporated in the fill of the pit over the 'cross' shows that this event took place no earlier than *c* 991-7 *(ibid,* 17). If this reinterpretation should be correct, such an empty, apparently high-status, grave might be the original grave of St Berthelm, from which his body had been removed in an apparently unrecorded translation.

Tynemouth Hugh Candidus records the burial here of Oswiu, king of Northumbria (654-70), presumably confusing him with his cousin Oswine, king of Deira (644-51), whom he murdered *(HE,* iii. 14;

Rollason 1983, 3; cf 1978, 70). According only to 12th century and later sources, Oswine was buried at Tynemouth *in oratorio. . . Virginis [Mariae],* until his translation in 1065 (Plummer 1896, ii, 164). The written evidence for the existence of an Anglo-Saxon monastery at Tynemouth is very slight. The archaeological evidence consists of the Monk's Stone (9th century), six other pieces of late Saxon sculpture (Cramp 1984, 226-9), a *styca* of Æthelred II of Northumbria (841-4), a bronze Urnes-style mount, and a series of timber buildings excavated in 1963-3 below the crossing and to the north of the priory church (Jobey 1967, esp 42-9, 88-9, 99-104). There is no certain evidence of the pre-conquest church itself and none for the actual tomb of Oswine.

Winchester, Old Minster See below, p 22.

Winchester, New Minster According to the *Secgan* Iudoc and Grimbald rest in New Minster. Iudoc (Judoc or Josse) was a Breton prince and hermit who died c 668 and was buried at Saint-Josse-sur-Mer (near Etaples). His remains were brought to England shortly after 900 and enshrined in New Minster. Grimbald travelled to England from Rheims in 887 and became the leading member of the *monasteriolum* which, after his death in 901, formed the nucleus of Edward the Elder's foundation of New Minster (Rollason 1978, 64-5, 92; Grierson 1940, 556-8; Birch 1892, 5-6, 92, 149, 161, 248; Quirk 1961, 16-20). There were, in addition, a great many other relics which were kept principally in three great shrines - called 'John and Paul', 'the Greek shrine', and 'the shrine that Alwold the churchwarden made' - and in the great cross (Birch 1892, 147-53, 158-63). The site of the church was discovered in 1963 and its plan is known in outline from further discoveries in 1964-8 (Biddle 1976, 313-18).[51] Nothing is yet known of the arrangement of the east end, where the tomb of Grimbald and the three great reliquaries were presumably kept, but a fragment of a massive foundation located east of the church in 1970 might indicate the extension of the church, or the provision of a special detached eastern chapel for the accommodation of relics or important burials. [52]

Winchester, Nunnaminster St Eadburh, daughter of Edward the Elder, died *c* 951-3 (Biddle 1976, 321-2, 555) and was buried in Nunnaminster (Rollason 1978, 65, 92), of which she remained throughout her life a simple nun, never becoming abbess (Braswell 1971). She was buried outside the church, but was then moved to a grave inside, and finally translated into a golden shrine, decorated with silver and gems. No precise details of the place or mode of her first and second burials are given *(ibid,* 329 (lines 101, l05-6), 332). Between 1981 and 1983 the rather massive west front of a pre-conquest church was found below the nave of the early 12th century abbey church.[53] This west front had in turn replaced a slighter building with a possible southern apse, the focus of which might lie west of and axial to the west front which replaced it. A southern apse in this position might imply a corresponding northern apse in an arrangement comparable to the double-apsed memorial building around the tomb of St Swithun (see below). If this proves to be correct, the focus of the apsed structure at Nunnaminster might indicate the position of Eadburh's original or second grave on the axis of the church.

The resting places discussed in the previous pages are those for which at least some structural evidence of Anglo-Saxon date survives, although even in these cases it rarely casts much light on the mode of burial of the saint or saints, and one example, Christ Church in Canterbury, has been included for which there is written evidence alone. The list might be extended by including other resting places for which the evidence is only documentary or inferential or both, of which the reburial of St Neot on the north side of the altar of his church in Cornwall (Dumville & Lapidge 1985, lxxxvi, xcii-iii, 124) or Winchcombe, where St Kenelm lay (Rollason 1978, 65, 93; 1983, 9-10) are excellent examples.[54] Or it could be increased by the addition of resting places for which there is a tradition not included in the resting place lists: St Wite at Whitchurch Canonicorum in Dorset is an example which perhaps indicates how unsure the path of such an enquiry might be (Farmer 1978, 401-2; Waters 1980).[55] All that has been attempted here is to give some indication of the range, character, and quality of the evidence at present available for the archaeological and architectural study of the cult of saints in Anglo-Saxon England.

At this stage only two conclusions may be justified. First, there seems to have been an early preference to use the north porticus for the burial of those members of a community - whether heads of houses or persons of pastoral or scholarly distinction - who were later to be sainted (Augustine at Canterbury in *c* 604-9; Æthelburg at Lyminge *c* 647; Bede at Jarrow in 735),[56] and to translate to new graves in the north porticus ecclesiastics of saintly potential (Mildrith at Minster before 748;[57] possibly Eadburg at Lyminge before 804). The occurrence of the tombs or shrines of Anglo-Saxon saints in the north aisle or north transept of later churches, such as the shrine of St Frideswide in Christ Church, Oxford (Rollason 1978,65, 93; Stenton 1936; Warner 1924, 61-6, 196, 205, 228-9), or the shrines at Bampton[58] and Whitchurch Canonicorum (see n 55), may therefore reflect earlier and otherwise unknown arrangements.

Such preference as there may have been for the north side - for whatever reason - was not exclusive: St Wilfrid was buried at Ripon in 709 on the south side of the altar. Other examples might be found, but not in Bede, for his description of Wilfrid's place of burial is the only case he gives of a burial on the south side.[59] Bede seems to imply, moreover, that Wilfrid's burial was in the church proper beside the main altar, a wholly exceptional position at this date.

Second, the use of the central axis for the burial of heads of houses and others of saintly potential seems to have been a later development and to replace the earlier preference for the north porticus. Burials on the central axis may lie to the west in the open air, in the church itself, or in a separate building to the east. St Swithun was buried in the open west of Old Minster in 862 (see below, p 22) and St Eadburh might have been buried west of Nunnaminster *c* 951-3. St Berthelm may have been buried inside his church in Stafford in the 9th or more probably in the 10th century, and St Dunstan was buried in 988 on the central axis and towards the east

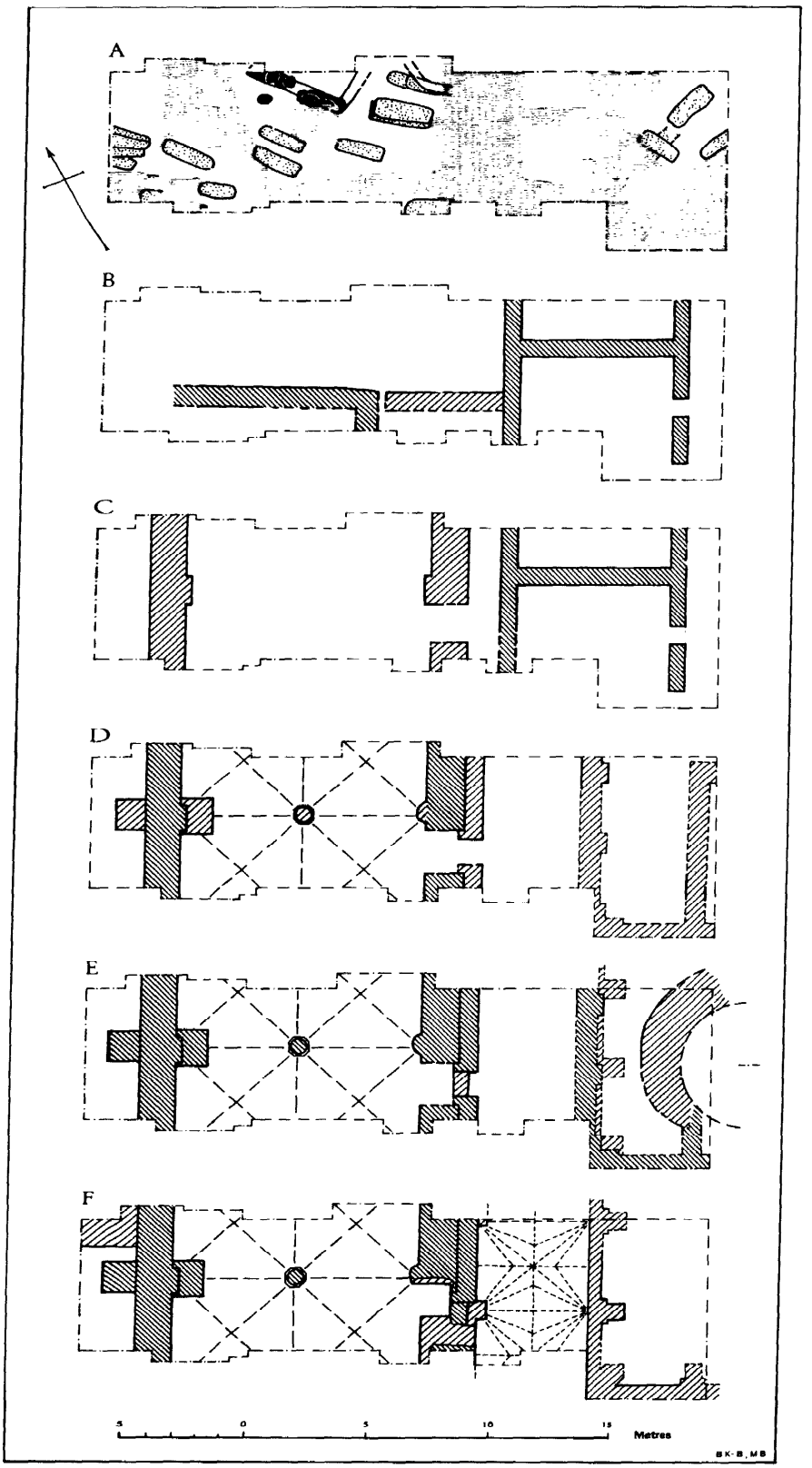


Fig 6 St Albans Abbey: excavations at the south-west angle of the great cloister, 1982-4, the archaeological sequence. A, Romano-British cemetery, 4th century AD; B, the west range of the early Norman cloister, c 1077-88; C, D, the west range enlarged and rebuilt, mid 12th century; E, west cloister walk and lavatorium rebuilt, mid 13th century; F, west cloister walk rebuilt, mid 14th century. Primary or retained work, close shading; secondary or new *work, open shading*

end inside Christ Church, Canterbury, and then or soon afterwards his tomb could be reached from a crypt. St Wystan was buried in a crypt on the axis of the church at Repton in 849 (see below, p 16). The Repton crypt was first built as a detached mausoleum (and baptistery?) to the east of the church, possibly as early as the mid 8th century. At Canterbury, at precisely this date, Archbishop Cuthbert (740-60) built the church of St John the Baptist to the east of his cathedral to serve as a burial place for himself and his successors as archbishop, as a baptistery, and as a law court (Taylor 1969b, 102, 112-14, 122-3, 126 (Evidence 2); Gem 1970, 198).[60] Cuthbert's church of St John, assuming that it was built due east of the cathedral, is one of the earliest examples in Anglo-Saxon England of a preference for the central axis as a place for the burial of high-ranking ecclesiastics, but it had been foreshadowed by developments at St Augustine's There, the chapel of St Mary, lying to the east of St Peter and St Paul, had been used for the burial of kings and abbots from the time of its founder, King Eadbald of Kent (616-40) (Potts 1926, 108-12). With this exception, which takes us into the different theme of royal burial, the preference for the central axis of the church for the burial of important ecclesiastics seems to begin in Canterbury in the mid 8th century and to become more general only from the mid 9th century.[61]

A critical listing and analysis of all that can be derived from documentary sources about the burial of Anglo-Saxon ecclesiastics would provide one part of the context in which the special treatment accorded to the saints might be set. A second and equally significant area of inquiry, both in its own right and in relation to the study of the saints, is the matter of the burial of kings and other individuals of high rank in the secular realm. To comprehend the architectural setting of the cult of saints in Anglo-Saxon England, we have to understand the wider patterns of which the shrines of saints were but one part.

Three of the 24 resting places defined as providing some structural evidence for the Anglo-Saxon church remain to be considered: St Albans, Repton, and Old Minster at Winchester. They provide a convenient coda, for they illustrate three principal phases in the development of the cult of saints in early England: St Albans, an extra-mural cemetery church of a type widespread in Late Antiquity but apparently not in Britain; Repton, the burial place of an Anglo-Saxon royal saint of the 9th century; and Old Minster at Winchester, one of the principal centres of the 10th century reform, where Bishop fithelwold 'made to stand forth' the grave of his predecessor St Swithun. All three sites have been examined in recent years under modern conditions - a characteristic shared by few of the resting places briefly discussed above - and all three have benefited from the interest and attention of Dr Harold Taylor, to whom this paper like all the others in this volume is gratefully offered. At Winchester each year of the excavations Harold Taylor was a welcome, perceptive visitor whose questions contributed to our dawning comprehension of Old Minster. Repton he has made especially his own, now in happy and productive collaboration. And St Albans he serves as a member of the Abbey Research Committee, and as an evening lecturer demanded -no less - by each season of student volunteers. Some brief account of the significance of these three places for the understanding of the cult of saints may therefore fittingly close this contribution in his honour.

St Albans

The burial of Albanus at Wæclingaceastre on the Waerlame, at Verulamium on the River Ver, stands at the head of the *Secgan,* fittingly for the figure who was to be recognized as the *protomartyr Angliae* (Rollason 1978, 62, 87). The date of Alban's martyrdom remains unsettled, but probably took place in the 3rd century.[62] The story of his arrest, trial, and execution has been often told and it is generally accepted that it derives from a *passio* written probably at Auxerre and certainly under Gallic influence in the early years of the 6th century (Meyer 1904, *passim* and esp 14-30; Morris 1968; Biddle 1977, 23-42, 138-42). The sources of this *passio* (preserved in a manuscript which was burnt in a fire at Turin in January 1904 only months after Meyer had transcribed it (Meyer 1904, 16)) were presumably derived in part from information available at Auxerre since the return there of its bishop Germanus from his visit to Britain and to Verulamium in 429 (see now Thompson 1984, 49). The descriptive details in the *passio* have long been recognized as an accurate reflection of the topography of Verulamium and the site of the marytrdom if this is accepted as having been in the neighbourhood of the Norman abbey church on the hill to the east of the Roman city (Fig 4).

In *Antiquity* in 1941 Wilhelm Levison asked: 'Has St Albans grown up near a martyr's church indeed, near a *martyrium* originating in Roman times, or only wrongly regarded as such in the Middle Ages?' (Levison 1941, 339). And by reference to the *passio Albani* as edited by Meyer and by comparison with the results of recent excavations at Bonn in 1928 (Fig 3b) and at Xanten in 1933 (Fig 3a) he came to the conclusion that 'a new town arose gradually in the Middle Ages around a martyr's tomb and church on a hill with an old cemetery, at some distance from the destroyed Roman settlement.' 'Let us hope,' Levison concluded, 'that the possibility exists, and that the opportunity will arise to bring to light some day at least the concrete evidence of this early devotion of a transitional period of British history in the Dark Ages' (Levison 1941, 338, 359).

Just 40 years later in 1982 that opportunity arose (Fig 5). Apart from an excavation beside the south transept in 1978 on the site of the new chapter house (Biddle & Kjolbye-Biddle 1980; revised and expanded in *idem* 1981), there had been no previous scientific excavation at the abbey. The work of 1982-4 was designed to test Levison's theory of the Romano-British origin of the abbey and specifically to establish whether there was on the site a context for Alban, which would fit not only his burial in the 3rd century, but also the construction over his grave in the 4th century of the basilica visited by Germanus in 429 (Biddle & Kjolbye-Biddle 1984a).

The excavation demonstrated for the first time that the cloister of the abbey overlies one of the cemeteries of Roman Verulamium (Fig 6) (Biddle & Kjolbye-Biddle 1984b). In the small area examined twenty graves were found, two dated by coins to the middle of the 4th century. Because of strict prohibitions about the disturbance of burials, Roman cemeteries tended to expand over an ever larger area. A part of this cemetery in use in the 3rd century at the supposed time of Alban's martyrdom may

Fig 7a Repton, Derbyshire, from the air, looking south-west, 1976: the church of St Wystan stands on the south bank of the Old Trent Water, formerly the River Trent; the cloister of the 12th century Augustinian priory is visible left (east) of the church (photo: Martin Biddle)

Fig 7b Repton, the Vicarage Garden, looking east in 1983 at the sunken two-celled building of middle Saxon date surrounded by the pebble mound and stone kerb of a Viking burial mound of c 873-4 (photo: Martin Biddle)

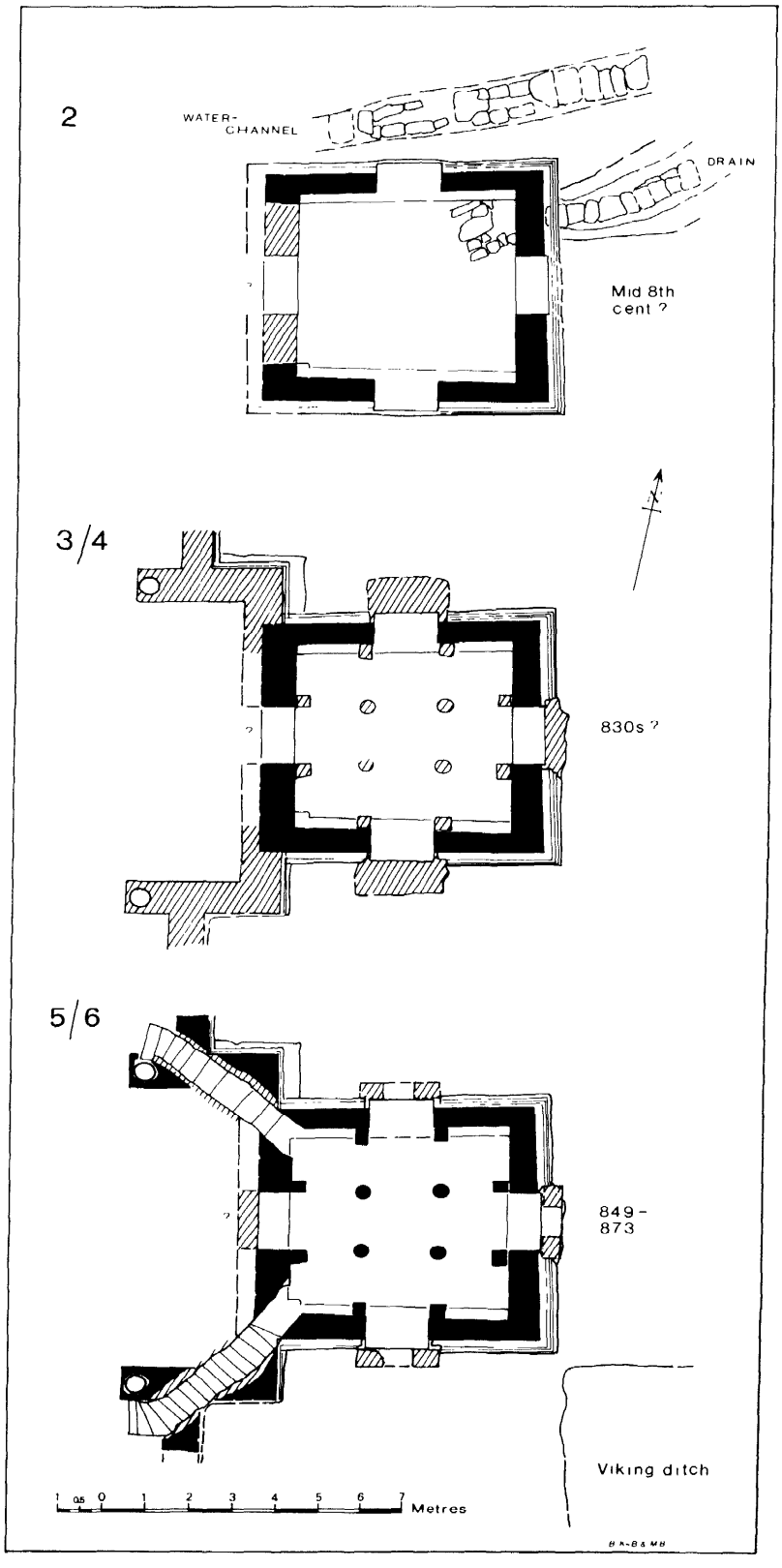


Fig 8 Repton, St Wystan's church: the structural sequence of the crypt

therefore lie quite close. Whether or not these graves are Christian, there is thus a probable context for the burial of Alban in an existing cemetery on or near the site of the abbey church.

Some time after the middle of the 4th century the cemetery in the area excavated was abandoned and replaced by a gravelled area, at least once resurfaced, which was used by people who lost a lot of coins (106) but broke relatively little pottery, people in other words who were attending in relatively large numbers something like a fair or a market rather than living on the site. This is an inference which would fit well with the presence nearby of a basilica over the grave of a saint whose relics were now the focus of a cult: *urbs movetur sedibus suis* was Jerome's description of such popular movements (see above, pp 3-5). This change in land use at the cemetery may therefore provide a context for the growth and popularity of Alban's cult.

The power of Levison's theory to predict the archaeology of the site of the abbey must seem well established by the positive results of this test of his views. Certainty can only come from further work. But if there was indeed a martyr basilica at Verulamium, may Gildas not have been correct in recording that there were elsewhere in Britain *sepulturae et passionum loca* of martyrs of both sexes whose names, apart from Alban, Aaron, and Julius, have not come down to us (Gildas, *De Excidio Britanniae,* i. 10; cf Levison 1941, 339-44; and see now Dumville 1984, 74, 77-8)?

Repton

Wystan, or Wigstan, was murdered in a family struggle for royal power in Mercia and buried at Repton in 849 (Rollason 1981; 1983,5-9; Thacker 1985).[63] Fostered by the family, his cult must have grown rapidly at his tomb 'in the mausoleum of his grandfather Wiglaf, for Wystan's resting place 'at that monastery of Repton near the River Trent' (Fig 7a) appears in the first part of the *Secgan,* which was itself probably compiled before the end of the 9th century (Rollason 1978, 63-4, 89).

The Anglo-Saxon architecture of the parish church of St Wystan at Repton has attracted the attention of scholars since the early years of the 19th century (Lysons 1817, ccxviii) and has been the subject of a long series of contributions by Harold Taylor.[64] Since 1974, when a joint investigation[65] of the archaeology of the church both above and below the ground and of its surrounding area began, knowledge of the development of the structure and of its historical and cultural setting has been transformed (Biddle & Kjolbye-Biddle forthcoming b).

The rediscovery of the crypt in 1779 and the subsequent reopening of the passages leading down into it from what were originally the north and south porticus of the Anglo-Saxon church revealed a *confessio* such as would normally be associated with the grave of a saint or the presence of a major relic.[66] It has always been assumed that the crypt owes its final form to the growth of the cult of Wystan, but there has been continued disagreement about the date or dates of both the crypt and the chancel above it.[67]

There is space here to set out only in outline the structural sequence which has emerged from the recent investigations, and then only in relation to the crypt itself (Fig 8):

1 Pre-crypt cemetery (Cemetery I) and occupation, with imported vessel glass and window glass suggesting the presence of a church on the site before the construction of the crypt. Date: 7th to 8th century.

2 The crypt built as a detached, square, semi-subterranean structure with massive ornamental external plinths (Fig 9a) and deep internal recesses in each of its sides. Date: later than a sceatta of *c* 715 found in a layer sealed by the construction of the crypt (Metcalfe in Biddle *et al* 1985). Function: possibly a mausoleum, but a drain leading away north-east from below the floor level of the crypt, the presence of a second water channel at a much higher level possibly bringing water in, and the general plan, all suggest that the structure may (also?) have been a baptistery.[68]

3 Barrel-vaulted windows constructed over each of the four recesses with sills at external ground level.

4 The crypt completely remodelled by the insertion of a stone vault in nine domical bays carried on four monolithic stone columns and eight pilasters, the latter each straight-jointed against the original walls to either side of each of the four recesses (Fig 9b). The stone vault could have carried the walls of the present chancel, suggesting that it was at this stage that the crypt was for the first time incorporated into the church which was extended eastwards above it. Date and function: see below.

5 Whatever the previous means of access may have been (and it remains still unclear), new entrances were now made by cutting passages from the north-west and south-west corners of the crypt up to the north and south porticus respectively. This development created a crypt of the *confessio* type. Date and function: see below.

6 Throughout the period following the construction of the crypt (2, above), burials took place south and east of the crypt, clustering close to its walls, especially to the east (Cemetery II). Burial was brought to an end and many graves destroyed by the cutting of a large V-shaped ditch, *c* 10m wide and *c* 4m deep. The ditch was laid out in direct relation to the crypt/chancel, with its west end aligned with the east side of the crypt and its north side aligned with the south side of the crypt. This relationship shows that the ditch was subsequent to the crypt/chancel and suggests that the church was now incorporated as a strongpoint in a defensive line. Geophysical investigation and excavation have confirmed this suggestion and have shown that the church lies at the southernmost point of a D-shaped ditched enclosure of 3.5 acres (1.46 ha) on the south bank of the Old Trent Water, the former course of the River Trent. Since this enclosure may be identified with the defences of the Viking winter camp of 873-4, it follows that the crypt, chancel, central space, and (now vanished) nave of the church were in existence by 873-4.

7 After an interval of not less than 30 to 35 years, the rampart along the north side of the ditch was thrown back into the ditch and the area relevelled. North and east of the church burial recommenced during the Late Saxon period (Cemetery III), but did not extend back over the area of the ditch until after the

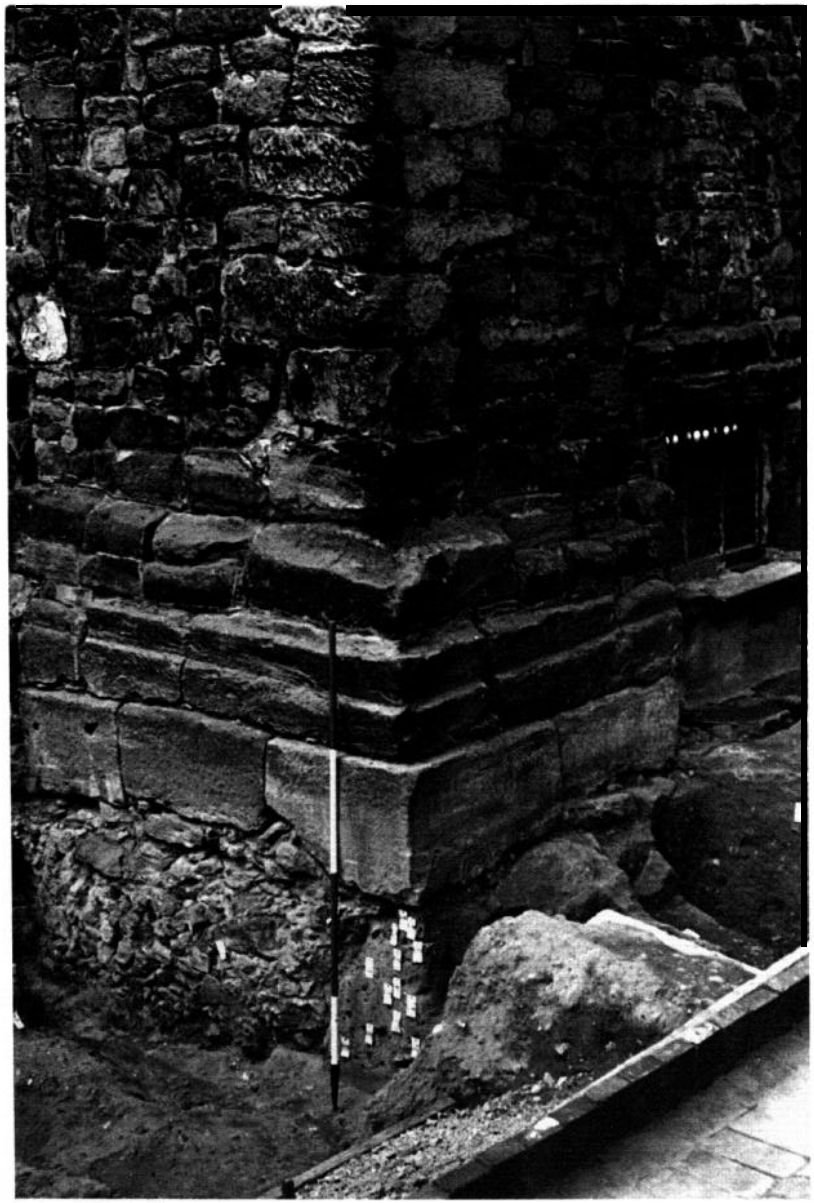


Fig 9a Repton, St Wystan's church: the south-east angle of the mausoleum-crypt, showing the massive ashlar and stepped plinths, with the added chancel above (photo: Martin Biddle)

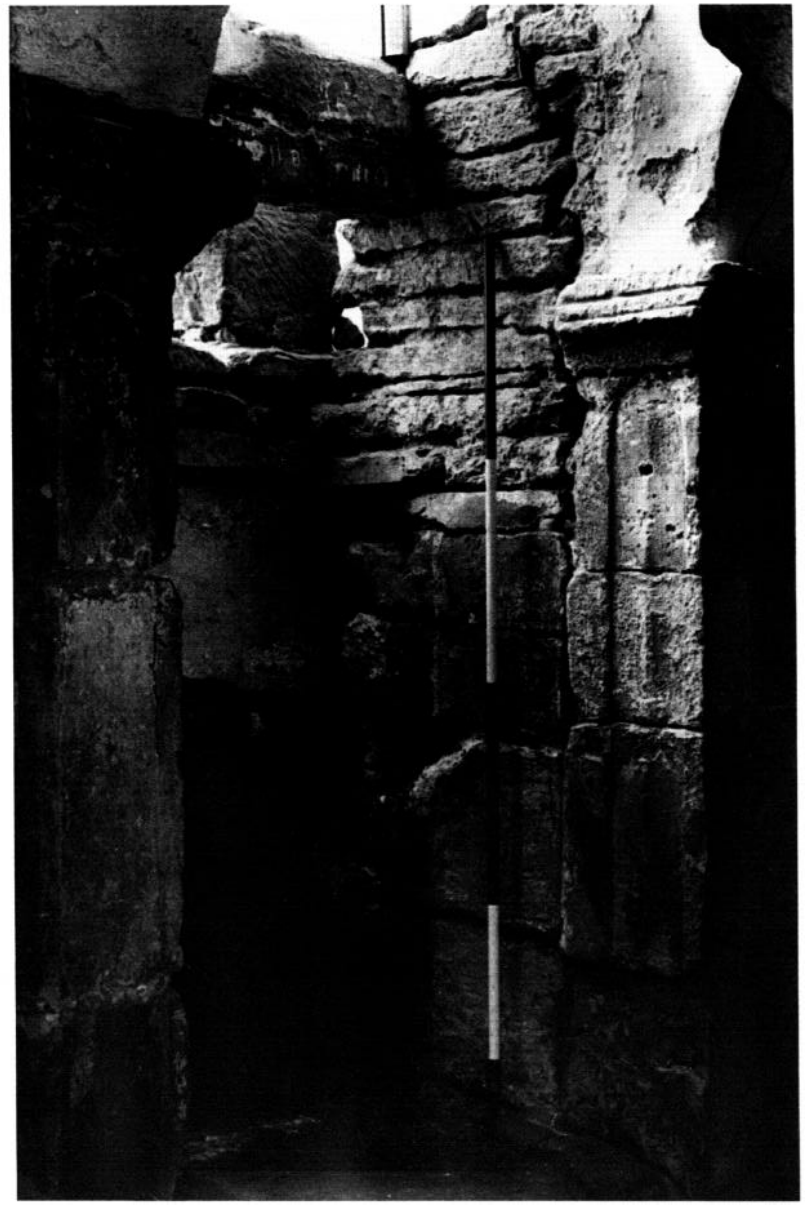


Fig 9b Repton, St Wystan's church, looking south-west at the southern recess of the mausoleum-crypt, showing the recess walls and cut-back barrel vault of the original structure, with an added pilaster, capital, and springing of the vault of the fourth period (photo: Martin Biddle)

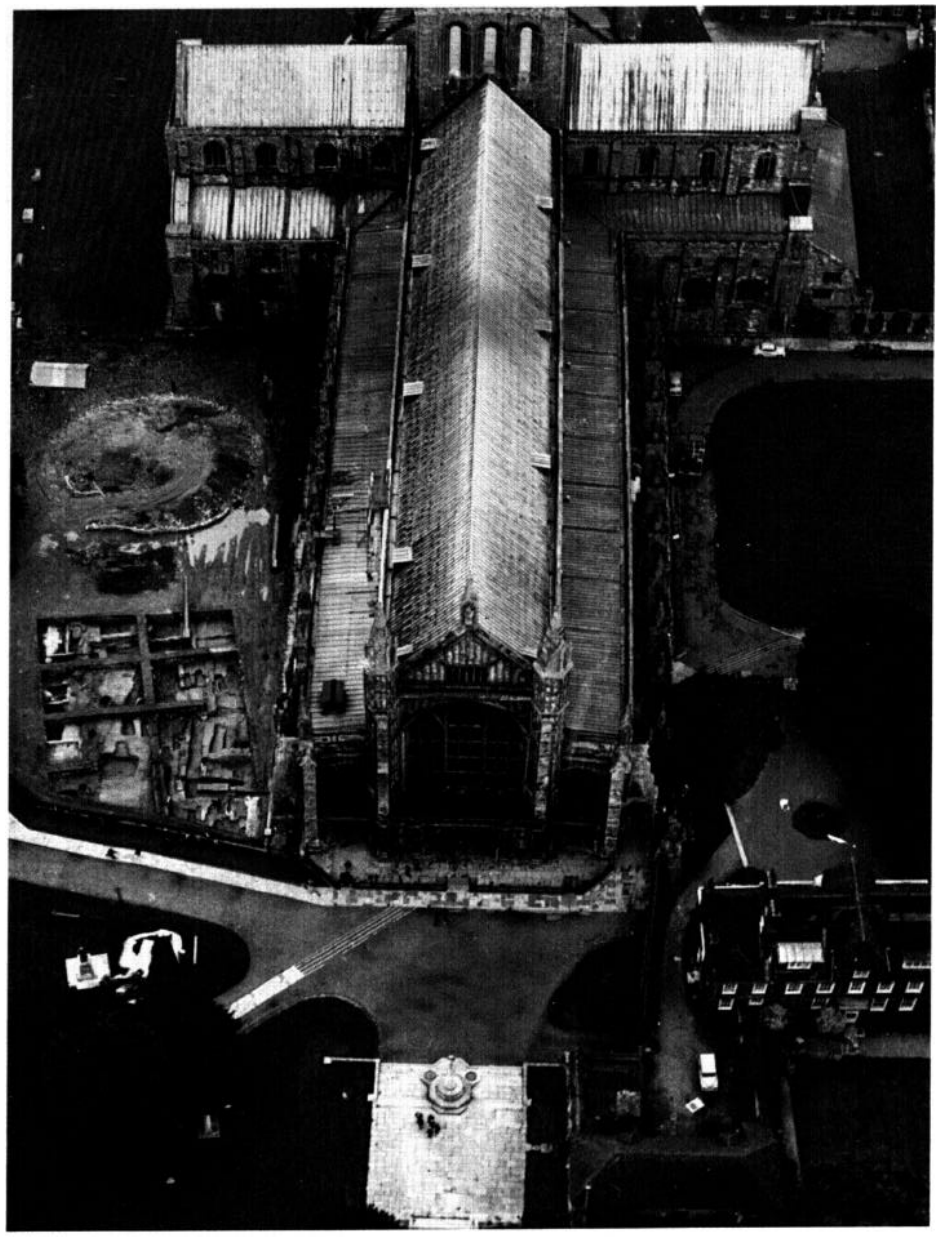


Fig 10 Winchester Cathedral from the air, looking east, 1966: excavations in progress outside the north door of the nave (cf Fig 11a) on the site of St Swithun's grave; the alignment of the trenches is that of the Anglo-Saxon Old Minster (photo: R C Anderson)

foundation of the Augustinian priory in the third quarter of the 12th century.

The creation of a crypt of the *confessio* type (5, above) can only be associated with the growth of the cult of Wystan after 849. There is no direct evidence, however, to demonstrate that the passages were cut before the events of 873-4 (6, above) rather than afterwards. But the development of the Repton site as a whole, as now understood from both documentary and archaeological evidence, suggests that the life of the monastery was effectively terminated by the events of 873-4. Burials at the east end show that the church was again in use in the Late Saxon period (7, above), but there is nothing to contradict the view that the *floruit* of Repton lay before the Viking invasions. In the early 11th century Cnut was able to translate the relics of Wystan to Evesham, an action scarcely likely or feasible if Repton was then the focus of a flourishing cult.

Whenever the passages were cut, they can only have

Fig 11a Winchester Cathedral, looking south-east in 1966 across the foundations of the medieval chapel of St Swithun, outside the north door of the nave (photo: R C Anderson)

Fig 11b Winchester Old Minster, looking north in 1968 across the site of St Swithun's grave (foreground) to the northern apse of the double-apsed memorial building built around the saint's grave after the translation of 971 (photo: R C Anderson)

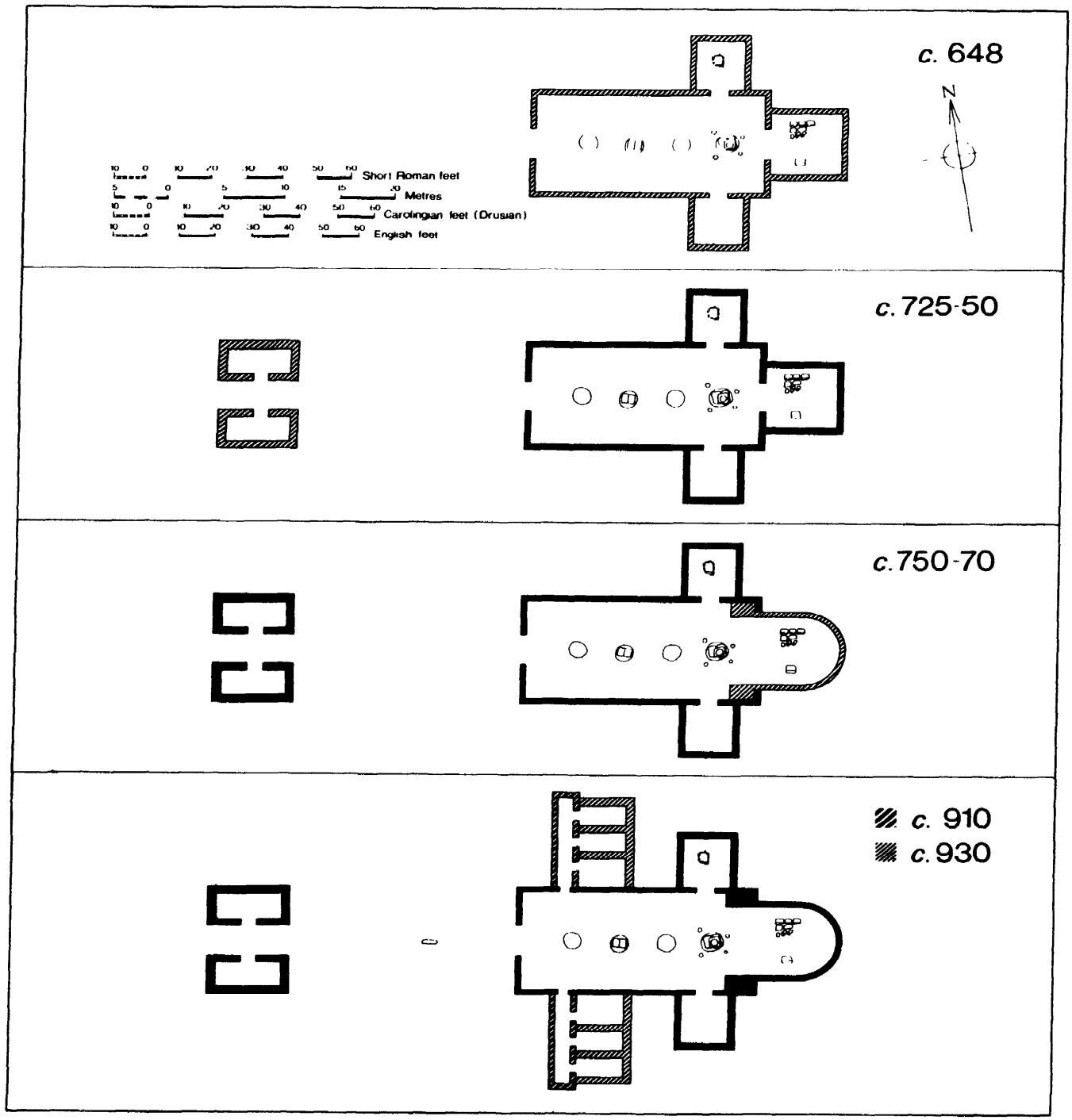
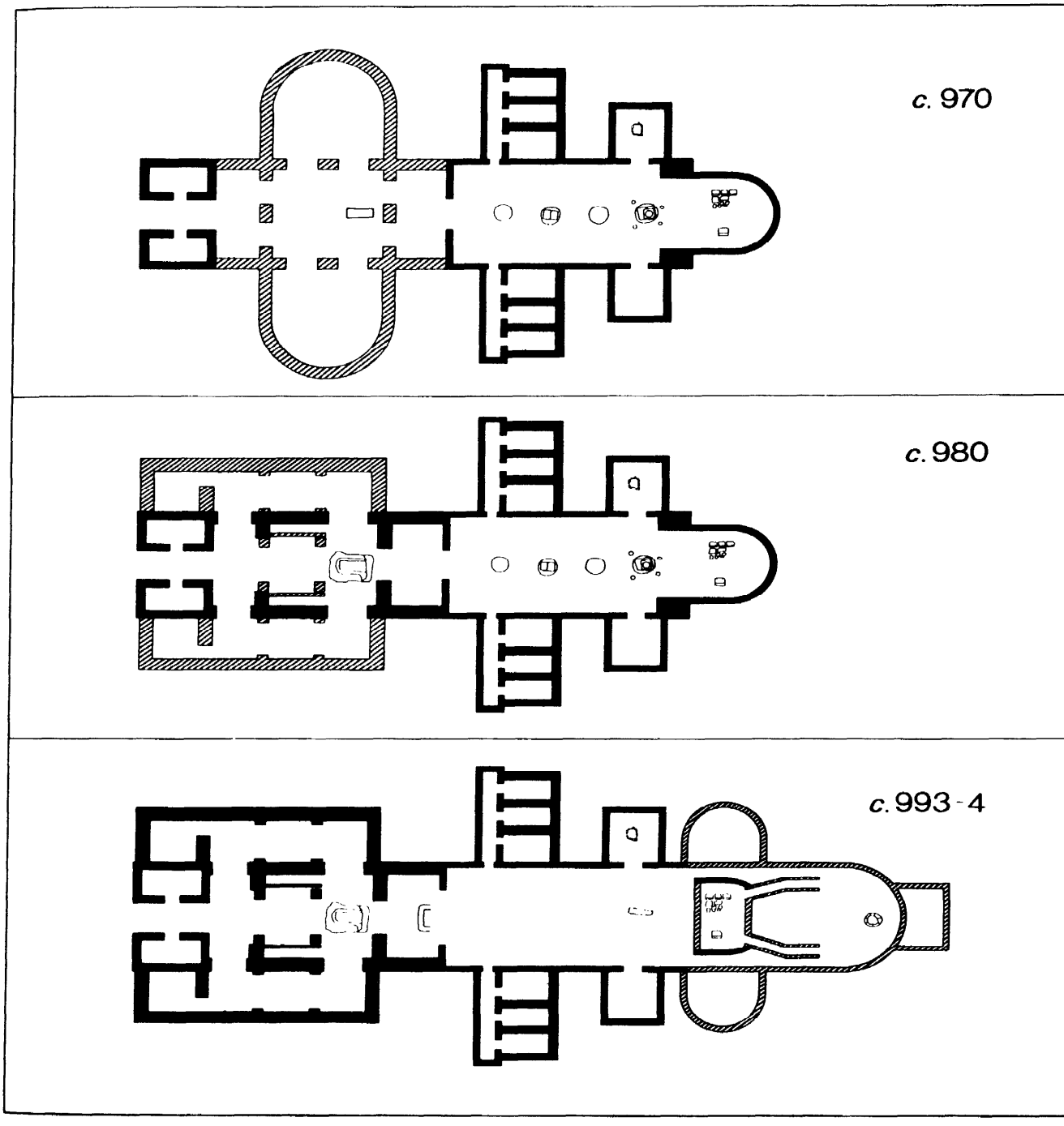


Fig 12 Winchester Old Minster: the structural sequence reconstructed


c. 970
c. 980
c. 993-4

been intended to provide for the cult of Wystan. It must follow that the crypt into which they were cut was the place of Wystan's burial and, according to all surviving versions of his *passio,* Wystan was buried in the mausoleum of his grandfather Wiglaf *(in mausoleu avi sui regis Wiglavi).*[69] The crypt as remodelled by the insertion of a stone vault carried on the four twisted columns and eight pilasters (4, above) can therefore be identified as Wiglaf's mausoleum. Whether it was so described solely because Wiglaf was buried in it, or because he was also responsible for its conversion to this form to serve as his burial place, the crypt at this stage may be dated with some confidence to no later than Wiglaf's death *c* 839. These considerations do not help in deciding the function or exact date of the original detached structure (2, above), but its monumental construction and the stepped plinths which may echo the idea of burial in pyramid or mound suggest that it is most likely to have been a royal tomb, even if it also had the function of a baptistery. Since it must have been built between the early 8th and the early 9th century, it is not impossible that it was the burial place of King Æthelbald of Mercia who was buried at Repton in 757 *(ASC, sa* 755).

The sequence at Repton shows the use of the central axis for royal burial by *c* 839 and possibly as early as 757, and in this it compares with the use of the chapel of St Mary at the monastery of St Peter and St Paul at Canterbury for the burial of the kings of Kent from 640 onwards (see above, p 13). The use of the central axis at Repton for the burial of Wystan probably reflected at first his royal status rather than his potential as a saint. But the development of his cult in this location, as seen in the creation of a *confessio,* is an example of that trend towards placing important ecclesiastical burials on the axis of a church which only became at all general about this date (see above, p 13).

The crypt at Repton, like the originally detached mausoleum from which it developed, stands on a bluff above the River Trent. Whether or not this mausoleum once housed the remains of Ethelbald, the king was buried overlooking the floodplain in just such a way as the dying Beowulf instructed Wiglaf(!) to build his memorial mound on a promontory by the sea (Clemoes 1981, 183-4). When Peter Clemoes made this observation in 1981, the second mausoleum had not been found. The following year, 80m to the west, a sunken, two-celled, stone building of Middle Saxon date was discovered in the vicarage garden (Fig 7b). It had been reused in the late 9th century for a mass burial probably associated with the Viking wintering at Repton in 8734, but by this time was already long in decay. In its original state, the internal walls dressed with moulded stucco, the windows filled with coloured glass, the roof apparently covered with lead, such a *sunken* building was probably a mausoleum and a royal one at that.

And so at Repton there may have been not one but two or even more tombs crest-sited along the low cliff of the south bank of Trent. Like the earthen tombs of old, these were sunk into the ground, but one at least rose above the surface in monumental plinths which recall the mounds, perhaps even the stone pyramids, appropriate to the burial of princes.[70] Like the mounds of Sutton Hoo above the Deben, the tombs at Repton above the Trent suggest the burying place of a royal line; at Repton, however, the context is Christian and the last known burial was that of a royal saint.

Winchester

The two manuscripts of the *Secgan* record between them eight saints who rested in the Old Minster at Winchester (Rollason 1978, 64-7, 91). The greatest of these was Swithun, bishop from 852 to 862, in whose honour the church was reconstructed and greatly enlarged between 971 and 9934 in the episcopates of Æthelwold (963-84) and Ælfheah (984-l005).[71] It was Æthelwold who played Ambrose to St Swithun, directing his translation and enshrinement, and focusing attention on the saint's original grave, which he now 'made to stand forth' at the heart of a vast memorial building.

There is no contemporary evidence regarding St Swithun's original burial in 862, but by 971 the supposed site of his grave was marked by a built tomb *(tugurium, sacellum),* like a sarcophagus with a gabled roof, which stood outside the west door, between the church and a detached western tower dedicated to St Martin (Quirk 1957, 3841).[72]

When Swithun's body was translated on 15 July 971, Æthelwold and his assistants had to remove the tomb-house and then dig down to reach the sarcophagus in which the saint lay. The remains were put in a new receptacle, placed on a *feretrum,* carried into the church, and *decentissime reconditae.* There was a second translation in King Edgar's reign on a 22 October, perhaps the same year, but more likely three years later in 974 (the last 22 October before the death of Edgar on 8 July 975), when part of the saint's body was enclosed in a reliquary (made at the king's command of silver, precious stones, and three hundred pounds weight of gold) and placed on an altar within the church. Long before the start of the recent excavations, Roger Quirk had concluded that this altar may have been in 'a western structure . . . built over the site of St Swithun's original grave outside the earlier church' (Quirk 1957, 41-3, 569).

The reconstruction and enlargement of the Old Minster took place in two stages with a first dedication in 980 and a second in 993-4. The account of these works given by the cantor Wulfstan is not brought into a specific relationship with the first or second translations of Swithun, but there is no sign that work had begun before the first translation in 971 which should probably be regarded as the initial step. The dedication of 980 seems to have marked the completion of the reconstruction of the main body of the old church and of the new works of the west end, and was described in a marginal note to Wulfstan's poem as the *dedicatio magnae ecclesiae.* By contrast, the following sections of the poem are noted in the margin as *de orientali porticu, de criptis, de organis,* and *de turris aedifcio* and are concluded by a description of the second dedication in 9934, which seems therefore to have related essentially to the eastern parts of the church.[73]

The excavations of 1962-9 (Fig 10) revealed a building whose structural sequence and architectural character can be linked very closely to the written evidence just outlined.[74] For present purposes, it is necessary only to describe the development of the setting of St Swithun's grave. The location of the grave was indicated before work began by late medieval statements that the place was then

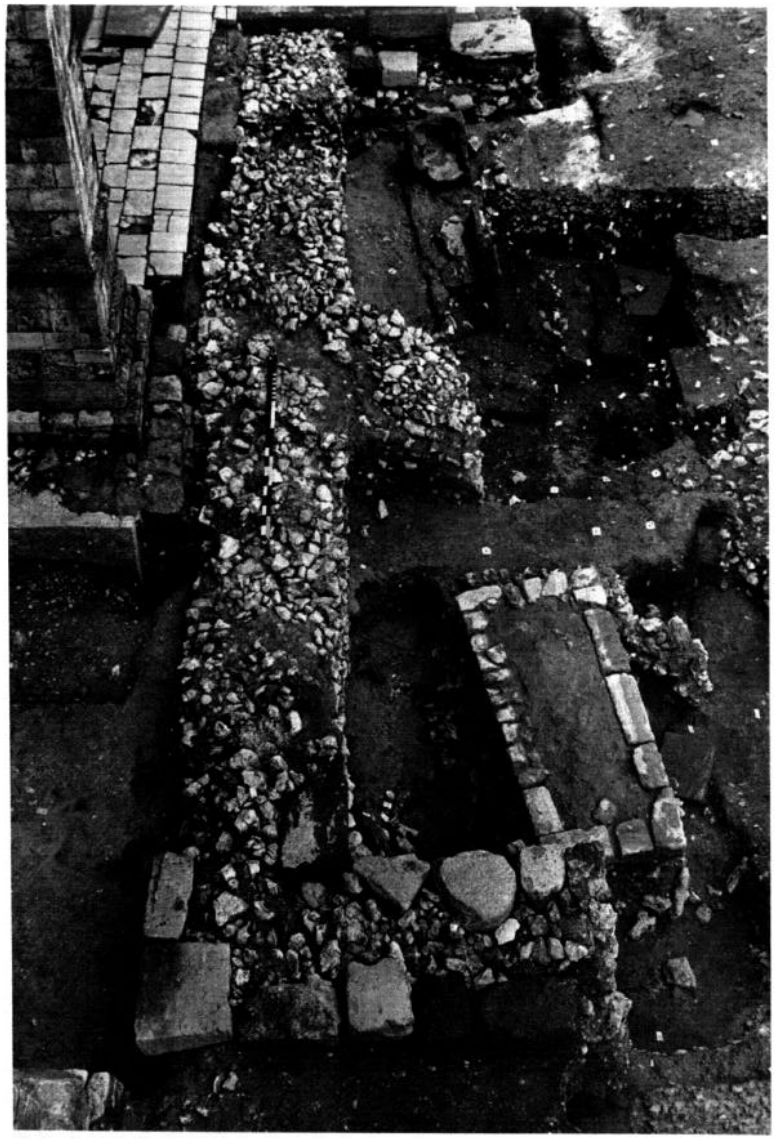


Fig 13a The grave of St Swithun: the foundations of the memorial erected over the site of the destroyed tomb-chamber following the demolition of Old Minster in 1093–4; looking west in 1967, with the foundations of the medieval chapel of St Swithun in the foreground and to the left of centre (photo: R C Anderson)

Fig 13b The grave of St Swithun: the tomb-chamber constructed on the site of St Swithun's original grave following the translation of 971, destroyed in the demolition of Old Minster 1093–4; looking west in 1968, with the chalk foundations of the memorial building (cf Fig 11b) to the right and in the foreground, and the south wall of the medieval chapel of St Swithun (cf Fig 11a) to the left (photo: R C Anderson)

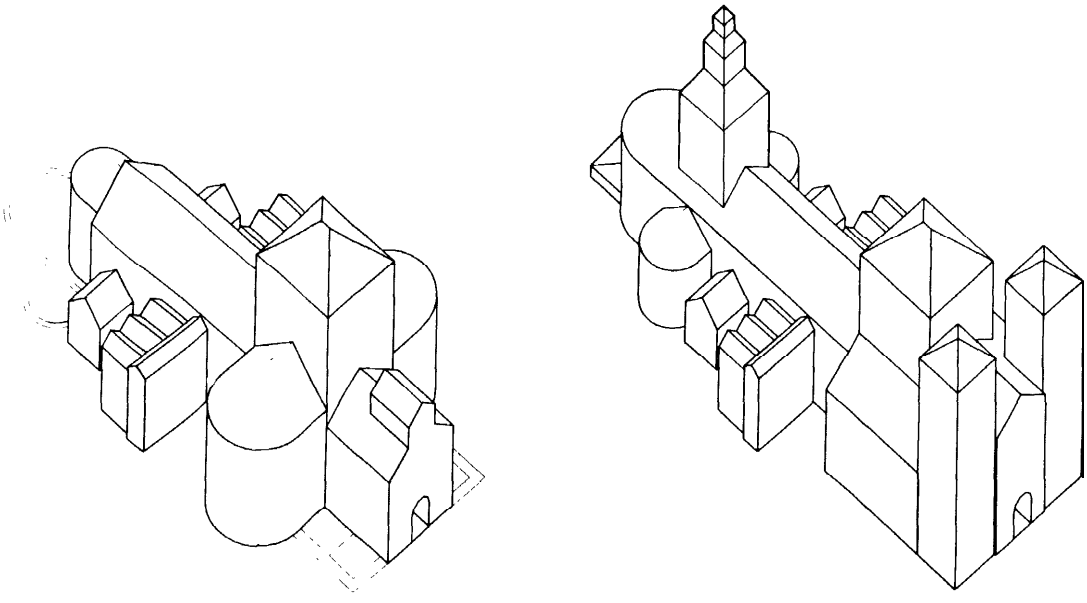


Fig 14 Winchester Old Minster: reconstructions showing (left) the double-apsed marryum of St Swithun, built 971-4, and (right) the westwork into which the martyrium had been converted by 980. The right-hand view also shows the east end as rebuilt between c 980 and 993-4

marked by a modest chapel outside the north door of the nave (Quirk 1957, 65, n 6). And so it proved (Fig lla). When this same spot was shown to lie outside the west door of the church as it had been in Swithun's day (Fig 12), and also to be the focus of the great works of reconstruction of the later 10th century (Figs 11b, 12,14), it became clear that the late medieval traditions had accurately recorded the site of the saint's burial as it had been known since 971. The order of events on this spot can now be described in sequence from the beginning.

1 *If* this was indeed the place of Swithun's burial in 862 (and we have already seen that there was some uncertainty about this in 971 (see n 72)), the bishop was buried precisely on the axis of the church, some 6m west of the west door. This area was subsequently used for the burial of persons of rank, as indicated by the presence of a head-band of cloth of gold in Grave 717 and of gold threads in two other graves, and by the use of charcoal packing and iron-bound coffins, features which are clearly correlated with high status. Whatever the character of this location in 862, by 971 (and afterwards) it was the site of some of the more important burials found in the excavation. If this does not contradict the hagiographical claims of Wulfstan and Lantfred that Swithun in his humility chose to be buried *quasi vilis homo,* outside the church and apart from the *praeclara . . . priscorum monumenta patrum* (Wulfstan, *Narratio,* lines 468-9,472 (p l0l)), it certainly demonstrates his power to attract *ad sanctum* the burials of the highest in the land - and this in itself is an argument in favour of the view that, even before 971, Swithun's burial at this spot was an accepted fact.

2 Swithun was translated in 971 and the now empty grave was made the focus of a double-apsed memorial building (Figs 1lb, 14), which measured 33m (108ft) from north to south, almost exactly the diameter of Charlemagne's octagon at Aachen.

3 During the construction of the memorial building the exact site believed to be that of the saint's grave was carefully preserved. All that remained to be found in 1968 was a rectangular depression in the floor of the tomb-chamber later erected around the site (see below, 4). This depression, which was formed in mortar comparable to that used in the walls of the memorial building, probably indicates the position where the sarcophagus in which Swithun was buried in 862 was visible after 971 within the new works.[75] It was probably on a structure above this coffin that the shrine containing the saint's body was placed at the second translation on 22 October in 974(?). This event presumably marked the completion of the memorial building (Fig 14).

4 For reasons which are quite unknown, and which could be the result of 'political' decision or of structural failure, the memorial building was almost immediately remodelled as a westwork of ultimately Carolingian inspiration (Fig 14). It was apparently this building, as Quirk so brilliantly predicted (1957, 48-56), which was dedicated in 980. The central vessel of the memorial building remained

intact at the heart of the westwork. Here a flint-walled tomb-chamber was now constructed sunk into the ground around the saint's grave (Fig 13b), its walls set in mortar like that used in the construction of the westwork. This chamber was probably designed not only to make the original sarcophagus more accessible, but also to provide an enclosed chamber at ground level within which, under lock and watch, the great reliquary containing the saint's body could be displayed.

5 From this time on, the saint's relics were apparently divided, the principal(?) part in the great silver and gold shrine in a locked and guarded enclosure on the site of the original tomb, another part in another reliquary (Quirk 1957, 56-9).[76] It seems reasonable to suppose that the second reliquary was placed on the high altar and it is perhaps significant that when that area of the church was remodelled prior to the dedication of 993-4, the high altar was flanked to north and south by apses which recall, on a smaller scale, the great apses of the memorial building which, although they only lasted a few years and had been perhaps structurally over-reaching, had been deemed appropriate to mark the burial place of the saint (Fig 14).

6 On 15 July 1093, the feast of St Swithun, the feretory of the saint was carried from the Old Minster into the new Norman cathedral, the eastern parts of which had been dedicated three months before. The following year, in demolishing the Old Minster, relics of St Swithun and many other saints were discovered *sub altari* (Quirk 1957,61, n 1). The tomb-chamber on the site of the saint's grave was thoroughly robbed during the demolition (Fig 13b).

7 Despite the almost total destruction of the tomb-chamber, and all that lay above and within it, the site was immediately marked by a monument placed on the precise spot and at the exact alignment, not just of the tomb-chamber, but of the stone coffin which seems to have lain within it (Fig 13a). This monument, wider at the head (west) end than at the foot, and thus representative of the tomb itself, was set in a carefully plastered, pink surface which covered the site of the demolished westwork. At least four other stone coffins, left *in situ* in the demolition of the westwork, were preserved in position in this plastered surface, which seems thus to have served as a memorial court beside the nave and west towers of the new cathedral.[77]

8 From now on, the cult of St Swithun had a dual focus: the feretory within the cathedral (whose changing history is not for consideration here (but see le Couteur & Carter 1924)) and the empty tomb outside the north door of the nave. The importance of the empty tomb is made clear by the long sequence of monuments and chapels which preserved the precise location and alignment of the saint's grave to the end of the Middle Ages,[78] and by the clustering of burials as close as possible *ad sanctum* from the start of burial here in the 13th century until its abandonment and the final demolition of what was by then the *modica capella* (modest chapel) of St Swithun at the Reformation.[79]

The sequence of events at the tomb of St Swithun brings us back in many ways to our starting point in the world of Late Antiquity. The role and significance of the corporeal remains of the saint are reflected in the great church which was constructed in his honour and in the silver and gold gem-covered shrine in which his bones were placed. The value of the site of his burial, the place where his body had so long lain in contact with the ground, is manifest in the architectural focus which played upon it, and in the long lasting veneration which it attracted, both in structure and in burial, for centuries after the Old Minster was demolished and the relics themselves had been removed to a new location far away inside the Norman cathedral. It is finally, however, the relationship of client and patron, *famulus* and *patronus,* Æthelwold and Swithun, which recalls the world of Paulinus and Felix, Sulpicius and Martin. The opening words of a hymn in honour of Swithun hark back over the early centuries of the cult of saints:

Ecce, patronus adest.[80]

Notes

1 See also Brown 1982, esp Part II, 103ff.

2 Brown (1981, 51) on Plutarch, *de facie in orbe lunae* 28.943A (ed Cherniss 1957, 197): νοῦς γὰρ ψυχῆς ὅσῳ ψυχὴ σώματος ἀμεινόν ἐστι καὶ θειότερον.

3 Brown (1981, 54), quoting and translating Paulinus, *Carmina* 21.344–6: 'Now let me turn my poet's tongue in thanks to you, Felix, revered father, everlasting patron, Felix my nurse, Felix, dear friend of Christ.'

4 Brown (1981, 65), quoting *Epistola* 2.8, *PL* 20.179C. Sulpicius was too human not to add: *sed solacium vitae praesentis amisi.* For this incident (and for most matters relating to Martin and Sulpicius), see now Stancliffe 1983, 76–8.

5 Brown 1981, 1–9. For the extent to which these prohibitions protected even the graves of Christian martyrs (and ensured that their bodies were given burial), see Workman 1980, 103–6.

6 Brown (1981, 4), quoting and translating le Blant 1856, 240 (No 178) and, for the arrangement of the apse in which the tomb was placed, p 239. The inscription is known only from a MS collection of epigrams written on the walls of the basilica built by Perpetuus (461–91), first published by de Prato (1741, 390).

7 Brown 1981, 78–9, 95–6, quoting *De laude sanctorum* 11, *PL* 20.454B.

8 Brown 1981, 88. The relic was probably intended for the new church of Hagii Petros and Paulos, built *c* 518–20 (Mathews 1971, 43). Nearly a century later, the Empress Constantina, having asked Gregory the Great to send her *caput eiusdem sancti Pauli, aut aliud quid de corpore ipsius,* received the same reply and a sharp rebuke against the disturbance of the bones of the saints (*PL* 77.701–2, quoted in Toynbee & Ward Perkins 1956, 193, n 75). The distribution of corporeal as distinct from contact relics was still by no means universally accepted in the West: even Germanus's removal of dust from Alban's grave was *pium sacrilegium* (Meyer 1904, 3–82, esp 60).

9 Gregory calls such a cloth *palliolum* (*De gloria martyrum,* cap xxviii, *PL* 71.728–9). The whole

passage is quoted and discussed in Toynbee & Ward Perkins 1956, 212–13, 234, n 45, and cf 193, n 74; cf Kirschbaum 1959, 157–60. The stole of a new bishop, the *pallium*, cf *palliolum*, rests overnight in the Niche of the Pallia, above a shaft opening downwards directly over the grave of St Peter; the *pallium* is thus a contact relic imbued with the *praesentia* of the Prince of the Apostles and first bishop of Rome.

10 *De Legibus*, ii. 23, 58. Exceptions were sometimes made for emperors (Trajan's ashes were buried in a golden urn in the base of his column (Nash 1961, i, 283)) or other important persons (Gaius Julius Celsus Polemaeanus still lies in a marble sarcophagus in a vault below his library in Ephesus (Eichler 1944; conveniently in Hanfmann 1975, 43, 65, esp fig 134)). See in general Toynbee 1971 and, in particular for emperors, Waurick 1973, 107–45, esp 117–18 (for Trajan) and 142–6 (for the burial of Constantine and his successors in the Church of the Apostles within the walls of Constantinople).

11 On this, as on all matters regarding the topography of early medieval Rome, one now turns first to Krautheimer 1980, 53–6.

12 See most recently *Trier: Kaiserresidenz und Bischofssitz. Die Stadt in spätantiker und frühchristlicher Zeit*, Ausstellungskatalog, Rheinisches Landesmuseum Trier (Mainz, 1984), esp 60–74, 203–42. Even more useful is *Trier*, Führer zu vor- und frühgeschichtlichen Denkmälern 32, i, ii (Mainz, 1977), esp Beilage 13. The situation in the Merovingian period is strikingly depicted in the map reproduced here (Fig 1), from Schindler 1973, 130–51, Abb 1. Comparable maps of the cemetery churches around Cologne and Mainz may be found in *Mainz*, Führer . . . 11 (Mainz, 1969), 45–57 and Beilage, and in *Köln*, Führer . . . 37–9 (Mainz, 1980), 37.i, 163–73, 183–95, 37.ii, Beilage 7. For Cologne, see also *Frühchristliches Köln*, Römisch-Germanisches Museum Köln, Schriftenreihe der Archäologischen Gesellschaft 12 (Köln, 1965).

13 For Sant' Ambrogio, see Krautheimer 1979, 185–6, and for Milan in general, Krautheimer 1983, 68–92 with extensive annotation, 141–51.

14 Krautheimer 1979, 207–8, fig 159, with bibliography and cautionary comment in Krautheimer 1956, 335, n 50.

15 Krautheimer 1979, 204–5, figs 156–8.

16 Marec 1958, with subsequent bibliography in Stillwell 1976, 394–6.

17 See now Galinié 1978, with bibliography.

18 Augustine's church at Hippo Regius owned estates twenty times as great as the 'tiny plot' he had once possessed at Thagaste (Brown 1979, 198–9; cf 1981, 39–40).

19 *Epistolae* 107.1, quoted and translated in Brown 1981, 42.

20 On this transformation see Brown 1981, 41–9.

21 See above, n 17. At Tours, as at Augsburg, the walled town also survived and in time the two settlements grew together, but in both the urban centre of gravity had shifted decisively to the saint; cf James 1982, 65–8.

22 *Visitationes ad Limina Apostolorum* in the modern sense are obligatory every five years for European Ordinaries and Vicars Apostolic. The custom of making such visits to the tombs of St Peter and St Paul originated in a decree of a Roman synod in 743 which related only to bishops ordained at Rome, but was subsequently extended until by 1584 it was required of all bishops (Cross 1958, *sv* 'Ad Limina'). For the development of what he called a 'routine intercourse' between England and Rome, see Levison 1946, 16–33.

23 And see especially, for Eadmer's description that the crypt at Canterbury was like the *confessio* of St Peter's at Rome, Taylor 1969b, 101–30; see also above, p 7.

24 See also Fernie 1983, whose dating of Repton takes no account of the archaeological evidence.

25 For the cult of relics in Anglo-Saxon England see in general Förster 1943. See also Thomas 1973; Clemoes 1983, esp 3–6; Battiscombe 1956, 2–114.

26 For the lists, see Rollason 1978, 61–93, and his paper in this volume, pp 32–43. H M Taylor & Joan Taylor, *Anglo-Saxon Architecture*, **1**, **2** (1965); H M Taylor, *Anglo-Saxon Architecture*, **3** (1978); henceforth cited as *A-S Arch*, **1**, **2**, or **3**.

27 In many cases the lists record not the original grave but rather the place to which the saint had been translated, or the place to which a corporeal relic had been taken (eg Oswald: head 'with St Cuthbert', right arm at Bamburgh, remainder at Gloucester; or the foreign saints, Florentinus, Vincent, Justus, etc (Rollason 1978, 64)).

28 Including, *pace amicis nostris Scottis*, Dunkeld, Iona, and Melrose.

29 Eg Aylesbury, Bampton, Charlbury, Lewes, Northampton, Walley; see Rollason below in this volume, pp 32–43. But in fact Bampton may now be equated with *Bentone*, the resting place of *St Bernold*, given in a 14th century Anglo-Norman French list examined by Rollason (1978, 69–70); Blair 1984, 47–55. I am much indebted to Dr Blair for showing me his paper in proof.

30 Here and in the following notes on individual sites references to specific saints are taken from Rollason 1978, 87–93.

31 For the excavation of the north porticus in 1915 and Goscelin's account of the translation of 1091, see Hope 1915 (reprinted in *Archaeol Cantiana*, **32** (1917), 1–26). See also Peers & Clapham 1927, 201–18.

32 For a reconstruction of Wulfric's octagon, see Taylor 1969c, 228–33, fig 17.

33 For the relevant parts of Eadmer's text, with full references, and for a reconstruction of the pre-conquest cathedral, see Taylor 1969b, 101–30.

34 Peers *et al* 1930, esp 27; cf *idem* 1928, 1–9 with plan and photographs of the crypt. See also *A-S Arch*, **3**, 1015, fig 738, and cf now Radford 1981, 110–34.

35 See Heighway & Bryant in this volume, pp 188–95 with further references; see also Clemoes 1983, 3–4.

36 The fact that Ælfwald was buried *inside* the church is recorded by the *Anglo-Saxon Chronicle*, *sa* 789. Knowledge of the Anglo-Saxon church at Hexham has been revolutionized by R N Bailey and D O'Sullivan (1979), with Eric Cambridge (1979). For the previous understanding of the building, see also Bailey 1976.

37 Plummer 1896, pt i, lxxi-lxxix, esp lxxviii, n 3; Colgrave & Mynors 1969, xxii-xxiii; Radford 1954,

203-5; *A-S Arch,* 1,339; Cramp 1976,220-8.

38 Colker 1977, 72, and cf 83. The phrase was misquoted by Jenkins (1874,205) and all subsequent commentators by conflating two passages in Goscelin's 'Libellus contra inanes . . . usurpatores', now printed by Colker .

39 The foundation of Wenlock is not well understood: see Finberg 1972, 197-216 ('St Mildburg's Testament'). The dates for Mildburg given here are based on the possibly authentic charters, the texts of which are given in her 'testament': Finberg no 404 (p 138), and no 429 (p 148). Sir Frank Stenton regarded Mildburg as the foundress of Wenlock (1971, 47). See also Rollason 1982, 9, 13, 25-6, 34, 45, the summaries of texts, 75, 77, 80-1, 83, 85-6, and the texts, 93, 114-15.

40 Cf, for example, Biddle & Kjølbye-Biddle 1973, 19, Entry 59; and *idem* forthcoming a.

41 Between 963 and 975, according to the so-called Chronicle of John of Brompton, abbot of Jervaulx (Twysden 1652, i, cols 868-9; excerpted in John Leland, *Collectanea* (ed Hearne 1774, i, 217)), Ethelwold translated the body of Botulf from the destroyed monastery of Icanhoe and King Edgar decided that it should be divided, the head to Ely, the middle part to Thorney, and the remainder for himself, ie presumably for the king's *haligdom (see* Hart 1970,18-20), whence it was eventually given by Edward the Confessor to Westminster. The origin and subsequent fate of the relics recorded at Medeshamstede in the first part of the *Secgan* are unclear, but the second part is apparently correct in assigning Botulf to Thorney, while the absence of Ely, a curious omission in any case given the nature of this part of the *Secgan,* prevents any further control of the Jervaulx manuscript from this source. See further, Stevenson 1924,42-8.

42 For the claim that St Oswald's right arm, previously at Bamburgh, was at Peterborough by *c* 1130, see Mellows 1949, xvi-xvii, 52, 70, 80, 83, 105-7. The supposed story of how the arm was removed from Bamburgh is told in the 12th century *Vita S Oswaldi regis et martyris* (Arnold 1882, Bk i, cap 48, 374-5). Since the arm was apparently still at Bamburgh when the first part of the *Secgan* was compiled in the later 9th or early 10th century, it is improbable (unless the material on which the *Secgan* relied was itself out of date) that the Hedda stone was originally, if ever, erected over this relic.

43 In the 10th century, presumably consequent upon the burning down of the church in 948 *(ASC* D, *sa),* Archbishop Odo removed to Canterbury what he, but not the northerners, believed was the body of Wilfrid (Plummer 1896, ii, 328).

44 For St Egbert, see Levison 1946, 52-3. St Wihtberht was perhaps the companion of Egbert *(HE,* v. 9, 10).

45 The practice of burial within a church varied with time and place and depended in many cases on whether the church was in origin a cemetery church or a (usually intramural) church for ordinary daily use. Liturgically, a distinction was drawn between the body of the church (architecturally the nave with, perhaps, its eastern extension) where burial was discouraged, and the surrounding structures such as atrium, narthex, and lateral porticus in which burial was permitted, hence the use of porticus for burial observable in Anglo-Saxon churches: see Kötting 1965, 28-36.

46 For the use of lateral porticus by the clergy and for offerings (in other words as 'vestries' and 'sacristies'), see Clapham 1930, 26-7. It should be noted that Clapham's statement (28) that Tobias (bishop of Rochester, d 726) was buried in a porticus on the *north* side of the church is not justified by Bede's Latin.

47 The name of the latter is given in Corpus Christi College, Cambridge MS 201 as Æthelflæd (Rollason 1978, 92). She was apparently the daughter of Æthelweald, ealdorman of East Anglia, possibly by his second wife Ælfthryth, who married King Edgar in 964-5. She could not be confused with the Ælflæd (as Rollason 1978,65) who was supposed to be (but probably was not) an early 10th century abbess of Romsey, the account of whose burial there seems to be the result of confusion with that of Æthelflæd herself (Liveing 1912, 11-12).

48 I am grateful to the excavator, Kevin Stubbs, for showing me his discoveries and for providing me with plans and photographs.

49 The radiocarbon date is Birm-137, *see Radiocarbon,* 13 (1971), 152, where the sample is described as 'oak believed part of cruciform coffin of St Bertelin'. If calibrated (Stuiver 1982, l-26), Birm-137 would be AD 1260-80 ± 78, but the result was not corrected for C^{13} fractionation and its reliability is unknown. A second date (Birm-136) was obtained from 'charcoal assoc with wood remains believed cruciform coffin of St Bertelin', reported by M Carver to be from layer 5 (Oswald 1955, pl 3); the results (also not corrected for C^{13} fractionation) were ad 830 ± 120 and ad 845 ± 90 (the sample was split in two using methane prepared from different hydrogen sources), or AD 900-80 ± 120 using the Stuiver calibration. Since Oswald (1955, 17) does not make clear how layer 5 relates to the pit with the cross, and since his pl 3 shows both the pit fill and the layer below layer 5 as layer 6, although the text (p 17) describes them quite differently, the evidence is somewhat equivocal.

50 It is not clear in any case how a timber 6-8 inches thick could have been carbonized right through without breaking up entirely. Unburnt timbers, it should be emphasized, do not 'carbonize' in the process of decay in the ground. A carbonized timber has been burnt.

51 For the interim reports see *Antiq J,* 44 (1964), 210-11; 45 (1965), 257-8; 46 (1966), 325-6; 47 (1967), 272; 48 (1968), 280; 52 (1972), 115-23.

52 *Antiq J,* 52 (1972), 122, fig 7 (Wall 242).

53 *Find* (Newsletter of the Winchester Archaeological Rescue Group), 26 (Jan 1982), 5-6; 29 (Jan 1983), 2-4; 31 (Sept 1983), 4-6.

54 Steven Bassett, School of History, University of Birmingham, has kindly shown me his forthcoming paper on the documentary, topographical, and (post-conquest) structural evidence for the cult of Kenelm at Winchcombe.

55 Alfred left *Hwitancyrican* in his will to his youngest son Æthelweard (Harmer 1914, 15-19, 49-53, 91-103 (no XI); cf Keynes & Lapidge 1983, 173-8, 313-26, esp 175 and 320 (n 48)). The name means 'white

church' and while valuable in suggesting a (stone?) church here by the date of Alfred's will (between 872 and 888), it may also suggest how St Wite got his (her?) name. What gives one pause, however, is the very fine 13th century shrine against the north wall of the *north* transept (Syer 1984, 9-14).

56 And possibly Paulinus at Rochester in 644; see above, P[9].

57 For the translation of Mildrith between 732 and 748 to the new church at Minster built by Eadburg and her reburial *in templo honorifice constructo ad plagam aquilonarem oratorii* (which may imply a north porticus), see Colker 1977, 105. The source ('The Gotha Text') is late 1lth century, but indicates that the spot was remembered *usque in presentem diem,* and probably draws ultimately on a Minster-in-Thanet source (Rollason 1982, 21-5; and for the date of Mildrith's translation, 16).

58 See above, n 29. At Bampton, John Blair has convincingly identified a tabernacle-like structure in the east wall of the north transept as St Beornwald's shrine.

59 As can be demonstrated by the use of Jones 1929, *sv auster, australis, austrinus,* and cf *aquilo, aquilonis, borealis, boreas.* Bede *(HE,* ii.5) describes the burial of King Æthelberht of Kent (d 616) in the porticus of St Martin, which we know from other sources to have been on the south side of the church of St Peter and St Paul, but does not say where it was. The location raises the question why so clear a distinction was made at Canterbury throughout the 7th and first half of the 8th centuries between the burial of ecclesiastics to the north and kings to the south (or east, see above, p13) of the nave of the church of St Peter and St Paul.

60 Cotton (1929, 25-31) lists burial places of archbishops from Cuthbert to Eadsige (d 1050).

61 Acca, bishop of Hexham (d 740), was buried *ad orientalem plagam extra parietem ecclesiae Hagustaldensis* with a stone cross at his head and another at his feet (Symeon of Durham, *Historia regum, 33, sa).* The grave was described in 'The history of the Church of Hexham' as lying *juxta secretarium suae . . . ecclesiae* (Raine 1863, i, 35,204; for discussion of the meaning of *secretarium,* see above, p 9). St Eahlmund, bishop of Hexham (d 781) was buried *juxta praedecessorem suum . . . Sanctum Accam episcopum (Historia regum,* 47, *sa).* Even if *secretarium* means 'sanctuary', as Raine thought, these phrases need not imply that Acca or Eahlmund lay on or even adjacent to the axis, but only that they lay outside the church and next to the eastern *plaga* of the *secretarium.*

62 The ascription of the martyrdom to the Great Persecution of Diocletian (beginning in 303) is founded only on a supposition of Gildas *(ut conicimus: De Excidio Britanniae,* i. 10) which Bede accepted as fact *(HE,* i.7). Meyer (1904,75) (followed by Levison (1941, 349)) showed that the reference to Severus could have been derived by the author of the Turin *passio Albani* from the earlier *passio Irenaei.* Morris (1968) argued that the references in Turin to Severus, *Caesar,* and *principes* can all be explained if the martyrdom took place in the summer of 209. Morris's case is a strong one, but fails to account for the indications that there seems to have been an early version of the *passio* which did not include specific references to *Severus* and *Caesar* (Levison 1941, 349). It must be concluded that we cannot at present date the martyrdom of Alban: attempts have been made to place it in the persecutions of Decius in 250-l or Valerian in 257-60 (eg Thomas 1981, 44, 48-50), but these are based on general grounds and while plausible are by no means proven. *'Ignoramus* and *ignorabimus',* wrote Levison (1941, 350). Frend (1965, 527, n 126) felt it 'rash to attempt to choose between Severus, Decius, or Diocletian', but was not happy with a date in the early or mid 3rd century. *Contra* Levison (1941, 350), archaeology could probably now discriminate between these possibilities were the tomb or its immediate surroundings to be excavated.

63 I am most grateful to Dr Thacker for letting me have a typescript of his paper in advance of publication.

64 *A-S Arch,* 2; 3, 1083; Taylor 1971; 1977; 1979a; 1979b; 1983.

65 By Dr H M Taylor, Birthe Kjølbye-Biddle, and the present writer.

66 But one must remember that there are comparable crypts (eg at Wing in Buckinghamshire) in places for which there is no surviving tradition of a saint's cult or of a major relic.

67 Eg Radford 1961; *idem* reviewing *A-S Arch, 3* in *Antiq f,* 60(1980), 130-l; Fernie 1983, 116-2l, and cf n 24 above; Gilbert 1967; 1972.

68 At first suggested by Birthe Kjølbye-Biddle. The church of St John built by Archbishop Cuthbert (740-60) immediately east of Christ Church, Canterbury, for the burial of the archbishops, as a baptistery and as a law court provides an obvious parallel : see above, p 13.

69 Rollason (1983,6-7) has argued convincingly that the surviving versions of the *passio,* which are all of post-conquest date, derive from an earlier version antedating the translation of Wystan's relics to Evesham in the reign of Cnut, and most likely composed at Repton between 849 and 873-4.

70 Richard Morris was the first to suggest that the form of the Repton crypt might reflect the structure of an earthen burial mound (Morris & Roxan 1980,180). The mound appropriate to the burial of a person of rank may be a secular attribute wholly independent of religion: mounds, or mound-like mausolea, in Christian burial grounds may therefore present no conflict and may not necessarily suggest a stage in the transition from pagan to Christian burial. The mausolea of Augustus and Hadrian in Rome, the pyramid of Caius Sestius, and the tombs on the Appian Way would have served as a constant reminder of the mode of burial appropriate to rank; paradoxically, it would be Christian rulers who would be more likely to hear about these tombs from ecclesiastics or to see for themselves, as they crossed the Aelian bridge towards the Borgo and St Peter's, the vast drum of the tomb of Hadrian, or, looking back over their shoulder, the mausoleum of Augustus (Krautheimer 1980, 12-13; Nash 1961, 11, 38-48, 321-3).

71 The sequence and character of this reconstruction was first worked out on the basis of the written and comparative evidence in a pioneering paper by the late R N Quirk (1957).

72 There is in fact some uncertainty whether the monks in 971 really knew beyond all doubt where St Swithun lay. Although there was then a monument which was believed to mark the spot (and which seems to have been rather elaborately contrived to allow pilgrims to reach down and touch at least some of the iron rings fixed into the lid of the sarcophagus below the tomb-house), one of the two accounts of the translation makes it clear that the location of the saint's grave had been lost or was known at most only to a few:

> *corpore vir domini sanctus requieuit humatus,*
> *cuius adhuc ipso latuit nos tempore nomen,*
> *nec fuerant nisi perpauci, qui pandere nossent*
> *aut nomen meritumque viri, iam tempore longo*
> *utpote transacto . . .*
>
> (Wulfstan, *Narratio,* Bk I, lines 451-5)

Adhuc and *nos* in line 452 seem to imply that the uncertainty persisted right up to the time of the translation.

73 Wulfstan, *Narratio,* Introductory epistle, marginal rubrics to lines 62, 110, 123, 140, 173, 208 (pp 67-7 1). The poem of Wulfstan, the prose account by Lantfred, and the other sources are edited, translated, and discussed by Michael Lapidge (forthcoming).

74 Biddle & Kjølbye-Biddle forthcoming a; for annual interim reports *see Antiq f,* 44 (1964) to 50 (1970); see also Birthe Kjølbye-Biddle in this volume below, pp 196-209.

75 oære stænenan pryh pe stent nu wiðinnan pam niwan geweorce': Ælfric on Swithun (ed Needham 1966, 61, lines 19-20). The significance of this contemporary comment by a writer who had been a monk of the Old Minster was accurately anticipated by Quirk (1957,56).

76 The later medieval accounts used by Quirk in this section must be treated with the greatest caution. Dr Daniel Sheerin has demonstrated that the 'quotations' from the book *de basilica Petri* by Vigilantius are a post-conquest confection which, if they are in any way to be trusted, described the situation of Swithun's relics in the Norman cathedral and *not* in the Old Minster. Specific references to reliquaries at the high altar and in the sacristy given in these accounts are therefore irrelevant to the situation in the Anglo-Saxon period.

77 *Antiq f,* 47 (1967), 270-1, pls LIII, LIVb, LIX, where the plaster was incorrectly (as it later turned out) interpreted as the surface of an atrium contemporary with the Old Minster (cf Fig 12).

78 *Antiq f,* 47 (1967), 267-8; 48 (1968), 278-80, pls LXIII-IV, LXIX.

79 *Antiq f, 47* (1967), 268, pl LII; 48 (1968), 279-80, pl LXIX. There seem to be no references to the chapel after the late Middle Ages, and no record of its demolition which presumably took place about the time Thomas Cromwell's commissioners demolished the shrine in September 1538: *Letters and Papers of Henry VIII,* XIII(ii), 401.

80 Blume & Dreves 1906, 151-2 (no 352)); for a revised text and analysis, see Planchart 1977, ii, 169.

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The shrines of saints in later Anglo-Saxon England: distribution and significance

David Rollason

Some of the most imposing monuments of Anglo-Saxon architecture testify to the importance of the cult of saints' relics in the Anglo-Saxon church. The corridor-crypts of Hexham and Ripon appear to have been constructed to provide a suitable ambiance and appropriate access to relics of some sort enshrined in them; and the crypt of Brixworth may have served similar functions (Taylor 1969). At Repton, as Harold Taylor has shown, passageways were bored with immense labour to give access to the relics of St Wigstan which were buried in the former mausoleum which was converted into a crypt (Taylor 1971; 1977; 1979). The imposing westwork of the Old Minster, Winchester, was in part intended to glorify the cult of St Swithun and the porticus at St Augustine's Abbey, Canterbury, served to provide a suitable setting for the mortal remains of the saintly archbishops of Canterbury which lay buried there (Biddle 1975; Taylor & Taylor 1965-78, 134-43). No-one has done more to enhance our understanding of this aspect and so many other aspects of Anglo-Saxon England than Harold Taylor and it is with respect and admiration and in gratitude for the stimulus he has given and continues to give to my own studies that this attempt to explore some of the implications of the Anglo-Saxon cult of saints' relics is offered.[1]

In England, as elsewhere, relics could be of various types. They could be the whole of a saint's body, fragments of the body, dust from it, or objects which had been in contact with the saint during his or her life or with the corpse after the saint's death (Rollason forthcoming a). It seems that the English, probably influenced by the views of Gregory the Great, favoured the complete bodies of saints, which they regarded as the most desirable sort of relic, particularly if, as in the case of Cuthbert, Edmund, and Æthelthryth, the body had not decayed (Rollason 1978, 80-2). Fragments of bodies, usually bones, were also treasured and some monasteries and individuals built up large collections (Förster 1943; Thomas 1974). Objects which had been in contact with the saint were also revered although these were probably of secondary importance. Such relics include the portable altar of St Cuthbert, preserved as a relic and enshrined in a silver casing in the 8th century (Battiscombe 1956,326-35).

All the evidence suggests that the importance of relics in the early medieval world can be summed up in a word: power. A saint's capability of interceding with God for the good or ill of those on earth was focused in the relics. Many accounts of miracles allegedly worked through the saint's intercession suggest a belief that the saint was somehow actually present in the relics and could, at least in visions, emerge from the shrine to console, cure, or smite (Rollason 1982, 3-8). Such beliefs in the power inherent in relics found expression in the judicial and other functions which they served in Anglo-Saxon England: as objects on which oaths were sworn, as components of the judicial ordeal and in manumissions, and as a supposed means of warding off disease and even war (Förster 1943, 3-23; cf Herrmann-Mascard 1975, 217-70).

Relics could evidently contribute to the prestige and influence of the places where they were located and of the communities or individuals who possessed them. They could bring practical benefits too. Pilgrims converged on the shrine seeking spiritual profit or cures for illnesses; donors clamoured to make offerings to it and to be buried nearby. In short, the location of saints' relics must, I suggest, be a factor in a study of the geography of power and influence in Anglo-Saxon England. We must not only focus attention on the obvious centres of power - places where kings or bishops resided, where the *witan* met, where kingdoms are said to have had their centres; places which possessed mints, fortifications, ports - but, if we are to take full note of contemporary beliefs and outlooks, we must also concern ourselves with places which possessed shrines, for these too were potentially centres of power.

Mere location of relics is not the only factor worthy of analysis. Those who possessed relics had the opportunity to increase their prestige and influence by careful management and promotion of the relic-cults. This could be achieved by constructing awesome architectural settings for the relics, by enshrining the relics in ever more sumptuous reliquaries, by focusing liturgical ceremonial on them, by involving the laity in the cult. Above all attention could be drawn to the relics by translating them to a richer or more prominent shrine; and such translations seem *par* excellence to provide evidence that the communities involved were being vigorous in promoting relic-cults and therefore in promoting their own prestige and influence. Relics could of course be moved from one place to another and their ownership transferred from one community to another. Such translations naturally involved transfers of the power believed to reside in the relics and the sources tell us that they were often bitterly resented by those losing their relics. In practical terms, we should study the incidence of translations of this type since this may clearly provide an indication of which places or communities were rising in prestige and influence at the expense of others.

What follows is an attempt to pursue these ideas in the context of late Anglo-Saxon England. It should be said at once that formidable problems arise from the character of the available evidence. I have relied most heavily on the *Secgan be Þam Godes sanctum,* a list of the resting-places of 89 saints which reached its present form in the early 11th century (Liebermann 1889, 9-19; Rollason 1978, 61-8); and also on what appear to be the more ancient components of the post-conquest lists of saints' resting-places in the Chronicle of Hugh Candidus *(Hugh Cand,* 59-64), in the Breviate of Domesday *(Gaimar,* i, xxxix-xlii), and in the *Cathalogus sanctorum in Anglia pausancium,* preserved in late medieval manuscripts (CSP). The evidence of such lists must be treated with great caution, as also must the evidence of pre- and post-conquest liturgical texts, saints' lives, chronicles, and monastic histories with which they can be supplemented (Rollason 1978, 68-74). Apart from the usual

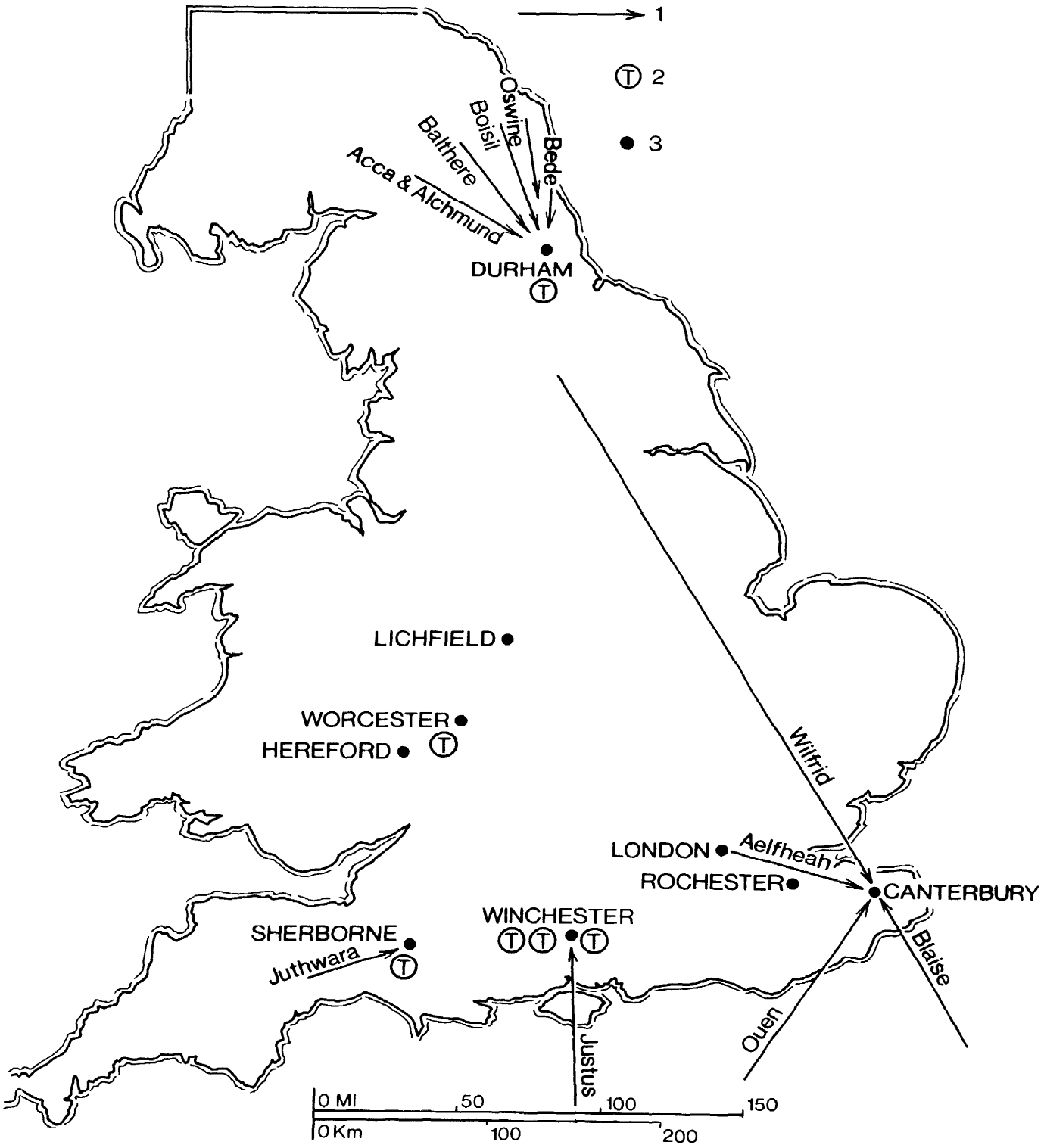

Fig 15 *Relics and translations at cathedral churches. Key: 1 Translation of relics to a new place; 2 Translation of relics to a new shrine on the same site; 3 Place known to have possessed relics*

difficulties inherent in using such texts, it should be noted that problems often arise because of the existence of rival claims to the same saint's relics by two communities. These disputes often led to the fabrication, or at least distortion of traditions about the origin and location of relics which has seriously confused the picture. Moreover fragmentary relics often came to be treated as if they were the whole relics of a saint, giving rise to a situation in which two or more centres claimed to possess the complete relics.

I have tried, with the aid of a series of sketch maps, to address two main problems:

1 What sort of communities had relics?
2 Is it possible to establish any relationship between the distribution of shrines and translations and the pattern of political and territorial power in late Anglo-Saxon England?

I have concentrated on shrines holding major relics of particular saints and no attempt has been made to indicate where places possessed fragmentary relics as part of the sort of major collections listed in the relic-lists of particular churches, although it should be borne in mind that such collections existed alongside the shrines of particular saints. Figs 15-18 relate to the first of these questions and show, respectively, the distribution of shrines in cathedral churches, in abbeys associated with the 10th century monastic reformation, in secular and unreformed communities, and in other places usually of unknown or uncertain status.[2]

Fig 15 shows cathedral churches possessing major shrines and the translations associated with them. The most striking thing about it is the fact that so many cathedral churches do not appear at all. There is no evidence that in the late Anglo-Saxon period Elmham, Dorchester, Crediton, St Germans, Ramsbury, Wells, and Selsey possessed major portions of the relics of particular saints, although they no doubt had some fragmentary or secondary relics. When the see of Crediton was moved to Exeter in 1050, the bishops acquired by this move a large collection of fragmentary relics which had been built up by the church of Exeter, as well as the relics of St Sidwell, who was enshrined there (Förster 1938; 1943,43-114). The most surprising non-appearance of all is that of the church of York. Bede located the head of St Edwin, king of Northumbria, at York but, according to the *Secgan,* neither this nor any other saint's relics appear to have been preserved there in the late Anglo-Saxon period (Bede, *HE,* ii, 20). According to the list in Hugh Candidus's chronicle, a certain St Evorhilda was enshrined there *(Hugh Cand,* 62) but she remained utterly obscure and the similarity of her name to the Latin name for York suggests that she was a pure invention, perhaps one made by post-conquest ecclesiastics faced with an absence of relics. If so, they remedied the deficiency effectively only by the canonization of Archbishop William of York in the early 13th century *(Brev Ebor,* 388-90; *ASS Iul,* ii, 713; *Hist ch York,* ii, 270-91).

Several cathedral churches which do appear on the map were neither well endowed with relics nor vigorous in promoting relic-cults. Rochester had the relics of the 7th century missionary Paulinus, but there is no evidence that his cult was promoted there in the pre-conquest period - and the Norman bishops of Rochester apparently found their church so poor in relics that, when they wished to promote a cult, they had to turn their attention to the obscure 7th century bishop Ithamar (Bede, *HE,* iii, 14; Bethell 1971,424-5). Hereford had the relics of one saint, the 8th century murdered king Æthelberht (James 1917). London actually lost the relics of the saintly archbishop Ælfheah, when they were translated to Canterbury in 1023 *(ASC, sa; Ang sac,* ii, 145-7). It retained the relics of its early bishop Eorcenwald and may have venerated the remains of the 7th century king Sebbi and the 10th century bishop Theodred, although the evidence for this derives only from post-conquest sources (Liebermann 1889, 13; *Hugh Cand,* 59). Lichfield had the relics of the 7th century bishop Chad and had also, according to the *Secgan,* the relics of his brother Cedd and those of an obscureceatta (Liebermann 1889,11). No translations are known to have occurred in the late Anglo-Saxon period at Lichfield, Hereford, London, or Rochester so it appears that little was being done to promote the cults of the relics they possessed.

The remaining cathedral churches were, by contrast, actively involved in relic-cults. Durham could claim that the community which served the church had possessed important relics since the 7th century. The community had of course been exiled from its original see at Lindisfarne and had been established at Chester-le-Street and elsewhere before its settlement at Durham in 995. Throughout its wanderings, it had taken with it the relics of St Cuthbert, St Aidan, and others *(Sym op,* 1,56-79). In the late Anglo-Saxon period, vigorous efforts were nevertheless being made to add to this heritage. Symeon of Durham tells us that the early 11th century sacrist Ælfred Westou brought to Durham relics of Balthere and Bilfrith from Tyningham, Acca and Alchmund from Hexham, Oswine from Tynemouth, Ebba and Æthelgitha from Coldingham, Boisil from Melrose, and Bede from Jarrow *(Sym op,* 1, 87-9). Ælfred Westou was no doubt, as Symeon implies, an exceptionally ardent relic-collector; but this collection, even if it was really his own work, must have been endorsed by his community. The activity may reflect the Durham community's wish to emphasize its close association with St Cuthbert by enshrining in its cathedral the relics of saints associated with him and with his period. It may also have reflected Durham's territorial and political ambitions, for several of the places from which relics were brought to Durham were claimed as possessions of the see of Durham and it may have been hoped that possession of the relics would strengthen these claims (Craster 1954, 179).

Christ Church, Canterbury, had become the burial-place of the archbishops from the time of Archbishop Cuthbert (d 758) and so it had the relics of a series of these prelates. The *Secgan* mentions Dunstan's resting-place there (Liebermann 1889, 15) but it seems that Odo (941-58) was, like Dunstan, given the prominence of a raised tomb and apparently regarded as a saint (Willis 1845, 2, 6; *Inventories,* 29-43). The church was also acquiring relics from elsewhere. Archbishop Plegmund, who visited Rome in 891 and 908, is supposed to have purchased there the relics of St Blaise and to have brought them to Christ Church (Willis 1845, 3; *Inventories,* 30, n 1). Archbishop Odo is said to have obtained from Ripon the relics of St Wilfrid (Brooks 1984,227-31); and we are told that Archbishop Ælfheah, when he was translated from the see of Winchester in 1005, brought with him the

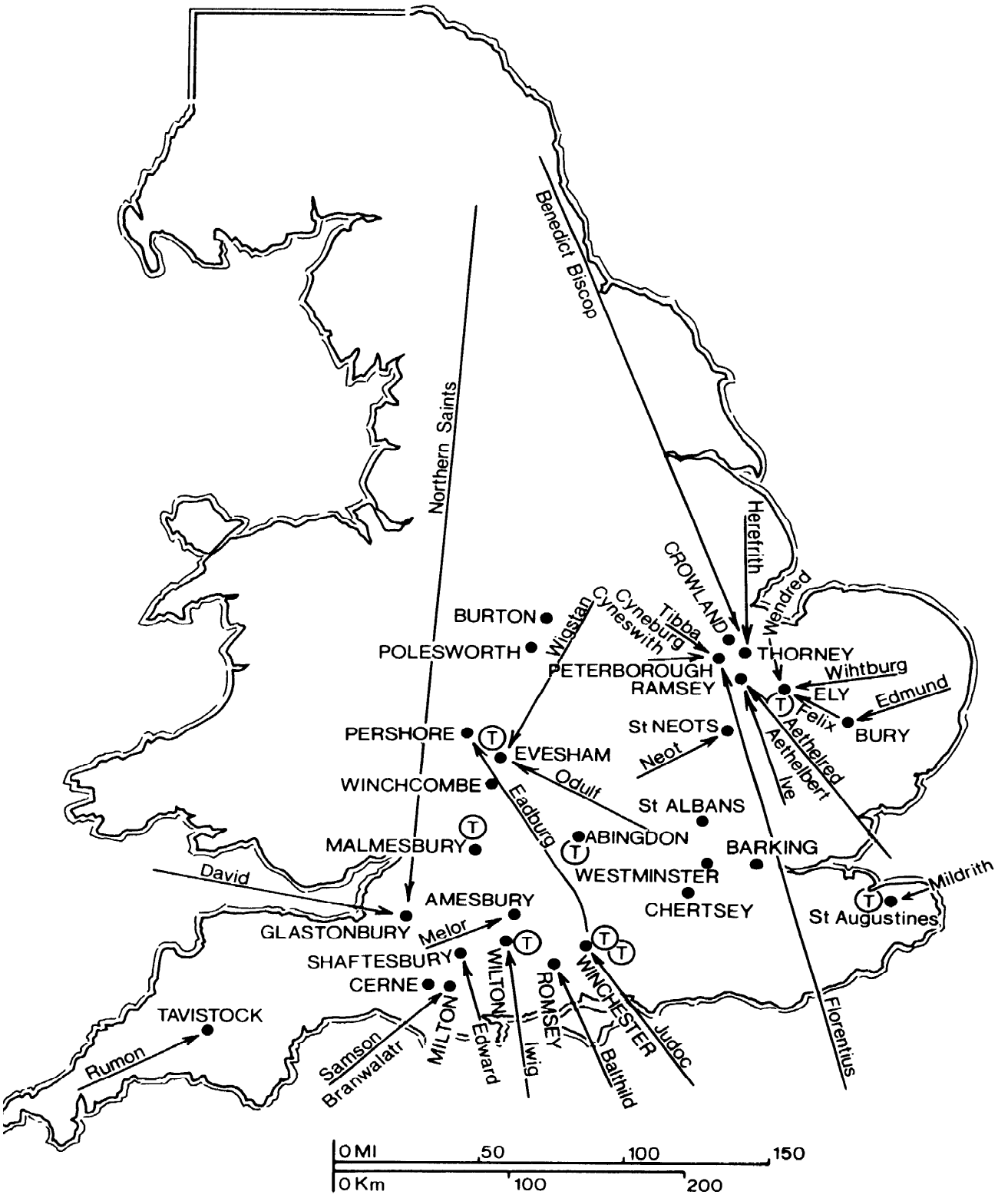

Fig 16 Relics and translations at reformed Benedictine monasteries other than cathedral churches (for key see Fig 15)

head of St Swithun (Willis 1845, 11). The archbishop himself became regarded as a saint as a result of his martyrdom by the Danes. His remains were at first enshrined at London but, as we have seen, they were translated to Christ Church in 1023 (above, p 34). According to Eadmer, there was also a head of St Fursey in the pre-conquest church; and we hear too of the relics of St Ouen which were apparently brought from Normandy in the 10th century (Willis 1845, 4-5, 11). Clearly Christ Church was a rich and active repository of relics. This activity may have been connected simply with its claimed position as the foremost church in England. It may also have stemmed from the nature of the community at Christ Church in the later Anglo-Saxon period. For recent studies have suggested that Christ Church may have had close associations with reformed Benedictine monasticism and may have become at least a partially Benedictine community by the late 10th century (Knowles 1966, 50, 6967; Brooks 1984, 251-3, 255-78). In the light of this it is significant that the other cathedral churches which seem to have been increasing or strengthening their relic-cults in the late Anglo-Saxon period were certainly reformed Benedictine communities and closely associated with the monastic reform movement of the 10th century: Worcester, Winchester, and Sherborne. The last of these venerated its bishop Wulfsige who died in 1002 and translated him at Sherborne soon afterwards; and also obtained the relics of the British saint Juthwara between 1045 and 1058 (Talbot 1959, 82-4). Worcester, which was not well endowed with relics from its early history, sought to exploit the cult of Oswald, bishop of Worcester, and translated his relics there in 1002 *(Fl Wig,* i, 156). But one of the most concerted attempts to promote the claims of a church to be a centre of sanctity through relics seems to have been made by the Old Minster, Winchester. According to the *Secgan,* there rested in this church the remains of a series of bishops of Winchester, Birinus, Hedda, Swithun, Æthelwold, Ælfheah, Beornstan, and Frithestan, together with the head of the Continental martyr Justus, said to have been a gift of King Athelstan (Liebermann 1889, 15; *Ann mon,* ii, 10). Near-contemporary sources emphasize the role of Bishop Æthelwold in promoting the cult of St Swithun, first by a translation into the church in 971 and some time later by the enshrinement of a portion of the relics in a sumptuous reliquary (Quirk 1957, 3843, 569). A cult was likewise promoted around Æthelwold himself after his death, his remains being translated in 996 (Winterbottom 1972, 59-62).

This analysis then suggests that cathedral churches were very far from possessing a monopoly of saintly power. The exceptions seem to have been churches with particular traditions and ambitions, as in the cases of Canterbury, Durham, and Winchester, or, perhaps more significantly, where they were associated with the 10th century monastic reformation, as in the cases of Sherborne, Worcester, Winchester, and probably Christ Church, Canterbury. The importance of this last point can be appreciated more fully if we now turn to Fig 16, which shows relics and translations pertaining to monasteries and nunneries associated with the 10th century monastic reformation, other than those which were also cathedral churches. It is very striking that almost all such abbeys appear on the map. Of the exceptions some were small and obscure communities such as Buckfast, Horton, Muchelney, Abbotsbury, and Cranborne (Knowles & Hadcock 1971, *sn).* They may have been too small to possess important relics or, if they did, the information is lost to us. Other exceptions, notably Deerhurst and St Benet-at-Holme, were clearly important monasteries but we know little of their history and have no means of knowing whether they had major relics or not. Perhaps the most important exceptions are Eynsham, of which ÆIfric the homilist was abbot, and Bath. In the case of the latter, however, we know from a mid 11th century relic-list that the community possessed a large collection of fragmentary relics in the late Anglo-Saxon period although it did not possess major relics of an individual saint *(Chartul Bath,* lxxv-lxxvii).

Many of the abbeys which do appear in the map not only possessed major relics but were in the late Anglo-Saxon period vigorous in acquiring new ones and promoting cults, as the map shows. Some churches stand out as veritable foci of translations. The varied collection of relics at New Minster, Winchester, is recorded in the abbey's *Liber vitae* (Lib *vit,* 147-53), and we hear specifically of the translation within the abbey of its abbot Grimbald in 934 (Liebermann 1879, 88) and the acquisition of the relics of St Judoc from abroad *(Lib vit,* 6). At Nunnaminster, the abbess Eadburg became the centre of a posthumous cult (Braswell 1971, 292-4). Ely acquired the relics of St Wihtburg from East Dereham in 974 and those of St Wendred from March at about the same time *(Lib El,* 120-3, 145). The head of St Botulf also arrived at the abbey by gift of King Edgar *(Lib vit, 288).* To Ramsey were translated the relics of the Kentish princes Æthelberht and Æthelred from Wakering (Rollason 1982, 102), those of Ivo from the future St Ives *c* 1000 *(PL,* clv, 87-90), and those of Felix from Soham *(Chron Ram,* 340). In the early 11th century, Peterborough obtained the relics of St Cyneburg and St Cyneswith from Castor, those of St Tibba from Ryhall, those of Florentius from abroad, and St Oswald's right arm from Bamburgh, probably at about the same time *(ASC* (E), *sa* 963 and 1013; *Hugh Cand,* 50-2).[3] Thorney's major relics were numerous. There, says the *Secgan,* rest *sancte Botulf, and sancte Adulf and sancte Huna and sancte Pancred and sancte Torhtred and sancte Hereferd and sancte Cissa and sanctus Benedictus and sancte Tova* (Liebermann 1889, 15). Some of these were local saints but Hereferth had been translated from Louth (Owen 1980) and Benedict Biscop presumably from Monkwearmouth *(Lib vit, 288-9)*

Glastonbury poses a particular problem because after the Norman conquest the monks claimed that a great many relics, including those of Patrick, David, Aidan, Bede, Begu, Ebba, and Boisil, had been at their monastery since an early period (Scott 1981, 68-71). These claims, which were repeatedly inflated in the course of the Middle Ages, have often been treated with justifiable suspicion and the abbey's historian, William of Malmesbury, himself seems to have doubted the monks' claim to have translated the relics of Dunstan from Canterbury to Glastonbury in the early 11th century (Scott 1981, 4-5). But not all such claims can be dismissed. The *Secgan,* compiled as we have seen in the early 11th century, locates the relics of Patrick and Aidan at Glastonbury so some of the claims at least originated in the pre-conquest period (Liebermann 1889, 17). Liturgical texts of similar date likewise support some of the 12th century claims (Scott 1981, 193-4). And it is possible to point to a context for the

Fig 17 Relics and translations at churches known to have been served by secular canons (for key see Fig 15)

arrival or 'invention' of Patrick's alleged relics associated with Irish presence at Glastonbury in the 10th century (Finberg 1969, 70-88) and a context for the arrival of relics of David and the northern saints in the wide-ranging campaigns of the 10th century kings (Scott 1981, 194). Although certainty is impossible, it seems unreasonable not to mark on the map a number of relic-translations converging on Glastonbury and to regard it as an active centre of relic-veneration in the 10th and early 11th centuries.

Many of the houses most prominent in relic-cults were of course also those most closely associated with the 10th century monastic reformation; this reinforces the general impression given by Fig 16 that relic-cults and reformed monasticism somehow went together in late Anglo-Saxon England. It is notable in this connection that Bishop Æthelwold himself is personally credited with translations involving Thorney, Ely, and Winchester (Thomas 1974, 231). How can we explain this apparent link between relic-cults and reformed monasticism? One explanation might be that the reformers tended to establish communities at places which already had long traditions of monastic or quasi-monastic life and were therefore likely to possess the relics of saints associated with their earlier history. St Augustine's Abbey, Canterbury, was perhaps best off in this respect since it possessed the relics of its founder, of the early archbishops of Canterbury, and of abbot Hadrian (Hope 1915, 386-99). But Ely, Ramsey, Barking, Malmesbury, and Evesham all had the relics of 7th or 8th century abbots or abbesses (Liebermann 1889, 7, 13, 17, 19). Chertsey had the relics of two martyrs to the Danes, Edor and Beocca *(ibid,* 19). Winchcombe had the relics of the Mercian martyred prince Kenelm which it appears to have acquired in the early 9th century *(ibid,* 17, 19; Rollason 1983, 9-10). Crowland claimed always to have had those of the early hermit Cuthlac (Liebermann 1889, 11). St Alban's claimed to have its namesake, the most ancient of all the native saints *(ibid,* 9). Other communities believed or claimed that their possession of certain relics went back to the earlier Anglo-Saxon period but the obscurity of the extant sources makes it difficult to assess these claims. Thus the monks of Burton believed their relics to be those of an early Irish princess, Modwenna; and the nuns of Polesworth regarded themselves as guardians of the relics of an early abbess called Edith *(ibid,* 13). It is clear, however, that this explanation cannot account for the whole phenomenon. Many abbeys were promoting cults around their relics for the first time in the late 10th and early 11th centuries and many, as we have seen, were acquiring fresh relics from elsewhere. Some were creating new saints, notably at Winchester Æthelwold (Winterbottom 1972, l-63), at Wilton Edith (Wilmart 1938), and at Shaftesbury Ælfgyth (Liebermann 1889, 17; *Gest pont,* 186-7).

The enthusiasm for relic-cults and relic-collecting at the reformed Benedictine abbeys can in some cases be explained in terms of particular circumstances. Royal gifts sometimes contributed to the acquisition of relics and individual relic-collectors could boost a house's relic-cults by their personal activity (see above, p 34; Robinson 1923, 71-80). Sometimes translations or acquisitions of relics seem to have been linked with acquisitions of, or claims to, landed property. Thus the translation of Mildrith's relics to St Augustine's Abbey, Canterbury, was closely linked with the latter's acquisition of the saint's former monastery on the Isle of Thanet (Rollason 1982, 667); and likewise it seems clear that Ely was reinforcing its claim to East Dereham by translating Wihtburg's relics from there *(Lib El,* 120-3). Such explanations, however, apply to only a limited number of cases and certainly cannot extend to the general relationship between reformed monastic houses and relic-cults revealed by Fig 16.

We must, I suggest, accept that that relationship represents a real link - in other words that relic-cults formed an integral component of the 10th century monastic reformation. Why should this have been? The most straightforward explanation, which is not exclusive of others, is that the reformed monasteries sought to reinforce their claims to be the spiritual leaders of late Anglo-Saxon England by presenting themselves as promoters of the cults of saints and guardians of their relics. As they sought to excel in regularity of life, consistency of liturgical observance, and grandeur of religious art, so they sought also to excel in the collection and veneration of relics (Robinson 1923; Parsons 1975). They can be seen in some cases as adopting an almost imperialist attitude to the power believed to reside in relics. As the self-styled experts in monastic living, these communities were in effect centralizing the power of relics, concentrating it in their own hands, and removing it from less regular communities or from deserted or neglected sites. We are told that St Æthelberht and St Æthelred permitted their relics to be translated from Wakering to Ramsey, because they were ill-served by seculars at Wakering, and that Mildrith's relics were removed from Minster-in-Thanet to St Augustine's Abbey, Canterbury, because the former had become merely a parish church (Rollason 1982, 103-4; forthcoming b).

The reformed monasteries, however, did not establish anything like a monopoly of relics in late Anglo-Saxon England. Fig 17 shows that secular colleges still possessed a considerable number of saints' relics although few were as active as the reformed monasteries in promoting their cults. Among the secular colleges founded or refounded in the late Anglo-Saxon period, Beverley had the relics of the early abbots John and Berthun (Liebermann 1889, 9; *Hugh Cand,* 61), and we know that Abbot Ælfric (d 1051) made a shrine for the former *(Hist ch York,* ii, 343); Southwell, founded probably in 956, had translated to it the relics of St Eadburg, possibly an early abbess of Repton, around 1000 (Rollason 1978, 63, n 12); Bodmin had at some time obtained the relics of Sts Medan, Dachuna, and Credan and received the relics of St Petroc presumably after the destruction of their former resting-place at Padstow in 981 *(Hugh Cand,* 63; Liebermann 1889, 17; Hoskins & Finberg 1952, 29); Much Wenlock had the relics of its foundress Mildburg (Finberg 1972, 197-200); and Ripon, which was refounded in the years after 972, had the relics of Wilfrid and other figures from early Northumbrian history and these relics were translated in the late 10th century to shrines in the church *(Hist ch York,* ii, 497-8). Oundle, which also seems to have been refounded in the late 10th century, had, according to the *Secgan,* the relics of a certain St Cett (Liebermann 1889, 11) and St Oswald's, Gloucester, appears to have been founded in the early 10th century around the relics of its patron, Oswald, king and martyr, which were translated from Bardney in 909 *(ASC(C), sa* 909). Chester received the relics of St Werburg from Hanbury, probably in the early 10th

Fig 18 Relics and translations at places of unknown or uncertain status (for key see Fig 15)

century (Thacker 1982, 203-4). Of the other secular colleges, Congresbury, whose history is very obscure, possessed the relics of St Congar, about whom little is known (Liebermann 1889,17); Derby had the relics of St Ealhmund, a Northumbrian royal martyr supposed to have been translated from Lilleshall *(ibid,* 11; Rollason 1983, 4-5); Leominster, which was destroyed in 1046, had the relics of Sts Æthelberht and Cuthfleda (Liebermann 1889, 13; *CSP;* Knowles & Hadcock 1971, 69); Oxford had the relics of its alleged foundress Frideswide (Liebermann 1889,19; Stenton 1936); and Wimborne had those of its early abbesses Cuthburg and Cwenburg (Liebermann 1889, 19). Stafford may have claimed the relics of the obscure St Bertellin *(Hugh Cand,* 61; Crawford 1968). Exeter, one of the most distinguished of the secular colleges, had a large collection of fragmentary relics as well as the supposedly complete relics of the obscure saint Sidwell or Sativola (see above, p 34). Padstow, which was monastic but not Benedictine, had the relics of its founder Petroc until they were translated to Bodmin after 981 (see above, p 38). Bampton, which seems to have been served by a community in the pre-conquest period, had the relics of the obscure St Beornwald *(Gaimar,* i, xli; Blair 1984). Clearly those in the late Anglo-Saxon period who visited these shrines or, like the compiler of the *Secgan,* recorded their locations did not perceive England as dominated entirely by reformed Benedictine communities (Sawyer 1978,238-40).

Furthermore it should be noted that some entries in resting-place lists assign relics to places whose ecclesiastical status in the pre-conquest period is difficult to define. For example, the *Secgan,* compiled as we have seen in the early 11th century, notes that Higbald rested at *Cecesege,* a place usually identified with Hibaldstow in Lincolnshire, that St Osyth rested at St Osyth, St Diuma, one of the 7th century apostles of Mercia, at Charlbury, St Rumwold at Buckingham, St Æthelberht at Bedford, and St Cuthman at Steyning (Liebermann 1889, 11-19). From Hugh Candidus' list of about a century later we may note the resting-places of St Ragaher the King at Northampton, St Egelwine at Scalford,[4] St Inicius at Boxworth, St Pandouna at Eltisley, St Aldgyth at Stortford, Sts Wulfrannus, Symphorianus, and Etritha at Grantham, and St Monegunda at *Wetedun (Hugh Cand,* 60-64). From the Breviate list, we may note St Tuda at a place probably to be identified with Whalley, St Osyth at Aylesbury, and St Berthothe at *Copland (Gaimar,* i, xli). The *Cathalogus sanctorum in Anglia pausancium* has such entries as those for Sts Wulflad and Rufinus at Stone and St Fremund at Dunstable *(CSP).* From Her *cyð ymbe þa halgan,* a pre-conquest text devoted mainly to Kentish saints, we can add shrines at Lyminge and Folkestone (Liebermann 1889, l) (see Fig 18).

It is of course possible that some of the entries in the later lists derive from post-conquest fabrication and trumping-up of confused traditions; but many of them refer to saints and sites so obscure in the pre-conquest period that such an explanation seems unlikely. If we are right in asserting that places with shrines were at least potentially places of influence and prestige, we must clearly look closely at the places in the resting-place lists. Many may have been 'Old Minsters' served by secular communities which have left at best indirect clues to their pre-conquest status but which were in fact similar to the churches shown on Fig 17 (Sawyer 1978, 240).[5] Steyning, for example, shows the characteristics of an 'Old Minster' in post-conquest sources and was probably served by a community (Hudson 1980, 13-14); and the church-scot which eight hundreds paid to Aylesbury in Edward the Confessor's reign was presumably intended for the maintenance of a community attached to the church *(VCH Bucks,* 5). Some resting-places, such as Eltisley and St Osyth, have traditions regarding the existence of early monasteries: maybe some form of religious life had persisted around the relics in the late Anglo-Saxon period (Knowles & Hadcock 1971, 173,258). Others are notable for their political importance which may well be connected with the presence of relics there. The importance of Buckingham, Bedford, and Northampton is well attested, not least by their role as county-towns, and Aylesbury may have been not far below them in political terms (Sawyer 1983, 290-l; *VCH Beds,* 1-2; *VCH Northants,* 1-2; *VCH Bucks,* 4-5). Steyning, the burial-place of King Æthelwulf, was probably a royal vi11 and Folkestone and Lyminge, respectively the resting-places of Eanswith and Eadburg, were certainly important in the Kentish kingdom and may have been early administrative centres (Rollason 1982, 47-8). Their churches appear as mother-churches in the *Domesday Monachorum (Dom Mon,* 78). Charlbury, resting-place of Diuma, is not otherwise referred to in pre-conquest sources, but Bede says that Diuma died in the territory of the people called the *Feppingas* and it is just possible that Charlbury was an important place among them (Bede, *HE,* iii, 21). Perhaps the most intriguing case of all is Hibaldstow about which virtually nothing is known. Its name points to its association with the saint and its position, just off Ermine Street and in a cluster of churches dedicated to this obscure saint, suggests the possibility that it was an otherwise unknown pilgrimage centre in Anglo-Saxon England (Venables 1881, 369-70). Clearly we cannot disregard the evidence of shrines in assessing which were the important places of late Anglo-Saxon England.

I now turn briefly to my second question: that of the relation, if any, between the distribution of shrines and translations and the pattern of political and territorial power (see now Thacker 1985). That such a relationship may have existed is suggested by my opening remarks concerning the potentially influential character of shrines and by the evidence pertaining to particular translations. The history of the body of Oswald, king and martyr, is especially instructive. In the 7th century, Bede tells us, the translation of these relics to Bardney in the former kingdom of Lindsey was resisted by the monks of that house because they resented Oswald's former rule over their kingdom (Bede, *HE,* iii, 11). The proposed translation was evidently perceived as a political act. When Æthelred and Æthelflaed translated Oswald's body to Gloucester in 909, the saint's former resting-place at Bardney was in the hands of Viking armies and the Mercians had to make a raid into enemy-held territory to secure the relics (Hill 1981, 56). This translation may also have had a political significance and William of Malmesbury, writing in the 12th century, explicitly associated it with the revival of Æthelred and Æthelflæd's power over Mercia *(Gest pont,* 293). The translation of Werburg from Hanbury to Chester is probably to be associated with the foundation in 907 of a Mercian burh there in an area formerly devastated by Vikings(seeabove, p 38; *ASC* (A) *sa* 894, (C) *sa* 907). In this

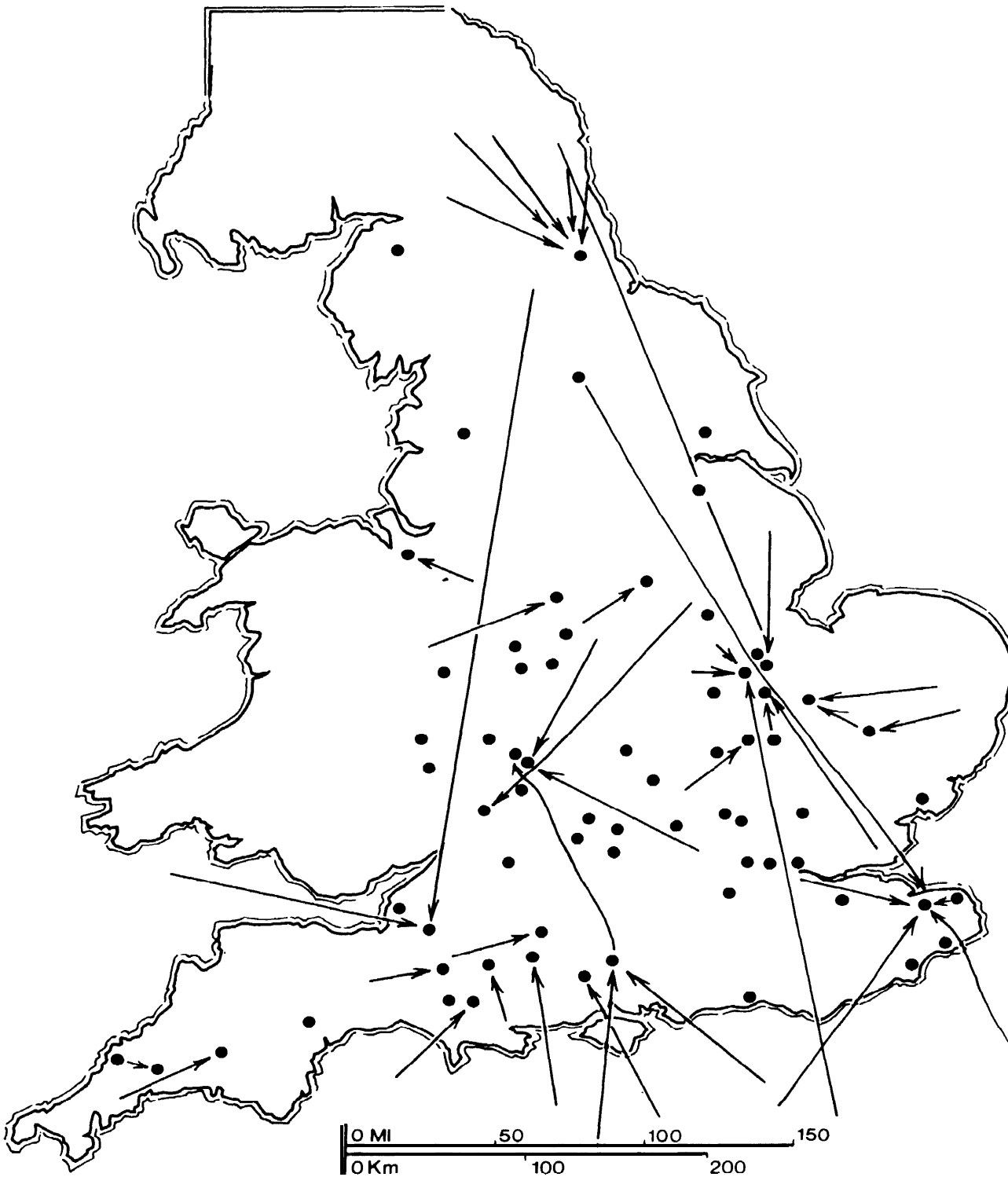

Fig 19 Places possessing relics and translations to new places shown on Figs 15-l8 (for key see Fig 15)

case, the translation of a Mercian saint brought supposed power and the prestige of old Mercian traditions to the new strongpoint and evolving town (cf Thacker 1982, 210-l 1).

Fig 19 is a conflation of the information about the distribution of shrines and the incidence of translations from one site to another which appears on Figs 15-18. It may serve to suggest some tentative lines of thought. The emphasis on shrines in Wessex and in the south-west peninsula, an emphasis lacking in the earlier recensions of the *Secgan,* must reflect the growing prestige of Wessex and the extension of its influence to the south-west. The alleged translations of northern relics southwards may in a similar way give tangible expression to the growing claims of the south to dominate the north. This seems particularly likely in the case of the alleged translation of Wilfrid to Canterbury (Brooks 1984, 227-8) and in the case of the translation of northern relics to Glastonbury which may have resulted from King Edmund's campaigns in the north *(Gest pont,* 198). Finally, the lack of translations and shrines in East Anglia proper is itself notable and the reasons for this apparent inactivity seem worthy of future consideration.

Much of the detailed history and interpretation of the location of shrines, the promotion of relic-cults, and the translation of relics in late Anglo-Saxon England must of course remain problematic, even conjectural, in view of the nature of the evidence and the difficulty of assessing the mentality of people in that remote age. But it seems clear that the subject cannot be excluded from a study of the geography of power and influence in late Anglo-Saxon England. No better illustration of this could be found than the history of the relics of St Cuthbert: how they formed the focus of the community of Lindisfarne in exile, how they were visited at Chester-le-Street by the most powerful of Anglo-Saxon kings, Athelstan, and how their supposed refusal to move from the neighbourhood of Durham led to the foundation of the church and see on the peninsula in the River Wear where it stands today (Battiscombe 1956, 27-40; *Sym op,* i, 56-84). There can be little doubt that the choice of Durham was governed by practical considerations such as the defensibility of the site and the wishes of Earl Uhtred who seems to have been associated with the establishment of the community at Durham *(Sym op,* i, 215-18). But it is of great significance that contemporaries wished it to be believed that the desires of St Cuthbert were the paramount factor. For they chose to describe the establishment of the church at Durham as a result of miraculous occurrences involving Cuthbert's relics. The site of Durham Cathedral, towering above the River Wear, thus seems to offer a tangible reminder of the extent to which early medieval people could express the realities of worldly power in terms of the supernatural power residing in a saint's relics.

Notes

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2 It should also be emphasized that the treatment of shrines in this paper cannot be regarded as comprehensive. Research in progress on hitherto little-explained texts may well necessitate future modifications to the maps published here, although it seems unlikely that the overall pattern will be significantly affected.

3 Rollason (1978, 66) states incorrectly that the translation of Cyneswith and Cyneburg occurred in 963.

4 I owe this identification to Dr L Butler.

5 For a major study of such churches which lays down criteria for recognizing them, see Blair 1985. I am grateful to Dr Blair for access to this and other work in advance of publication.

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Church dedications and the cults of Anglo-Saxon saints in England

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All the scholars who have worked with Harold Taylor have admired his tireless energy, his rigorous standards, and his substantial achievements. To read his *Anglo-Saxon architecture* is to experience the enthusiasm of the hunt for accuracy and truth and to see the facts clearly stated, divorced from opinions and supported by exemplary if spartan line drawings and plans. This primary achievement (Taylor & Taylor 1965; Taylor 1978) has been matched by the methodical way in which many of the problem churches have been elucidated by individual studies or at least have had their problems clarified by campaigns of investigation as at Brixworth, Deerhurst, Repton, and Barton-on-Humber. Alongside this examination and structural criticism there has been a concern with liturgical matters, seeking to explain the physical requirements for the rituals conducted in these churches (Taylor 1973; 1974). As one who has been privileged to work for the past decade with Harold Taylor at Deerhurst and to value both his scholarship and his friendship, I offer this paper as a modest contribution to an understanding of the Anglo-Saxon church.

During the compilation of the first two volumes of *Anglo-Saxon architecture* the dedication of each church described therein was noted. In part this was necessary to identify town churches, but in part it must have been a conscious decision in the expectation that the dedication might have had a bearing on the period of construction of all or part of the church. No general discussion of dedications takes place in the third volume. In some cases the dedication is supported by literary evidence, as of Bede or of Symeon of Durham's material; in a few instances there is the tangible evidence of a dedication stone or a sundial (Jarrow, St Paul; Kirkdale, St Gregory; Deerhurst, Odda's Chapel of Holy Trinity) (Taylor 1978, 737-40). On two occasions there are dedications to St Thomas Becket which are obvious rededications (Clapham, Warblington) and at two other churches the dedication to a Merovingian bishop (Little Bytham, St Medard; Thurlby, St Firmin) is likely to be a Norman rededication .[1]

The evidence that comes over most clearly is the strong preference of abbots, bishops, and other founders to dedicate their churches to the apostles and to the company of All Saints and less frequently to the Latin martyrs and doctors (Levison 1946, 259). The occurrence of the Holy Rood or the Holy Cross as a dedication may be paralleled by the presence of the stone sculptured rood in a number of late Saxon churches (eg Romsey, Langford, Bitton, Breamore, Walkern, and Daglingworth), but the number of dedications (5) may be too small a sample to be significant. In the greater abbeys the dedication to the Holy Rood was used for the nave altar which was accessible to the laity (Taylor 1978, 1066-7).

Those dedications with a low proportion of churches showing Anglo-Saxon fabric to the total number of medieval dedications might indicate a predominantly late medieval popularity (George 2.3%, Nicholas 2.2%, Helen 2.2%, James 1.5%, Paul 0.90%) or might point to a total rebuilding which had left no Anglo-Saxon fabric visible. Similarly those with a high proportion of early churches to the medieval total might indicate a pre-conquest preference (Peter and Paul 5%, Martin 5.2%, Andrew 5.6%, Botolph 6.3%, Gregory 14%, Holy Rood 17%, Pancras 50%) or a lack of later rebuilding. In general the dedications of churches containing Anglo-Saxon fabric closely mirror the pattern of medieval dedications in England excluding Cornwall.'

The joint dedication of St Peter and St Paul, initially at Canterbury and at the twin foundations of Jarrow and Monkwearmouth, occurs more frequently at pre-conquest structures. However, one cannot argue from this that those other churches with this dedication are more likely to be of Anglo-Saxon foundation, even though they exhibit no signs of early structure. Similarly, a preference for Gregory, Pancras of Rome, and Andrew as dedications is noteworthy. Yet this preference cannot by itself be used as a determinant of early date, but only as identifying a greater possibility of early foundation (see Brooke & Keir 1975, 141).

The collection of information about church dedications is a relatively easy matter and has been tackled by Arnold-Forster (1899) and Bond (1914). However, the identification of periods of foundation and incidence of rededication is a much more difficult task and needs to employ many varied strands of evidence, such as documentary, structural, place-name, and topographical sources. Even with such a combination of evidence there will continue to be shades of uncertainty. However, if the areas of uncertainty can be minimized and the sequence of dedications identified, then the study of dedications can assist in isolating those churches which were of pre-conquest foundation and of which no surviving fabric is now visible. This study, therefore, concentrates upon the saints native to England (excluding Cornwall) or those whose relics rested here before the Norman conquest (Liebermann 1889; Rollason 1978).

Dedications

The dedications which might best be used as clues to early dates of foundation in the absence of any literary evidence are those churches dedicated to Anglo-Saxon saints. Few of these dedications occur at churches with visible pre-conquest fabric, but there are cogent reasons for arguing that some characteristics of early foundation date can be identified. These churches may most conveniently be considered in four groups: the first comprises those churches where between 30 and 75 instances of that dedication occur; the second those with between 10 and 29 dedications; the third those with between 2 and 9 dedications; the fourth group with a single dedication of medieval date.

In the first group are eight saints, namely Cuthbert: 72 (3), Oswald: 67 (3), Botolph: 64 (4), Edmund: 61 (1), Swithun: 58 (2), Wilfrid: 48 (1), Chad 33 (2), and

Augustine of Canterbury 30 (3).[3] Two are martyred kings, Oswald and Edmund, and the remainder are missionary bishops or abbots. With the exception of Edmund (d 870) and Swithun (d 862), all are of 7th century date. All have a regional association, though Wilfrid preached both in Northumbria and Sussex, and all have the most prominent number of dedications in their 'home' territory. The majority of these saints were buried at a major monastery; the fame of their shrine gave added impetus to the performance of miracles and additional accessibility for the gathering and dissemination of relics; the translation of their remains was the occasion for festal celebration.[4] The monastic guardians had an incentive to record and embellish the *Life* of their saint.

Although most of the eight saints fit readily into this pattern, dedications to Chad are widespread in Mercia and Northumbria, and Lichfield seems to have been a community of canons throughout its pre-conquest existence. An explanation (Taylor & Taylor 1965,483) has been provided for the Oswald dedication at Paddlesworth, Kent, but the four dedications to this saint in Gloucestershire and Oxfordshire can only postdate the translation of his body from Bardney to Gloucester in 909. The six dedications in Lincolnshire could predate the transfer or be subsequent support for Bardney's rightful claim to the body after that monastery's revival in 1087. The extensive continental cult of St Oswald (Baker 1949; 1951) owes part of its popularity to the claims to possess his relics made by Hildesheim and Bergues. The shrine of Wilfrid at Ripon competed with Hexham and Bosham for a close association with the saint, and his remains were also claimed to rest at York, Worcester, and Canterbury. The popularity of Botolph is difficult to account for. It seems likely that his reputation for sanctity rests upon his influence as a monastic leader at *Icanho* (Iken) (Stevenson 1924; Martin 1978). His body was transferred to Thorney in 972 where it became the principal relic and his reputation was enhanced by his *Life* written after 1070 by Folcard for Thorney. The occurrence of four Botolph dedications in London, all at the city's gates, but not all necessarily pre-conquest (Brooke & Keir 1975, 145-6), shows that travellers may have sought his protection, as did the chapel of Botolphbridge near Peterborough.

The *History of St Cuthbert* (Craster 1954) is more informative about one interpretation to be placed upon these dedications. The occurrence of a dedication to St Cuthbert may be used to identify places where the body of the saint rested during its peregrination between Lindisfame, Norham, Chester-le-Street, and Durham. This resting-stop established a *prima facie* case for the possession of that church by Durham. In some cases the churches are on the fringes of the territory claimed by Durham, not centrally within the future diocese. These claims have been examined and rejected by Thompson (1936, 153, 168). It may well be that the Edmund and Chad dedications are capable of a similar interpretation in relation to Bury and Lichfield respectively, and that many of the Augustine dedications served to establish their abbey's ownership against that of Christ Church. The majority of this first group of dedications may record post-conquest popularity and expansionist claims.

A parallel for these territorial dedications occurs in the Celtic west where the dedications to David and to Beuno seem to indicate episcopal expansion into areas also claimed by Llandeilo and St Asaph respectively (Chadwick 1954). The process of establishing claims by embellishing saints' lives, forging (or improving) charters, and discovering saints' tombs can be seen in the activities of the first Norman bishop of Llandaff, Urban, who turned a peripatetic bishopric in Glamorgan into a firmly-based *cathedra* (Brooke 1958).

The second group of dedications is more diverse, comprising twelve saints: Dunstan 26 (2); David 23 (1); Edward the Confessor 17 (-); Ethelbert 16 (-); Edith of Polesworth 15 (1); German 15 (-); Hilda 15 (-); Petroc 15 (-); Olave 13 (1); Etheldreda 12 (-); Werburgh 12 (-); Alban 11 (1). Four of these (David, Edward, Edith, and Hilda) need to be considered only briefly. Although Glastonbury claimed that David had built their 'old church', the majority of David dedications in England are in the border district of Erging or Archenfield and may date from the period of Welsh expansion east of Offa's Dyke during the Danish invasions of Mercia (Bowen 1956, 50-65). The dedications to Edward the Confessor are unlikely to predate the canonisation in 1161 but may represent possessions of Westminster or churches where the founder was influenced by the popular legend of Edward and the beggar. Similarly the midland group of dedications to Edith of Polesworth (d 964) are at churches with no pre-conquest fabric; historical circumstances suggest a post-conquest foundation, possibly inspired by the relics of Edith later housed in the crypt under the south aisle at Tamworth. Elsewhere this dedication may be to Edith of Wilton (as claimed at Bishop Wilton, East Yorks) or may mark a possession of Edith, wife of Edward the Confessor (as the place-name Edith Weston, Rutland, shows). The northern group of dedications to Hilda, a 7th century abbess, indicates a revival of interest in her life after the refoundation of Whitby abbey by the Normans Reinfrid and Aldwin in or after 1078 as part of a journey of discovery to the northern shrines. This saint does not appear in the *List of saints' resting-places* but does occur ('at Esca') in the 12th century list in Hugh Candidus (Mellows 1949, 63).[5] By contrast another refoundation of the same mission in 1078 is Lastingham where the crypt was built or restored to house the relics of Cedd (Herzfeld 1900, 194-5); the community did not acquire any gifts of churches and soon moved to the more fertile soil and more generous climate of York. There are no church dedications to Cedd, whether from Lastingham, from his brother's shrine of Lichfield, or from an alternative shrine location (to Cett) at Oundle.

Two predominantly Cornish dedications are those to Petroc and to German. Petroc was certainly enshrined at Padstow (Petrocestow) before 981 but was transferred to Bodmin some twenty years later. The theft of his relics in 1176 may have encouraged local dedications (Doble 1939); the ivory casket which housed his bones when these were restored to Bodmin survives (Pinder-Wilson & Brooke 1973, 264-7). A slightly more complicated dedication is that to St German. In the wake of the Oxford Movement it was fashionable to claim that any such dedication was a product of the mission to Britain of Germanus of Auxerre and supported the concept of a Church of England existing before the mission sent by Pope Gregory the Great from Rome. However, there is so wide a distribution of dedications throughout the Celtic west that it seems likely that two or more founders of the same name but of different *floruits* are involved. The presumed link with Auxerre may parallel dedications to

other French bishops such as Riquier, Leger, Quintin, or Giles, all of early date, but equally accessible to relic-collecting visitors whether Saxon or Norman. Such dedications tantalize to deceive.

There can be no doubt about the predominantly post-conquest nature of the thirteen dedications to St Olave (d 1030). Only one church, Chichester, has the possibility of pre-conquest fabric, though in the morphology of urban development those churches in London, Chester (Alldridge 1981,19-21), and York (Douglas & Greenaway 1953, 132-3) should be pre-conquest. It is claimed that dedications to Olave are an indicator of Norwegian settlement but it seems more difficult to sustain this argument for the churches in Chichester, Exeter, Bradford-on-Avon, Gatcombe (Isle of Wight), and Poughill (Cornwall) unless one argues for Danish merchant colonies (Dickins 1945; Farmer 1978, 300-1). There seems to be little particularly noteworthy about his life or admirable about his death that would make him any more attractive as a martyr saint than Edmund or Alphege (Alpheah).[6] Yet there were five dedications to him in London (Brooke & Keir 1975, 141-2), one more than for Botolph, while by contrast the premier martyr Alban had only one dedication (St Alban, Wood Street). For that single London church an origin in or soon after the reign of Offa is argued, mainly on the translation of the relics in 793. None of the other churches dedicated to St Alban exhibit early fabric. The spread of his dedications throughout the south midlands may owe as much to the territorial claims of the great Benedictine abbey as to the efficacy of visits to the shrine after the new translation in 1129. It is, however, noteworthy that Alban was honoured with dedications in France from a much earlier date; his commemoration in Germany is based on a confusion with Albinus (Baker 1937).

Two female monastic leaders have a modest number of medieval church dedications. The shrine of St Etheldreda at Ely was of more than local significance as was her Fair on Stourbridge Common. She is not mentioned in the *List of resting-places,* though her activities do occur in the associated Kentish Royal Legend. It seems best to regard the rise of Ely as a product of the monastic revival in the reign of Edgar and the conscious, and at times ruthless, hunt for relics of her contemporaries Withburga, Seaxburga, and Eormenild. No church with a dedication to Etheldreda (Æthelthryth) displays pre-conquest fabric though one jointly dedicated to St Mary and St Seaxburga at Lyminge does and the siting of St Withburga at Holkham, Norfolk, on an isolated natural hillock recalls Hough-on-the-Hill near Lincoln and Llanddewi Brefi in Ceredigion. It is likely that all Etheldreda dedications are post-980 and probably post-conquest consequent upon the translation of the relics in 1106 and the creation of the bishopric in 1109. By the late 12th century Reginald of Durham asserted that she was one of the three most popular saints whose shrines were in England, ranked alongside Cuthbert and Edmund (Raine 1835,38).

While Ely was set amid a holy land filled with relic-rich abbeys, Chester and the shrine of St Werburgh was in an area of England poor in such tangible signs of sanctity.[7] The only pre-conquest church loosely associated with her is Stowe-Nine-Churches which may be the burial place of Alnoth, a herdsman befriended by Werburgh when she lived on the royal manor or monastery of Weedon. Her other monasteries were Threekingham (Lincs), where Stow Green with its fair ground and church lies to the north, and Hanbury where she was buried and where the present church stands on a defensible promontory. The names Warbstow (Cornwall) and Warburton (Cheshire) have been considered by Gelling (1982,192) who feels that they cannot be clearly connected with this saint Werburgh; at Warburton the dedication to St Werburgh is recorded *c* 1175. It would appear that the post-conquest popularity following the translation of her relics in 1095 and the simultaneous writing of her Life by Goscelin, together with the rise to power and prosperity of the abbey, are the factors responsible for most, if not all, of the dedications.

The murder of the East Anglian ruler Ethelbert (Æthelberht) by Offa near Hereford in 794 introduces the most popular of the royal martyrs, a category discussed by Rollason (1983, 9). The pattern of dedications is unusual in that only three dedications are close to the scene of the murder: Marden, where there is a 13th century crypt, Hereford, where his shrine was erected early in the 11th century and destroyed in 1055, and Little Dean, Glos. The remaining eleven dedications are in East Anglia and it is difficult to determine whether these represent a genuine and immediate honouring of a revered king, before the death of Edmund in 869 gave another candidate. It might represent a revival of Christianity after the Danish settlement by commemorating a politically 'safe' and corporeally distant local ruler, or less probably it may indicate a post-conquest cult promoted by individuals visiting Hereford.

The role of Dunstan as a monastic founder and reformer is well attested and his active role in ecclesiastical revival at Christ Church, Canterbury, may be the reason for the 26 medieval church dedications; many of those in Kent and London may represent the possessions of Christ Church, and Balstonborough (Somerset) was a possession of Glastonbury, Dunstan's former abbey. In some cases he may have founded the church or received the gift of land. Two churches, Cheam and West Peckham, showed pre-conquest work giving support to this view, though the cult received a strong impetus from Anselm in the early 12th century.

With this second group of church dedications it is difficult to point with certainty to any but a few of them being of pre-conquest date. They gain the greatest number of dedications through the post-conquest promotion of the cult by the major abbeys of Westminster, Whitby, Chester, Ely, and St Albans, a pattern which echoes the evidence of the first group of dedications.

The third major group of dedications is a heterogeneous collection of twenty saints. At one end of the scale are the saints with a wide geographical spread of dedications and a famous shrine: Guthlac (9:-) at Crowland, Mildred (9: 1) at Minster-in-Thanet, later transferred to St Augustine's at Canterbury in 1035, and John of Beverley (7: 1); at the other end are saints with obscure shrines and a very localized cult: Hybald (4) at Hibaldstow *(Cecesege* in the *List of resting-places),* Osyth (4) at St Osyth *(Cite* or Chich in the *List of resting places),* and Bega (3) at St Bees. Some saints had been captured from a distant region: Neot (4) and Ives (3) from Cornwall, though the latter was claimed to be a Persian bishop whose coffin was miraculously found just floating down the Ouse; others were gained through gifts to Athelstan: Branwaladr (3) and Samson (6: 1) from Brittany to Milton Abbas.[8] Winifred (6:-) was stolen in a border raid before 1138 and taken to Shrewsbury, where her body

became the principal relic. [9] Many dedications were to the saints of the great missionary ventures: Patrick (8) whose body rested in Ireland but of whom Glastonbury claimed to have some relics; Felix (7) whose missions (and dedications) were predominantly east coast and whose body may have rested at Felixstowe or more probably at Soham before its final transfer to Ramsey; Ebba (5), the monastic foundress of Coldingham, who was commemorated in a small group of Northumbrian churches, two with pre-conquest work visible or formerly recorded; Paulinus (5) the missionary bishop of the early conversion period recorded by Bede; and Aldhelm (4) the missionary bishop in Wessex. For the last-named saint bishop Egwin of Worcester erected crosses at seven mile intervals where Aldhelm's body rested on the journey from his place of death, Doulting, to his place of burial, Malmesbury, in 709; three churches now dedicated to Aldhelm claim to be at the site of these crosses. Doulting has a secure claim, but Broadway implies a first stop on a journey north using the Foss Way while Bishopstrow would indicate a second stop on a journey initially eastwards.

The most interesting collection of dedications is to the kings martyred in Mercia (Rollason 1983,4-10); these are Wystan (4: 1), Kenelm (7:-), and Alkmund (6: 1). There are similarities in the form of their physical commemoration with a shrine at the place of martyrdom or burial: Wystan at Repton, Alkmund at Derby (Radford 1976, 35, 45-6, 55-8; but see Biddle in this volume, p 7), and Kenelm with a chapel at Kenelmstow near Clent and a shrine at Winchcombe (Levison 1946, 249-59). There are additional commemorations at places mentioned in the saint's *Life:* Wystan at Wistow (Leics) (Bott 1953) and Kenelm at Minster Lovell. Then there is a third and more distant category of dedication either fostered by a place-name mention, such as Wistanstow (Shrops) or through a local cult, as at Duffield (Derbys). The geographically scattered nature of these dedications, unlike those to Bega and Hybald, makes it difficult to suggest the mechanism of dissemination; it could be personal, either through a link with the commemorated ruler or through the church's founder visiting the shrine, or else it could point to a period of foundation closely linked to the relatively short period of the saint's popularity at the time of his death or translation. In the latter case it could only indicate a 9th or early 10th century foundation. Rollason (1983, 17-22) has explored the political connotations of such saintliness. There is further confirmation of this suggestion in the choice of these and other Mercian saints for the churches (apparently mostly minsters) in the boroughs of Æthelflæda's foundation. Alkmund is remembered at Derby, Shrewsbury, and Whitchurch; Bertelin at Stafford and Runcorn; Werburgh at Derby as well as Chester. Some remains of the Northumbrian king Oswald were transferred to Gloucester in 909 by Æthelflæda and a chapel to that saint was founded in Chester, possibly by her in 907 (Thacker 1982,209-11).

The mention of Bertelin and of Osyth introduces a further category of dedications, best illustrated by Rumbold (9:1). Here the pattern of dedications is geographically widespread and usually represented by one church in each area. It is likely that we are encountering two or more saints of the same name. For Osyth both Hohler (1966) and Bethell (1970) have discussed the rival claims of Aylesbury (Bucks) and Chich (Essex) and have established that two different saints are commemorated. For Bertelin Farmer (1978, 42) has separated the traditions of Stafford from those of Crowland. For Rumbold or Rumuald there is a possibility of five different locales: the first is the saint of the incredible legend with a centre in Buckinghamshire or Northants, with the well at Alstrop, the dedication at Stoke Doyle, and the 'resting-place' at *Hah* (?Buckingham); the second is the saint of the Kentish dedications (Bonnington, Boxley, Folkestone); the third is the saint of the Dorset dedications (Cann, Pentridge); the fourth is the saint or founder represented at Rumboldwyke, Sussex, a church with an Anglo-Saxon structure, and an urban church at Winchester (also known as St Ruel); and the fifth is the saint or founder named at Romaldkirk, north Yorkshire, in a remote location in upper Teesdale (Gelling 1981,7). It is difficult to believe that the improbable legend, recorded by John of Tynemouth and John Capgrave (Horstman 1901,2,345-50), was responsible for so many dedications outside the main south midland area of the cult, including town churches at Colchester and Lincoln. No relics seem to have survived the conquest though it is tempting to look for the unlocated *Hah,* which must have been a prominent church with a relic crypt, in the direction of Wing which possesses church and crypt but no saint and no later community to promote the merits of their saint or to protect his body. The earliest mention of Wing, in Aelgifu's will, gives no hint in this direction (Whitelock 1930,21, 120). A relic transferred to Buckingham would fit the early 10th century pattern of enhancing the status of midland towns by providing them with the protection of and for suitable saints, as at Bedford, Oxford, and Northampton.

The way in which the *Life* of a saint may record or nourish early associations is shown both for John of Beverley where the church at Harpham commemorates his birthplace and for Etheldreda where the West Halton dedication is a reminder of the legendary espisode of the 'budding staff. [10] The dedications to Aldhelm already mentioned may rely upon the existence of a tradition which at a later date receives the tangible evidence of dedication and festal celebration. Within this third group of dedications there is a greater possibility that one is reaching the stratum of Anglo-Saxon foundation and commemoration rather than a pattern imposed by the greater monasteries and their calendar feasts at a later date.

The fourth group of dedications is that of those saints recorded by a single dedication. There are too many instances to consider each one individually and a selection of evidence must suffice. The evidence may be a dedication name and no supporting written or architectural source, as of Ruthin at Longdon (Shrops) or with minimal written evidence, as of Elphin at Warrington (DB: *VCH* Lancs, 1,286b). The evidence may be twofold, linking a saint's name with a similar place-name, as of Eata at Atcham and Edwin at Edwinstowe. This latter category has been criticized by Gelling (1982, 192). Yet there is the coincidence of a Northumbrian bishop at Atcham and the discovery of the Northumbrian type of halls on a gravel terrace 1½ miles to the north (Farmer 1978, 116; St Joseph 1975). The belief that the church of Atcham was dedicated to St Eatta ('confessor') was held as early as the late 11th century, when Orderic Vitalis was baptised there in February 1075 (Chibnall 1972, 3, 6-7). There is the further coincidence that Edwin of Northumbria died at the battle of Hatfield and that the Nottinghamshire

Edwinstowe lies in the district of Hatfield and that its chapel of St Edwin received royal gifts in 1201 (Revill 1975). In this same category is the link of Everilda (Evorhilda) with Everingham (?Everildesham: Lawley 1882, § 390). But it is the dedication of Nether Poppleton, three miles north-west of York, which may be of greater significance ('This was the land of St Elurilda', DB: *VCH Yorks,* 2,281) and may indicate the farm near York given to the saint by Wilfrid.[11]

Whereas Padstow is definitely derived from Petroc, Gelling (1982) has sounded a cautionary note over identifying every 'stow' name bearing a saint's name as prefix as a clear association with the life or shrine of a saint. This leaves unexplained the links of Warbstow with Werburgh or Edwardstow (Stow-on-the-Wold) with Edward King and Martyr, unless the specialized and precise use of 'stow' had been replaced by a meaning where it was interchangeable with Llan-, church, kirk, or minster. The link of place-names with saints occurring outside their normal geographical sphere of veneration needs to be established from more than one type of evidence.

Types of evidence

This criterion of the need for two types of evidence is satisfied with the dedication and the literary source in the association of Eltisley (Cambs) with Pandoune recorded by Hugh Candidus (Mellows 1949, 62). Similarly the link of Breedon (Leics) with Ardulf (Hardulph) is recorded in Hugh Candidus and repeated in later Augustinian calendars. The dedication of Scalford (Leics) to Egelwin is also an association first recorded in Hugh Candidus though William of Malmesbury associates him with Athelney. The possession of the relics of St Wulfram by the church at Grantham (Lincs) is recorded by Hugh Candidus and as well as this former archbishop of Sens, whose body was enshrined at Abbeville, there were also at Grantham, according to Hugh Candidus (Mellows 1949, 63), the relics of Symphorian, martyred at Autun, and of the virgin Etritha. The visible evidence of the cult is the 14th century crypt beneath the chancel south chapel. Whether these relics were gifts to a minster church (?brought from France by Etritha) or were acquired by trade, the possession of Grantham by the canons of Old Sarum in 1075 would suggest a church of more than local importance earlier in the 11th century (Owen 1971, 2). However, the relic of St Symphorian underlines another phenomenon of Anglo-Saxon dedications. Although such additional relics found their mention in hagiography and their veneration in monastic calendars, they were only rarely held in sufficient esteem to produce dedications[12] except at their original resting-places, from which they had been robbed by the monastic relic-hunters, such as Cyneburga at Castor, Tibba at Ryhall, and Wendreda at March. In all these churches there is a strong presumption that the later structure overlies an Anglo-Saxon church. The same may be true of those churches where the possession of a relic is mentioned in a literary source but is not reflected in the dedication of the church, such as Inicius at Boxworth (Cambs) or Monegunda at Weedon (Northants), both mentioned by Hugh Candidus (Mellows 1949, 62, 64). More problematical are the few churches which possess an actual shrine, usually of 13th century date, to the patron saint of the church, but have no independent evidence either of pre-conquest structure or of pre-Norman documentary mention: in this category are Bertelin at Ilam (Staffs) and Wyta of Whitchurch Canonicorum (Dorset) (RCHM 1952, 263; Coldstream 1976, 16). These shrines find their counterpart in Wales with the 12th century shrine to Monacella at Pennant Melangell (Radford & Hemp 1959, 90-8) and the 15th century tombs to Pabo and Iestyn at Llanbabo and Llaniestyn, both on Anglesey.

Another category which may be indicative of early church foundations are the royal free chapels (Denton 1970). Although some are clearly new foundations, the majority are not, although they may be incorporated within royal castles, such as St Guthlac at Hereford (Shoesmith 1980, 1-4); others occur on early sites, such as Steyning and Pevensey (Taylor 1969), or at the former royal palaces, such as St Columbanus at Cheddar. Even though the first documentary reference to the chapel dedication at Cheddar is in 1321, there is a strong presumption that this was the dedication of the pre-conquest chapels found by excavation and that the Irish influence from Glastonbury was a determining factor in the choice of patronal saint (Rahtz 1979, 19). It was the presence of the chapel, even though it was a 13th century structure, that caused Dr Ralegh Radford to draw attention to the potential of the site. The adjacent Play Street, possibly a corruption of Plaistow *(plegstow),* may also hint at its former importance.

The criticisms made by Gelling (1981) of names such as Aldate and Bonchurch suggest that one should be cautious in assuming that dedications, particularly to obscure saints, are genuine historical survivals. This applies to dedications such as Wolstan (Wulfstan bishop of Worcester) at Wigston Magna (Leics) or Aldwin (Alfwin bishop of Lichfield) at Coln St Aldwyns (Glos). The process by which a lay founder's name could become raised to the status of a saint and later be confused with a bishop or martyr of the same or a similar name is an easy transgression. The many single occurrence dedications in Anglesey and Cornwall may be honouring as saints the noble army of lay founders. In similar fashion Malmesbury and Tewkesbury claimed as their hermit founders Maildubh and Theodoric respectively; in this event there is nothing improbable, as the contemporary histories of Wulfric of Haselbury and Godric of Finchale show, but the traditions are of late origin, perhaps as explanations of the names, and to put flesh upon the relic bones. Hagiography is at best an erratic guide to ancient sites and at its worst a source of ill-informed error and of, perhaps intentional, confusion. Church dedications (and those who write about them) fall under similar suspicion.

Conclusion

As long ago as 1899 Frances Arnold-Forster wrote of church dedications that this was 'a study that has not yet emerged into the region of scientific accuracy'. That verdict is almost as true today as it was then (Levison 1946-53; Chadwick 1954). One can only point to a few dedications, such as those to the murdered royal saints or to a particular founder, which are unlikely to have been given later than the generation after their death; even so fewer than 30 sites have been given greater accuracy. The overall conclusion must be that it is still difficult to chart a

clear course to reach the genuine Anglo-Saxon stratum of dedication patterns by stripping away the instances of rededications and mistaken identities. Early in this essay the question was posed: can the few Anglo-Saxon dedications be isolated from the many post-conquest church foundations by looking at the dedications to Anglo-Saxon saints? Instead it seems preferable to reverse the question and ask whether the few post-conquest church foundations can be isolated from the many Anglo-Saxon dedications to saints both native and Latin. It would be a wiser policy to eliminate from the lists of Arnold-Forster and Bond only those churches which historical sources indicate as obviously post-conquest. It is then possible to regard the remaining 8000 or more surviving churches as being of Anglo-Saxon foundation and dedication until the contrary can be proved. If that premise is accepted, then excavation and structural criticism will continue to add more examples to the existing corpus of Anglo-Saxon architecture.

Notes

1 A relic of St Medard was held by Peterborough abbey (Mellows 1949, 54). For Thurlby a consecration date of 1112 is known (Owen 1971, 13, citing Peterborough, Swaffham Register f.viii.15.27, the abbey to which that church had been given before 1130).

2 Those churches which have Anglo-Saxon fabric visible or recorded (386) represent 3.6% of all the medieval churches in England. Eight dedications (176 churches) were within ± 0.2 of this percentage (Mary, All Saints, Margaret, Holy Trinity, John the Evangelist, Mary Magdalene, Giles, Bartholomew: 4843 dedications) and a further five dedications (75 churches) were within ± 1.2 of this percentage (Peter, John the Baptist, Michael, Lawrence, Cuthbert: 2638 total dedications). Therefore 69% of the churches containing Anglo-Saxon fabric had a similar proportionate relationship to the totality of surviving medieval churches (3.6% ± 1.2) when dedications are used as a determinant. This seems to suggest that those churches with Anglo-Saxon masonry bearing a dedication to these thirteen saints are a representative survival.

3 The first figure is taken from Bond 1914, and the second (usually in brackets) is that recorded in Taylor & Taylor 1965 and Taylor 1978. The spelling adopted for saints' names is that normally used in the Book of Common Prayer; the variants of Anglo-Saxon and local spelling can be found in Farmer 1978.

4 Monastic calendars are primarily the working documents of internal liturgical celebration rather than a potent source of external influence (Wormald 1934). The two Anglo-Saxon lists of resting-places of the saints in England are a more accurate indication of the major holy places; two saints one would have expected to find in them are omitted (Hilda at Whitby and Ebba at Coldingham) and three places (Charlbury, Oundle, and *Hah*) lose their importance in the post-conquest centuries (Rollason 1978, and this volume). See also n 11 below.

5 The significance of the list in Hugh Candidus and that in the Breviate of Domesday has been discussed by Rollason (1978, 69–72) and their use of earlier and independent sources has been noted. By contrast the Latin texts in Harley 3776, fos 118–27, and Lambeth 99, fos 187–94, share a common origin, probably a monastery in Wessex; the inclusion of saints from Caversham, Wells, and Great Malvern and the insert about Burton-on-Trent distinguish these two lists from the earlier post-conquest compilations using pre-conquest sources.

6 The post-conquest parallel is the choice of the French St Denis as a warrior patron (later replaced in popularity by St George), the dedication of Alnmouth to St Valery (Walaric) as indicative of 'home thoughts from abroad', or the three dedications to St Vedast as links with Arras. The influence of relics brought from abroad seems to be slight, though a relic-list, such as that of Peterborough (Mellows 1949, 52–6), can be used to plot the continental travels of abbots and donors and shows what could be acquired through purchase, gift, or exchange. Some saints represented there occur in midland dedications: Hippolyta, Cosmos and Damian, Cyriac (and Julitta).

7 There was the miraculous well of St Winifred (Gwenfrewi) at Holywell, fifteen miles to the north-west. The place-name Plemstall (Plegmundstow), four miles east of Chester, recalls a 9th century hermit, later to become archbishop of Canterbury (890), but no structure or associated relics are known from there.

8 For the authentication of relic gifts from Brittany, see Whitelock 1955, 821–2.

9 A relic casket of Irish character and of 9th century date survived at Winifred's monastery at Gwytherin until it too was stolen in about 1820.

10 Etheldreda (Æthelthryth) crossed the Humber to Wintringham and then stayed at 'Alftham' (West Halton). She then travelled southwards and where she rested her staff took root to give her shade. Here a church was built and the place was known as Etheldreda's stowe (Blake 1962, 30). A church of St Etheldreda is recorded at Stow near Threekingham in 1189–92 (Foster 1933, 26, no 338). This saint was the great-aunt of Werburgh who had a monastery at Threekingham, where she died. I am indebted to David Roffe for drawing these references to my attention and for the suggestions that the monastery at Threekingham could be identical with Stow and that Etheldreda's stowe could well be the same Stow. He cites as supporting evidence that in 1275 the fair at Stow Green was held 'on the vigil of St John the Baptist at the church of Stow', that date being the feast day of St Etheldreda.

11 *Acta Sanctorum, July*, II, 713. It is possible that there is a confusion of traditions between Strensall and Whitby. On the one hand there is a York-based tradition of a York Hilda (Euforhild/Elurild), a York perimeter ?monastery Strensall (Streoneshalh), and a York estate (Poppleton). The information recorded in Bede survives in minimal form at post-conquest York. On the other hand there is a Whitby-based tradition of a coastal Hilda, a coastal monastery at Prestebi (later Whitby), and a coastal settlement ('ad Esca'); this tradition was assiduously promoted by the newly-founded Benedictine house in the late 11th and 12th century. In both traditions Hilda is

associated with the nun Begu. The clarification of these two strands needs further examination beyond the scope of this paper. I wish to acknowledge the help and advice of Richard Morris in discussions about this problem.

12 The intruded saint Vincent has six medieval dedications, but he was the principal saint venerated at Abingdon which acquired his relics in the late 10th century.

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The archaeologist on the road to Lourdes and Santiago de Compostela

Philip Rahtz and Lorna Watts

Harold Taylor has not yet made the journey to Compostela, and one purpose of this essay is to persuade him to do so, by indicating some of the pleasures that await him. These can be classified, possibly in the order in which they would afford him diversion or instruction, as follows: (1) the mountains - the Pyrenees (French and Spanish) and the Picos de Europa (behind the North Spanish littoral); (2) the Visigothic and Mozarabic churches en route (though earlier than the pilgrimage to St James); (3) the wealth poured into the Romanesque and later churches, abbeys, hospitals, and inns along the route, resulting in some of the most remarkable architecture, sculpture, and mobiliary art in medieval Europe; (4) the present state of the Christian centre of Santiago de Compostela and that of a recently more famous centre of pilgrimage back along the route, that of Lourdes.

In our offering to Harold Taylor, the first three receive only short notices, although we hope that sufficient is said to persuade him to make the trip. The second, in particular, will recall to him our memorable collaboration at Deerhurst, which was a crucial element in our own education at his hands in the 1970s. It is with the fourth that we are especially concerned in this essay, the material culture associated in 1983 with two of the most important Christian shrines in 20th century Europe, the others perhaps being Rome and Assisi.

Harold himself has visited less architecturally distinctive shrines, where the material-culture was very different from that of Compostela or Lourdes. Some years ago, when we published an inventory of the objects which lay around a modern shrine in County Donegal, in the vicinity of a holy well and a nearby cave (Rahtz & Watts 1979), Harold gave us photographs of another such local shrine in Ireland, at Glencolumbkille, which he and his first wife Joan visited in 1963.

Such ethnoarchaeology is not normally associated with the archaeology of Christianity, but more usually with the seeking of enlightenment or comparanda from non-Christian contexts about pre-Christian, especially prehistoric, Europe. In recent years, however, there has been an extension of ethnoarchaeology, away from its traditional fieldschools of Eskimo, Aboriginal, African, or Indian cultures, into the archaeology of ourselves, alternatively designated as Modern Material Culture (MMC). This includes, for instance, the archaeology of dustbins (Rathje 1974) and modern cemeteries, not only for the light they throw on behaviour patterns of contemporary society, which may be regarded as of marginal importance, but principally in the development of the theory of the relationship of material culture to human behaviour. Ian Hodder has argued that this is the primary goal of archaeology, rather than finding out about the past, which he designates more properly as *history* (Hodder 1982). Much of our essay is on the MMC of Lourdes and Santiago, in comparison and contrast, illustrated by photographs taken in September 1983.

The pilgrimage to Compostela, in both modern and medieval times, can start from one of several points. There is no single route. Rather there is a braid of routes, each with its own notable monuments, so that in order to 'take in' certain famous places one has to divert many kilometres to either side of a 'median' track. Traditionally for Europeans, the route began in the Rue St Jacques, in Paris (or St Denis or Chartres). Several combined at Tours and continued through south-west France, across the western Pyrenees, and then westwards through Burgos and León to Santiago, and beyond to Padron, also associated with St James (below, p 66). English, Normans, and Bretons circumvented this land-route by embarking on ship to Bordeaux, or even to Corunna or north Portugal. Nowadays pilgrims can fly to Santiago airport, which occasions little hardship. But there are still those who walk. We were told of a man who in 1982 walked barefoot from Paris to Santiago (some 5000 km), and we encountered (or rather passed) groups of backpackers heading westwards under burning skies through the arid plains between Burgos and Leon. (For a

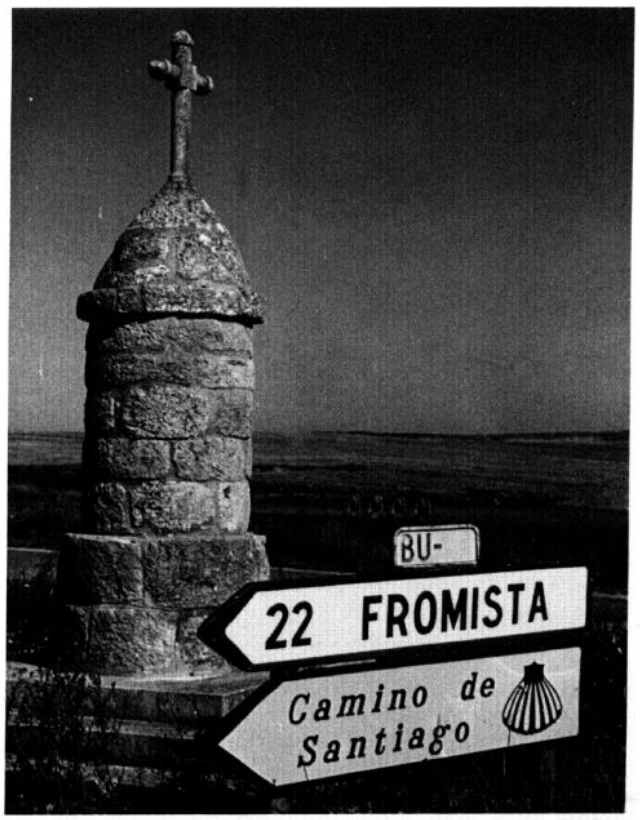

Fig 20 Castrogeriz (Burgos): pilgrim cross and signpost on the road to Santiago

Table 1

Lourdes	*Santiago de Compostela*
Site of vision of St Bernadette	Site of burial of St James
Origin in visions of Virgin Mary in 1859	Supposed origins in 'discovery' of relics in 9th century – but in reality a deeper background extending to the Roman period
Centre of physical healing	Centre of pilgrimage
Modern churches associated with Grotto of visions	Romanesque cathedral with Baroque overlay
No associated burials	Cemeteries back to Roman times (1st century AD)
Place to 'get to' – route unimportant – by car, coach, rail, or air travel	Place to journey to – the route important though now less so
Souvenirs of St Bernadette, the Virgin Mary, and (latterly) the Pope; highly commercial	Souvenirs of scallop shell, St James as Matamore (Moorslayer), but also Galician folk-culture; unobtrusive
Mortuary behaviour relating to Bernadette at Nevers, but not at Lourdes	Supposed tomb of St James focal point for origin of cathedral
Origin well documented	Origins very poorly documented, dependent on oral tradition
Archaeological investigation not relevant (except in relation to theory of MMC)	Extensive excavations under cathedral in 1878–9, 1946–59

modern discussion of the symbolism of pilgrimage, see Turner & Turner 1978.)

Our journey was by the slightly more comfortable mode of Land Rover, *via* Cherbourg and south-west France initially to Lourdes, thence following various routes to the northern Portuguese border and back through the north coastal area, Oviedo and the Picos de Europa, to the ferry at Santander. Our purpose was not only to follow the pilgrimage route. We were also interested in the earlier churches, in the ethnography of the agricultural technology of León and Galicia, and especially in the surviving technology of the horizontal-wheeled watermills of Galicia (cf Crete; Rahtz & Watts 1981).

The Spanish government recognizes the pilgrimage route as part of the 'cultural heritage' of northern Spain, and possibly also as an aspect of its encouragement of tourism: two aims which often coincide or overlap. Thus, a long way east of Santiago, east of Burgos, near Jaca, on the Spanish side of the Pyrenees, the traveller encounters the first of many signposts designated CAMINO DE SANTIAGO, embellished with the scallop-shell motif of St James (Fig 20), in one case giving the distance of 859 km, a figure to awe any traveller -

Lourdes and Santiago de Compostela attract many pilgrims, the former probably exceeding three million a year (five million in 1958), the latter currently rather less, though a figure of 0.5-2 million is guessed at for medieval times, and three million passed through the cathedral shrine in 1971, when the day of St James fell on a Sunday, and the year became a holy one for all Spain (Turner & Turner 1978, 207, 230). The contrast between the two Christian centres is very striking, and is summed up in Table 1. Each place may now be discussed in detail.

Lourdes

'Lourdes goes rapidly by, but I had time to see from the slowed train the basilica and the grotto . . . . It seemed to me to smack of the new style of chapel, a fantastic fairy-tale, and a casino - all combined' (Colette 1979, 205, referring to the 1910s).

Lourdes has not changed much in the 70 years since Colette passed that way, and probably little since Zola made his bitter study in 1891-2 (Zola 1903). It is still a strange mixture of extreme commercial vulgarity and devout Christian pilgrimage and observance. For our present purpose, the nineteen visions that Bernadette experienced between January and July 1858 are a remarkably well documented example of a hagiographic tradition extending back to the Early Christian period with which Harold Taylor has been especially concerned. Bernadette's own naivety, simplicity, and poor health remind us of the faithful Christians we meet in the anecdotes of Bede or Gregory of Tours. An early medieval hagiographer would have found little out of place in the miraculous discovery of water in response to an injunction from the Virgin to 'wash your face'. The increasing audiences for her visions and trances were perhaps the beginning of the vulgarity. Her experiences were not shared by the onlookers, but her 'possessed' state was clear to all. Oddly, what finally convinced her local priest

Fig 21 Lourdes: plaques and crucifixes

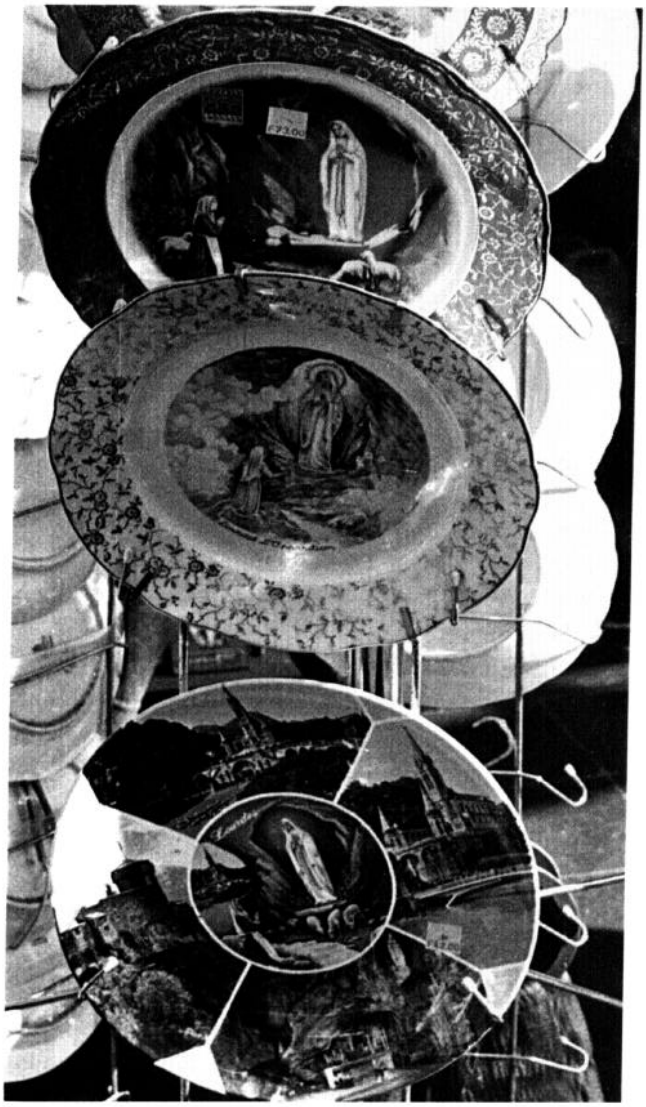

Fig 22 Lourdes: painted plates

that she was in touch with the supernatural was when she repeated to him the words that she had heard from the Virgin: ' Je suis l'Immaculée Conception.' Bernadette did not understand either the literal or the symbolic meaning of these words, but the priest did. The sequence of events that took place in Lourdes in that year, and those that followed have been extensively documented and used as the basis for many works of history and fiction, as well as a film whose vulgarity and sentiment matches anything that today's Lourdes can produce.

Bernadette died on April 16, 1879, aged 35. She had always suffered from extreme ill-health, exacerbated by poverty. Since shortly after the visions she had been taken into the care of the Convent of Saint-Gilderd at Nevers, and it was in their infirmary that she died. It was not until 1925 that she was finally beatified, and not until 1933 that she was canonized. The events of 1925 (Ravier nd) are remarkable in themselves and also very evocative of the post-mortem history of early Christian saints, notably that of Cuthbert; they are of course also a well-documented example of 'modern mortuary behaviour'.

In accordance with the characteristic post-Revolutionary mixture of the secular and the religious, the nuns had to get civil permission to bury the body, the local Prefect having to approve the choice of site. Bernadette was on view to the public for three davs. The body was then placed in a double coffin of lead and oak and sealed in the presence of witnesses. By 1909, the process leading towards canonization was advanced; the next step was the 'identification of the body' and the 'verification of the state of the corpse'. The exhumation, like the famous one of Cuthbert 800 years earlier at Durham, was witnessed by a diversity of persons: the Mother Superior and her assistants, two doctors, two stonemasons, and two carpenters, who all swore on oath to tell the truth about

Fig 23 Lourdes: plastic holy water containers in the form of the crowned Virgin alone, or with the kneeling Bernadette

Fig 24 Lourdes: electric household shrines

Fig 25 Lourdes: detail of electric household shrines

Fig 26 Lourdes: a million Madonnas

what they saw. The local mayor and his deputy carried out the legal formalities. The wooden coffin was unscrewed and the lead one cut open. Bernadette was found to be *incorruptus;* the doctor's report is detailed and explicit. The only grave goods seem to have been a crucifix and rosary; the only archaeological evidence, it should be noted, of her religion or sanctity.

The nuns washed the body and replaced it in a new coffin lined with zinc and padded with white silk; the body had by now begun to turn black. The double coffin was closed, soldered, screwed down, and sealed with seven seals.

After the First World War, Pius X resumed the process of canonization. A further exhumation was necessary and took place in 1919, in the presence of two doctors, the Bishop of Nevers, the police commissioner, and other civil representatives. Again the body was found to be quite intact and odourless, though not in such good condition as ten years before.

In 1923, the Pope pronounced on the authenticity of Bernadette's virtues; but the proclamation of beatification needed yet a third identification of the body, the exhumation in 1925 being witnessed by a group similar to that of 1919. Astonishingly, at least to Protestant English minds, the opportunity was taken to remove parts of the skeleton from the still well-preserved body. Dr Comte cut away parts of the ribs and patellae at the request of the Bishop of Nevers. He would have liked to remove the heart too, but the Mother Superior wished this to be kept together with the rest of the body. The surgery completed, the body was swathedlin bandages, leaving face and hands free. A firm in Paris made a wax death-mask of the face and hands. The body was finally dressed in a new habit, with the wax face and hands, and set on view in a shrine in the chapel of the convent, where it may be seen today (Ravier nd).

It is around the events of 1865-1933 that the phenomenon of modern Lourdes has developed, associated especially with healing the sick. On the road approaches there is no indication of its religious importance. Supermarkets and petrol stations along the route indicate the intensity of tourism, catered for by many different types and standards of accommodation. We chose a camping site with a splendid view of the Pyrenean foothills. As the sun set, we became conscious of a bright cross in the sky above the mountain, and of another lower down the slopes which flashed on and off every two seconds. In the morning light we could see that these were

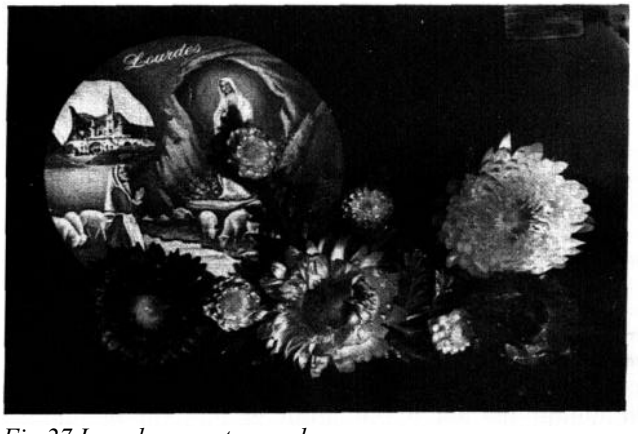

Fig 27 Lourdes: mortuary plaque

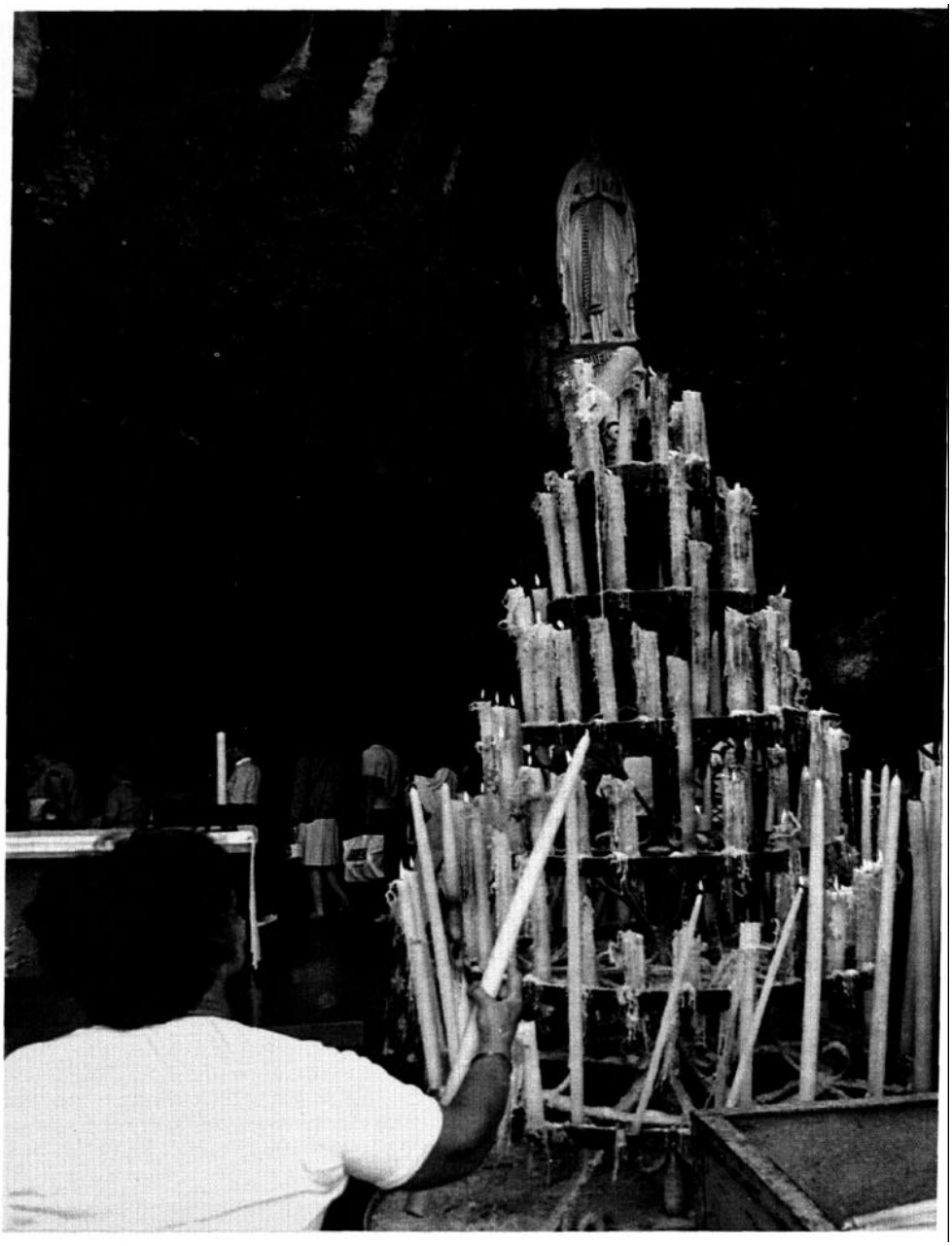

Fig 28 Lourdes: the Grotto, candle-stand, and statue of Virgin

Table 2 Modern Material Culture at Lourdes 1983

Form/ Function	Material	*Stone, Mineral*	*Glass*	*Ceramic*	*Metal*	*Plastic*	*Magnetic tape*	*Film*	*Wood*	*Paper*	*Textile*	*Leather*	*Wax*	*Sugar*	*Other*
Utility	Ashtrays	X	X	X	X	X									
	Penknives				X	X									
	Fans								X	X					
	Mugs		X	X	X	X									
	Plates			X		X									
	Bowls			X		X									
	Glasses		X												
	Purses					X						X			
	Thermometers		X		X				X						
	Barometers		X		X				X						
	Calendars									X					
Toilet	Bath salts	X	X			X									
	Perfume		X			X									
	Soap														X
Toys	Model TV				X	X		X							
	Film viewer				X	X		X		X					
Education	Books									X					
	Films							X							
	Audiotapes					X	X								
	Videotapes					X	X								
	Film strips					X		X		X					
	Records					X									
Clothing	Hats									X	X				
	T-shirts etc										X				
	Ties										X				
Food	Biscuits														X
	Sweets													X	
Religious objects	Rosaries	X	X	X		X					X				
	Crucifixes	X	X	X		X									
	Statues	X	X	X		X									
	Candles												X		
	Shrines		X	X	X	X									
	Holy-water vases					X									
Religious souvenirs	Pictures			X	X	X		X		X	X				
	Photographs									X					
	Engravings		X		X				X						
	Postcards									X					
	Pendants etc	X	X	X	X	X									
	Plaques	X	X	X	X	X			X						
	Car stickers									X					
	Badges										X				
	'Snow'-globes		X	X											
	Embroidery										X				
Mortuary accessories	Plaques	X			X	X									
	Crosses	X			X	X									
	Insignia				X										

Iconography: St Bernadette, the Virgin Mary, the Grotto of Massabielle, Lourdes town and churches, Pope John Paul, in various combinations, together with other religious subjects, such as Christ or the Last Supper

large electrically-illuminated crosses on metal towers, firmly fixed to the earth.

The town, with its busy streets, packed mainly by 100 or more shops selling souvenirs, and eating-places, is fortunately well separated, physically and conceptually, from the park-like area and churches close to the Grotto of Massabielle where the visions took place (Fig 28). The shops display an astonishing variety of goods (Figs 2l-27), which form the modern material culture of Lourdes, and which are taken home by pilgrims to all parts of the world: a major export from one point of diffusion. There are objects of many materials (Table 2). A distribution map of the millions of these items sold would accord broadly with that of the Catholic areas of the world. In particular, homes with mantelpieces which are adorned with them would be those of households where one or more members or relations has made the pilgrimage. (This is rather similar to the specific stone 'turbans' on the tops of grave stelae of those Moslems who have been to Mecca.) A few indicate the distribution of ethnoarchaeologists, such as the plastic bottle in the form of the Virgin (the stopper is Her crown) full of holy water, which now stands without stagnating on our desk (Fig 23). The proliferation of souvenirs has developed far since the base-metal pilgrim badges of the Middle Ages, which are the subject of several academic studies (eg Spencer 1968). These plastic

Fig 29 Lourdes: 'Tourisme et Religion'

bottles of water are also analogous to the 6th and 7th century pottery flasks containing holy water (Jordan water?) which pilgrims brought back from the Holy Land at the time of Gregory of Tours and Bede. The surviving ones are described by Grabar (1958).

The souvenirs may be classified by function and form as well as material (Table 2). What they have in common is that they bear representations, singly or in combination, of the Virgin Mary, St Bernadette, the Grotto, Lourdes, and (to a lesser extent and of recent origin) Pope John Paul who visited Lourdes in the summer of 1983. Occasionally there are other religious subjects such as the Last Supper. These are painted, engraved, incised, printed, embroidered, or modelled in 3D. The list given in Table 2 is clearly not complete. A more tedious lengthy study would be needed to make a complete collection. There are doubtless written catalogues, invoices, and stock-lists drawn up by manufacturers or retailers which could also be used. Such records would reveal the source of those objects: small local workshops or centralized production, near or distant?

What is, of course, interesting are the *changes* in the Lourdes MMC that might have been seen since, the later 19th century. Lists could probably still be compiled from written and photographic sources, though it is doubtful if anyone has previously set out to enumerate or classify them in the manner of our present paper. Zola (1903,135) mentions in passing material on sale at what sounds like a single shop; there were crucifixes, 'chapelets', statuettes, pictures, and other 'religious articles'. It is a pity he did not enumerate them. Walter Starkie, a modern pilgrim, listed many seen on a walk through the crowded streets of Lourdes in 1957: '. . . never in my life had I seen such a bewildering succession of shops laden with trashy souvenirs, with 'Lourdes' stamped upon them. Shop after shop filled to the brim with hideously vulgar holy statues, holy-water fonts, bottles of every shape and size, penknives, ashtrays, paper-cutters, and a thousand different kinds of trumpery' (Starkie 1957,115). It is to be

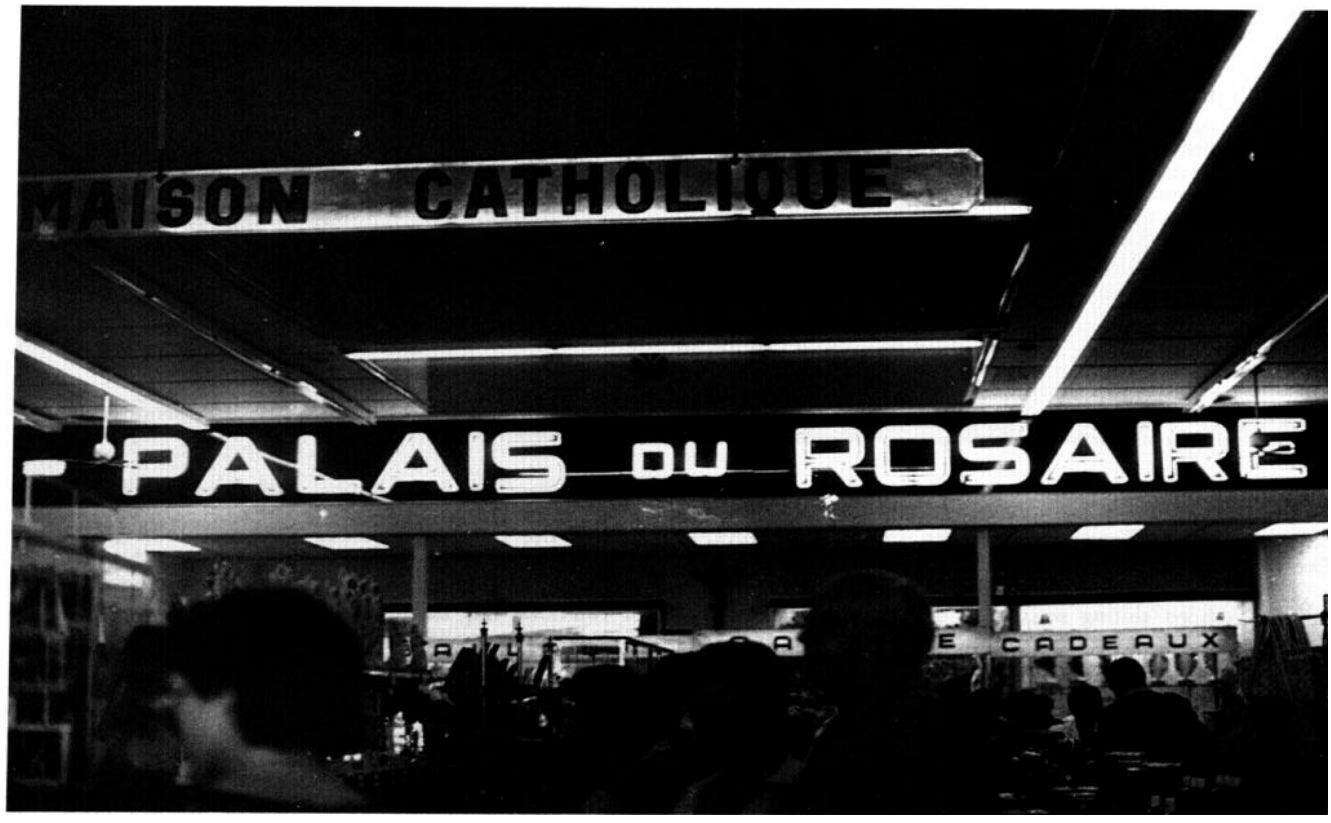

Fig 30 Lourdes: Maison Catholique, Palais du Rosaire

Fig 31 Lourdes: Sacré-Coeur de Jésus and St Laurence O'Toole

hoped that future ethnoarchaeologists will monitor Lourdes in a more scientific way to seriate the changes in MMC and, more importantly, to explain them in terms of contemporary social behaviour, technology, communications, economics, and religious belief.

Among the more exotic items to which the table hardly does justice are: plates with Bernadette/Grotto/Virgin on them, onto which your own photograph and date can be superimposed (Fig 22); packets of sweets in the form of pebbles similar to those around the grotto and river, with a picture of the Virgin on the packet; household shrines with lights of various colours (Figs 24,25), lit by battery or mains electricity, often switching themselves on and off, sometimes in a Gothic arch around Bernadette and the Virgin, sometimes with a musical accompaniment. Others include toy television sets which light up with pictures of Lourdes, flasks with holy water inside which a Madonna floats, and cards that change colour with the weather. The mortuary accessories, which form only a subsidiary element of display, are in numerous different forms, but they include many which are virtually indestructible and which are often to be seen on French and Irish graves. These include slabs of transparent polystyrene in which are embedded flowers or pictures (Fig27), like salad in aspic or insects in amber, and polished slabs of rock inset with metallic lettering.

The scene of Tourisme et Religion is reminiscent of Blackpool, Magaluf, or the Costa Brava (Fig 29). The Maison Catholique - Palais du Rosaire (Fig 30), the Au Sacré-Coeur de Jesus , and the St Laurence O Toole Irish Shop (Fig 31) do excellent business, in many languages. It must be emphasized, however, that nobody minds. Pilgrims to Lourdes like these shops and throng the streets; they are for them part of the Lourdes experience, to be remembered and photographed, with samples of their wares transported home as material witness to their visit. It is nevertheless a relief to move from all this to the area by the river, with its grand approaches backed by views of the Pyrenees, to the two churches (of dubious architectural merit) and, round a corner on the river bank, to the Grotto. Here there is remarkable and impressive silence, maintained as a tradition, even though several hundred people may be worshipping at the shrine or moving around it. Before examining the observances at

Fig 32 Lourdes: the sick and their nurses

Fig 33 Lourdes: Italian priests in street

Fig 34 Lourdes: visitors in their regional (?Breton) costume

Fig 35 Lourdes: invalid carriages

the Grotto, one should describe this focal point in a wider setting.

Lourdes is highly organized for its pilgrims. On plans and pictoramas, there are, in several languages, over 40 places to visit, among which are the Grotto, the (immersion) baths beyond, the drinking fountains, the way of the Cross for the sick, St Bernadette s altar, the Statue of the Crowned Virgin , the Upper Basilica and the Pius X underground basilica, crypt, and St Joseph s chapel, hospitals, Notre Dame museum, and a diaporama and cinema - Un jour dans la vie de Bernadette . More prosaically there are the Information Offices, the Medical Bureau (who will on request show you photographs of the miraculously healed), the Chaplain s Residence, the Lost Property office, luggage lockers, telephones, and even a printing office. A special feature is the care of the sick, not only by medical staff but also by hundreds of international volunteers, many housed in a Youth Camp, who come to Lourdes in their holidays at their own expense to assist the sick (Fig 32) and to help them to get around the sights and finally to the climax of the Grotto.

Every night there are torchlight processions (the importance of candles will be described later), confessions, baths (an important element in healing, and shared with secular spas all over Europe, but especially at their height in the 19th century in these Pyrenean foothills: does the background of failing spa rivalries have any relevance to the promotion of Lourdes?), and of course masses. These include an international mass *with* the sick every Wednesday and Saturday.

Pilgrims to Lourdes are highly diverse in every way, but include, as at Assisi or Rome, many parties of nuns and clerics, who are often very jolly; Fig 33 shows two Italian priests just after singing religious songs in the street by the river. There are also excursion parties from different areas in France or Europe, including some in regional costume (Fig 34). Most of the visitors are healthy (if work-worn), but a large number are sick, often in an advanced stage which only a visit to Lourdes might cure. They are catered for by the volunteers, and by fleets of wheelchairs, invalid carriages, wheeled beds, and other mobility devices (Fig 35). The tradition of healing at Lourdes goes back a long way to the 1870s. One of the finest ornaments in the grounds is a statue of 1912, given by the Diocese of Cambrai (Fig 36). This shows a young man dying, being

Fig 36 Lourdes: statue of 1912

Fig 37 Lourdes: renewing candles at the Grotto

confronted with the Virgin, and being assisted by a nurse and a stretcher-bearer (linear antecedents of the 1983 volunteers?) with a priest behind. The whole scene of Lourdes is comparable in its extent to other great religious healing centres such as the Temples of Aesculapius at Corinth and Epidauros, or that of Nodens at Lydney.

To return to the Grotto (Fig 28): this is a shallow cave or rock-shelter in a cliff by a fast-flowing river, bright green with melting snow and ice from the Pyrenean heights. It was an area which was difficult of access and choked with vegetation at the time of the visions. At the back is a small spring, and in a niche set some 3m high is a more-than-life-size statue of the Virgin Mary, set in the place where she appeared to Bernadette. Outside the Grotto, people sit on benches, or the sick in or on vehicles. There is a constant procession around the inside of the Grotto and spring, sometimes on knees. And there is silence.

From the roof of the Grotto are suspended about a dozen crutches, witness of past cures. They look as if they have been there a long time. From the point of view of the ethnoarchaeologist, who is accustomed to see large quantitites of such material in Ireland or in the Mediterranean churches and shrines of Italy, Greece, and Spain (ranging from rings, watches, and depictions of parts of the body in wax or metal, to crashed motor-cycles in Italian churches), they form a disappointingly small collection of votive offerings.

Two important attributes of the shrine are water and candles. The holy water from the springs is led to a tank, and thence to tap outlets, where people can either drink or fill their plastic Virgin-shaped bottles to take home. At the end of the last century, pilgrims could do this from a twelve-piped fountain, but much of the dispersal of holy water was by sale in bottles, stoppered with a cork and a lead capsule but otherwise unlabelled (Zola 1903, 223); the latter would be the only archaeological evidence surviving. The water collection provides one obvious link with the busy streets of the town; the other concerns the candles (Figs 28, 37). These can be bought in the town in every size from ordinary large candle-holder types to giants 1.5m. long and 300mm thick. The latter are bought communally. One was labelled as having been donated by an Irish parish. The regular-size candles can also be bought by the Grotto from slot-machines. The purpose of the candles is made explicit by a notice on the machine:

> Your candle is:
> - a Sign of your Prayer
> - an Offering for the Sanctuaries
> -a Participation in the Church throughout the world

- a good example of triple symbolism!

The candles are used, of course, in the torchlight processions, and set to burn by hundreds in a special stand in the Grotto, and in the Baths. Too many are bought to be burnt there and then. Visitors deposit them in bins (Fig 37) which are then transported to a massive concrete storehouse, from where a suitable supply is drawn to replenish the racks. Any uneasiness that the pilgrim may feel is countered by a notice which reads:

PILGRIMS

Since we find that it is MATERIALLY IMPOSSIBLE to burn all the candles which are offered during the pilgrimage season in front of the Grotto IMMEDIATELY, we ask you to be so kind as to place any candle you wish to offer in one of the carts which are there for that purpose; or, at least, before putting it there, to be satisfied with watching it burn for only a few moments.

Your candle will be stored nearby, and will burn here for you next winter.

This superfluity of wax is nothing new. Zola (1903, 223) recorded rumours that the Fathers at Lourdes 'sold wax over and over again'.

The route

With that evidence of votive surplus, we may pass on our way south and west. The crossing of the Pyrenees is still an adventure, gradually ascending by steep twisting roads to passes at 1600-1800m to the summer snow-line. The pilgrims crossed either the Somport Pass or that used by Charlemagne's army after Roncesvalles. This paper is not the place to extol the beauties of natural scenery, but Harold Taylor is a great mountaineer (as we learnt when he nimbly climbed up and down scaffolding at Deerhurst carrying bags of plaster stripped from the walls of the north aisle). He would appreciate the superb walks among trout streams, waterfalls, and deep clear pools in a totally undeveloped terrain.

Descending to the Spanish foothills, we began our ethnographic studies. Here are remote mountain villages still without electricity and sometimes retaining an early Mozarabic church (eg San Juan de la Pena), 'Celtic'-type terraced fields, ox-drawn ploughs and other labour-intensive agriculture, including (in León and Galicia) the continuing use of the *tribulum* (threshing sledge). The signposted pilgrimage route is picked up near Burgos, and there are numerous monuments along the way: hospices, monasteries, churches, pilgrim crosses, and pilgrim museums. There are many guides to the route, beginning with that of Picard in the 12th century. And there are various routes. Medieval travellers were in no hurry to arrive at Santiago - the journey itself was important - and they frequently made detours to isolated sanctuaries or shrines. So, too, does the modern traveller, though his departure from the signposted route will cost him hours instead of weeks. Most of the famous sites along the route, and directly associated with it, belong to the 12th century or later, including such remarkable monuments as San Anton (Fig 38) where the pilgrimage route was directed through what should be its north transept, and Santo Domingo de Silos, the quality of whose Romanesque sculpture is illustrated here (Figs 39-41). Here, as all along the way (Figs 42, 43), the scallop-shell motif of St James is seen on sculpture and buildings. This derives from an incident during the war of Reconquest, when James took on his role of Moor-slayer. One of the lords in a famous battle had to swim across a *ria* (the name given to the long Spanish estuaries) and emerged from the sea covered in shells, which were henceforth adopted as the

Fig 38 San Anton (Burgos): monastic church; the pilgrim route goes through its 'north transept', entry to the church being through a large doorway in what elsewhere would be the north side of the crossing

Fig 39 Santo Domingo de Silos (Burgos): Christ in the guise of a pilgrim of St James, with scallop shell on his bag, in road to Emmaeus scene

pilgrim symbol. Santo Domingo also has its own votives - chains of captives ransomed from the Moors - and was a medieval spiritual centre of a different order to Compostela.

The archaeologist may leave the route to examine churches of earlier date than those associated with the medieval pilgrimage of St James. These range from the earliest Christian (Visigothic) churches of the 7th century to the Mozarabic ones of the l0th-1lth century. The cult of saints is also an area of common interest (eg San Millan at Suso (Fig 44)). The churches have been much looked at and photographed, and their chronologies inconclusively debated, but archaeological records and structural criticism of the rigour and precision pioneered by Harold Taylor have yet to be made, as have excavations of modern technical standards. There are obvious comparisons with our own pre-conquest churches (eg especially San Pedro de Nora, Oviedo) but the nature of these similiarities is far from clear. Do they, for instance, arise from a common European cultural and architectural background, or from some more direct connections such as those postulated by J N Hillgarth between the Visigothic areas and Ireland (but see James 1982)? We are not competent to enter this debate, but Harold Taylor might be drawn to do so, following up his work in France and Germany (eg Taylor 1969; 1975). We offer here only a few photographs to tempt him in this direction (Figs 45-53).

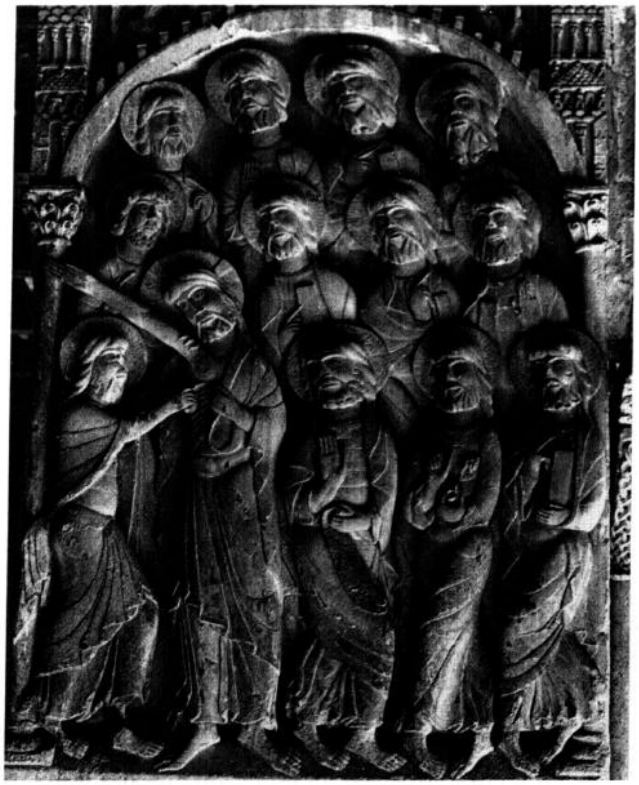

Fig 40 Santo Domingo de Silos (Burgos): the hesitation of Thomas

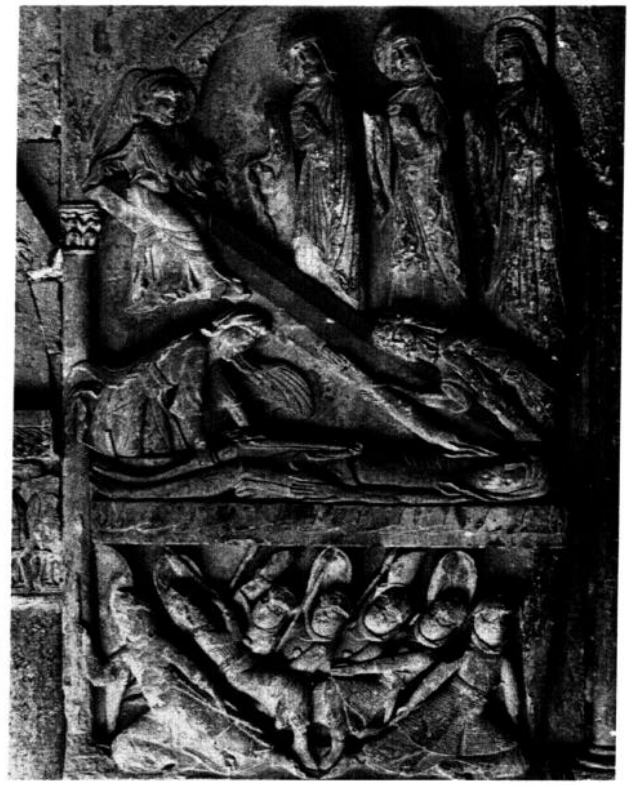

Fig 41 Santo Domingo de Silos (Burgos): burial and resurrection of Christ

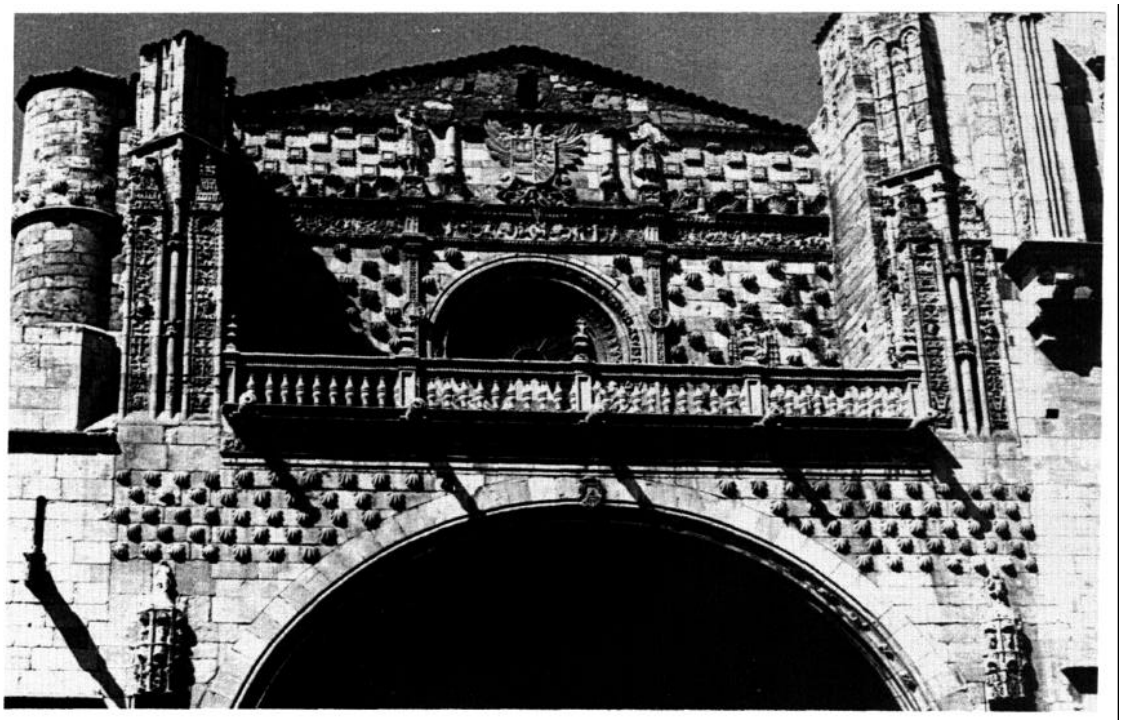

Fig 42 Léon, San Marcos: facade of church, emblazoned with scallop shells

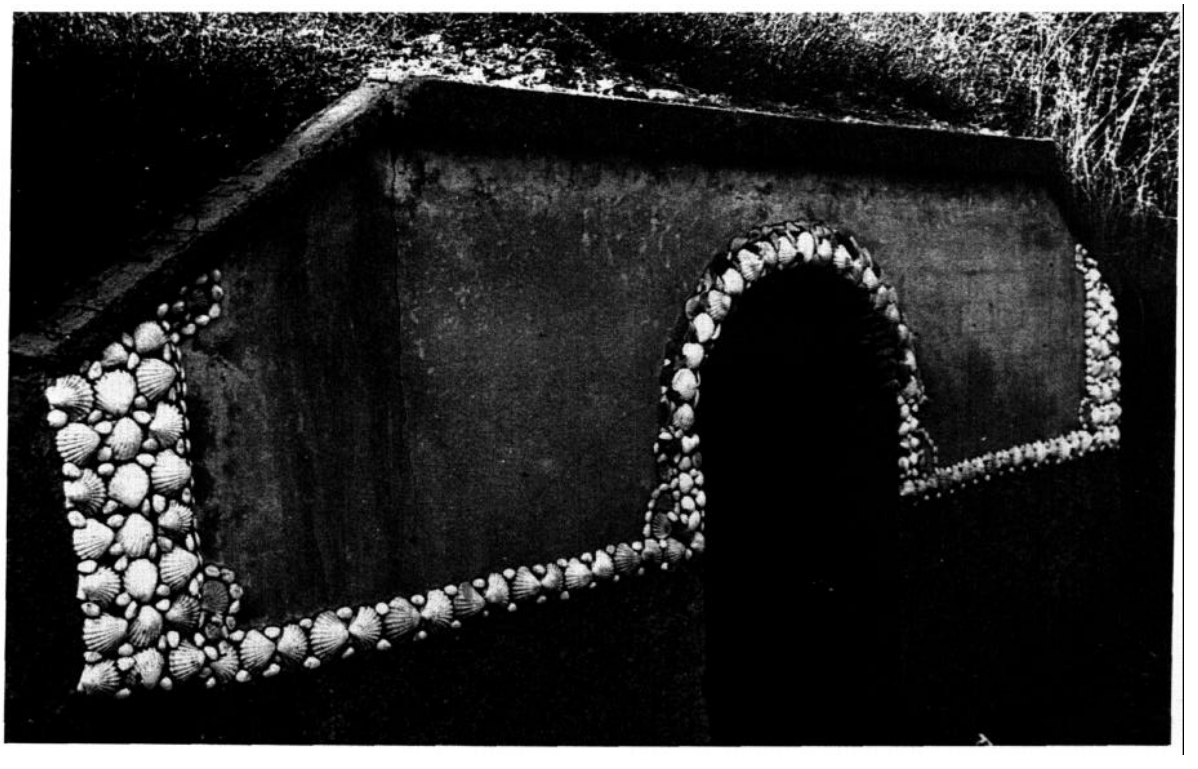

Fig 43 Near León, on the road west: cave dwelling with entrance decorated with scallops and cockle shells

Fig 44 San Millan de La Cogolla, Suso (Logrono)

Fig 45 Quintilla de Las Vinas (Burgos): apostle with book in Visigothic church of 7th century

Santiago de Compostela

Finally, Santiago de Compostela, a long way to the west, and many hundreds of kilometres from Lourdes. This must be the climax of any journey through northern Spain, as it was for the many millions of medieval pilgrims who 'took the cockleshell'.

St James's evangelical work is not mentioned in the Bible, but later tradition avers that he travelled west to convert Spain. It is said that his boat was cast ashore at the mouth of the Ulla, a river on the coast west of Compostela. After seven years he returned to the east and was killed by Herod. His followers returned to Spain with his body which was buried at Compostela near the place where he had earlier landed. This latter place, Padron, remains an extension of the pilgrimage route, and the tradition is duly recorded by the local municipality (Fig 54). A Roman column in the church under the altar is traditionally St James's mooring stone. ('Raise the altarcloth,' says the guide, 'push the handles and put on the light, on the left.') The grave is supposed to have been lost in the disorder of the Migration Period, but to have been rediscovered in the 9th century by some shepherds guided by a star, a story whose authenticity was apparently strengthened by reference to another well-known source! In a legendary battle against the Moors in 844 a knight in armour on a horse, with a red-crossed white standard, appeared and routed the enemy; he was immediately identified as St James, who then acquired the name of *Matamore* or 'Moor-Slayer'. James was apparently used by the Asturian kings, especially by Alfonso III, to augment royal power and to weld together the component parts of the kingdom (Fletcher 1984); and from the 12th century James became a symbol of nationalism. The Reconquista, encompassing both crusade and territorial ambition, provides part of the historical context in which Compostela's fame was

Fig 46 Quintilla de Las Vinas (Burgos): Christ between angels (cf Bradford-on-Avon) in Visigothic church of 7th century

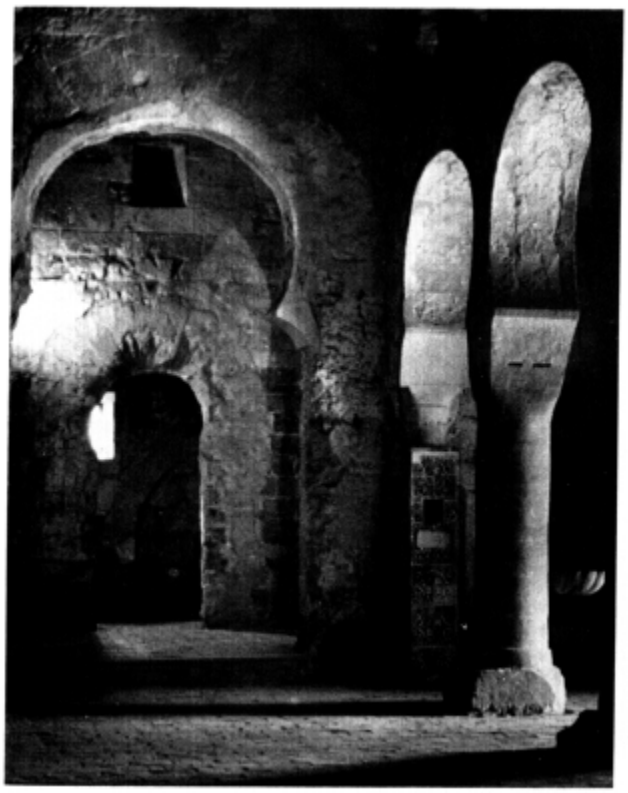

Fig 47 San Millan de la Cogolla, Suso (Logrono)

deliberately fostered (for a full discussion of the historical background see Fletcher 1984).

The cult grew and by the 11th century ranked with Rome and the Holy Land and was especially attractive since the latter had now become dangerous. The Route was developed by Benedictines, who marked it, provided financial help to pilgrims, and built hospices and hospitals.

Later in the shrine's history, when Drake attacked nearby Corunna in 1589, the year after the defeat of the Armada, the Bishop of Compostela removed the relics from the cathedral to a 'place of safety' where, astonishingly, they were again lost; pilgrimage virtually ceased for three centuries. They were 'found' again in 1879, authenticated by the then Pope, and the shrine once again flourished as it does today - a 19th century flourishing comparable with that of Lourdes.

The historicity of Santiago's association with St James is thus dubious. But this matters little to the faithful, who are not interested in the pedantry of historians and archaeologists. So James flourishes in Spain, as does Arthur in our own country (Kendrick 1960). There is, however, archaeological evidence of the antiquity of Santiago as an important religious and burial centre going back to the early Roman period. Its international fame in the 9th century must be set against a Roman and Visigothic background. A plan in the cathedral museum indicates extensive excavations in 1946, which revealed many structures including temples and mausolea, graves, coffins, and churches on several different orientations. Nothing of this is now visible, except a display of finds. A full synthesis of the archaeology of Santiago published in

Fig 48 San Millan de la Cogolla, Suso (Logrono)

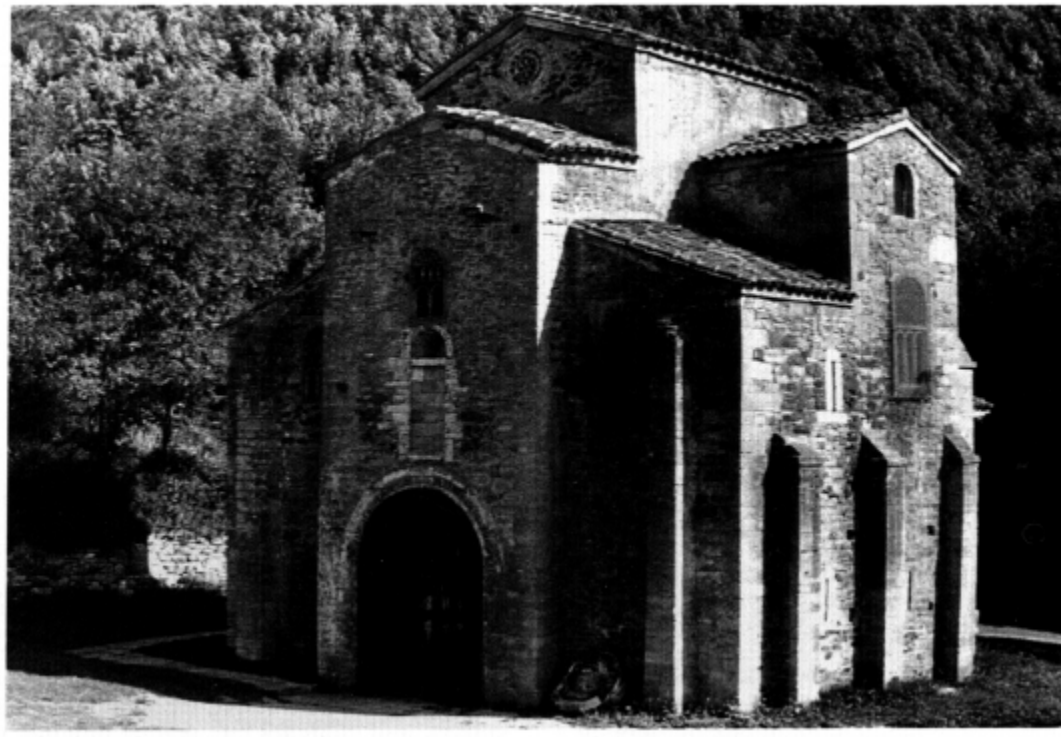

Fig 49 San Miguel de Lillo (Oviedo): church of 9th century, aisles demolished in 17th century; note several trabea *type* (claustra) *window-frames*

Fig 50 San Miguel de Lillo (Oviedo): decoration on door jamb; a consul and dignitaries preside over a contest in an arena

English, notably its pre-9th century background, would be very useful.

The material culture of the shrine is minimal compared to that of Lourdes perhaps because the whole town of Compostela should be regarded as the centre for which pilgrims aimed, where they ate, slept, and were entertained as well as visiting the actual sanctuary of St James. There are a few souvenir shops and stalls in the streets around the cathedral (Fig 55). The iconography of St James (on foot or on horse as 'Moor-Slayer'), staved and hatted pilgrims, and scallop-shells, figure on little statues and hand-bells, ashtrays, and household shrines. The cathedral itself is also figured, as is the famous censer (see below). But most of the souvenirs are secular, reflecting local material culture or folk-life - what one may find in many tourist centres in Europe. In Santiago there are models, reproductions, and depictions of Galician bag-pipes and wineskins, and especially of the *horreo, the* granary or food-store raised above the ground, all of which are such an important feature of Galician farms; they symbolize the homeland to exiled Galicians in America, who have little models in metal or ceramic in their houses (information from an American whose parents had emigrated). There are many models of priests carrying umbrellas. ('There are only 30 fine days a year in Santiago.')

There are also objects made of shells, but these are not obviously associated with the scallop of the pilgrim cult. Shells, notably cowries and conches, are made into dogs, cats, and ships, and decorate boxes. Medieval music, perpetuating the troubadour tradition, can be heard (Fig 56), some of it performed live. All this is relatively unobtrusive and does not detract from the splendour of the town or the majesty of the cathedral. The town is, as in medieval times, unostentatiously geared to the needs of pilgrims to eat and sleep, ranging from simple *fondas* and one-star *hostals* to the great *Hospital de Los Reyes Catolicos,* founded as a pilgrim inn and hospital but converted to a five-star hotel at enormous expense and with great luxury by Franco as his personal offering to the Saint. It caters for the rich, blue-rinsed, and corpulent of all coaches and nations. Compostela is however also a regional centre, as

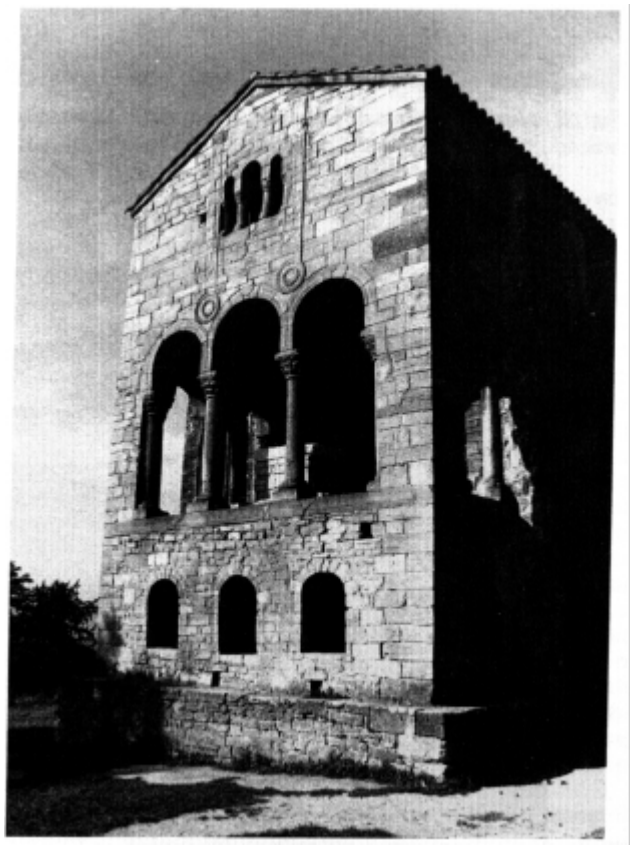

Fig 51 Santa Maria de Naranco (Oviedo): 9th century palace with first floor converted to church; the east end is shown

Fig 52 Nuestra Senora de Lebena (Santander): Mozarabic church of 10th century

Fig 53 San Miguel de Escalada (León): Mozarabic church and galley (10th-11th century)

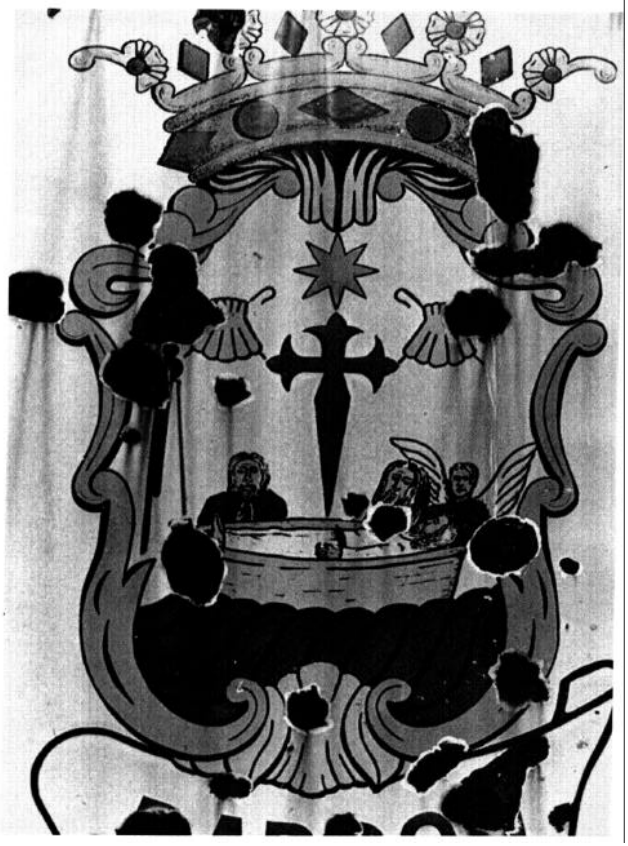

Fig 54 Detail of Padron municipality place-name sign (damaged by vandals) showing the body of St James in its coffin arriving by sea at the head of the estuary; note scallop shells above coffin

Fig 5.5 Santiago de Compostela: souvenir stall in Cathedral Square

Fig 56 Santiago de Compostela: a student of Santiago University, in medieval dress, sells a tape of 'music on the route to Compostela' with the aid of a portable tape recorder and headphones

reflected by its magnificently varied and abundant weekly Saturday market, a function not shared by Lourdes.

We first saw the cathedral at night from a height of some 10,000 metres, in an aircraft passing over it on its route from Tenerife to Luton. Floodlit, it sparkled as a jewel on its hill. Approaching it from ground level from the west is slightly disappointing unless one has a liking for baroque. A massive facade of 1750 prevents one seeing the Romanesque west front hidden behind it, visible only when one has entered the west door. The interior is that of the Middle Ages, standing on the same site as the basilicas of the 9th century (damaged by Al Mansur in 997).

It is, however, wholly a centre of Christian faith, with nothing of the exploitation of pilgrims to mar the experience. The travellers who congregate on the great steps leading up to the west front entrance are not all rich package tour parties. The majority comprise Spaniards from all walks of life, including sailors and soldiers, and notably peasants (Figs 57, 58) who clearly come from remote areas in buses to visit the shrine. Many are poorly dressed, even in 1983, and a few even look as if they are true penitents, in almost rags of old clothing and with bags of sacking. These parties see the sights, attend mass, and, as darkness falls, congregate in the coach park, set up tables and chairs, and have a great feast, cooked on gas stoves, with much wine and singing, before dispersing to their (or so we romantically assumed) remote mountain villages.

The rituals associated with the shrine are specific and massively observed. The first, just inside the west door, is to touch the central pillar of the Romanesque west portal where 'niches' have been created by frequent repetition of this gesture. Below this is a hand which is kissed. Both are very worn - the ritual would be reconstructible by the archaeologist on this evidence. Traditionally, this placing of hand and lips is the thank-offering for safe arrival after such a long and dangerous journey.

As one passes down the nave, the east end is dominated by a massive and florid *baldachin* depicting in relief the life of St James. This acts as a setting and frame for an impressive 13th century statue of St James, head and shoulders, with a richly jewelled mantle. Pilgrims mount

Fig 57 Santiago de Compostela: pilgrims rest in sight-seeing

some steps behind the altar, kiss and touch this mantle, and clasp their hands round his neck, which is in consequence apparently black with greasy dirt. From the church it looks as if St James is being repeatedly strangled.

The cathedral interior is dim most of the time, but as the time for Mass approaches, the sanctuary is brilliantly lit, especially the statue of St James. All the singing is very Spanish in intonation. Queues form to file behind the altar, and the church falls with several hundred people, even for an ordinary Sunday Mass.

In the crossing are the ropes and ceiling pulleys of the famous *botafumeiro.* This is a giant censer, over lm high, which must hold several kilos of incense. This is brought out on special occasions (not, alas, when we were there) and swung across north and south transepts in a great arc, the ropes and pulleys being pulled by six men. The effect is to create a cloud of incense smoke right across the crossing between congregation and those officiating in the sanctuary. It has been unkindly, but probably truthfully, said that this may have been very necessary to mask the odour of the thousands of travel-mired pilgrims.

This offering to Harold Taylor is neither learned nor profound. A month spent in travel is no substitute for the research needed to put Lourdes and Santiago de Compostela in a proper historical, archaeological, or ethnographic perspective. Modern material culture is however open to all to observe and record, even if interpretations, either of its modem context or its relevance to the past, require a more scholarly approach. We are not suggesting that Harold Taylor would follow our steps through the souvenir shops of Lourdes or the

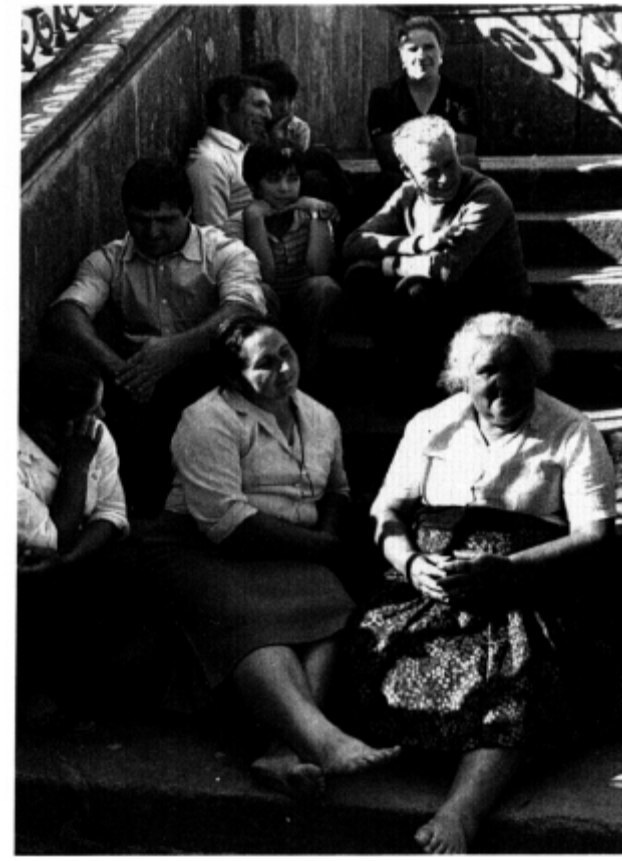

Fig 58 Santiago de Compostela: a Spanish family on the steps of the cathedral

eating places of Compostela, but he would, we believe, see the value of a diachronic approach to the material culture and observance of Christian centres, so that they can be seen in both an ancient and a modem perspective. One point that he has repeatedly made in lectures and in interviews for radio is that he has not studied Anglo-Saxon churches as architectural monuments, but as the material expression of Anglo-Saxon faith. In attempting to ensure their survival, concretely or as conceptually restored by his research, he looks to the revival of Christian faith and to the filling once again of English churches to the intensity still to be seen at Lourdes and Santiago de Compostela. Finally, we hope he will be moved by our paper at least to make a tour of the early churches of northern Spain, and to initiate research on their relationship to those of Anglo-Saxon England.

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The audience of architecture in post-Roman Gaul

Ian Wood

Sometime between 490 and 518 Avitus, metropolitan bishop of Vienne, wrote to the senator Arigius to explain that he would not be able to attend the dedication of a new church; it was important for him to remain in his cathedral city to celebrate the feast of the Holy Apostles (Avitus, *ep* 50). Avitus was the most important bishop in the kingdom of the Burgundians and, according to one contemporary, Ennodius of Pavia *(Vit Epif,* 173), the most outstanding in Gaul; Arigius, the founder of the church whose dedication was imminent, appears to have played a crucial role in turning back a Frankish invasion of Burgundy in *c* 500 (Gregory of Tours, *Lib Hist,* II, 32). There may be a reference to this event in Avitus's letter, which also contains an imaginative preconstruction of the impending ceremony. He thinks of the presence of the many saintly clergy:

> men, who having looked at all the sublime parts of the building, could fittingly ascribe to the founder a sense of elegance in the quality of the arrangements, extravagance in the outlay of expenditure, concord in the ordering of dimensions, space in the measurements, height in the elevation and stability in the foundations. In their praises they could elaborate on the quality of the marbles, from which only jealousy of their size removes the appellation of jewels. Daylight, somehow gathered and industriously closed in, is enlivened by the glow of splendid metals, and, appropriately, to all of these glories are added relics of which the world is unworthy.

This description of the imagined responses of the congregation at a major dedication ceremony in post-Roman Gaul provides a significant insight into the way in which certain sections of the community looked upon new churches. Unlike many descriptions of ecclesiastical buildings which have come from the early Middle Ages it cannot be challenged as the interpretation of a later generation (Gem 1983, 1); it takes us as close as we can come to the horse's mouth.

The mouth of this particular horse, moreover, can be inspected in some detail. From the titles of his homilies it is clear that we have the fragments of at least nine dedication sermons (Avitus, *hom* 17-22, 24, 25, 28) and from the surviving texts *(hom* 27, 29) we can deduce the existence of two more. Almost all these homilies contain some reference to the building which was being consecrated or to the founder or donor.

The problem facing the would-be historian of architecture in the Burgundian kingdom is not the lack of evidence, but the state in which the evidence has survived. The Avitus homilies are contained, for the most part, in a 6th century papyrus codex (Paris, Bib1 Nat, lat 8913 and 8914), whose state is no more than fragmentary. It does not help that the two complete editions of Avitus's works, those of Peiper and Chevalier, are lamentably inadequate, nor that much of the work on the homilies has been done by individuals concerned only with the history of specific churches and not with the collection as a whole; Borrel, for instance, assumed, but could not prove, that certain papyrus leaves were concerned with the church of Moûtiers-en-Tarantaise (1883; *DACL,* 12, 372-5). What work has been done by papyrologists (Perrat & Audin 1957) suggests that an edition of the codex would be extremely valuable. Nevertheless, even granted an accurate transcription of the surviving text, the reader is faced with a style which can reasonably be described as one of the most obscure in Latin literature, although Avitus is not always as impenetrable as his translators. Not surprisingly these hazards have ensured that the dedication homilies of the bishop of Vienne have largely been ignored by architectural historians.

Before proceeding further in an investigation of the evidence supplied by Avitus, it is important to discover the extent to which his homilies of dedication conform to the norm in post-Roman Gaul (or Italy). A number of other sermons *in dedicatione* have survived from the late Roman and post-Roman periods but, unlike those of Avitus which are always specific to a building, the majority of these are generalized and it is not always clear whether an original dedication or its anniversary is being celebrated. In some instances, where the central aspect of the sermon is a discussion of the *encaenia* of the Temple at Jerusalem, one may suspect that it was intended to be read on the Feast of the Rededication of Solomon's Temple by the Maccabees (Caesarius, *hom* 227, 229; Eusebius Gallicanus, *hom* 47-9; Maximus, appendix 19,25,30). On one occasion Caesarius of Arles asserts that 'we are joyfully celebrating the consecration of an altar in the proper manner' *(hom* 228), but this is the only possible indication of a specific context in his dedication sermons. The majority of surviving homilies of dedication were probably circulated as models, and for this reason have few detailed allusions to any individual building. That there was a tradition of writing sermons appropriate to a single church is, however, clear from Maximus of Turin's *In reparatione ecclesiae Mediolanensis (hom* I, 94), and more strikingly in Gaudentius of Brescia's sermon on the dedication of the basilica of the *concilium sanctorum (tract* 17) which is largely an annotated relic list, including an extended account of the Forty Martyrs of Armenia.

A better set of parallels for the dedication homilies of Avitus is to be found in the writings of his exact contemporary Ennodius of Pavia, which include a speech sent to Honoratus bishop of Novara, *in dedicatione basilicae Apostolorum ubi templum fuit idolorum,* another sent to Maximus, bishop of an unidentified see, and a third, secular speech, *in dedicatione auditorii (dict* 2,4, *7).* These three works are very similar to those of Avitus in their desire to pass comment on the patrons and the architecture of the buildings, and it may be significant that the dedication homilies of both authors have survived in collections not of sermons but of letters. That this is true for Avitus is indicated by the fact that the papyrus codex still contains fragments of a number of letters *(epp* 8,9, 18,

19; and 51, 55-6 = *scedula Parisina* 5), but none of his purely theological work, including his homilies *de diversis temporibus anni,* or his poems. It seems clear that homilies relating to individual buildings were regarded as being more appropriately classified with correspondence than with model sermons. A similar survival of a specific address is to be found in Sidonius Apollinaris's letter-collection which contains his homily on the election of Simplicius to the see of Bourges *(ep* VII, 9).

Sidonius also refers *(ep* IX, 3,5) to an *ex tempore* sermon delivered by the ascetic bishop Faustus of Riez on the occasion of the consecration of a church in Lyons. Faustus's address was midway between a homily and a speech appropriate to the forum, *inter spiritales regulas vel forenses.* The implications of the word *forenses* in this context are not made clear, but it would be reasonable to envisage Faustus as offering some eulogy of the building or builder, and to regard him as conforming to Avitus's claim *(hom* 22) that a comment on the skill of the builders was normal in a dedication sermon; *usitata sit causa dicendi in dedicationibus aedium, quanta fuerint ingenia fabricantum.* Despite the lack of surviving parallels for Avitus's homilies of consecration it appears that their fragmentary remains are an indication of the practice not merely of one bishop, but of the ecclesiastical community at large in the 5th and 6th centuries.

From the titles of his homilies we know that Avitus preached at the consecration of St Michael's on the island of Ainay at Lyons, of the baptistery at Vienne, of churches in Geneva, its suburb Annemasse and Tarantaise, as well as that of the monastery at Agaune *(hom* 17-21,25). Some of these homilies may be connected with known archaeological sites (Perrat & Audin 1957), but this is certain only for Agaune, which is the subject of one of the few sermons in which Avitus makes no direct reference to buildings, perhaps because they were monastic and therefore demanded a rather different style of address from that appropriate for secular churches. Nevertheless it is worth remarking that the community at Agaune was divided into six *turmae* which took turns to celebrate the liturgy so that it should be unceasing *(laus perennis);* doubtless on some occasions the whole community would gather together, but the nave and aisles of the church which is supposedly that consecrated by Avitus amount only to an area some twenty metres long and ten wide, scarcely what one would expect of a great royal monastery designed for the perpetual chant, although the scale is not out of line with that of the major monastic churches known from pre-Viking England. At Agaune, as in Biscop's foundations, there was more than one church, but it is salutary for both the archaeologist and the literary historian to juxtapose the evidence of excavation with that of ecclesiastical records and to be aware that even one of the greatest of continental monasteries with an apparently sizeable monastic community can look very small on the ground.

Equally surprising is the range of building types and techniques mentioned in Avitus's homilies. Like that at Agaune many of the churches in question were not large, but they often appear to have been squeezed into very cramped spaces *(hom* 19, 24, 29). In part because of the difficulties of their sites they were very complicated structures; three of them were built on more than one level, with a crypt, or even a lower and upper nave *(hom* 21, 22, 24; compare 29 *multiplici consecratione).* For one church, apparently on three levels, Noah's ark with its *multitudini mansionum* was regarded as an apt comparison *(hom* 24; Perrat & Audin 1957, 441). Avitus describes columns which apparently rise directly to the roof *(hom* 24), as well as arches or vaults *sinuatis e regione fomicibus (hom* 21). The roofing itself was sometimes complex. The Vienne baptistry had gables, *cenaculati operis,* a tower, and a roof which shone like gold *(hom* 18). If the comparison with Noah's ark is to be taken seriously at least one other church had *cenaculata recessuum loca (hom* 24). Another apparently had a tower, since it is said to have risen *in conum (hom* 22). We are also told about the provision of water for the baptistery; it was brought underground and not, as was the custom in other such buildings, along an aqueduct supported by columns *(hom* 18 although the author of the *Vita Aviti* (5) appears to have understood the passage differently). The decoration of the baptistery, however, was unfinished at the time of consecration; *ex inopinata perfectione metiri nonnulla interim restare, quae fiant abunde posthaec.* The building had been put up in less than a year, following the destruction of its predecessor in an earthquake. There is an indication of similar speed in the construction of one other church, *delectabilia tam inopinata . . . perfectio repentina (hom* 22). Doubtless, when finished, these buildings would have been very splendid; fine materials were used, although in the case of a church founded by a king whose identification is uncertain, but who is usually identified as the Burgundian prince Sigismund, the exterior was left plain *(ep* 8). Elsewhere we hear that the quality of the fabric appeared to expel the darkness from the interior of the church, admittedly a traditional conceit, but one which admirably expresses the popularity of metallic or polished surfaces illuminated by numerous lamps *(hom* 29; cf *ep* 50, and Venantius Fortunatus *carm* I, 15, 1.58). In another case only size prevented the onlooker from calling the columns *jewels (ep 50; hom* 24, *sola gemmarum prohibet magnitudo* must be making the same point; cf *hom* 22).

All in all these fragments of information suggest a dramatic period of church building, in which the shapes of the buildings were anything but uniform; there is no indication of a basilican plan in the Avitus codex. Seeing that Benedict Biscop passed through Burgundy on more than one occasion, while Wilfrid actually spent three years there, it may be that there is a connection between the churches consecrated by Avitus and some of the earliest monastic architecture of Northumbria. The Wilfridian church of Hexham, in particular, with its various levels, its fine stonework, and its columns (Stephanus, *Vit Wilf,* 22) may have been inspired by some of the more exotic buildings of the Rhône valley. Moreover, despite Stephanus's claim that it was unlike any other church north of the Alps, Hexham, whose plan has been elucidated so significantly by Harold Taylor's meticulous detective work, was not much smaller in size than the surviving church of St Peter at Vienne or that known from archaeology at St Maurice at Agaune, another church with complicated ramps and passages.

The Avitus homilies not only provide a glimpse of churches being consecrated, but also illuminate the social context of church building by drawing attention to the leading members of the congregation. Naturally the founder was there. In one instance this was a prince, Sigismund *(hom* 25), in another there is a veiled reference to a king who appears to have collaborated with the local

bishop *(hom* 24); probably the monarch in question was the arian heretic Gundobad, who is known from other sources to have been a Catholic sympathizer (Gregory of Tours, *Lib Hist,* II, 34; Perrat & Audin 1957, 442-4). His orthodox wife, Caretene, is identified in the Life of Marcellus of Die as the founder of St Michael's, Ainay (Kirner 1900, 322-3). Other benefactors include the bishops Sanctus of Moûtiers-en-Tarantaise and Maximus of Geneva, who had begun the restoration of an urban church destroyed by some unnamed enemy before his election to the episcopate *(hom* 19-21; on destruction by enemies see also *hom* 29). To those we can probably add two unnamed bishops *(hom* 23, 24) and some leading laymen *(hom* 18, *caritas vestra,* and *ep* 50).

Alongside the founders, congregations at ceremonies of dedication boasted other major figures, usually ecclesiastics. In his letter to Arigius *(ep* 50) Avitus envisaged a large gathering of notable clergy. We know that Marcellus, bishop of Die, attended the consecration of St Michael's, Ainay (Kirner 1900, 322-3). Next to this we can place Gaudentius of Brescia's complaint *(tract* 17) that more bishops would have attended the dedication of the basilica of the *concilium sanctorum* had there not been a barbarian threat, and Venantius Fortunatus's statement *(Carm* III, 6) that Felix of Nantes had outshone Solomon, for while the elect of Israel attended the *encaenia* of the Temple, Euphronius of Tours, Domitianus of Angers, Victorius of Rennes, Domnulus of Le Mans, and Romacharius of Coutances were present at the dedication of Felix's new church. The refined audience of these occasions is also reflected in the subtle allusions employed by Avitus; in one homily he apparently refers to the new and rare *pax et abundantia* coinage of Gundobad, as well as to a floor mosaic in the church of St Irenaeus in Lyons *(hom* 24; Perrat & Audin 1957, 446; Seston & Perrat 1947, 151). In addition, writing to Maximus of Geneva, Avitus describes his correspondent's servant as one of the ravens of Elijah, possibly harking back to a reference in a sermon of his preached before Maximus *(ep* 74; *hom* 20). More illuminating is the fact that Viventiolus, a rhetor - or perhaps bishop of Lyons, slightingly referred to as a rhetor - criticized the way Avitus pronounced the word *potitur* during a dedication sermon preached in Lyons. Avitus took the trouble to refute the criticism with reference to Vergil's scansion *(ep* 57). Such bantering reveals a self-consciously literate society, whose literary standards affected its response to ceremonies of dedication and preconditioned its appreciation of architecture, which ought ideally to be as complex and precious as the literary style used to describe it. Seventh century England was rather different; it is difficult to believe that any Gallo-Roman bishop was vulgar enough to read out a list of his church's estates as Wilfrid did during the dedication of Ripon, but the bishop's audience, with two kings, abbots, *pruefecti,* and *subreguli* would have looked appropriate and impressiveeven in a Frankish context (Stephanus, *Vit Wilf,* 17).

Church building, therefore, cannot be removed from the general social and cultural context. Like many aspects of ecclesiastical life it was deeply imbued with the values of the secular aristocracy. In particular the foundation and dedication of churches was affected by notions of friendship, which had become inextricably linked to patterns of Christian behaviour among the upper classes during the 5th century. Christian festivals consequently became ideal moments for the exchange of greetings. Friends and relatives liked to gather on such occasions (eg Avitus, *ep* 27). Naturally, because consecrations were great Christian ceremonies, friends would make an effort to attend the dedications of churches founded by members of their own circle. Thus, on the completion of the baptistery which Elaphius had been building, Sidonius Apollinaris *(ep* IV, 15) urged the founder to prepare a large banquet for the crowds of friends who were to attend the dedication ceremony. The apologies offered by Avitus to Arigius *(ep* 50) for not being able to attend the consecration of his church would have been *de rigueur.*

The exercise of friendship also affected building in more concrete ways. It is clear from the letter-collections of the post-Roman period that gift exchange was a significant aspect of relations between friends. Most suggestive for the history of architecture is the reference to columns procured by Clarus, bishop of Eauze, as a gift for his colleague, Ruricius of Limoges (Ruricius, *ep* II, 63). Doubtless these columns were destined for a church and therefore the church, when built, would have been a monument to the generosity of Ruricius's friends and also to the resources of Ruricius himself. At the very least he had to arrange for the transport of Clarus's columns *in vehicula* from Eauze (or thereabouts) to Limoges, a distance of approximately 300km. Assuming, as seems reasonable for the late 5th or early 6th century, that these columns had been taken from an earlier building, Ruricius's letter raises some points of interest for the interpretation of reused material in Dark Age churches. Charlemagne's plundering of Italian buildings to decorate the Palatine chapel at Aachen can be seen as one aspect of his creation of a palace church commensurate with his authority (von Schlosser 1892, 256); his gifts of materials and objects for Angilbert's church at *Centula/* St Riquier, however, can be seen partly in the light of Ciarus's gift to Ruricius (von Schlosser 1892, 253-8). The possibility that the reused fabric in churches may reflect not only the failure of a quarrying industry but also the resources and contacts of the founder is one that deserves consideration. It may be that some stone was incorporated into buildings not because it was required but because it had been donated. It is difficult to believe that Abd al-Rahman III actually needed the marble columns he received from the Emperor in the 10th century (Collins 1983, 201). Moreover, just as the fabric of churches may be indicative of more than architectural style or necessity, so too the descriptions of buildings in the literary record were intended to illuminate the resources of individual founders. The *Liber Pontificalis* reveals dramatically the connection between building and prestige in Dark Age Rome, and the fabric of papal churches emphasizes the importance of ruined buildings as a resource required by any church founder. At a purely literary level the stature of Venantius, bishop of Viviers and colleague of Avitus of Vienne, was made clear by his later biographer in a description of the baptistery he built, with marble facing and marble columns (possibly reused); the impression, however, may have been spoilt by the votive crown, apparently made of clay, which he hung above the altar *(Vit Venantii,* I, 4).

Not surprisingly Avitus commented on the amount of wealth poured into new church buildings on more than one occasion *(ep* 50; *hom* 19); this and the quality of material used *(hom* 24) inevitably provided an insight into

the founder's resources, while at the same time his taste was revealed by the architecture itself, the *urbanam dispositionem partium (hom* 2; cf *ep* 50). Although the majority of evidence for this is contained in the homilies of the Avitus papyrus, the popularity in the 5th and 6th centuries of poems proclaiming the generosity of a church founder or restorer makes it clear that the attitudes underlying the Avitus sermons were common. Verses of this sort by Sidonius Apollinaris and Constantius of Lyons, among others, were inscribed or set in mosaic in major churches (Sidonius Apollinaris, *epp* II, 10; IV, 18), and it is likely that some of the poems of Venantius Fortunatus were written for this purpose. A few such inscriptions have survived from Gaul (Marrou 1970), and rather more from Italy, especially Rome, although in the north Vicenza boasts the remains of a fine mosaic floor which records the names of benefactors. In the early medieval west, as in Byzantium (Mango 1972, 69), gifts of building material were intended to excite admiration for the donor. The same public advertisement of the donor's name was also apparent on the gold and silver vessels and ecclesiastical furnishings which were, as Peter Brown has recently reminded us (1980, 24-5), integral to the overall impact of a church. The inscriptions on such objects, however, would scarcely have been visible to the ordinary members of the congregation, to judge from the scale of that on the Merovingian coffer presented by Teuderigus to the shrine of St Maurice at Agaune (Theurillat & Viatte 1958, 121, 124-5) or the maniple and stole offered to that of St Cuthbert by Athelstan.

Despite the comparative privacy of such inscriptions, church foundation and benefaction in general had a competitive aspect to it (cf Brown 1980, 19). It was not purely for the good of their souls that aristocrats endowed churches, although piety was undoubtedly one reason for ecclesiastical foundations. In part the social competition implied by the public exhibition of wealth was confined to, and aimed at, a very narrow social group, but the majority of the population must have been aware of the significance of church building as an enhancement of status, As we have seen, Avitus's dedication homilies were best appreciated by an extremely small body of men; when he wished to address himself to a wider audience, the bishop simplified his language and removed the element of hermetic allusion from his speech. Nevertheless, even the congregations present at church consecrations may have included many who were unable to follow the complex series of references offered to them by Avitus. He himself recognizes the general devotion of the people as being instrumental in provoking the actual presence of St Michael at the dedication of Caretene's church at Ainay *(hom* 17), and on another occasion *(hom* 24) he refers to the throng surrounding an unnamed royal donor. However much the dedication homilies were directed towards an isolable elite, there was a wider public, and even if the ceremony of consecration was a relatively closed affair, the building of a church was an action for all to see. Indeed church building could become a factor in an episcopal election. When Sidonius Apollinaris chose Simplicius as bishop of Bourges, he drew attention to the latter's activity as a church builder *(ep* VII, 9, 21), and Maximus's restoration of a church in Geneva seems to have been closely connected with his election as bishop (Avitus, *hom* 19). Moreover bishops, once elected, inevitably had to shoulder responsibility for the upkeep or creation of places of worship, and in this some were helped by their ex-wives, who found in church building an opportunity to act in a way appropriate to their new position (Venantius Fortunatus, *carm* I, 6, 12, 14, 15).

There are, however, other aspects of Avitus's homilies of dedication which have more in common with the model sermons of the period. First there is an awareness of the holiness of the day on which a consecration takes place. A sermon of pseudo-Maximus asserts that dedications are particularly pleasing to God, who is then present and addresses his people through miracles: 'we see in our day many miracles performed at the dedication of churches' (Maximus, appendix 30). In part this argument seems to be concerned to draw the miraculous firmly under the wing of the church, but the opinion was not unique. Like pseudo-Maximus who envisaged an angelic presence at dedications, Avitus, as we have seen, announced the presence of St Michael during the consecration of the church at Ainay *(hom* 17). The notion that such occasions were particularly liable to divine manifestations may have some significance for Anglo-Saxon England, since two of John of Beverley's miracles were performed on the way to church consecrations (Bede, *HE,* v, 4,5), while Cuthbert had a notable vision during a feast associated with such a ceremony (Bede, *Vit Cuth,* 34). Observed from a less hagiographical viewpoint, the consecrations of churches were regarded as occasions when the Christian ought symbolically to cleanse his own soul, the spiritual house of God, just as the bishop by consecrating the church made it a fit abode for the divinity (Caesarius, *hom* 27-9; Eusebius Gallicanus, *hom 48).*

This vision of divine presence and spiritual regeneration cannot be dissociated from the cult of saints, since it was usually through them that God was thought to make himself manifest. Hence the importance of placing relics in a church, although pseudo-Maximus recalled an age when altar cloths alone raised the dead to life, because the holy fathers had consecrated their altars to saints, despite being unable to find relics (Maximus, appendix 30). Gaudentius of Brescia, however, was able to dedicate his church with relics of ten individual saints and of the forty Armenian martyrs *(tract* 17). Although Avitus has rather less to say about the cult of the saints than Gaudentius, in two of his homilies (21,29) he dwells at some length on the chains of St Peter and other Petrine symbols, and since he successfully petitioned the pope for such objects on behalf of Sigismund, who distributed them as gifts *(ep* 29, which may link with *ep* 8), it is reasonable to accept that he is discussing specific objects to be enshrined within the churches being consecrated. Avitus also attempted to secure a relic of the True Cross *(ep* 20), but whether he succeeded or not is unknown.

The interest shown in the cult of St Peter by Avitus and by the people of Vienne, who celebrated the feast of the Holy Apostles with particular enthusiasm during his episcopate *(ep* 50), may provide a context for one of the few buildings to survive in some measure from this period. The church of St Peter at Vienne certainly contains early fabric (Chatel 1981, 31). The first clear reference to it in the literary sources comes in the probably authentic testament of Ansemundus (Pardessus 1843-9, 140) who founded a monastery on the site. Although his will was drawn up in 543, Ansemundus has plausibily been identified as a signatory of the *Leges Burgundionum in* 517 *(Leg Burg,* Prima Constitutio; for the date Wood 1979a,

221), and as a correspondent of Avitus *(epp* 55, 80, 81). Moreover, while St Peter's was to become a regular place of burial for the bishops of Vienne, the first of them to be buried there was Mamertus, Avitus's predecessor. In so far as the literary evidence provides a date for the earliest parts of this enigmatic church, it points firmly to the early 6th century, possibly to the episcopate of Avitus himself and certainly not much later. As it stands, however, the building seems to have little in common with the churches described by Avitus in his homilies, except perhaps in its *niches encadrées de colonnes jumelées en marbre dont les chapiteaux, également en marbre, semble bien être à leur place d'origine* (Chatel 1981, 31).

It is only the great saints of the New Testament, Peter, Paul, Michael, and Mary *(hom* 22) who attract attention in Avitus's homilies. Despite the fact that he preached at the dedication of the monastery of Agaune, the site of the martyrdom of the Theban legion, he makes little of their relics in his sermon *(hom* 25), and if the *Superior basilica,* which he also consecrated, is rightly identified with the church of St Irenaeus in Lyons (Perrat & Audin 1957), it is equally notable that he makes no direct reference to the martyrs of 177, although he does refer to the fact that earlier kingdoms have unwittingly provided patrons for the present time *(hom* 24). In the relative sobriety of his approach to the cult of saints Avitus contrasts dramatically with the later writers, Venantius Fortunatus and Gregory of Tours, and with Gregory the Great's ebullient vision of the holy men of Italy which may have been prompted in part by Gallic hagiographical tradition (Wallace-Hadrill 1981, 276). Frankish hagiography as it emerged in the later 6th and early 7th centuries, however, is exceptional, even when the corpus of Merovingian saints' lives is pruned of later accretions. Gregory the Great had no successor in 7th century Italy; Visigothic Spain boasts little hagiography; nor did Anglo-Saxon England show as sustained an interest in the genre as did the Franks despite a flurry of major hagiographical works in the early 8th century. The varied intensity with which the cult of saints was pursued in different parts of Dark Age Europe still requires explanation although in Merovingian Gaul it is likely that rivalries at both a local and national level played some role in elevating the importance of holy men and their relics (Brown 1977).

By the standards of Gregory of Tours, Avitus, with his interest directed primarily at the saints of the New Testament, may seem something of a sceptic. Nevertheless, he was aware of the power of the holy. Thinking of the great churches which stood in the cemeteries surrounding one city, perhaps Lyons, he announced *(hom* 24), 'This city is protected more by its basilicas than by its bastions; on all sides the rich approaches are surrounded by a garrison of sacred buildings.' This dramatic image is a crucial indication of the attitude of Avitus and his contemporaries towards the cult of saints; it is in fact to be found in other writers of the late 5th and early 6th century (Eusebius Gallicanus, *hom* 11; *Vit Caesarii,* I, 28; see Wood 1979b, 73). Its popularity may relate originally to the insecurity of the sub-Roman population deprived of the protection of Roman armies but faced with the expansion of the barbarians, although it continued as a *topos* in the more exuberant hagiography of Gregory of Tours *(Lib Vit Pat,* IV, 2). The idea was most fully elaborated, however, by Avitus himself in a dedication homily (29) where he stated that 'Towns are glorified no less by their churches *(aedes)* than by their spiritual patrons, or rather cities have been created out of towns by such patronage.'

This imagery of the divinely protected city is also tied up with the notion of recreating a heavenly Jerusalem on earth; the spiritual regeneration of the congregation and the dedication of new churches were regarded as aspects of this symbolic development (Avitus, *hom* 22, 24). For a period of supposed urban decline the amount of ecclesiastical building and the overriding image of the heavenly city seem curiously out of place. Yet the foundation of churches continued throughout the 5th and 6th centuries; the poems of Venantius Fortunatus are full of references to them, as are the works of Gregory of Tours, whose information on church buildings is admirably collected by May Vieillard-Troiekouroff (1976). A later text, probably from the 10th century, lists 54 churches and 112 altars in Clermont, and many of these are associated with cults established in the late Roman and post-Roman period. In addition the churches housed the tombs of at least 48 saints *(Lib Ecc Clar;* Wood 1983, 53). The evidence for the ecclesiastical geography of Vienne (Descombes 1978; Wood 1981, 9-10) or Lyons can be paralleled by that from numerous other centres. Faced with the apparent conflict between ecclesiastical activity and urban decline in Lyons, Alfred Coville (1928,550-l) postulated the existence of a primarily ecclesiastical city. The same interpretation could be offered for 8th century York as described in Alcuin's *Versus de patribus, regibus et Sanctis Euboricensis ecclesiae.* This solution, however, should not blind us to the fact that the clergy require food and drink and that some significant economic background must be postulated. Nor should we forget that churches and cult-sites require congregations if they are to function.

Gregory of Tours's discussion of the status of Dijon in the 6th century *(Lib Hist,* III, 19) helps illuminate contemporary definitions of towns; why, asks Gregory, is a site which is surrounded by walls and 33 towers, and which has mills, described as an *oppidum* and not a *civitas?* Equally revealing, but rather less frequently considered, is Avitus's previously mentioned assertion *(hom* 29) that the patronage of saints turns *oppida* into *urbes.* Although this idea may be in part a literary conceit, it centres on a fundamental aspect of post-Roman society, the significance of churches and shrines for local communities. In some instances it is true that cult-centres stood in places where there was little permanent habitation; Brioude, for instance, was not a place of importance for most of the year, but on the feast of St Julian it was a hive of activity. For short periods such a place would take on all the characteristics of a permanent urban centre, with certain groups of aristocrats attending the festival annually (Gregory of Tours, *Lib Virt Jul,* 24, 25; Wood 1983, 41). At the very least Brioude was an intermittent town. Lyons and Vienne were places with more churches, more cult-sites, and therefore more festivals; even in the worst period of their decline - probably the early 8th century when the Arabs and Charles Martel were both harrassing the Rhone valley - they must have been permanent centres.

Church building presupposes an audience, and homilies of dedication help us to identify that audience or rather those audiences. At one level the sermons of Avitus are aimed at a small social group of cultivated and wealthy aristocrats. The sermons themselves are extravagant literary creations, just as the churches were lavish displays

of architectural taste; both were expected to delight and impress the peer-group of the preachers and the founders. Nevertheless there was a wider audience as well which observed the extravagance of the aristocracy and in some cases used that extravagance as a criterion in selecting a bishop for the community. At the same time the foundation of churches increased the provision of religious cult and provided for the congregation an ever-present image of the heavenly Jerusalem to be emulated. This was something which the homilist could and did expound. No post-Roman community, however, is known to have recreated paradise on earth, but the number of recorded church buildings is an indication of the liveliness of Dark Age society, and one that no historian can afford to ignore.

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Alcuin, York, and the *alma sophia*[1]

Richard Morris

Sometime after 780 Alcuin wrote a poem about Northumbria: its bishops, saints, kings, and the ecclesiastical centre in the Deiran capital at York. Near the end of this work Alcuin related how Ælberht, archbishop of York (767-80), had ordered the building of a new church,[2] which he consecrated on the 29th or 30th October 780. Alcuin tells us that this church was dedicated to holy wisdom: *sophiae sacraverat almae* (Godman 1982, line 1520).[3] No church bearing this name was ever mentioned again in any surviving source which refers to York, or, as far as we know, in connection with any other medieval church in the British Isles; and no archaeological remains which could plausibly be identified as those of Ælberht's building have yet been found. In this essay I shall offer an explanation as to why the *alma sophia* should seem to have disappeared from history, and present arguments which point to the site of this building as being somewhere in the Bishophill district of York.

Before going further there are two points which must be stressed. First, there will be no attempt to ascertain what Ælberht's church may have looked like. Alcuin described it,[4] but eight lines of rather impressionistic poetry may not provide a sound basis for architectural reconstruction. The York poem, moreover, is stocked with repetitious phrases and borrowings from earlier authors, and the account of *alma sophia* is not exempt from these characteristics. Thus the church attributed to King Edwin (616-33), like the *sophia,* was *solidis suffulta columnis* (line 220, 1509). The words *porticibus fulget circumdata multis* (line 1512), which have been taken by some to indicate a building that was centrally planned, echo Paulinus of Nola *(Carm,* xxviii, 7), as do the *variis ornatibus (line* 1514) with which the altars of the church were embellished *(Carm,* xxviii, 28). Such debts throw doubts upon the architectural exactitude of Alcuin's description. In other respects, for example the use of the term *solaria* (line 1513), 'galleries' or 'upper chambers', or the famous statement that the church contained *triginta . . . aras* 'thirty altars' (line 1514), the account may well be accurate. But as a guide to the ordinance of the church the poem is of uncertain value. Alcuin may yet be vindicated by the results of an archaeological excavation. For this to happen, however, the site of the church must first be located, and it is to this particular facet of the *sophia* mystery that I shall shortly turn.

The second preliminary point is an acknowledgement: the conclusion of the argument that follows has been stated before. In July 1846 Robert Willis read a paper to the Archaeological Institute at York in which he argued that Ælberht's new church of 780 was on a different site from the cathedral of Paulinus and Edwin, 'either erected in York or elsewhere in the diocese' (Willis 1848, 5). While his paper was being printed a copy of Stapleton's history of the priory church of Holy Trinity Micklegate, at York, came into Willis's hands. Holy Trinity was known alternatively as Christ Church, and in a footnote appended to his text, Willis recorded that this '. . . has suggested to me that the basilica of Albert, dedicated as it was to the *Alma Sophia,* ie to Christ, was probably this very Christ Church' (Willis 1848, 13, note d). In 1903 the Rev J Solloway, rector of Holy Trinity Micklegate, contributed a paper which was published in the report of the Yorkshire Philosophical Society for that year. Solloway dilated upon Willis's theory, reinforcing it, as he thought, with evidence gleaned from Domesday Book, and adding a theory that the Romano-British *episcopium* of Eburacum had existed in the neighbourhood of the *colonia* which was later to become the Bishophill district of the medieval city (Solloway 1903, 63-4). More recently, Dr John Harvey (1965) has contributed an important study which confirms that post-conquest, and possibly pre-conquest, archbishops had significant holdings in this district. Finally, at the time when ideas in this essay were germinating, Dr David Palliser published a most valuable paper in which he argued that Anglo-Saxon *Eoforwic* emerged not from a single nucleus on the left bank of the Ouse, but rather that it consisted of several discrete nuclei, one of which was a commercial *wik* that lay within the area of the former *colonia.* Palliser's hypothesis includes the suggestion that 'the Roman and Anglian episcopal church stood in or near the forum of the *colonia,* but that at some unknown date it was superseded by the royal chapel in the heart of the fortress' (Palliser 1984, 108). This is a contention that I find myself unable to accept. However, the case for a *wik* somewhere other than the immediate area of the legionary fortress has strong attractions, and in doubting Palliser's theory of a migrating cathedral, I am by no means ruling out the possibility that the cathedral of St Peter in the old fortress was balanced by an episcopal enclave in the former *colonia.* In fact, I shall argue that York's church, like the pre-conquest York of Palliser's perception, existed in several places.

While the conclusions of this essay have been anticipated in the writings of others, some of the arguments that are about to be presented may fairly be described as new. The first of these, which has already been examined in a most helpful way by Dr Godman (1982, 95-7), involves the proposition that 8th century York did indeed contain not one but two ecclesiastical foci: the cathedral of St Peter, and a *monasterium.*

According to Bede (NE, ii.l4), Alcuin (lines 220-3, 1490 ff), and other sources, there was an episcopal church in York which occupied the site of King Edwin's baptism in 627. All relevant authorities are unanimous in identifying this as the cathedral church of St Peter. According to Alcuin, it was to this church that archbishop Ælberht added an altar dedicated to St Paul (lines 1490-5). St Peter's was used for at least some royal funerals and episcopal consecrations. It might be regarded as the ritual centre of Anglian York. The exact site of St Peter's awaits discovery, but there is no reason to doubt that it lies anywhere other than in the near vicinity of the church that superseded it at the end of the 11th century. As at Winchester, Wells, Exeter, probably Durham, and doubtless elsewhere, a Norman prelate chose to erect a brand new cathedral alongside the old. York Minster must

be close to its Anglo-Saxon predecessor: recent excavations have yielded no fewer than eighteen pieces of sculpture dating from before the end of the 9th century (A D Phillips, pers comm), and we now know that the 11th century church engulfed part of a pre-conquest cemetery (Hope-Taylor 1971; Phillips 1975). Anglo-Scandinavian tombstones in this graveyard 'represent metropolitan fashions' which were drawn upon by carvers of memorials as far afield as the Tees Valley (Lang 1978, 11, 13). Significantly, the burials that they commemorated were oriented SW-NE, an alignment which took its cue from the relict topography of the legionary fortress. It is a reasonable supposition that the church which went with them would have had the same alignment.

The *monasterium* is more difficult to characterize. The word itself is not susceptible to exact or exclusive definition. Some of its occurrences at York could just as well refer to the cathedral of St Peter as to the religious community which is postulated. It is this ambiguity which has acted to camouflage the existence of a monastic dimension to the pre-Danish church in the city. The evidence is presented in two parts: (1) signs of monastic organization in 8th century York (cf Godman 1982, note *sv* 1218, pp 95-7); (2) indications that the monastic community, though closely affiliated to the see, existed on a site apart from that of the cathedral.

In his York poem Alcuin reviewed the careers and achievements of former bishops and archbishops of York. Writing of Bosa, whose episcopate ran from 678 to 705, with an interruption of five years (686-91), Alcuin calls him *monachus, pruesul, doctor moderatus* 'monk, bishop, authoritative teacher' (line 849). We are told that Bosa improved the observance of the church *(ecclesiae cultum decoravit* (line 857)), and that he obliged its clergy to live a life apart from the common people, causing them to serve God at every hour *(et unil deservire Deo statuit simul omnibus horis)* (lines 858-9). Bosa's reforms involved the regulation of

> . . . every hour with alternate duties:[5] now a reading, now a holy prayer. Whoever wished to proclaim the Lord's praise by his treatment of the flesh he commanded swiftly to satisfy his physical needs: that all should sleep but little and take what food was to hand, that no one should claim lands, food, houses, money, clothes, or anything as his private property, that everything should always be shared. (trans Godman 1982,73, lines 863-70)

This echoes Acts 4, 32. It also recalls chapter 33 of the *Rule of St Benedict:* 'let all things be common to all, nor let anyone say that anything is his own' (de Vogüé & Neufville, 1972-77, 2, 562). The allusion to the Rule may have been conscious as this part of the Rule of St Benedict places emphasis upon the role of the abbot as arbiter in the matter of what a monk could have. Bede tells us that Bosa, like John who succeeded him in 705, had received his monastic training in Hild's monastery at *Streanaeshalch.* We are informed that before this Hild had been wholly occupied in establishing a Rule of life in the monastery called *Heruteu,* probably Hartlepool. The same Rule was introduced at *Streanaeshalch* where, after the example of the early Church, 'no-one was rich, no-one was in need, for they had all things in common and none had any private property' *(HE,* iv.23). Since three of York's bishops - Bosa, John, and Wilfrid II - were reared in Hild's monastery, it very much looks as though York's monasticism was extracted from *Streanaeshalch;*[6] this likelihood is strengthened by similarities of approach in the writings of Bede and Alcuin when they came to describe it.

Wilfrid II acceded to the see of York in 718. Writing of this appointment, Alcuin described him as *heres patri dignissimus almo,/qui prius Euboricae fuerat vicedomnus et abbas,* 'a most worthy heir to that blessed father (ie John) who formerly had been deputy bishop and abbot at York' (lines 1217-l 8). Note that the role of abbot has here been differentiated from that of bishop, although the two are linked.

Egbert's successor was Ælberht (767-80), Alcuin's own mentor. In the York poem Alcuin tells us that Ælberht had been delivered *(inditur)* into a monastery in his boyhood. There is no suggestion that this monastery was anywhere other than in York, and Alcuin's account of his master's advance to the priesthood, his emergence as Egbert's *comes,* and his appointment as a teacher in the city makes this much more than an argument out of silence (lines 1408-31).

Further indications of a monastic presence in York may be gleaned from Alcuin's writings. Towards the end of the York poem he recalls a miracle which he had witnessed in his youth. This occurred in a church or chapel dedicated to St Mary *(Christigenetricis in aula)* which was frequented by young men described as *fratres* (lines 1602-48, esp 1630, 1642). A religious community is indicated. In about 795, after Alcuin had moved abroad, he addressed a letter to *Euboracensis ecclesiae fratribus,* 'brothers of the church of York'. He mentioned *nostrae fratermitatis animas,* 'the souls of our brotherhood', and prescribed *regularis vitae vos ordinet disciplina (Ep* 42; cf *Ep* 43). Alcuin also addressed a poem *Ad Eboracenses Fratres (Carm* 160: Migne 1863,797).

In 852, Lupus, abbot of Ferrières, wrote to Ealdsige of York, addressing him as *abbati* (Haddan & Stubbs 1871, 635; cf Whitelock 1955, 808). After this, references to a monastic dimension in pre-conquest York cease. However, there is one more piece of evidence which should be introduced at this stage. Domesday Book for Yorkshire records a vill called *Monechetune, 'tun* of the monks'. Today the name applies to the parishes of Moor Monkton and its neighbour Nun Monkton, seven miles west of York. In 1086 *Monechetune* was in the possession of a minster, *Christi ecclesia,* alias Holy Trinity, in York (Skaife 1898, 267). The place-name 'Monkton' antedates the refoundation of Christ Church as a Benedictine priory in or soon after 1089 (Clay 1939, 66-8), so the name must be referred to some earlier period when monks could be expected.

Now some of the foregoing references could be connected with the cathedral of St Peter. Yet before the 11th century direct statements about St Peter's never say anything about a religious community, a rule, or *fratres.* Contrariwise, none of the comments about a religious community and a rule are explicitly equated with St Peter's.[7] As far as we can gather, the *monasterium* was affiliated not so much to the cathedral as to the person of the bishop.

We may at least be encouraged to suppose that there was more than one significant church in 8th century York. Alcuin reports in his poem that Ælberht had provided

churches (ecclesiis) with beautiful ornaments; and then immediately proceeds to describe the new altar dedicated to St Paul in the place where it was believed that Edwin had been baptized (St Peter's)[8] and the *nova basilica* of the holy wisdom (lines 1488-9; 1490-4). Although the *alma sophia* was a new church we may assume that it was attached to a pre-existing community. Why else would thirty altars be needed, and in what other context could they have been used?

In a letter to Eanbald, archbishop of York (780-96), Alcuin mused on the fact that Eanbald had been educated at his hands, so that he could now work in the church where Alcuin had been raised and taught, there to rule over 'treasures of wisdom' which Alcuin had inherited from his own teacher, archbishop Ælberht *(Ep* 114). One interprets 'treasures of wisdom' as meaning the York library. Elsewhere Alcuin implies that he, and states that Ælberht, had acquired their education in a monastic milieu, in some sense a component of the church of York, not named as St Peter's but, in Ælberht's case, described as a *monasterium* that would accept and educate child oblates.

Two other sources are relevant. The northern annal for 791 which is transmitted in the 12th century *Historia Regum* records that the sons of King Ælfwold 'were taken by force from the city of York, being brought from the principal church *(de ecclesia principali)* by false promises' (Whitelock 1955, 246). The two sons were murdered by King Ethelred. A similar phrase occurs in Æthelweard's Latin version of a lost, but apparently very early, recension of the *Anglo-Saxon Chronicle,* which states that in 895 the Christian Danish King Guthfrith was buried in York *in basilica summa* (Harrison 1960,238). Dr Kenneth Harrison has suggested that this may be a Latin rendering of Old English *heafodmynster.* In the light of what has already been said the statements for 791 and 895 could be taken literally, as suggesting a need to differentiate between the chief church in York, St Peter's, and another, which was of sufficiently high status to warrant the qualifications.

To summarize: at the end of the 8th century York contained two important churches, the cathedral of St Peter, and the new basilica which had recently been consecrated to holy wisdom (Fig 59). The archbishop had his chair in St Peter's, but he was also patron of the *sophia.* Somewhere in York there existed the *monasterium in* which Ælberht had been brought up.

A duality is also present in Domesday Book, which informs us that late 11th century York contained not one but two churches of special status: St Peter; and the minster, called Holy Trinity in the survey of the city and Christ Church in entries for the holdings of tenants. Holy Trinity was credited with privileges shared only by four great northern minsters of that day: 'In all the land of St Peter of York, and St John (Beverley), and St Wilfrid (Ripon), and St Cuthbert (Durham), and of the Holy Trinity . . . neither the king, nor the earl, nor anyone else, had any customs there' (Skaife 1895, 327). By this time Holy Trinity was in private hands, but it is clear that Richard son of Erfast, who held it in 1086, had also acquired a bundle of ecclesiastical rights that went with his property. Holy Trinity, alias Christ Church, had holdings in Bishopthorpe, Bilbrough, Monkton, and Knapton (Skaife 1898, 266-7). Later in the Middle Ages some of these places are found in the interleaved out-parishes of Holy Trinity and its neighbour St Mary Bishop (now known as St Mary Bishophill Junior), of which more will be said later on (Fig 61). It is also clear that Holy Trinity was still the church of a religious community. The charter of its refoundation as a Benedictine priory, dated to the last decade of the 11th century, tells us that Holy Trinity had formerly been served by canons, that it had enjoyed the rents of estates, and that the church had been embellished by ecclesiastical ornaments, but that it had fallen upon straitened times as a result of sins (Clay 1939, 67-8).[9]

We have just observed that a religious community in York, known alternatively as Christ Church and Holy Trinity, makes its debut in written records in 1086. Throughout the Middle Ages the bond between these two dedications was very strong, so strong, in fact, that it was not unusual for one to be equated with the other. This was the case at Canterbury in the 10th century and later (Gem 1970, 199, n 29). The Augustinian priory of Holy Trinity, Aldgate, in London, was called *ecclesiae Christi Lundoniae* in the bede roll of Vitalis, abbot of Savigny, which was circulating in 1122 (Clapham 1952, 52). Holy Trinity was a parallel dedication for the priory of Christchurch in Hampshire. Elsewhere in York itself, the parish church of Holy Trinity King's Court *(curia regis),* first mentioned in 1268 *(Reg Giffard,* 192), was also sometimes known as Christ Church.

The reason for this interchangeable usage is to be found in Christian teaching about the Trinity. The Trinity is a mystery, the essence of which is that one God exists in three persons - father, son, and holy ghost - and one substance. Alcuin's three-book treatise, *De fide Sanctae et Individuae Trinitatis,* dwells upon an idea, explored by Augustine and made explicit in the writings of St Paul, which takes Christ to be the embodiment of Divine Wisdom. Alcuin regarded Christ as the 'wisdom of God' *(De fide,* II.7.11). He developed this idea (II. 11) to the point of ascribing *sapientia* to all the persons of the Trinity - *ideo Pater, virtus et sapientia, et Filius virtus et sapientia; et Spiritus sanctus virtus et sapientia; non tamen tres virtutes, net tres sapientiae, sed una virtus, et una sapientia Pater et Filius, et Spiritus sanctus* - and all of the Trinity to Divine Wisdom. This is reinforced in the Twenty-eight Questions concerning the Trinity which Alcuin appended to *De fide (Inter 20).*

Wisdom, therefore, is linked in a most intimate way with all three persons of the Trinity, and by Alcuin it is linked with them both individually and collectively. The issue is focused in St Paul's description of Christ as 'the wisdom of God' (I Corinthians, 1.24) and in Paul's statement that in Christ 'are all the treasures of wisdom and knowledge hidden' (Col, 2.3). Many of the Greek Fathers, 'following the terminology of the Old Testament and St Paul, use "wisdom" as a synonym for the Incarnate Word or *Logos'* (Cross 1957, 1471). The quotation from I Corinthians, deployed by Alcuin at several points in De *fide,* may be of special relevance to his poem about York. The twenty-fourth verse of the first chapter is cited in the very first line of the poem. Since the climax of this poem is an account of archbishop Ælberht's three great enterprises at York - the enrichment of St Peter's, the building of the *alma sophia,* and the expansion of the library (Godman 1982, 118, n 1488 ff, 119, 121) - this citation is hardly likely to be by coincidence. It encourages us to interpret the consecration of the new basilica as being to

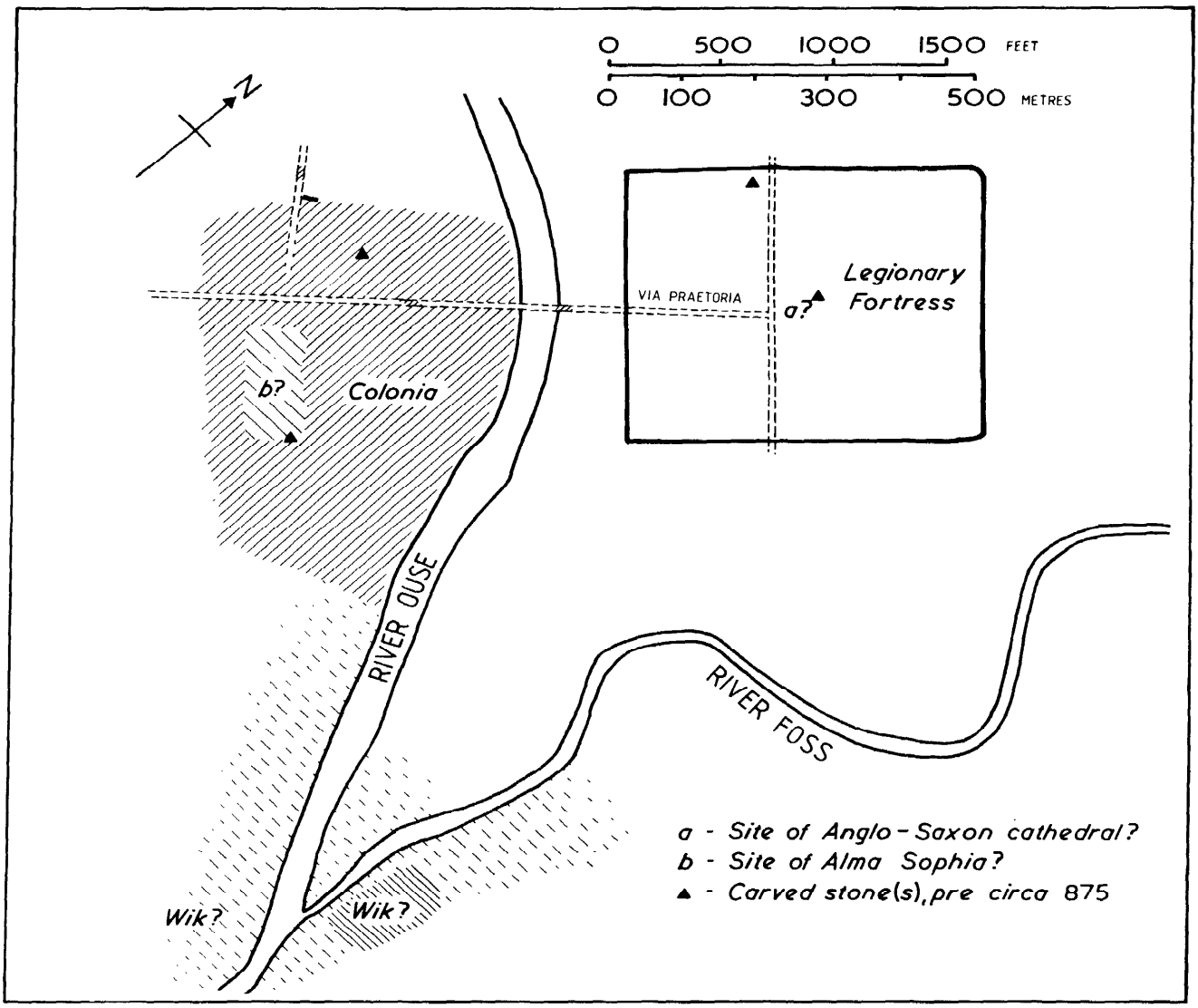

Fig 59 York: sites conjectured for the pre-conquest cathedral and 8th century religious community, against the background - much simplified - of former Roman settlement. The site put forward for the alma sophia *coincides with the highest ground in the* colonia *area. Since the text of the essay was written, archaeological evidence which may point to the whereabouts of the wik has emerged from excavations undertaken by the York Archaeological Trust. The extent of the wik (if so it be) is still unknown, however, and it is stressed that the area depicted here is hypothetical (sources: RCHM 1962: Cramp 1967; Palliser 1984; CBA* Newsletter, *July 1985) (drawn by Malcolm Stroud)*

the person of Christ.[10] Willis, astute as ever, assumed this in 1846 (4), although I do not know if he had read *De fide.* More probably he saw a parallel in the dedication of Hagia Sophia in Constantinople, which was applied in the same periphrastic sense. The possible currency of such an idea in 8th century Northumbria is hinted at by the finding sometime after 1050 of a portable altar in the tomb of bishop Acca (d 740) at Hexham. Once again, our source is the 12th century *Historia Regum.* According to this, the altar carried an inscription reading ALMAE TRINITATI. AGIAE SOPHIAE. SANCTAE MARIAE, 'To the Holy Trinity. To the Divine Wisdom. To Holy Mary' (Bailey 1974,141; cf Blair 1964, 70-l, 87-90).

What was the source of the dedication that Ælberht bestowed upon his new church? It is possible that the idea was generated in York. The opening line of Alcuin's poem shows that the equation of the person of Christ with Divine Wisdom appealed to a scriptural sanction of which he was well aware. His ideas in *De fide* confirm this.

It seems more probable, however, that the original thought was implanted from outside. This might have been through information about the Hagia Sophia in Constantinople," contributed by pilgrims returning from the Levant. But a more promising line of inquiry takes us to the dukedom of Beneventum in southern Italy, where a church to be dedicated to Sancta Sophia was abuilding during the middle years of the 8th century.

The foundation of this church is attributed to

Gisulphus, who seems to have originated the project sometime after 750. The enterprise was taken over by Arichis II, and the church developed to conventual status, being finished or near completion by 765. The sense of the dedication was in direct imitation of the prototype in Constantinople. In the 9th century Erchempert noted that the church *condidit quod Greco vocabulo Agiam Sophiam, id est sanctam Sapientiam, nominavit* (Lavin 1962, 24, n 194). The parallel is sharpened by the fact that at Benevento, as at Constantinople, the church was adjoined by a royal palace.

As far as we know, Alcuin had no correspondent in Benevento until well after the York *sophia* was finished. Nevertheless, it may be noted that Alcuin accompanied archbishop Ælberht on several journeys overseas, including at least one trip to Rome, made before 767. The fact that Sancta Sophia in Benevento was just then at or approaching completion suggests that it may have been a topic of conversation. In the York poem Alcuin tells us Ælberht had journeyed abroad as a pilgrim more than once 'led by a love of wisdom' *(sophiae deductus amore),* an interest in new books, and academic pursuits. 'He came in devotion to the city of Rome,' Alcuin continues, 'rich in the love of God, journeying about to visit holy places' (lines 1454-9).

There may be something more to be gleaned from the fact that at both Benevento and Constantinople the churches stood adjacent to royal palaces. In Constantinople the Byzantine emperors were accustomed to participate in services, and there was an intertwining of imperial and ecclesiastical ceremonial (Krautheimer 1965, 337, n 18; cf Lavin 1962). Concerning York, Dr David Palliser (1984, 103) has drawn attention to the existence of a royal holding at Toft Green, which was handed over to the Dominican friars in 1227. The origins of this royal presence are not known, but the neighbourhood was the administrative centre for the whole county before the end of the 11th century (RCHM *York* 1972, 106). A juxtaposition between royal and monastic enclaves within the old *colonia,* overlooking the postulated *wik* down on the river, would have provided a suitable context for Ælberht's new basilica.

If we are right in equating Divine Wisdom with the person of Christ, then it is also pertinent to notice that Alcuin's York would have mirrored Rome, where the pontifical church was dedicated to St Peter and Sancti Salvatoris was the old name of the papal cathedral of St John in the Lateran. Perhaps more to the point, York, recently raised to metropolitan status, would also have mirrored Canterbury, where there was an episcopal church dedicated to Christ within the walls and an episcopal monastery dedicated to Saints Peter and Paul outside. At York the roles of the churches were reversed, although it is worth recalling that St Peter's, as at Canterbury, was a place for important funerals.'* If Palliser's hypothesis about a commercial *wik* is accepted, then the legionary fortress might yet be regarded as having been effectively extramural relative to the actual whereabouts of settlement in 7th-8th century York. This view of a multifocal settlement is supported by the names *Eoforwic* and *Eofonoicceaster,* first evidenced in the 9th and 10th centuries, and perhaps used with precise connotations. Something similar may be discernible at Lincoln as between the old *colonia* and Wigford, and there is a most striking parallel in the Biddle/Vince reinterpretation of *Lundenwic* and *Lundenburg,* the former being visualized as an undefended commercial *wik* centred to the west of the Roman city and the latter as the enceinte of a ruined *Londinium* that contained royal and cathedral enclaves but was to remain otherwise largely unoccupied until the second half of the 9th century (Biddle 1984; Vince 1984). All this is very speculative, but on present evidence it seems safe to say that, with the exception of the minster area, the legionary fortress at York seems to be largely devoid of evidence for settled occupation much before the 10th century (Cramp 1967, pl 4: cf Andrews 1984, 190, fig 2). If pre-Danish York existed in several parts, the ecclesiastical organization of York is likely to have reflected the secular reality (Fig 60).

As has already been hinted, the promotion of York to metropolitan status in 735 may have brought about some desire on the part of the churchmen there to fashion the ecclesiastical geography of their city on lines which resembled Canterbury. With this in mind, it is curious that the dedications of the churches which by the 12th century stood in the immediate vicinity of Christ Church at York should be reminiscent of the altar dedications within the pre-conquest cathedral of Christ Church in Canterbury: St Martin, St Gregory, and the Virgin Mary, in addition to the principal altars in honour of the Saviour and the (?) 'Trinity (Taylor 1969, 105-6; Gem 1970, 199, n 29).

There is another odd coincidence in the gift of Holy Trinity at York by Ralph Payne1 to the *major monasterium* of St Martin at Marmoutier. The transfer is dated to the last decade of the 11th century (Clay 1939,66-8). Was it a compliment to Alcuin, who had ended his days as abbot of St Martin's at Tours?[13]

Holy Trinity's holdings in the 11th century, as we have seen, lay to the west of York, in what Domesday Book describes as the *Anestig* wapentake. Solloway (1903,60-2) thought that 'Ainsty' was derived by contraction from the later medieval deanery of Christianity, which centred on York and included Holy Trinity. It was a happy thought, but the interpretations offered in Smith 1961, 235 - anstiga 'narrow path' -or in Gelling 1984, 64, 257 - 'linking road' - though more mundane, seem closer to the truth. Solloway might, however, have been heartened to discover that the narrow path or road in question led from what is now Steeton Farm over Ainsty Cliff into Bilbrough, and that Bilbrough was named as belonging to Christ Church in 1086 (Skaife 1898, 266-7). In 1276 the wapentake met in Bilbrough, and the place is reported to have had a strong association with York and its citizenry (Smith 1961, 216).

Bilbrough returns us to the matter of outlying detached parishes which pertained to Bishophill churches in York. The two St Marys, Bishop and *Vetus,* St Martin, and Holy Trinity all had such out-parishes. Their extents and significance have been discussed by Dr John Harvey (1965). Here it is necessary to notice only that the detached portions were to some extent intermingled, and that several of the territories coincide with holdings reconfirmed to Holy Trinity in the foundation charter of c1090-1100 (eg Knapton and the fourteen bovates in Hessay). Further, the suggestively-named Monkton abutted the out-parishes of Knapton (Holy Trinity) and Poppleton (St Mary Bishop).

Exactly what we are looking at here is difficult to decide. A cautious interpretation would be that the crystallization of the parochial system during the 12th

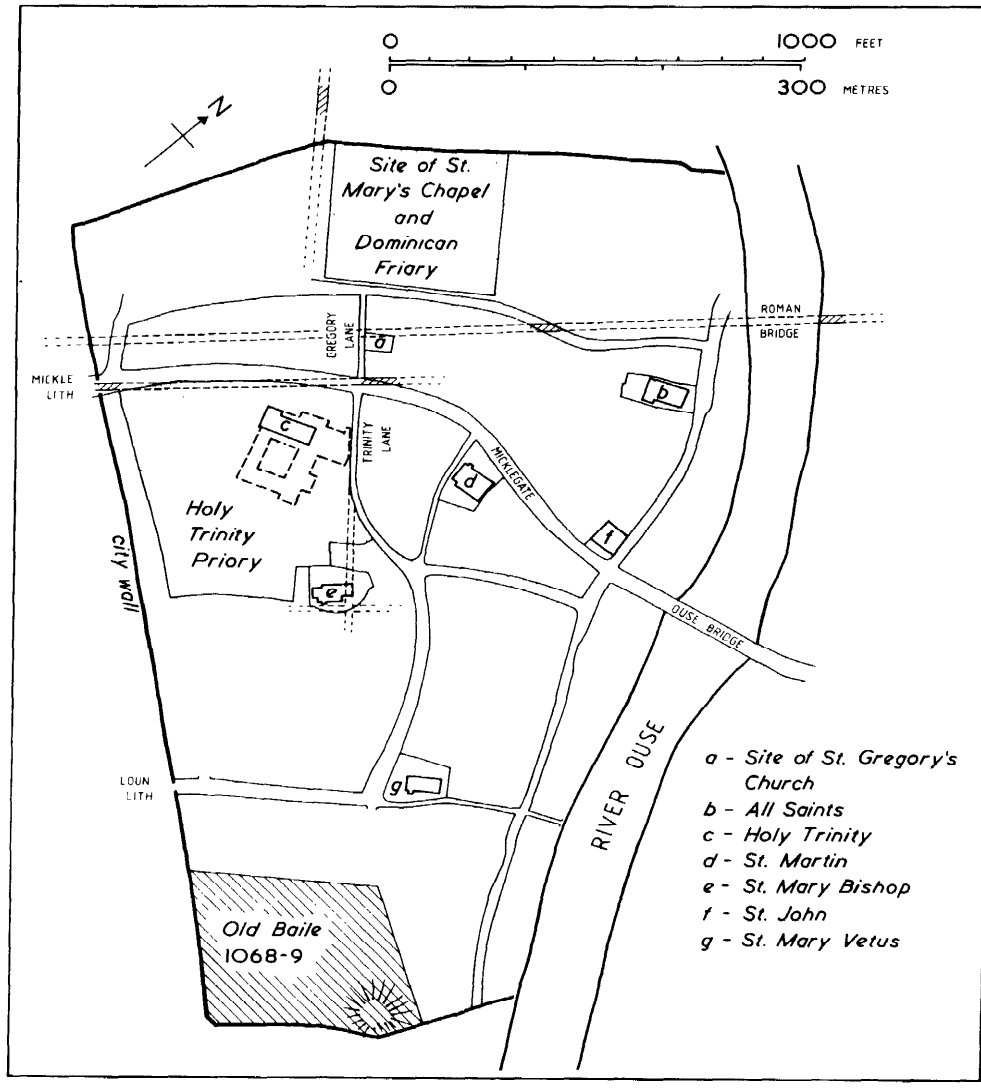

Fig 60 York: the medieval walled area south-west of the Ouse; alignments of Roman streets, known or surmised, are indicated (sources: RCHM York 1972; Palliser 1984; Stocker 1979) (drawn by Malcolm Stroud)

century had the effect of freezing tenurial arrangements of the late 11th/early 12th century in the guise of ecclesiastical geography.

What is less obvious is why this particular group of city churches should have had extramural holdings. Are we, for instance, observing the debris of a large pre-conquest estate with its *caput* at Bishophill? It is my personal guess that this is just what we see. Assuming that an 8th century monastic nexus on Bishophill underwent some fragmentation in the Viking age - a process well advanced but not complete by the time of Domesday - when laymen seized portions of the Bishophill complex they acquired in the process bundles of ecclesiastical rights and customs which pertained to the rural estates that went with them. Whether or not this approaches the truth, it is reasonable to assume that the out-of-York interests of the Bishophill churches signal some dimension to the early background of west-bank York which was either absent or erased from other parts of the city by 1086. Once again, Dr Palliser's case for the early individuality and intrinsic importance of *post-colonia* York seems to be reinforced. Nor should we forget that post-conquest archbishops had, or had retained, important holdings in the Bishophill area.

One of these holdings was the church of St Mary Bishop, which belonged to the Church of York 'from a date earlier than the late 12th century' (Harvey 1965,387). St Mary Bishop retains a tower which has recently been studied in great detail by the York Archaeological Trust (Briden 1981). The results of this investigation have not yet been fully published, but there are grounds for thinking that the tower was constructed in the 11th century.

St Mary Bishop is of special interest in relation to our inquiry, for it is one of only three localities in York to have

produced a stone bearing a pre-Danish Anglo-Saxon inscription; the other sites are St Peter's, which has yielded several, and St Leonard's Place, which is not far from the cathedral (Okasha 1971, no 147). The Bishophill fragment was found in the 1840s, and first published by D H Haigh (1881, 48). Later references display confusion over the provenance, but this has now been reestablished as St Mary Bishop (Bullough 1983, 179, n 4; D Tweddle, pers comm).

The inscription (Okasha 1971, no 148), a pentameter *(pace* Bullough), occurs upon a circular panel 3 1/4 inches *(c* 82mm) in diameter surrounded by a raised border.[14] It has been dated on epigraphic grounds to the late 8th or early 9th century. The reading is not in doubt:

SALVE PRO MERITIS PRS ALME TVIS

The abbreviation PRS is presumably to be expanded as PRESBYTER. The letters stand for pi, rho, and sigma in the Greek *presbuteros* to which the corresponding Latin loan word is *presbyter.* PRS is a *nomen sacrum* which was not written out in full in Greek manuscripts.[15] So the line may be translated: 'Hail, holy priest, on behalf of your merits'.[16]

Meritus was a word that Alcuin liked to use. It appears no fewer than 30 times in the York poern.[17] Often he employed it in the sense of the basis for the power of a saint (eg lines 310, 479, 634). On four occasions the word was used in conjunction with *almus (meritis et moribus almis* (line 1221); *meritis praeclarior almis* (line 1253); *meritis qui creverant almis* (line 1426); *meritis decoraverat almis* (line 1469)). Alcuin's writings also display a tendency to juxtapose the vocative *alme* and *pater,* where *pater* is used in the sense of 'priest'. At the least, therefore, we have a line here which is reminiscent of Alcuin's vocabulary. Since the line does not form part of Alcuin's known output, there may have been someone else who worked within the academic milieu of 8th-9th century York who was capable of producing a pentameter verse.[18] Quite conceivably the author was acquainted with Alcuin's writing or had even been taught by him. And there may be some sympathetic resonance between this inscription and our larger theme of the *alma sophia.*

At all events, the provenance is important. There are only two *general* neighbourhoods of York which have produced pre-Danish lapidary inscriptions of this sort, and for reasons set out by Professor Richard Bailey (1980, 81-4) and Eric Cambridge (1984, 68-71) it is likely that carved stones of this type and date signal the presence of religious communities.

St Mary Bishop lay on the edge of the seven-acre precinct of the Benedictine priory of Holy Trinity Micklegate. The chance that St Mary, and perhaps also the vanished St Gregory, now under a delicatessen and tea-shop, may represent the bones of a pattern of stational churches hereabouts in the late 8th or 9th century is tantalizing (cf Hexham, with its churches of St Andrew, St Mary, and the *remotior* St Peter?) but it is also a matter of speculation, and not a point I wish to press. We might nevertheless keep Alcuin's statement about the *sophia's* thirty altars in mind, particularly as the compression of stational patterns into single buildings is a tendency that we are starting to meet elsewhere at about this time.[19]

In conclusion, let me recapitulate the argument. Eighth century York possessed a cathedral and a *monasterium.*

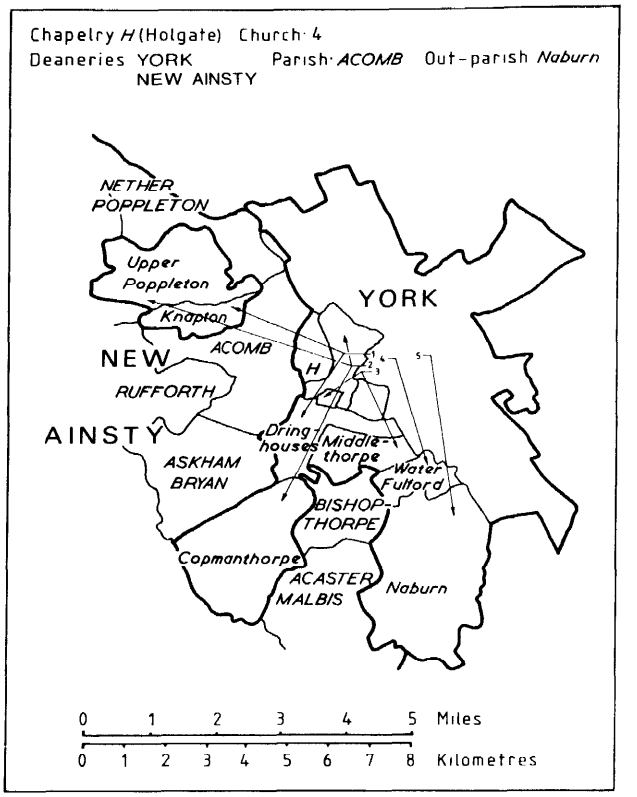

Fig 61 Detached out-parishes of (I) Holy Trinity (formely Christ Church) Micklegate, (2) St Mary Bishop (= Bishophill Junior), (3) *St Mary* Vetus (= *Bishophill Senior), (4) St Martin, Micklegate, (5) St George. Apart from St George, all the churches with these out-of-York connections were grouped in the Bishophili area. Parishes within York have been omitted (source: Harvey &, Payne 1973) (drawn by Malcolm Stroud)*

Literary and archaeological indications suggest that although these institutions were closely linked, both being part of 'the church of York', they occupied separate sites. The dedication of the new church in 780, which must be regarded as forming part of a *monasterium,* is equatable with the person of Christ, an interpretation which is only strengthened by a reading of Alcuin's *De fide,* and which would recall the geography of Canterbury, if not Rome. Domesday Book gives us a landed minster called Christ Church. When this church was refounded around 1090 we hear that it had previously been served by a community of canons (cf the organization of the community of St Cuthbert at Durham before the accession of William de St Calais: Barlow 1979, 229-31).[20] It was reestablished as a Benedictine house, and given to the great monastery at Marmoutier, outside Tours, where Alcuin had been abbot. It is contended that Christ Church was the inheritor of the site, and perhaps what was left of the monastic tradition, of the *alma sophia.*

The Benedictine community rebuilt the church during the 12th century. Very possibly, and like the cathedral, it was realigned, and may not occupy the exact site of its

predecessor. Other churches, by this time parochial, may have emerged out of Christ Church's past. St Gregory stood diagonally opposite the northern corner of the later medieval precinct. St Martin still exists, a short distance down the hill. St Mary Bishop actually adjoined the monastic precinct, and of all the churches in this part of York it adheres most faithfully to the trend of what little is known about the street pattern of the old Roman *colonia* (Ottaway 1984, fig 1) (Fig 61). It is suggested that St Mary was at some stage a component of the Christ Church layout.[21]

Ælberht died nine or ten days after the consecration of the *alma sophia*. Two years later Alcuin removed himself from York, and joined the court of Charlemagne. Alcuin's epitaph, which he composed for himself, draws towards a conclusion in a line which may fitly end this rather wide-ranging but, I hope, not wholly speculative essay: *Alcuine nomen erat sophiam mihi semper amanti*, 'My name was Alcuin, and wisdom was always dear to me'.

Notes

1 This is an essay in reconstruction, not of a building, but of its position. The evidence used is drawn from the fields of secular, ecclesiastical, and liturgical history, and archaeology: sources which Harold Taylor has commended to us as being necessary for the elucidation of Anglo-Saxon architectural history, and which he himself has put to such fruitful use. In writing the essay I have been much helped by Dr Lawrence Butler, Eric Cambridge, David Stocker, and Dr Ian Wood.

2 Our total of pre-conquest churches to which exact dates can be applied is still very small (Taylor 1978, 737). Since this church was new in 780, its eventual discovery by archaeological excavation could thus be an event of signal importance. Obviously, the extent to which this might be true would depend upon the quality of the preservation of its deposits, but even the silhouette of its robbing would be valuable.

3 Dr Godman's (1982) edition of the poem is used throughout. References to, and extracts from, the poem are cited by line number. Where Godman's translation has been used for extended quotations this is acknowledged in the text.

4 *Ast Nova basilicae mirae structura diebus*
praesulis huius erat iam coepta, peracta, sacrata.
Haec nimis alta domus solidis suffulta columnis,
supposita quae stant curvatis arcibus, intus
emicat egregiis laquearibus atque fenestris.
Pulchraque porticibus fulget circumdata multis,
plurima diversis retinens solaria tectis,
quae triginta tenet variis ornatibus aras.
Hoc duo discipuli templum, doctore iubente,
aedificaverunt Eanbaldus et Alcuinus, ambo
concordes operi devota mente studentes.
Hoc tamen ipse pater socio cumpraesule templum,
ante die decima quam clauderet ultima vitae
lumina praesentis, sophiae sacraverat almae.
(lines 1507–1520)

Translation (after Willis 1848, with modifications): But a new structure of a remarkable *basilica* was in the days of this bishop begun, completed, and consecrated. This house of seemly height is supported by strong solid columns set under curved arches. Within, it glitters with admirable ceilings and windows, and in its beauty shines, surrounded by many porticus. It has numerous upper chambers with various roofs, and contains thirty altars with various ornaments. Two disciples, Eanbald and Alcuin, built this temple at the command of their teacher, both pupils working together devotedly at the task. The father himself, in company with his deputy, consecrated the temple to holy wisdom on the tenth day before he finally closed his eyes on the present life.

5 This sounds very much like a reference to the *laus perennis*, a liturgical form which required that a religious community should organize itself into a number of *turmae*, 'squadrons'. The *turmae* worked in relays to ensure that praise to the Lord was perpetual. *Laus perennis* originated in Byzantium and first appears in sources *c* 500. In the west it is first heard of in 515 at the great Burgundian monastery of Agaune, appearing subsequently at St Marcellus, Chalons, late in the 6th century; St Benignus, Dijon; Tours; and St Denis. *Laus perennis* seems to have been particularly, though not exclusively, associated with royal churches in Merovingian Gaul during the 7th century. A detailed discussion is provided by Wood (1981, 16–17).

6 Hild had monastic connections in Merovingian Gaul: her sister, Hereswith, was a member of the community at Chelles. The link between *Streanaeshalch* and York (cf Butler in this volume, n 11) may also shed light on certain passages in what is now known as 'The earliest Life of Gregory the Great' (Colgrave 1968). The author, a monk of *Streanaeshalch*, was knowledgeable about York, and was probably writing during the episcopate of John. Sometime after 685 *Streanaeshalch* mounted an expedition to retrieve Edwin's body from its grave at *Haethfelth* (cap 18–19). According to Bede, Edwin's head had been buried *in porticu sancti papae Gregorii* at St Peter's in York (*HE*, ii.20). Hild was Edwin's grand-niece.

7 Willis observed that 'no writers of the history of York, as Malmsbury or Stubbs, make any mention of this basilica of Albert; they give the original foundation (ie the cathedral), and the repair by Wilfrid; but they pass by the work of Albert in silence' (1848, 5). There is, however, the nearby street-name 'Monkgate', recorded in the late 11th century, which could imply an equation between St Peter's and a monastic community (Palliser 1978).

8 Ælberht hung a chandelier above this altar *qui tenet ordinibus tria grandia vasa novenis*, 'which held three great vessels, each with nine tiers' (lines 1495–6, trans Godman 1982, 119). Perhaps Ælberht had been told about the huge cross-shaped chandelier with 1365 lights which was hung in St Peter's at Rome during the pontificate of Hadrian I (772–95) (Krautheimer 1980, 112)?

9 . . . *quandam ecclesiam in honorem sancte Trinitatis constructam olim canonicis ac prediorum redditibus atque ornamentis ecclesiasticis decoratam, nunc vero peccatis exigentibus pene ad nichilum redactam* . . . . References to the embellishment of churches were common enough, but here, in the passage of the

refoundation charter that sums up the character of old Christ Church, was there an intention to echo the *variis ornatibus* of Ælberht's church (see n 4, above)?

10 This raises the question of the day which was chosen for the consecration. Alcuin tells us that Ælberht consecrated the church *die decima* before his death (line 1519). Elsewhere we are informed that the bishop died in the sixth hour on 8 November (lines 1584–5). The consecration day could thus be 29 or 30 October, depending upon whether the death day is to be included in the reckoning. It is not obvious why either of these days should have been chosen for the ceremony, unless it had been decided to hold it just before the feast of All Saints. Out of many dates in the liturgical calendar which would be appropriate for a dedication to Christ, a point in Advent would have been particularly suitable. *O sapientia* was the opening of an antiphon to the Magnificat which was sung on seven different days in Advent. There is cause to wonder whether an Advent ceremony had been hoped for, but that when it was realized that Ælberht's life was failing, the date was brought forward.

11 A bibliography for the Hagia Sophia is given in Krautheimer 1965, 336.

12 The dedications at Rome and Canterbury are discussed by Levison (1946, 34–5). For events in Rome contemporary with the building of the *alma sophia* see Krautheimer 1980, 112. Dr Palliser reminds me that the roles of Canterbury and York would not be in every sense 'reversed' if, as he suggests, the *colonia* was never walled.

13 We may also note that Alcuin was the author of a *Vita S Richarii*; that from the time of its refoundation *c* 1090, at least, Holy Trinity drew tithes from part of the parish of Aberford (Clay 1939, 67); and that, as far as we know, the parish church at Aberford was the only one in England to have been dedicated to St Ricarius. The dedication seems to have been applied before the middle of the 13th century. In 1166 Aberford was held by Richard le Gramaire; in 1251 his grandson, William, was granted a weekly market and an annual fair on the vigil, feast, and morrow of St Ricarius (Cal Charter Rolls I, 354; cited in Michelmore 1981, 294).

14 The panel formed the flat boss of a small cross-head. The reverse bears four petal-like lobes arranged in the configuration of a cross.

15 Monkwearmouth has yielded the form PRB (Okasha 1971, no 92). Ripon provides a possible instance, (PR)B (*ibid*, no 102). PBR occurs on a stone, possibly as early as the 5th–6th century, at Aberdaron, Caerns (Nash-Williams 1950, no 77). Another stone from this place bears PRSB (*ibid*, no 78). Only the inscription at Kirkdale, N Yorkshire, datable to the decade 1055–65, seems likely to offer a match, but two names are given and PRS may denote PRESBYTERI (Okasha 1971, no 64).

16 For the translation, and for guidance on the expansion as PRESBYTER, I thank Dr Michael Lapidge who kindly answered my questions on these points.

17 By comparison, Bede used *meritus* on only 32 occasions in the entire *Historia Ecclesiastica* (cf Jones 1929, 320).

18 The fact that the verse was not extracted from any of Alcuin's known writings would not in itself, of course, exclude the possibility that Alcuin composed it. Authorship aside, the inscription sheds a gleam of light upon literary standards and education in York within a generation or two of the building of the *alma sophia*. I am grateful to Mr Richard Sharpe for his advice on the vocabulary and diction of the verse.

19 The stational churches of Rome – S Croce in Gerusaleme, St Maria Maggiore, and Sto Stefano Rotondo – were 'extensions of the pope's cathedral, subdivisions to the Lateran' (Krautheimer 1980, 58). Coincidences persist, for the only (?) known reference to a dedication to St Stephen in pre-Danish England occurs in a letter written by Alcuin to a certain Calvinus who was a member of a religious community described as *Cella Sancti Stephani* (*Ep* 209). The *cella* is unlocated, but it has been pointed out that Calvinus was one of the clergy who participated in the election of the archbishop. A close connection with the Church of York is therefore indicated (Harrison 1960, 233). The parish church of Acomb, positioned on a knoll about 1½ miles west of York, is dedicated to St Stephen. Acomb was a possession of the Church of St Peter from before the conquest. Its manor included the township of Holgate, which formed part of the city parish of St Mary Bishop (RCHM *York* 1972, 110–11). To the west lay Knapton, which as we have seen was an out-parish of Christ Church/Holy Trinity. Territorially, therefore, Acomb was sandwiched between parochial areas ruled from Bishophill; the connection with the Church of St Peter may have originated with the person of the (arch)bishop.

20 *The Northumbrian Priests' Law* (*c* 1008 x 1023) reveals the presence of a 'guild' of priests in York, with some species of communal organization and obligations (Whitelock *et al* 1981, 452–68).

21 There are some small signs that St Mary Bishop was originally positioned in relation to Roman features. When its graveyard was created, or enlarged, the street that is now known as Trinity Lane appears to have been diverted around it. A 'retired' position, perhaps in the angle of a former *insula* which was made over for monastic occupation, would suit a subsidiary church in an important ecclesiastical complex. (The priority implied by the by-name *vetus* for the other church of St Mary in Bishophill may be misleading; when first heard of it is called St Mary in Lounlithgate (Palliser 1984, 104).) Alcuin mentioned a church or chapel of St Mary in connection with the community at York (above, p 81). Such an arrangement might also have processional possibilities: cf St Riquier (Taylor 1975, 149, fig 11). Secular interference at some point in the 9th–11th centuries, leading to fragmentation of the 'complex', could be invoked to explain both the detachment of Christ Church from St Mary and the persisting interwoven pattern of their out-parishes. Turning to St Gregory, it was not unusual for subsidiary churches to grow up in close proximity to important religious establishments. The church of St Gregory next to the cathedral of St Paul in London is a case in point (Brooke & Keir 1975, 140–1).

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It is scarcely possible to deal with my subject in all its aspects - and they are numerous - especially in so short an essay. Therefore it is necessary to impose strict parameters and to introduce chronological limits. It is equally important to avoid reciting facts in a way which becomes tedious. For these reasons I will confine my observations to the early Middle Ages, principally the 9th and 10th centuries, with a glance at the Romanesque period.

I wish to examine architectural images as symbols of an idea. Sometimes the representation of a significant building contains in itself a complete ideological programme. Obviously such ideal images are subjected to numerous variations, because of the intentions of their creator, and also because of the use to which they are put, but often their relationship with real buildings is clearly apparent and one easily detects the pleasure, even the pride, felt by the painter or artist at being able to reproduce the new forms created and realized by the architects of the period. The same can be said of the notable buildings visited across the centuries by successive waves of pilgrims. I think particularly of the church of the Holy Sepulchre and its numerous reproductions in monumental as well *as* in manuscript painting, and in the art of ivories.

The Carolingian period presents a particularly fruitful field for this type of enquiry. Its manuscripts contain more than one page ornamented with architectural drawings, which are sometimes basic, sometimes more elaborate, but always eloquent. In addition the ivory diptychs and book covers offer us representations of buildings which, despite being shown in miniature, are no less a faithful reflection of the architectural achievement which we owe to Charlemagne and his ingenious counsellors.

In this context the Sacramentary of Drogo bishop of Metz (Bibliothèque Nationale, Paris, ms latine 9428) is a document of extraordinary wealth. Decorated with numerous illuminated initials, certain of which are beautiful representations of church interiors, this manuscript of the second quarter of the 9th century also stands out on account of its extraordinary cover made up of two finely carved ivory plaques. Both these plaques are divided into nine compartments whose scenes reproduce in part those of the illuminated initials. I wish to draw particular attention to the lower panel which shows the mass enacted as it would have been by a bishop, according to the new regulations codified in great detail by the liturgist Amalarius, sometime bishop of Lyons. The cathedral church appears on the panel as a basilica whose tiled roof is supported by broad arcades which rest on slender columns, surmounted by capitals. The altar is probably a representation of the one erected in the old cathedral of Metz at the instigation of bishop Chrodegang, with the help of Pepin the Short (Fig 62). The *mensa,* like a chopping board, extends beyond its support, whose high arcades reduce the solidity of its mass. Opposite, under the vault of the apse, the throne is certainly that which still exists in the cathedral of Metz. Cut into the drum of a column its rotundity as well as its cut-off elbow rests are distinctively reproduced in the two scenes which depict the 'cathedra' (Fig 63). The altar is surmounted by the celebrated 'reba', a longitudinal baldaquin to which are attached the 'velum' and also the 'philacteria', cylindrical bags containing relics.

These examples from the Sacramentary of Drogo prove that the artist sometimes intended to show, with great precision, a real architectural setting as it would have appeared during the re-enactment of the liturgy. Against this iconographic 'realism', one can place the extraordinary buildings of the imagination created by the palace school of Aix. The Christ from the Godescalc Gospels, for instance, is enthroned before an imaginary building: a crenellated wall behind two triangular projections, enlivened by rectangular panelling. The Ada Gospels set out a yet more grandiose architectural setting. The evangelists are placed on seats which are themselves architectural constructions and stand out from a architectonic background which by its grandeur calls to mind the edifices of imperial Rome. Thus St Matthew is seated in the centre of a particularly imposing apse. His throne itself is of some interest, since it forms a section of a church, massive, square, and perforated by narrow

Fig 62 The Sacramentary of Drogo: ivory plaque showing the altar and the 'reba' in the cathedral (Bibliothèque Nat&male, Paris, ms lat 9428)

Fig 63 The Sacramentary of Drogo: the 'cathedra' and the altar

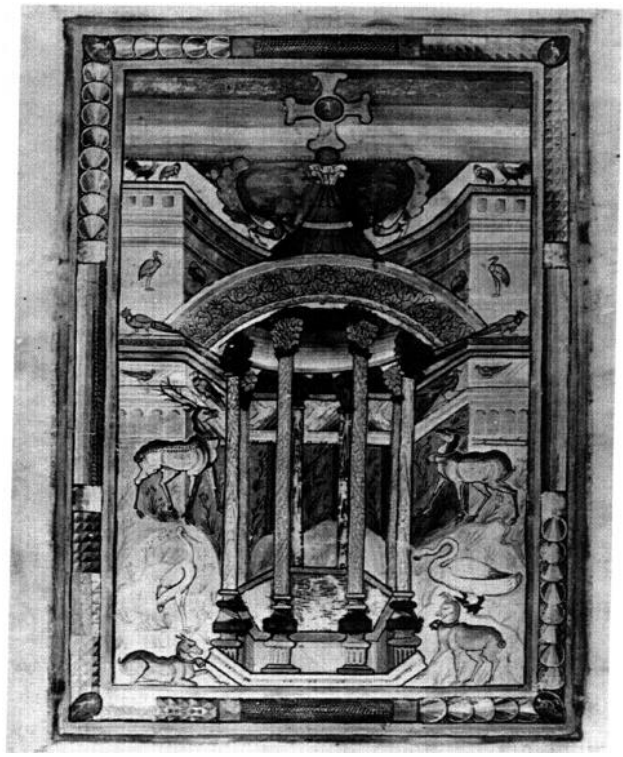

Fig 64 The Gospels of St Medard of Soissons: the Fountain of Life (Bibliothèque Nationale, Paris, ms lat 8850, fo 6v verso)

windows. The lectern carrying the Gospel forms a tower with a chamfered base, with two storeys of arched windows. We find the same grandiose designs in the Gospels of St Medard of Soissons (Bibliothèque Nationale, Paris, ms latine 8850), produced around 800. The Fountain of Life, an octagonal well surmounted by a pyramidal *ciborium*, also has as a backdrop an immense apse standing in the open (Fig 64). This gospel book has on folio 1 verso an image of the celestial Jerusalem different from those which follow it. A bluish dream-palace, with strong convex shapes supported by shaded concave abutments, stands for the heavenly city, a representation perhaps of one of the new facades then in the process of construction. In front of this edifice rises a screen of four slender columns whose heavy square capitals, decorated with the symbols of the evangelists, provide a base for a landscape which stretches to infinity. This architecture certainly owes much to the *frons scenae* then in vogue, whose existence in the Carolingian period is attested by a letter of Einhard, written in his old age in March 840, a few months before his death. More than theatrical scenery these majestic architectural images attempted to marry dream and reality, in the service of their message.

The spring richest in architectural paintings, however, flows from the Carolingian Apocalypses. It is impossible for me to embark here upon a methodical description of the thousand and one compositions which draw at pleasure on naves, apses, domes, towers, and facades. Sometimes the elements appear in isolation, sometimes they are joined together with a lively sense of variety. Thus the Letters to the Churches of Asia Minor inspire in the artist

Fig 65 The Trier Apocalypse: the Letter of St John to the Seven Churches of Asia (Stadtbibliothek Trier, ms 31, fo 5v verso)

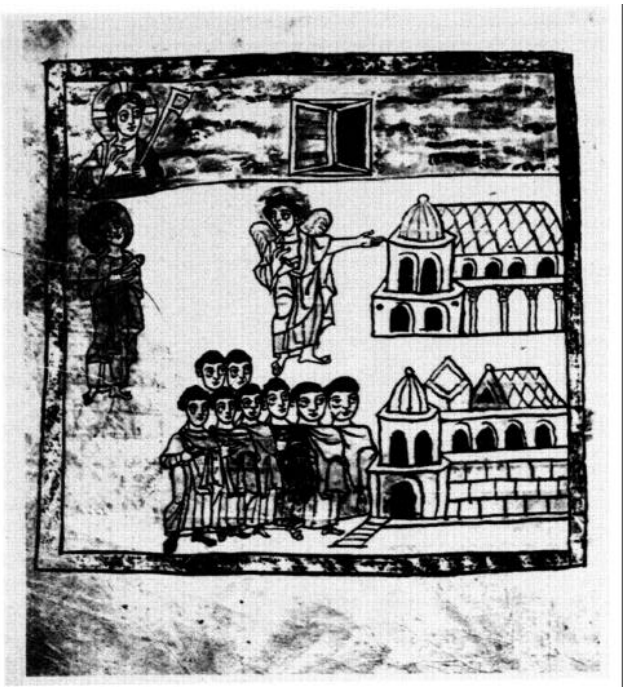

Fig 66 The Trier Apocalypse: St John writing to the church at Philadelphia (fo 11 verso)

of the Trier Apocalyse - from the very beginning of the 9th century - all sorts of possible combinations. Already the Vision on Patmos on folio 3 verso had conjured up a central cupola flanked by two lower square turrets, an image which calls to mind the Palatine chapel at Aix which had just been completed. The Message to the Seven Churches sees them illustrated in a 'sevenfold' design, truly characteristic of the period. Simple basilicas, with or without aisles, alternate with others surmounted by a dome, or endowed with towers of different shapes and sizes (Fig 65). The middle row even sports a church with a triple portal like those which allowed access to the recently invented *Westwerke*. The Message to the church at Philadelphia on folio 11 verso shows the delight which the painter takes in representing the combination of tower and nave (Fig 66). Here we are very close to a known architectural style which emerged in Neustria towards the end of the 8th century, and which was to have a great future extending up until the middle of the 12th century.

My English colleagues will surely not want me to cite here once again the *fulgentissima ecclesia* of *Centula/St* Riquier whose Carolingian origins have been so brilliantly contested by my friend David Parsons. I continue, however, to regard Hariulf's drawing, reproduced in the engravings of Petau and of Mabillon in the 17th century, as a genuine depiction of Angilbert's abbey church (Figs 67, 68). Does not the latter's *Libellus* describe in precise detail a liturgy which has a perfect setting in the building depicted, unfortunately only from the outside? Moreover the recent excavations of M Honoré Bernard have not only

Fig 67 Centula/St *Riquier after Petau (1612)*

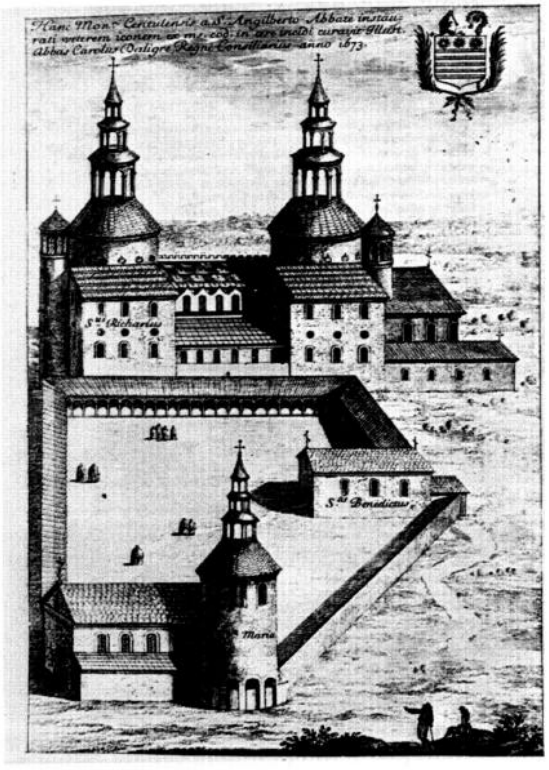

Fig 68 Centula/St *Riquier after Mabillon (1673)*

Fig 69 The visit to the tomb: 10th century ivory from the Can-and Collection, Bargello Museum, Florence

unearthed the foundations of the Carolingian edifice, but even those of the neighbouring cloister. The *Westwerk* at Corvey, judiciously referred to by Effmann as being derived from that at *Centula,* still offers us a splendid standing example of these *triturrium* churches. The enormous central feature, round, square, or octagonal, was inevitably accompanied by staircase *cocleae* set on either side of a porch, itself opening through a triple arcade on the axial *atrium.* The interiors of these churches contain for the most part - and especially in the first phase of their existence - a crypt which provides a base for an upper church, an empty prism reaching up to the start of the *tristegum,* a roof of triple elevation, which is shown clearly in the two engravings of Carolingian *Centula.*

In addition there are also ivories which recall this typical form. To begin with I shall only cite that in the Collection Carrand at the Bargello in Florence. A western transept, dominated by a tower whose roof rises in three stages, with *cocleae* of the sort still surviving in Ottonian churches (for example St Pantaleon in Cologne), appears as an exact image of a Carolingian *Westwerk.* The interest of this representation lies in the scene for which the architecture provides a setting appropriate from both a spiritual and a liturgical point of view. At ground level the central tower is open at the front, while inside can be seen a huge rolled cloth, the *linteamina,* the shroud which had covered the body of Christ. In front of the tower on the stone rolled away from the Tomb, the Angel sits between the sleeping guards and two magnificent attenuated Marys, to whom he will pose the celebrated question, *'quem quaeritis'?* This image brings us to several major points: apart from its symbolic content - the presence of the Holy Sepulchre - and its liturgical significance, which is apparent in the dramatic sequence of the *Visitatio Sepulchri,* I would emphasize above all the fact of a realistic architectural setting; numerous churches of the period are endowed with a western ante-church precisely for the celebration of the Passion and Resurrection of Christ. This was already the case at *Centula/St* Riquier where the western tower, consecrated exclusively to the Saviour, included the *crypta Salvatoris,* which housed the major reliquary of the abbey, the *capsa maior* filled with 25 christological relics recalling the life and death of our Lord. Apart from its simple liturgical function, the church of the Saviour at *Centula,* like its contemporary and younger parallels, claimed to represent the Holy Sepulchre of Jerusalem, providing as it

Fig 70 Ivory plaque from the cover of the Metz Gospels, showing the crucifixion, *the resurrection from the dead, and the visit to the tomb (Bibliothèque Nationale, Paris, ms lat 9453)*

were, in a form which was related to the famous Tomb, a concrete manifestation of the definition of the *turris* by pseudo-Germanus:

> *Corpus vero Domini ideo defertur in turribus, quia monumentum Domini in similitudinem turris fuit scissum petra et intus lectum, ubi pausavit Corpus Dominicum, unde surrexit Rex gloriae in triumphum.*

The *tutis-sepulchre* is particularly well represented on the numerous ivories which have survived from the Carolingian period. Most often the Crucifixion is followed by a *Visitatio Sepulchri,* a scene illustrating the reality of the Resurrection. Indeed the meeting of the three Marys with the Angel in front of the empty tomb was used to stand for the Resurrection of Christ, itself a portent of the universal Resurrection at the end of time. The depiction of the tomb building clearly takes on a very precise significance here. Two ivories of Italian origin, from the late 4th or early 5th century, illustrate the first phase of the development which the form of the Sepulchre will follow. The pieces in question are a leaf of a diptych from the Museum of the Castello Sforzesco in Milan (previously in the Collection Trivulzio) and an ivory plaque preserved in the Bavarian National Museum in Munich. Both date from around 400 and show the *tegurium* which housed the *speluncola,* the rocky cave containing the tomb of Christ, at Jerusalem. The famous Arles buckle which was in the possession of St Caesarius around 520 also represents the Holy Sepulchre in the form of a compact tower with a

square gate as an entrance. The Carolingian depictions are much more varied and, as I have already shown in the case of the Carrand plaque, are influenced very considerably by contemporary architecture (Fig 69). Thus the extremely beautiful Carolingian ivory which decorates the cover of the Book of Pericopes, offered by Henry II in 1007 or 1014 to the cathedral he had founded at Bamberg, shows an exaggeratedly vertical tower of triple elevation, in other words a free rendering of the *tristega* which the Carolingian period so. appreciated. The contemporary ivory preserved at the church of the Holy Cross at Gannat in the Allier or its Metz equivalent in ms latine 9453 of the Bibliotheque Nationale in Paris (Fig 70) provide a genuine portrait of a little tower porch, with a nave attached to a rotunda, which is dominated by two towers. It is the rotunda which is the essential element; open to the level of the windows, it shows, as does the plaque on the Bamberg Book of Pericopes, the empty tomb.

The wealth of such representations in the Carolingian period leaves one spoilt for choice. I could cite the ivory from Budapest manuscript 26, or the leaf of a diptych from the cathedral of Nancy in the Touraine, or even what is doubtless one of the earliest examples, a particularly revealing ivory plaque from the early 9th century, preserved in the Museo Nazionale in Florence. Here the narrative unfolds on two levels: below, the Tomb, a real *triturrium* church, with a beautiful round tower in the centre flanked by two staircase-turrets, all resting on a triple base, with the guards, asleep, leaning on two lances which form a V, framing the door, which is, for once,

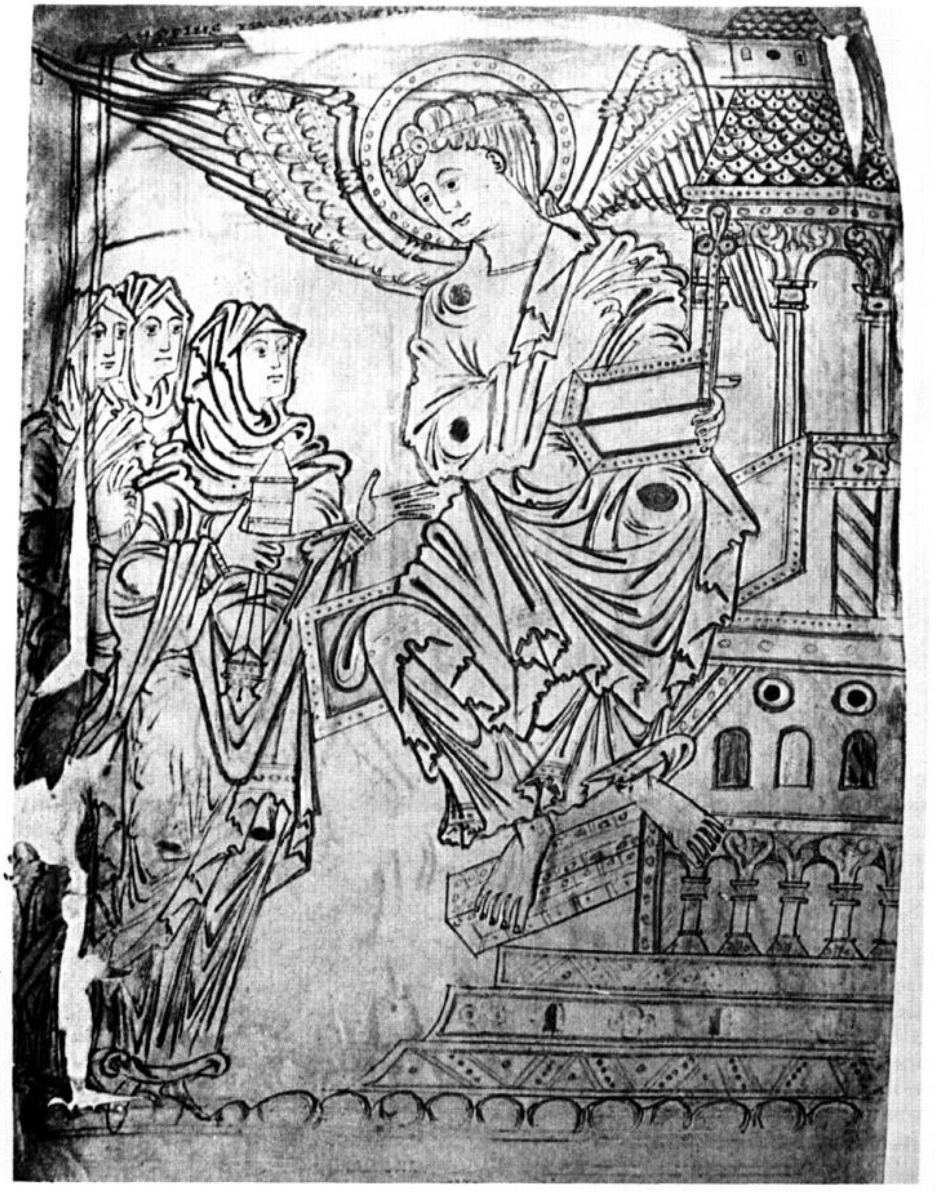

Fig 71 The Winchester psalter: the visit to the tomb (Cotton Collection, British Museum, Tiberius C. VI, fo 13 verso)

Fig 72 The Valenciennes Apocalypse: the heavenly Jerusalem (Bibliothèque Municipale, Valenciennes, ms 99, fo 38 recto)

closed;- above, the Angel sitting on the capstone of the tomb, in fact a sarcophagus lid, in front of the three Marys who are as much astonished as frightened. The most vivid of these ivory plaques is from the Walters Gallery in Baltimore. A real Carolingian tower, surmounted by a *tristegum* in the. best architectural tradition of the period, rises almost to the level of the cross, which appears on the upper register. In accordance with custom, the Angel, holding a rod-like sceptre, replies to the urgent questioning of the three Marys. Here a glance towards the 11th century is not out of order. I refer to the fine drawing which decorates one of the leaves saved from the Cotton Library fire in London in the early 18th century. This leaf comes from a psalter from Winchester (Fig 71), whose cathedral already in the 10th century cultivated liturgical drama, especially the *Visitatio Sepulchri,* described in precise detail in the *Regularis Concordia* of bishop Æthelwold. From a podium with three steps rises a multi-storey tower. The arcades at ground level seem to me to suggest a crypt of the *cypta Salvatoris* type, which in turn would become a porch as one can see at Saint-Benoît-sur-Loire. Above this bottom row of arcading, windows and *oculi* together in the same mural zone recall the side elevation of the tower of the Saviour at *Centula,* or again the *turris* depicted in the Apocalypses of Trier and of Cambrai. Finally the upper storey offers a double register of supports, more massive at the base, slender, even fluted above. A conical roof of two stages concludes this Holy Sepulchre 'built' in western style, before which an angel of great elegance balances on the stone which has rolled away from the tomb, while the three Marys prepare to question him.

At this moment in the argument it is useful to introduce another problem, related to that just discussed at both the spiritual and also the purely formal level. Depictions of the heavenly Jerusalem often draw on architectural

reality. Far from wishing to offer a schematic reduction of this image of the heavenly dwelling, we must disentangle various currents which have recently been set out, in a very advanced manner, in a book produced in Italy for the *La Gerusalemme celeste da1 III al XIV secolo* exhibition, organized by Professor Maria Luisa Gatti Perrer of Milan. I will confine myself, however, to the limits that I have already defined. The Trier Apocalypse, as well as its more or less contemporary copy from Cambrai, shows the Holy City as an oval enclosure surrounded by a high wall tightly encircled by twelve towers. Two basilicas connected by a central cupola appear in the middle of the oval space. A base with six levels gives rise to the seventh level, that of the Heavenly City.

The two other Carolingian Apocalypses, that of Valenciennes and that said to be of Saint-Amand (which is to be found in the Bibliothèque Nationale in Paris, ms nouvelle acquisition latine 1132), depart from this concept in a decisive manner. On folio 38 recto of the Valenciennes Apocalyse (Fig 72), and on folio 33 recta of that of Saint-Amand (Fig 73), two great discs fill the upper two-thirds of the page. These discs are made up of twelve concentric circles of various colours, related to those of the precious stones mentioned by St John. In the centre as a thirteenth element stands the Lamb, in the Saint-Amand text on a background undifferentiated from that of the rest of the design, and at Valenciennes on a contrasting one. At the bottom of the page St John and the Angel indicate with their right hands the vision of the Eternal City.

In the Apocalypse, chapter 21, verse 17 of Revelation,

Fig 73 The Saint-Amand Apocalypse: the heavenly Jerusalem (Bibliothèque Nationale, Paris, ms nouvelle acquisition latine 1132, fo 33 recto)

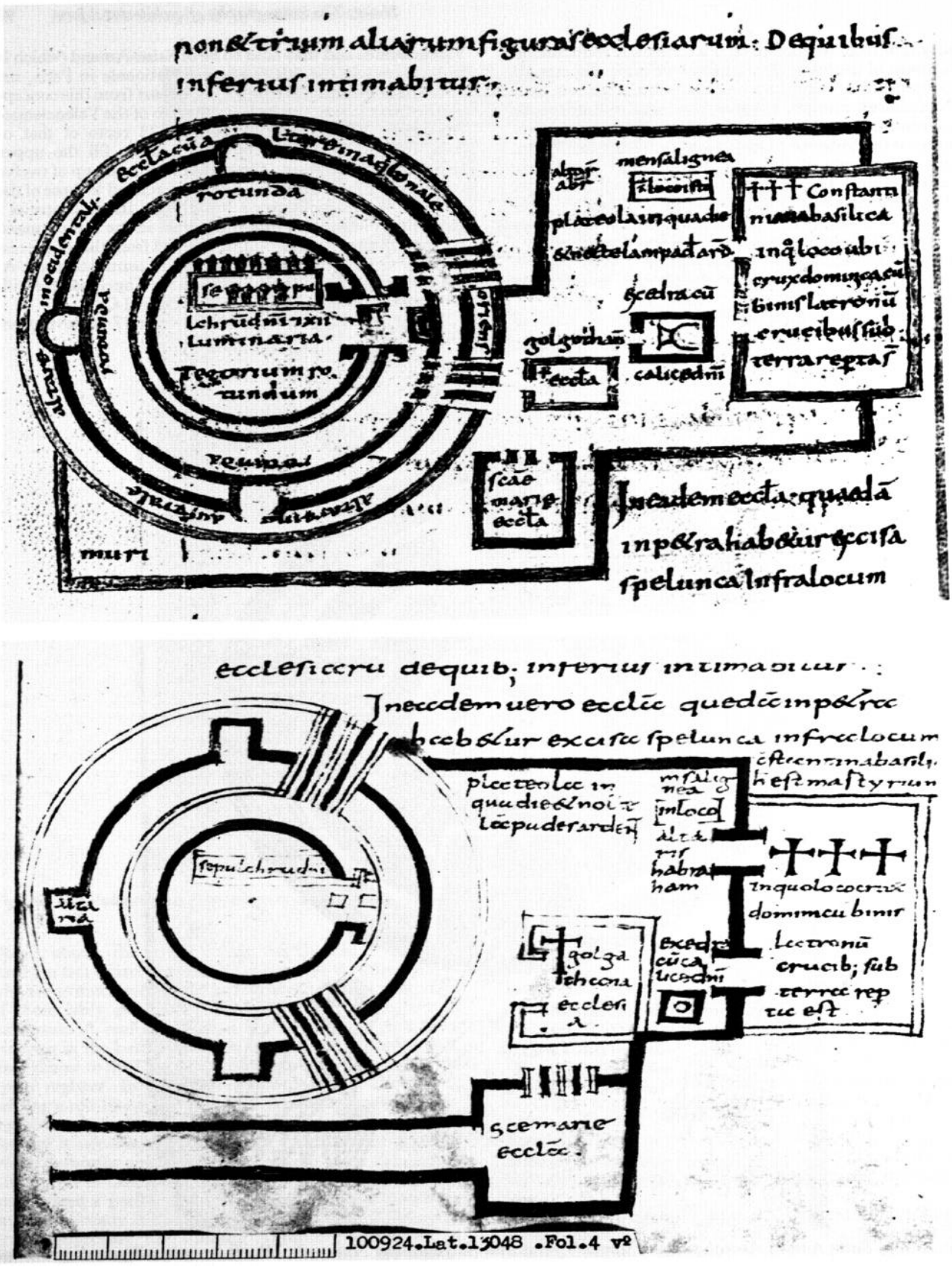

Fig 74 *The* Anastasis, *the church of the Resurrection which contains the Holy Sepulchre, after Arculfl Adamnan: top, Vienna ms 458, fo 4 verso; bottom, Paris ms lat 13048, fo 4 verso*

Fig 75 Corvey: the facade of the Westwerk

this City is described as being square, even cubic in form, and all the representations later than the 9th century, particularly the numerous Beatus manuscripts, follow this text closely. Only the Valenciennes and Saint-Amand Apocalyses have this original circular form which is all the more striking because the twelve gates mentioned by St John appear here as four triple-arched entrances opening on the four quarters of the universe. These high triple arcades immediately call to mind the western entrances of contemporary abbey churches, such as we can still see at Corvey and in certain Romanesque churches, like Saint-Nicolas at Caen, Marmoutier, Lautenbach, and others (the Royal Portal at Chartres is a notable descendant).

I suggest that the fundamental inspiration behind these circular representations comes from two monuments in Jerusalem which have always been particularly venerated: the *Anastasis,* the church of the Resurrection which contains the Holy Sepulchre, and the *Imbonon,* the rotunda on the Mount of Olives, set up on the spot from which Christ ascended into heaven. It is easy to compare the heavenly Jerusalem of the Cambrai and Saint-Amand Apocalypses with the plans of these circular buildings as they appear *in* the *De locis sanctis* of Arculf, bishop at the end of the 7th century (Figs 74a, b). This work, edited by Adamnan, abbot of Iona, circulated widely in the Carolingian period, as is shown by the four copies which still exist (preserved at Paris, Vienna, Brussels, and Zurich). The rotunda which encloses the Holy Sepulchre is represented by a series of concentric circles, four in the Paris manuscript, five in that in Vienna. In the case of the *Imbonon,* the arrangement of circles representing the colonnades is similar. There is a close connection between the plans of the two heavenly cities as presented in the Valenciennes and Saint-Amand manuscripts, and these circular plans of the real new Jerusalem.

The two types of schematic representation of the Heavenly City, that of Trier/Cambrai and that, scarcely younger in date, of Valenciennes/Saint-Amand become synthesized in the later representations of the celestial Jerusalem from northern Spain and Septimania. That of Sant-Sever, painted at the beginning of the 11th century, preserves from earlier abstract compositions the centralized conception. This, however, is square, but includes in the centre the circular medallion of the Lamb. Twelve gates, grouped in threes, that is to say as large triple arches, surround each side of the central square. This composition which we find again in the fresco in the porch of the abbey church of San Pietro al Monte at Civitate recalls the fully developed arrangement of the upper rooms of *Westwerke.* I think particularly of the western ante-church at Corvey, built between 873 and 885 (Fig 75), where an ancient plaque in red sandstone fixed on the facade still records the original meaning of the building:

> Civitatem istam Tu circumda Domine
> et Angeli tui custodiant muros eius

Here the connection drawn by the early Middle Ages between the Apocalypse and the Passion appears clearly. Certain more recent porch towers of the Romanesque period recall this close connection, as at Saint-Savin in Poitou, or, most majestic of all, that at the west end of the abbey church of Saint-Benoît-sur-Loire. These churches, sometimes no more than porch towers in which the Resurrection was celebrated, not only evoke by their *turris* shape the distant Holy Sepulchre, but also preview eternity by realizing on the ground the celestial image foreseen by John in his prophetic Revelation. Resurrection of Christ and Resurrection of the whole human race were thus united in this audacious form created in stone by the architects of the period, and no less faithfully recaptured in the reconstructions of painters and sculptors.

The wall paintings of the church of Saint-Chef in Dauphiné provide an example of great beauty. The northern arm of the transept contains a square chapel, tall and narrow, completely covered in frescoes, which culminate in a depiction of the heavenly Jerusalem (Fig 76). The surface of the domical vault, where the new City is depicted, never ceases to amaze me. The heavenly Jerusalem is portrayed like a real western ante-church, with a central tower, dominated by the Lamb, traditional lateral *cocleae,* watched over by the angels, preceded by an *atrium* with even an axial chapel. This is *Centula/* Saint Riquier, at least as described by Hariulf, following Angilbert, irrespective of the support provided for this picture by another porch tower of the Carolingian period. It provides one more proof of the intimate blend of the spiritual and the liturgical within one single formal design. What is most astonishing is the perfect continuity of conception across the centuries. It is as evident in the 12th century as it was four centuries earlier, in the Carolingian period. The image had not lost its meaning, because it

Fig 76 Fresco depicting the heavenly Jerusalem in the church of Saint-Chef in Dauphiné

continued to be nurtured by the same spirit and maintained by the same liturgical practice. For this reason I am not surprised to find in one Apocalypse of Heiligenkreuz in Austria (beginning of the 13th century) a magnificent heavenly Jerusalem which brings together all the elements to which reference has been made in this short study. The top of the tower is even octagonal; due attention is thus paid to the number eight, that of the Resurrection, so often used in reality to crown towers.

It is thus possible to state that paintings and sculpture draw widely from the repertory of major architecture. The symbiosis between the forms of real architecture and of its miniature representations goes far beyond simple aesthetic considerations. The power of the symbol which lies behind these forms - whether we are dealing with a massive tower porch which bars the entrance to the church, or its image reduced a thousandfold onto an ivory plaque - remains the same. Herein lies the importance of this miniature painting and sculpture which, in the absence of those many major works no longer surviving, helps us rediscover the true spiritual meaning of contemporary monumental architecture. Not that these witnesses - faithful images, so revealing of the attitudes of the period - should be regarded as minor; at the least one should describe them, in the happy phrase of Arthur Koestler, as 'minor masterpieces'.

The furnishing and sculptural decoration of Anglo-Saxon churches

Rosemary Cramp

It was a great privilege and pleasure to have had the opportunity to say something in the presence of Harold Taylor, to thank him in some measure for the great contribution that he has made to Early Medieval Studies in England. We are all his pupils, and his monumental three volume work has already provided a quarry for a generation of researchers and will continue to do so for generations more.

Now in the same volume of the *Journal of the British Archaeological Association,* which carried a review of Harold and Joan Taylor's *Anglo-Saxon architecture,* 1 and 2, there was an article by them both called 'Architectural sculpture in pre-Norman England', which gathered together most of the *in situ* evidence and listed some of the 'loose' evidence (Taylor & Taylor 1966). In this short paper I shall attempt to look at the subject as it appears seventeen years later, especially in relation to excavated evidence, although in volume 3 of his magisterial work Harold Taylor has reassessed much of the evidence himself. Since Winchester and Gloucester are the subject of specific studies in this volume and thus will represent West Saxon and Western Mercian centres, I will confine my detailed references to Northumbria, Middle Anglia, and East Anglia. Taylor divided his evidence in volume 3 into structural decoration and furnishings and I will adopt these convenient categories. I intend to leave aside, however, the significant category of stone crucifixes and crucifixion plaques since they have been recently catalogued and reassessed by Elizabeth Coatsworth (1979).

One can assume, I believe, that the arts of stone sculpture were derived by the Anglo-Saxons from Italy and France and it is becoming possible to compare much of the sculpture from these regions with the English material now that two volumes of the French Corpus have followed the ten volumes to date of the Italian series'. In the record of Isère and Savoie, Elisabeth Chatel (1981) has recently surveyed a region attestedly well frequented by English travellers to Italy, an area which contains the vestiges of the church of St Pierre at Vienne.[2] This church, and the Calvados church at Evrecy (Musset 1955-56), has been specifically compared with our early Northumbrian churches such as Monkwearmouth. It is sad that we do not known the exact location of the Abbot to whom Benedict Biscop sent for masons to build his Monkwearmouth stone structures, but we may assume that English churchmen and their master builders could have picked up ideas all down the pilgrimage route to Rome, and that the eastern Christian world would have remained a potent influence since a handful of European travellers continued to visit Jerusalem throughout the pre-conquest period. A particular interest in the sites associated with Christ's life and works united both Iona and Monkwearmouth/Jarrow.

Nevertheless, a study of the English evidence reveals marked changes through time in decorative detail, but little in the forms to which they are applied in stone monuments or furnishings until the 10th /11th century. Moreover, the formal assemblage is notably different from that of the Continent. In all areas of Anglo-Saxon England one can find unspecific strips of decorative detail from friezes, string-courses, and door linings, as well as decorated wall-slabs and imposts. By contrast, the Mediterranean world struggled to retain columnar structures even to the length of cutting down and splicing old columns for reuse (cf Wood, this volume, p 76). Moreover, late antique capitals are constantly recycled. (A small ionic capital excavated at Monkwearmouth provides a notable exception and may be compared with a similar capital from Turin (Cramp 1969).[3]) Despite the literary evidence for columnar structure at Hexham[4] or York, and despite the columnar drums surviving from Reculver and Ripon, there are no surviving columnar structures from Anglo-Saxon England earlier than the Repton crypt. In the internal fittings the Mediterranean corpora also differ from the English. We have few vestiges of the ubiquitous fittings which surrounded the altar in Italy: screens, pilasters, ambons, and baldacchini. These have all the appearance of mass-produced workshop productions, whilst the fittings which survive from Anglo-Saxon England appear to be the result of *ad hoc* initiatives.

In this discussion I will however attempt to demonstrate some suites of architectural ornament and furnishings. At Monkwearmouth, dated to AD 673/4, and attested as the work of Gaulish masons, many of the forms already mentioned have survived associated with the church and its early monastic buildings. The decorated porch built before AD 685 reflects a continuation of Insular and Continental taste in the reptilian ornament on the door linings and on a fragment of internal closure screen (Cramp 1984, 8a-b: pl 113, 115 & 121, 656). This is associated on no 9 with a fine geometric interlace surrounded by a circular framing which occurs also on decorative strips *(ibid* 17: pl 124, 681; 19: pl 124, 683). This type of interlace occurs also in the *Book of Durrow* and on some Pictish slabs, but it derives from a type which remains popular in Italy (Novelli 1974, figs 56, 111). The fragment of closure screen is important, since evidence for this fitting is rare in Anglo-Saxon England. Only some fragments from Hexham (Cramp 1984,2la-c: 1179, 960; 180, 968), the fragments from South Kyme (Clapham 1930, pl 28), and the recently discovered piece from Hackness (Winterbotham 1982, pl 48) can be set beside it.

We know comparatively little about the fitments and furnishings of Anglo-Saxon altars (Taylor 1973). It seems probable, however, that in the major churches the principal altar would have been set forward from the chancel opening and that it would have been surrounded by screens or rails in wood or stone. Many of the surrounding fitments in the form of seating, reading desks, or ambons could also have been in wood, but at Monkwearmouth, Jarrow, Whitby, and Hart small turned colonettes also survive, some of which could have been part of the surrounding structures of altars.[5] Such shafts also occur *in* situ flanking the open portal at Monkwear-

mouth as in a later form they survive in tower openings on mid-wall shafts. (See also a recent discussion by Gem and Keen (1981) of the important assemblage of balusters from Bury St Edmunds.) At Monkwearmouth many sections of small columns survive and many of them, like other architectural sculpture discovered at that site, retain traces of paint over a white gesso-like background. Red or black pigments seem the most resistant to decay and the sculpture could have carried a wider colour range, but one must remember that, when painted, wooden and stone sculpture could have looked very similar. I have discussed the Continental affiliations of the Monkwearmouth balusters elsewhere (1984, 24-6), but it is interesting to note that the occurrence of stone lathe-turned balusters at Poitiers, Nouaillé, and Évrecy (Cramp 1965, pl 3; Musset 1955-56, pl 7) supports the idea that they occur in areas where the classical columnar tradition is not strong.

The survival of lion-supported arm-rests at Monkwearmouth (Cramp 1984, 15a-b: pls 122-3) for two distinct seats was plausibly interpreted by Clapham as providing evidence for a synthronon with an abbot's seat in the centre. It is not clear exactly what the form of such a seat would be, but, like the well-known seat from Hexham *(ibid,* 41: pls 1 186-7), it would appear to have been set against a wall. Another fragment from Monkwearmouth which consists of a large animal head of uncertain species is also plausibly interpreted as part of an impressive seat *(ibid,* 16: pl 124, 673-6), this time departing further from the classical tradition towards such seats as those depicted in Insular manuscripts such as the Portrait of St Luke in the Lichfield Gospels" or in the Durham Cassiodorus (ms B.II.30, fol 81 V). A similar animal head survives at Lastingham (Cramp 1984, pl 267, 1438) together with one arm of a seat which bears the same type of ornament of interlocking heart-shaped leaves as on the animal head. Such ornament is found also in the Cuthbert Gospels (Vienna Nat Bibl Codex 1224, fol 17v; fol 18; fol 110v). This, together with the fine-line changing interlace ornament, would seem to place the Lastingham fragments within the late 8th/early 9th centuries. The shape of the chair, with high arms, is quite different from the low 'bucket seat' of the well-known Hexham 'frith-stool' but it is a type with a long ancestry reaching back to the Roman *cathedra*[7] and is a type also known in pagan Saxon England in the pot-lid with a seated figure excavated at Spong Hill (Campbell *et al* 1982, 35, illustr 32). An arm of a similar type survives today in the Bamburgh Castle Collection. It, too, is richly decorated on the top, front, and outside of the arm, with a lighter decoration on the visible surface of the interior of the arm (Cramp 1984, Bamburgh 1: fig 18, p 162; pl 158, 812-17). This chair is possibly as late as the early 9th century, but it demonstrates the continuity of form already mentioned.

Jarrow, built by the same community as Monkwearmouth, but ten years later, and not as far as we know under the direct tutelage of Gaulish craftsmen, seems from the surviving fragments to have had a quite different decorative scheme, one indeed that is closer to Hexham than Monkwearmouth. One group of carvings is decorated with austere balustrades. These may form a suite which surrounded the altar since the ornament is found on what could be a long lintel-like feature (Cramp 1984, Jarrow 25a-b: pls 101, 540; 102, 547) which could have spanned the opening for the altar enclosure, and also on what may have been a small impost for a pier-support *(ibid,* Jarrow 32: pls 106,578; 107,581). Such ornament also occurs on the edges of early memorial slabs which could have been set into the walls of the church, and likewise on the edges of the arms of a cross which has a plain back as though it was intended to be set against a wall or screen. On this cross head, like the Acca Cross, Hexham, and one from Northallerton, the ornament is plainly copying metalwork in its plates and zigzag ornament *(ibid,* Jarrow 9: fig 12, p 109; pi 93, 497-9; Hexham 1: pl 169, 900-3). This is the only concession to Insular taste in the surviving fragments from Jarrow church. The large-scale balusters from that site are all of a common height and diameter, and though there is some variation in the scheme of their outline mouldings, there is nothing like the variation found at Monkwearmouth. They can most reasonably be reconstructed as a screen of the type still surviving at Leprignano in Capena in the Church of S Leone (Serra 1974, no 180, pls 131,133). The Jarrow imposts which are also decorated with balusters are like those from Hexham in their simple rectangular section, but whereas the Jarrow ornament is post and panel, that of Hexham is 'post and rail' (Cramp 1984, 23-7, pls 182, 973-183, 995). Baluster-ornamented imposts also survive from Simonburn in Northumberland *(ibid,* H, pl 218, 1236-8), but these balusters are combined with curlicues and are chamfered in form. (It is possible that the chamfered form of impost is a later feature in Anglo-Saxon architectural sculpture than the simple slab; it is a form which occurs also in the 8th/9th century ornamented imposts at Ledsham, Yorkshire, some of which are original and some restorations.)

One noteworthy feature in much of the sculptural decoration of the early Northumbrian group is that it is often prefabricated and carved on several blocks of stone: the mutilated figure on the facade of Monkwearmouth porch is carved on three stones *(ibid,* 11, pl 116, 618), and the famous cross-slab from Jarrow with an inscription celebrating the glory of the cross is carved on two stones of differing depths for setting in walls *(ibid,* 16a-b, pls 95, 517-97, 521).

The walls of these early churches must have been rich with relief ornament in the form of decorative string-courses, friezes, and panels as well as epitaphs. At Monkwearmouth *(ibid,* 27, pl 125, 693 & 12a-c, pl 117) not only the church but also the monastic buildings were decorated with narrow strips, and at both Monkwearmouth and Hexham *(ibid,* 20, pl 179, 956-7; 33-5, pls 184, 1010-185, 1015) there are remnants of broad string-courses decorated with animal ornament.

At Jarrow there is another distinctive group of material in the form of wide friezes, part of a cross-shaft, and an octagonal column from the monastic buildings, all of which are carved in deep relief with plant scroll ornament *(ibid;* friezes: 19-20, pl 98, 525-6; cross-shaft: 2, pl 90, 478-81; column: 22, pls 99, 527-101, 535). The two friezes, one with paired birds, the other with human figures and animals, came from the church restoration and presumably derived from the early church fabric, the cross-shaft was found near the river, and the octagon was found *in situ* in one of the monastic buildings, its base covered by the *opus signinum* floor. Other fragments of a floral plaque and of a bird were also discovered in the same building but not *in situ (ibid;* plaque: 24a-h, pl 102, 543; bird: 21a-b, pl 97, 523). It is unlikely that the building (Building A) is later than the early 8th century. We then

can say from this site that there are common ornamental schemes for a range of different artefacts, and indeed that field monuments, crosses, furnishings, and architectural sculpture can all reflect the taste of a single workshop.

The columnar feature is particularly interesting since it seems to reflect the traditions of antique carved columns which are often decorated with plant scrolls. The Jarrow shaft (which may be either structural or part of a reading desk) is nevertheless typically Insular, in that the ornament is subdivided into short runs of plant-scroll and interlace, but similar multifaced pieces occur at Kirby Moorside and Melsonby, N Yorkshire (Cramp & Lang 1977, 7-8), but with very different decoration.

The impression that may be gathered from the sculptural remains of these early Northumbrian churches is of very cluttered interiors, with epitaphs and memorial plaques, in the antique manner, carved surrounds for the altar, carved stone altar crosses, and from Hexham a stone rood in painted relief, as well as seats and reading desks. The paint which survives on some of this sculpture would have significantly changed its appearance, and, in the figural scenes at least, would have brought it nearer to the painted images on boards or the books which could have served as models.

For Monkwearmouth and Jarrow well-known literary evidence provides a record of a different type of image: the icons bearing the types and prototypes of the Old and New Testament which Benedict Biscop brought back from the Continent. Paul Meyvaert has recently calculated their size as *c* 17 inches wide, but that is an estimate based on a division of the assumed dimensions of the churches and cannot be an exact figure (Meyvaert 1979). Nevertheless, these paintings on boards which were first introduced to the English by Augustine (Bede, *HE,* i-25) and subsequently by Benedict Biscop need not have been very large. Such paintings could have provided the inspiration for panels of stone figural ornament both as set individually in church walls and as panels on cross-shafts. Schemes using the Old and New Testament cycles had been known in the Christian West for some time, and indeed confronted each other on the nave walls of Old St Peter's and St Paul's in Rome (Kitzinger 1976, 27). Nevertheless, we have little surviving which is acceptable as a close analogy. The twelve apostles, who together with the Virgin were hung across the dividing wall, or over the iconostasis at Monkwearmouth, are found on Northumbrian crosses, for example, at Easby, possibly Otley, and Rothbury (Cramp 1984, 1, fig 20, pls 211-15, 1224), while one may remember that a litany of apostles and the Virgin and Child decorated the long and one short side of the wooden coffin of St Cuthbert. The other depictions mentioned at Monkwearmouth, scenes from the Gospels, may be paralleled on the Ruthwell and Rothbury crosses, both of which are carved in the Monkwearmouth and Jarrow style, and it is just possible that the Apocalyptic Christ as Judge who appears on Bewcastle, Ruthwell, and the Cuthbert coffin (where he is surrounded by the four Creatures of the Apocalypse) could be linked with the Apocalyptic series at Monkwearmouth.

The more sophisticated programme at Jarrow of the concordance between the Old and the New Testament is not easy to parallel in surviving sculpture. Indeed it is an interesting fact that very few Old Testament scenes are found on Northumbrian, or for that matter any other Anglo-Saxon sculpture: David as a harpist; Sampson bearing off the Gates of Gaza; Daniel in the Lion's Den; the Sacrifice of Isaac. There is only one possible cross - Masham in Yorkshire - where Old Testament scenes may be seen as in concordance with New Testament.

Nevertheless, panels which depict pairs of, or individual, saints and angels are a type which survives on crosses and wall plaques through the 9th century. The outstanding examples at Breedon and Fletton have been much discussed (Kendrick 1938, 171-8, pls 73-4), and these, together with the elaborate friezes, would have provided a richly ornamented interior for churches; but since the name of the figure survives on at least one of the Fletton pieces, it is possible that they served also as devotional foci. The fact that such representational panels survive in England from the 7th century to the 10th/11th century is, perhaps, as Dodwell has recently suggested, a direct result of the trenchant support given by Bede: '. . . if it is not contrary to that same law to make sculptured images . . . why should it be considered contrary to the law to sculpt or to paint on panels the stories of the saints and martyrs of Christ' (Dodwell 1982, 82-92).

All the same, Mercia seems to have played an important role in promoting the taste for another type of monument in Anglo-Saxon churches, namely the carved sarcophagus. The Early Christian Northumbrians seem to have accepted as their norm the Merovingian tradition of slab-covered graves. When considering the size of most Anglo-Saxon churches it is reasonable to suppose that, when people started to be buried inside a church (the favoured position usually being on the south or east of the altar), they would have been buried below the floor with memorial inscriptions on the floor or wall above; it may be significant that the fashion for mausolea such as survives as Repton, or crypts such as Brixworth or Wing, seems to coincide in date with the fashion for stone sarcophagi. At Brixworth the ring-crypt seems to have been deliberately constructed with niches for such monuments. At Bakewell and Wirksworth, as well as Breedon and Peterborough, there survive the remains of elaborately carved sarcophagi which, from the unworn nature of their carving, would most reasonably have stood inside a building.

The taste for elaborate surface detail on the exteriors of churches was transmitted to many centres by the early 10th century, but we should not perhaps see the exuberant detail which survives on such towers as Barnack or Earl's Barton as something completely new, but as the confident culmination of earlier more tentative experiments. At Barnack the strip-work is on a larger scale than that from Monkwearmouth or Repton, but it is the same tradition. The panels of plant-scrolls capped by birds can be related to contemporary manuscripts, and even the projecting beasts' heads which form label-stops above the horizontal string-courses could be considered as having their precursors in the head which caps the Escomb sun-dial (Cramp 1984, 8a-b, pl 56, 277). The enriched recessed openings are not found, however, in the early material; nor are the cushion capitals. The churches of the East Christian world, from early centres like Bawit to those in Armenia of the 9th and 10th centuries at Ani or Agt'amar, do however exhibit such characteristics (der Nersessian 1965): the outlining of openings with decorative strips; the breaking up of wall surfaces with friezes and panels; the projecting beasts' heads. We can hardly postulate a direct

connection with the Near East but the visual relationship is striking.

I have tried to show in this paper that certain schemes of ornament were 'traditional', while others were precocious. The early austere 'Roman' ornament - from Hexham and Jarrow - reflected in architectural details and furnishings was perhaps a deliberate attempt to be traditionally antique but in an idiom not uncongenial to a wood-using people. The later developments of richly ornamented openings, such as are found at Ledsham (Yorkshire) or Britford (Wiltshire), seem to be reflecting the ornament of other media such as metalwork or manuscripts. How early the English felt enough confidence in their native traditions to use them freely in all media, and thereby to develop period rather than regional or artefactual styles, is difficult to say. Certainly Harold Taylor's distribution maps of strip-work *in Anglo-Saxon architecture,* 3 do not reflect the tentative essays that I have been discussing but the wider acceptance of an English style.

I have tried to discuss elsewhere whether any of the figures on English carvings could have been seen by their contemporaries as representing native saints or heroes, or even donor 'portraits' as on the Agt'amar facade. (Such 'portraits' certainly appear in other media, for example in late Saxon manuscripts (Cramp 1982).) In the Anglo-Scandinavian north another type of secular influence was at work on sculpture, but perhaps even here the early lessons of the type and prototype were not forgotten. On the carving which seems to have been part of an interior fitment for a church at Gosforth, Thor, unlike Christ, is shown as hooking not the souls of men but the evil forces of the world; but he is a fisherman as emphasized by the very large fishes in the scene (Bailey & Lang 1975, 290-3, pl 27a).

Confidence in the secular heritage is also demonstrable in some of the latest interior friezes from Anglo-Saxon England such as the bold carving of an armed man, a recumbent figure, and a wolf excavated from the demolition level of the Winchester Old Minster. This has been interpreted as part of the story of Sigurd, and as reflecting the pride of the late Saxon kings in their pagan and northern ancestry (Roesdahl *et al* 1981, 168). Certainly it transports us a long way from the types of Jewish and Early Christian history which Bede so admired at Monkwearmouth and Jarrow. At least it does seem to have been believed that Ingeld could have something to do with Christ.

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Notes

1 The French Corpus is published by regions, including their museum collections regardless of the origin of the pieces (Fossard *et al* 1978; Chatel 1981). The Italian series *Corpus della Scultura Altomedievale* is published by the Centro Italiano di Studi sull' Alto Medioevo. Ten volumes have been published up to 1981.

2 An exceptionally good selection of fitments, furnishings, and architectural and memorial sculpture survives from this important centre (Chatel 1981, 31–108).

3 The Turin capital is published in Novelli 1974, pl 89.

4 Some plain shafts at Hexham have been considered as possibly Anglo-Saxon but they could well be Roman or even Norman (Cramp 1984, Hexham 42a–c).

5 Monkwearmouth: Cramp 1984, 14a–ai (pls 118, 627–121, 662); Jarrow: 30a–w (pls 103, 551–106, 575); Whitby: pl 263, 1423; Hart: 10a–b (pl 82, 419–20) and 11a–d (pls 82, 421–83, 424).

6 J J G Alexander, *Insular Manuscripts 6th–9th century* (1978), pl 82; *ibid* pl 74; and not the elaborate chair shown in profile on which the Virgin sits in the Book of Kells (pl 233); Bailey 1978, 26, n24.

7 The only seat which is similar to the Hexham stool is the undecorated seat from Beverley (Cramp 1984, pl 263, 1425), a site which is linked to Hexham in the time of Bishop John.

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Sacrarium: ablution drains in early medieval churches

David Parsons

Introduction

This paper, more an exploration than a definitive study, presents a synthesis of various kinds of evidence, much of it already well known, in an attempt to reinterpret certain aspects of early medieval liturgical practice and to stimulate the recognition of further evidence which might have a bearing on the questions discussed here. In keeping with the tenets of modern church archaeology, of which Dr Taylor has been such a prominent advocate, evidence will be considered from the various branches of the discipline: from excavation, from documents, and from the art-historical study of the standing buildings and their furnishings - for the last of which, incidentally, there seems to be no convenient term that is not either slightly pejorative (eg 'church-crawling') or ambiguous (eg 'ecclesiology', which historically has acquired a meaning beyond its literal one).

For a paper which is offered as a token of esteem and gratitude to the recipient of this volume there could be no better starting point than the article on the altar position in Anglo-Saxon churches by the honorand himself (Taylor 1973). Dr Taylor began by restating his earlier argument (1968) that the masonry foundation at the east end of the nave at Reculver, Kent, should be interpreted as an altar base, and more specifically the base for the principal altar of the church (Fig 77). This argument is persuasive, especially in view of the feature in the apse which is reasonably regarded as a clergy bench, but the interpretation of the foundation is nevertheless not without its problems. The first of these is its overall size. Scaling from the published plan (Peers 1927, fig 4) yields maximum dimensions of 2.085m x 0.915m, which is larger than the 'standard' altar of 1.20m x 0.70m suggested by continental evidence. While the east-west dimension is acceptable, the north-south measurement is considerably longer than appears to be required, although it would be possible to argue that the parts of the foundation projecting beyond the altar were intended to support posts for an altar canopy of the sort attested at Winchester, Hampshire. This could also be the solution to the second problem, which is that at the accepted date of the Reculver church the altar may still have been of the primitive 'cubic' shape, ie square on plan, which would not of itself require a rectangular foundation. This type of altar continues to be shown in manuscript illustrations and on ivories until the 12th century, though it is attested by archaeological evidence only at the Old Minster, Winchester. Here there was a roughly square foundation, again at the east end of the nave (Taylor 1973, 54 & fig 2; Biddle 1970, 315). Around this foundation were four postholes, interpreted as supports for a canopy, as mentioned above (Biddle 1968, 270). After discussing these examples, Dr Taylor's paper presented some literary evidence and parallel instances of nave altars from mainland Europe and the Near East.

Additional evidence for the altar position

In the dozen years since the appearance of that paper further evidence has inevitably come to light. On the Continent, the little church on the Frauenberg just outside Bad Hersfeld, Hessen (West Germany), excavated as long ago as 1929 but published in a fairly inaccessible journal, is now generally available in the pages of the corpus *Vorromanische Kirchenbauten* (Oswald *et al* 1966-70, 80). Here the excavator uncovered an altar base west of the chancel arch; the dimensions of this foundation, approx 2m x 0.80m (dimensions not quoted in text), are close to those of the corresponding feature at Reculver, and one is tempted to speculate on the possible significance of this in view of the fact that Hersfeld was in an area of intense Anglo-Saxon missionary activity. (For the location of Hersfeld and the archaeology of the mission see Parsons 1983.) Apart from this tangible evidence, a further review of the altar position has appeared, which reinforces and extends Taylor 1973 ('Altar und Altarraum . . . ', Gamber 1976,140-51).

In this country, perhaps the most dramatic evidence has come from the excavation of St Paul-in-the-Bail, Lincoln (Gilmour 1979). Here in an early church consisting of nave and stilted apse (now thought to be Roman in date: B G Gilmour, pers comm) there was an important burial furnished with a hanging bowl; the body had been subsequently exhumed. The grave implies an altar

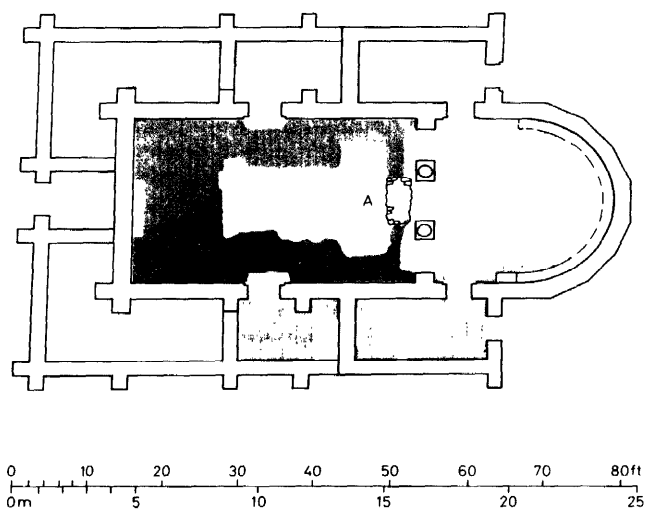

Fig 77 Reculver, Kent: plan of pre-conquest church; shaded areas represent surviving flooring of ?8th century date (scale 1:300; based on original of Peers 1927, fig 4, couurtesy Directorate of Ancient Monuments)

position analogous to those at Reculver and Winchester. On Barry Island, South Glamorgan, an excavated chapel dated to the 12th century had a feature in front of the chancel arch which is interpreted as an altar surround. Within the enclosed area a small relic chamber (see below, p 113) serves to confirm this interpretation (Knight 1976-8,446). Possibly associated with this complex was a lined posthole of modest dimensions, aligned with the north respond of the chancel arch. This may represent the corner of an altar canopy and is comparable with a surviving posthole in a similar position in the early church at Raunds (Fig 78).

The interpretation of the pre-conquest churches excavated at Raunds, Northamptonshire (Boddington & Cadman 1981), remains hypothetical because of later disturbances in the crucial areas. Nevertheless I argue elsewhere that the altar in the second phase of the first church was probably at the east end of the nave and covered by a canopy, while a narrow foundation at the east end of the chancel may have been the base of a clergy bench (Parsons forthcoming). The projected arrangement, shown here in Fig 78, may date from the late 9th or 10th century (Cadman *et al* 1983,16-18). This church was replaced *c* 1050 by an entirely new structure with a relatively much longer chancel; by this date there was room for an altar to the east of the chancel arch, but the destruction of the floor levels in the chancel makes it impossible to be dogmatic about the 11th century altar position. The earlier arrangement has certain implications for how the church was used, and these merit brief discussion here. Fig 78 shows that the altar canopy would have been as wide as the chancel arch, and even if the altar itself were moved as far west as the canopy would allow there would have been little space for movement around it. One must therefore imagine the priest approaching the altar from the bench in the chancel and not entering the nave, but celebrating on the east side of the altar, facing the congregation over it.- Communion would presumably be administered by assistants in the nave, who could approach the sides of the altar to receive the elements. There is evidence from the Anglo-Saxon period, if not for westward celebration, at least for the celebrant facing the people across the altar. This is explicitly stated by Eadmer in his description of St Mary's chapel in Canterbury Cathedral (Taylor 1969, 106, 129, paras 15 *(i)* & *(J)*). The 13th century liturgist Durandus is quoted for the survival of this practice two centuries later (Sauer 1924, 156), though my understanding of the text is that this applies only in the case of churches with a main entrance at the east end. The liturgical procedure suggested for Raunds would have been appropriate at Reculver, where there was also no room west of the chancel arch to walk around the base (see Fig 77). In this case, however, it would have been possible for the celebrant to enter the nave by one of the flanking arches and to celebrate eastward from the position marked A on the plan, unless those side arches were screened in the manner suggested for the comparable church of St Pancras, Canterbury (Parsons 1969,179-80). It may be noted that at the Old Minster, Winchester, the space directly west of the massive inserted chancel arch was also restricted and there were no flanking arches offering alternative access from chancel to nave (Taylor 1973, fig 2). However, the plan shows that the altar canopy narrowed markedly towards the east, and the trapezoidal setting of the supports may have been intended to allow passage between the canopy area and the responds of the chancel arch.

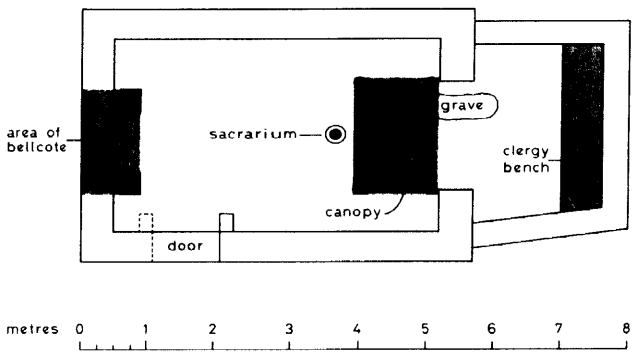

Fig 78 Raunds, Northumptonshire, early church: diagrammatic interpretation plan of phase 2 (scale 1:100)

Note: further study of the Raunds material since this paper was written suggests *that the* sacrarium *went out of use as an ablution drain before this phase (see p 112 below). It could possibly have remained in use as a container for relics.*

It thus seems fairly well established that some - if not all - early medieval churches had their main altar at the east end of the nave, and this possibility must always be borne in mind when excavating appropriate sites. It is equally clear that by the end of the Middle Ages the place of the high altar was at the east end of the chancel, indeed in many cases right against the east wall, perhaps even integral with the masonry of the wall. (The evidence of churchwardens' accounts at the Reformation is that, when the medieval altars were removed, the east wall had to be made good.) What is not clear is by what stages the shift of the altar position took place and at what dates. Was it a once-for-all move, perhaps by papal or episcopal fiat, or was there a gradual drift eastward as liturgical fashion changed? It may be that by the 11th century it had become usual for the altar to be placed just inside the chancel. A feature interpreted as an altar platform was discovered in this position in the wooden church of this date excavated on the Anglia TV site in Norwich (B S Ayers, pers comm). This tends to confirm the implication of the 11th century chancel at Raunds, mentioned above. An excavated church which seems to give evidence for progressive moves east is St Mark, Lincoln, where the 11th century chancel shows two altar positions, one near the chancel arch and the other at the east end. The evidence consists of long pits running north-south across the chancel; these appear to be either robbed out foundation trenches or the remains of reliquary pits under former altars (Colyer 1976, 6 & fig 1). Unfortunately there is no positive proof of the construction/demolition sequence or any dating evidence for either feature, but the moving of the altar position and the use and abandonment of the second altar must all have occurred before the reconstruction of the church with an extended chancel in the 13th century. It will emerge below that other evidence suggests the 12th century as the time when these changes were taking place. By the 13th, the abandonment of the apse, still fairly popular in the

'Norman' period, and the almost universal adoption of the square-ended chancel may be symptomatic of the need for a straight wall against which to place an eastern altar. Nevertheless there are still chancels in the 13th century containing features that argue very strongly for a free-standing altar some way west of the end wall. On the other hand, the church of St Martin at Thetford in Norfolk seems to have had an altar at the eastern end of the chancel *c* 1030, if A B Whittingham's date can be upheld (in Knocker 1965-9, 130). There is perhaps no universal pattern. Developments may have taken place at different times and at different rates in different areas, and it may be that the policies of diocesan bishops varied from see to see. It is possible, however, that the change was a much more random one, and that the controlling factor was the ecclesiastical fashion of individual celebrants, so that one might have at one and the same time a 'progressive' church with an eastern altar and a 'conservative' church with a nave altar in adjacent parishes of the same diocese.

If the history of the altar position proves to be as involved as these considerations imply, it will be a very long time before sufficient reliable evidence accumulates from excavations to unravel it. An alternative approach, through the study of liturgical fittings incorporated in the standing fabric, offers the prospect of more immediate results. The presence of certain features associated with the service of the altar implies particular liturgical practices, while their absence may be used - with due caution - as negative evidence for other kinds of liturgical convention. Examples of such ritual furnishings will be discussed in the following section.

Liturgical furnishings and fittings

The rationale of this study is simply that furnishings, whose position is determined in relation to an altar and which become permanently fixed by incorporation as architectural features into the fabric of the building, continue to provide evidence for the original position of the altar even after its removal. Five types of liturgical fitting will be considered in ascending order of their potential usefulness in reconstructing early altar positions: Easter sepulchres, sedilia, aumbries, squints, and piscinas.

Easter sepulchres

(Cox & Harvey 1907,74-8; Bond 1916,220-41; Cox 1923, 267-73)

These are typically recesses in the north wall of the chancel, at the nearest point to the north end of the altar. They are frequently found very close to the east wall, implying that the altar was placed against that wall. Many of the best-known examples, which have ornate sculptural treatment, such as Heckington, Lincolnshire, or Hawton, Nottinghamshire, are of 14th century date, and are therefore evidence only for the final stage of the development of the altar position. Comparable evidence for the early medieval period is unlikely to be forthcoming, since the Easter sepulchre seems to have been a portable object placed upon the altar itself, as described by *Regularis Concordia* of *c* 973:

> *sit autem in una parte altaris, qua vacuum fuerit, quaedam assimilatio sepulchri velamenque quoddam in gyro tensum. . .*
>
> on that part of the altar where there is space for it there shall be a representation as it were of a sepulchre, hung about with a curtain. . .
>
> (Symons 1953,44, para 46)

The tradition of making a temporary sepulchre of perishable materials apparently persisted throughout the Middle Ages (Cook 1954, 171), and the built-in type is a relatively uncommon feature.

Sedilia

(Cox & Harvey 1907, 67-74; Bond 1916, 176-203; Cox 1923,266-7)

These are groups of clergy seats built into the south chancel wall. They may consist of an undivided bench seat in a broad recess or of any number of discrete stalls, up to a maximum of five; the most usual number is three, interpreted as a seat each for the priest, a deacon, and a subdeacon at the Mass. Their position is usually toward the east end of the south wall of the chancel, chapel, or aisle which they serve; this would be consistent with westward celebration at a free-standing altar to the west of the stalls, but sedilia are usually associated with a piscina immediately to the east of them. A piscina near the east wall would be rather far removed from a free-standing altar in view of the expectation that the piscina should be 'near the south corner of the altar' (see below). It therefore seems that the common arrangement of sedilia plus more easterly piscina indicates an altar at the east end. This must certainly be the implication of the many sedilia with graded seats (about which much nonsense has been written in the standard literature). Where the evidence is preserved it seems clear that the progressive stepping up of the seats of the stalls was intended to accommodate equivalent rises in the floor level toward the east, and this makes sense only in connection with an easterly altar position.

Sedilia are common in parish churches from the 13th century onward, but rare in the 12th and non-existent before that. The explanation of differential survival seems unlikely. If this were the case, one would expect a few earlier 12th century and some 11th century examples in proportion to the number of surviving chancels from this period. But there is nothing; the handful of 12th century sedilia mentioned in the literature are all datable to the end of the century, and it is as though sedilia were suddenly introduced at this time and then immediately flourished in the 13th century. Before this period there must have been a different arrangement for clergy seats. One obvious possiblity is that earlier stalls were free-standing, either of wood or of stone. A certain amount of evidence exists for stone seats in the pre-conquest period (Taylor 1978, 1066; Whittingham 1979; see also Cramp, this volume, pp 101-4), and although the known examples seem to have been seats for high-ranking clergy it is quite likely that similar chairs, perhaps of less expensive materials, would have been provided for the clergy in local churches. The alternative to individual chairs is the clergy bench of Early Christian tradition as represented in this country at Reculver (see above) and Hexham (Taylor & Taylor 1965, 306). The interpretation of Raunds offered above has introduced the idea that such a bench might also have been

Fig 79 Normanton-on-Soar, Nottinghamshire, St James: chancel east wall, showing aumbry (imperial scales)

constructed against the east wall of a square-ended chancel. If this sort of arrangement had regularly existed in parish churches until the late 12th century, it is easy to understand why evidence for it does not survive: chancels were frequently reconstructed in the later medieval period, either in a major way to extend them eastward or more restrainedly for the insertion of the big east windows which became popular from *c* 1300 on. Clergy benches would certainly have been demolished in a major extension programme and they may well have been tidied away in the course of putting in an east window. Apart from these structural changes, the very act of moving the altar to a position against the east wall, possibly accompanied by alterations to floor levels and the construction of a platform for the altar, would almost certainly have led to the demise of a bench in this position.

Whatever the truth about the seating arrangements before *c* 1150, the earliest surviving sedilia are in the position which was to remain standard for the remainder of the Middle Ages. Examples such as St Mary de Castro, Leicester, with its one waterleaf capital, show that the altar had reached a position toward the eastern end of the chancel, if not actually against the east wall, by a date in the last three decades of the 12th century (but see the suggestion in Brandwood 1984, 17, that the sedilia may not be an original feature).

Features in the east wall

There are a few cases where fittings in the east wall, to which access was required, indicate that the contemporary altar must have been free-standing. In a few churches aumbries are found in the wall behind the altar. Aumbries are small built-in cupboards, originally provided with doors, which may have served a variety of purposes, most of them directly connected with the liturgy (Cox & Harvey 1907, 314-16; Bond 1916, 204-11; Cox 1923, 274-S). They range from the storage of communion vessels and altar furniture to the safe-keeping of relics and, possibly, the reservation of the sacrament. Chancel aumbries are usually to be found in the north wall, though examples in the south wall are not uncommon. What is rare is the aumbry in the east wall. Those which are well to one side of the axis of the chancel clearly have no implications for the altar position, but the few in the centre of the east wall, such as that of Normanton-on-Soar in Nottinghamshire (Fig 79), could not have been used - for whatever purpose - if the altar were placed against or near the east wall without awkward and undignified reaching over the altar itself. Cox 1923 gives a list of nine other churches with aumbries in the east wall, though they are not directly behind the altar in every instance. At Bibury, Gloucestershire, he refers explicitly to 'the high altar standing clear of the wall' (Cox 1923, 275). At Martock, Somerset, the aumbry is level with the floor (Cox & Harvey 1907,315), and it would have been impossible to use it were the altar not free-standing.

A similar deduction can be made at Hallaton, Leicestershire, where there is a door near the centre of the chancel east wall. The purpose of this door is unknown, but the survival of one or two stair treads within the wall thickness suggests that it may have led into an external newel stair serving a room above the chancel. At all events the door could not possibly have been used without the altar standing free some distance from the wall.

The excavation of the church at Hickleton, South Yorkshire, has produced evidence which may be comparable with this. Here the chancel was doubled in length in the 13th century. The eastern third of the extension was divided from the rest of the chancel by a feature standing proud of the floor and consisting of a rubble core faced with limestone blocks. It ran from the south wall to a point just beyond the axis of the chancel, and beyond it to the east a floor of rectangular stone flags covered the whole area between the north, east, and south chancel walls (approx 3.50m north-south by 1.40m east-west) (R E Sydes, pers comm). Although there is no matching feature on the north side of the chancel, where there was considerable disturbance at a later date, one possible interpretation is that there was originally a substantial screen enclosing a narrow sacristy or vestry behind the altar. Surviving screens of this sort are to be found at Tideswell and Sawley, Derbyshire (in the chancel) and at Rushden and Higham Ferrers, Northamptonshire (in aisle-end chapels). Of these, perhaps Tideswell is the best known, an imposing example in a big chancel; the vestry is entered by doorways at either end of the screen, leaving the central part free to act as an altar reredos. At Hickleton the door would have been close to the centre, in a very similar position to the door in the east wall at Hallaton, and a similar conclusion about the placing of the altar would follow.

What is particularly interesting about these examples is that they are nearly all of the 13th century; other evidence suggests that the altar had reached its most easterly position by this date. Either that evidence needs reinterpretation or there was a fairly lengthy period of transition, say from *c* 1150 to *c* 1250, before the altar position became standardized against the east wall. In this connection it is worth noting the apparently late 12th century arrangements at St Mary in Tanner Street, Winchester, discussed below.

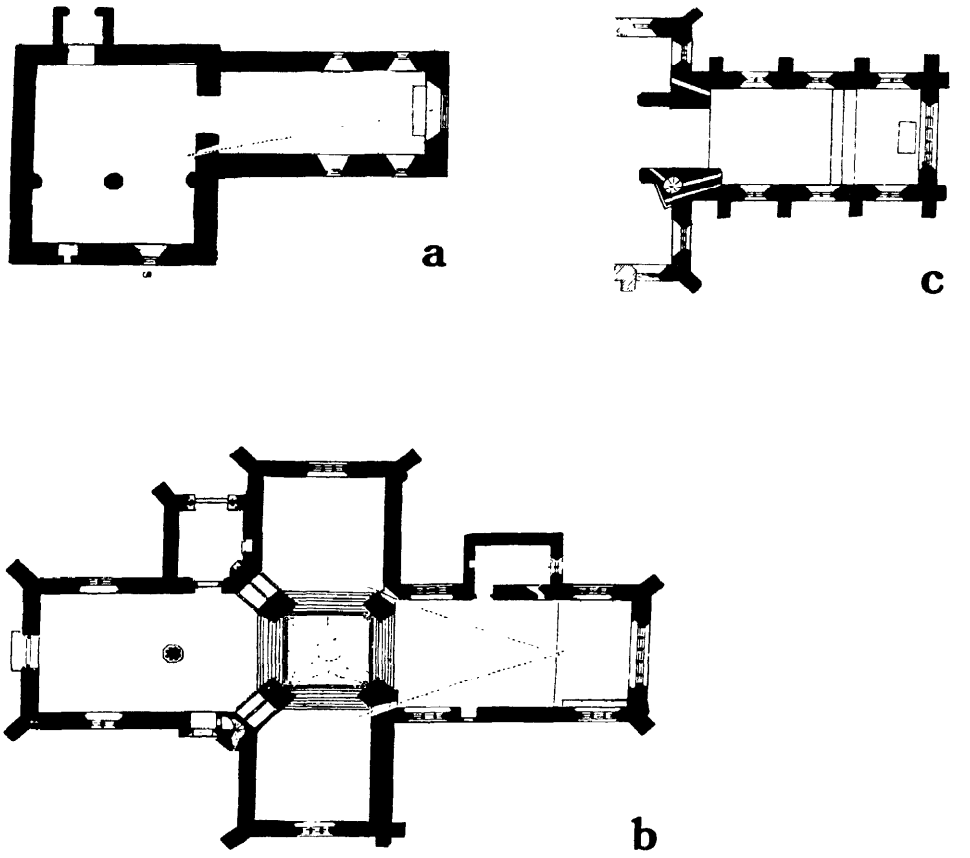

Fig 80 Oxfodshire squints compared: a, *Newnham Murren, St Mary;* b, *Minster Lovell, St Kenelm;* c, *Great Haseley, St Peter (wrongly captioned 'Charlton, Wilts' in Bond 1916) (ultimate source: J H Parker in* Archaeol J, 3, *1846, 299-308 for* a *and* b, Glossary, 5 *edn,* for c)

Squints

(Cox 1914,97-78; Bond 1916,242-54; Cook 1954,181-3)

There is considerable divergence of opinion about the exact purpose of squints, and this is not the place to resolve it. Most commentators agree, however, that squints are normally arranged to afford a view of the main altar, and that is sufficient definition for the present argument. It is normally assumed that the sight-lines through squints lead to the middle of the east wall of the chancel, but in fact this is often not the case. Fig 80 reproduces plans first published by J H Parker. The plan of Newnham Murren, Oxfordshire (Fig 80a), shows a sight-line which can only be described as speculative; a truer line - at least according to the plan - would lead to a position much nearer to the centre of the chancel. A visit to the church after this paper was written (September 1985) has confirmed that the actual sight-line runs from the centre of the south arcade pier to a point near the north-east corner of the chancel. At Great Haseley, Oxfordshire (Fig 80c), there are several squints; those on the south side seem to be directed towards the centre of the east wall, but that on the north side looks at a point rather further to the west. In the case of Minster Lovell, Oxfordshire (Fig 80b), the original drawing shows the lines of the squints converging on a point only about two-thirds of the way up the chancel, and one could even argue for a more westerly position. Great Bookham, Surrey, is also quoted as an example, where the high altar 'subsequent to the construction of the squint, had been moved eastward *on the lengthening of the chancel'* (Bond 1916, 250; my emphasis). Bond offers this as the sole explanation of apparently misaligned squints, and no doubt it is a correct one in many instances. The alternative explanation, that the altar has been moved within an already full-length chancel, must also be seriously considered. Clearly each case must be treated on its merits, and the internal chronology of the building must be established before arriving at a final conclusion.

In some cases the meaning of the evidence is quite clear even though the actual date may be in doubt. At Kingston Buci, West Sussex, the squint in the north wall of the chancel is placed near its west end (Fig 81). Although a later door has destroyed part of the splay, it can be clearly seen that the squint was directed not toward the east end, but almost due south, indicating an altar position close to the chancel arch. Squints in this position exist elsewhere, eg at Oadby, Leicestershire, and presumably afforded a view of the altar from a vestry or side chapel.

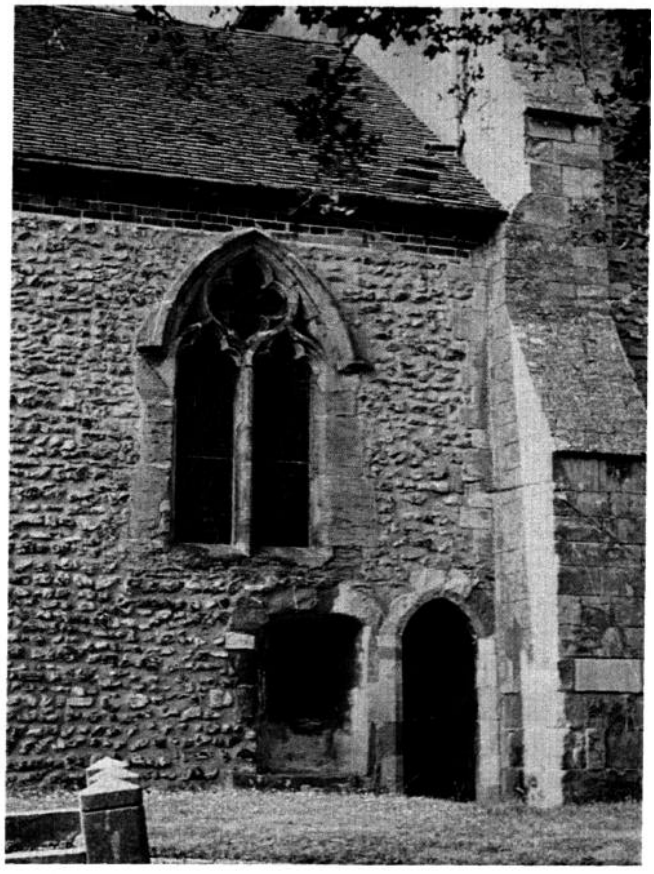

Fig 81 Kingston Buci, West Sussex, St Julian: chancel from north, showing squint

Squints have so far not been used as evidence for changes in altar position but potentially they are of the greatest value, and a systematic examination of them would repay the effort required for it.

Piscinas

(Cox & Harvey 1907, 60-7; Bond 1916, 143-62; Jessiman 1957-8)

The older literature describing and illustrating piscinas as architectural features is very often confused and sometimes actually misleading when dealing with the liturgical background (Bond 1916 excepted). It is not possible to discuss the issues at length in this paper, though some of the information is summarized in the section on 'The prehistory of the piscina' below. For a full treatment of the subject, however, the following are recommended. The substantial article on the uses of the piscina in the *Ecclesiologist* is a detailed and sober account of the texts, and has stood the test of time (Anon 1848). Lockton 1920 is a much fuller treatment from the point of view of liturgical practice, and usefully distinguishes between continental and British evidence. Jessiman 1957-8 is more up to date and places rather more emphasis on the forms taken by the piscina. The discussion by Rohault de Fleury (1883, 140-4) is necessarily briefer, but contains useful references to texts as well as to Continental piscinas.

The piscina has long been recognized as a prime indicator of medieval altar positions. Since a drain for ablution water was required at or after every Mass, there were few altars which were not provided with their own piscina. Most of these were recessed into the walling, and although they were frequently blocked and sometimes damaged in post-Reformation times, they have on the whole survived as recognizable parts of the fabric. It is therefore possible in many churches to reconstruct the placement of several altars, not only the main altar in the chancel but also subsidiary altars in the aisles, in side chapels, in vestries, and elsewhere in the church. So important was it to have a piscina that examples exist even high up in the responds of the chancel arch, where they would originally have served an altar in the rood loft.

Potentially, therefore, early piscinas should be a reliable guide to early altar positons. Unlike sedilia, which seem not to begin until the late 12th century, piscinas are as common in the 'Norman' period as one might expect from the number of surviving Norman churches. Despite the survival of a small number of Anglo-Saxon churches, however, no piscinas are seriously claimed in the literature to be of pre-conquest origin. There is unfortunately no definitive list of Norman examples and assessments of their frequency in the secondary literature vary wildly from 'rare' to 'common'. Bond 1916 gives a select list, which can be augmented from other sources. In the spring and summer of 1983 I investigated about half of the examples on such an augmented list, covering an area from Norfolk through the east Midlands, Oxfordshire, the Home Counties west of London, to eastern Hampshire and Sussex. This was by no means an exhaustive survey but the following provisional results may give an indication of the position over the country as a whole. Of 25 examples, 5 (20%) proved to be wrongly ascribed to the 'Norman' category, being almost certainly of 13th century date. Of the 20 genuine examples only 5 (25%) belonged to the wall-niche variety. The remainder (75%) were pillar piscinas, thus bearing out Sir Alfred Clapham's claim that this was 'the commonest form in the ordinary twelfth-century parish church . . . judging from the numerous fragments which have survived all over the country' (Clapham 1934, 153). Jessiman, using a different sample, comes to much the same conclusion; of 24 Norman piscinas considered by him 14 (58%) are pillar piscinas (Jessiman 1957-8, 70).

In one sense it is unfortunate that the pillar piscina seems to be the norm in the early post-conquest period. The usual form is that of a shaft with a base and a capital; the top surface of the capital is cut away to form a basin, often in the form of an inverted negative pyramid, at the bottom of which a drain hole connects with a drilling through the shaft and base, originally intended to connect with a soakaway below floor level. The whole piscina may be cut from a single piece of stone, but is more usually built up like a structural column with a separate base, shaft, and head. In some cases the head is carved on all four sides (eg Tollerton, Nottinghamshire (Fig 82)), indicating that the piscina was intended to be free-standing. In others the lack of carving on one side, and sometimes the shape of the shaft (eg South Leigh, Oxfordshire (Fig 83)), shows that the piscina was set against a wall. In either case, however, this kind of piscina was essentially movable, a point of some interest for the discussion of the meaning of *sacrarium (see* below, p 117),

Fig 82 Tollerton, Nottinghamshire, St Peter: pillar piscina (height 900mm)

and it is hardly surprising that they are seldom found *in situ.* Quite often all that remains is the capital, incorporated into a wall niche piscina of later date (eg West Clandon, Surrey). Pillar piscinas are therefore not usually of direct assistance in defining the position of the altar which they originally served. In two instances known to me the piscina head has been incorporated into a niche piscina in the south wall of the nave (West Clandon; Graveley, Hertfordshire) and it may be that this perpetuates their original placing to serve a nave altar. But it is equally possible, since the capitals are so easily portable, that they started life in the chancel and were displaced to a secondary position when a more up-to-date piscina was put in to serve the main altar. The presumably Norman nave piscina at St Martin, Canterbury, cannot be explained away in this manner, however, since it is of the niche type, integral with the south wall. It clearly indicates an altar in the nave, though whether this was centrally placed and whether it was the high altar of the church there is no way of knowing. It might equally indicate a side altar placed against the east wall of the nave to the south of the chancel arch: compare the flanking altars in the most recent interpretation of Stone-by-Faversham, Kent (Taylor & Yonge 1981, 134-6), though these are thought to be 13th century in date.

It is apparent from the figures quoted above that the St Martin's type of piscina is a rarity in the 11th and 12th centuries. There is a comparable example at Horbling, Lincolnshire; at Crowmarsh Gifford, Oxfordshire, the wall niche is relatively shallow and the basin projects, corbel-like, from the wall; while at Iford, East Sussex, the form is hybrid, with a full-depth niche and a basin of slight projection. All of these are in the chancel near the east end, and in contexts which suggest a date late in the 12th century. Since the evidence of these niche piscinas is similar to that of the main sequence of piscinas from the 13th century onward, and since the pillar piscinas are not *in situ* and provide no direct evidence at all, it would appear that this feature is of no more help in fixing early altar positions than the sedilia. However, of all the features reviewed here it is the only one for which the pre-12th century development can be even dimly perceived. It is the one for which further excavation is likely to produce new evidence, since it requires some arrangement in the ground for the dispersion of the water poured into the piscina. A summary of what is known about these underfloor features is offered below as a starting point for future investigations.

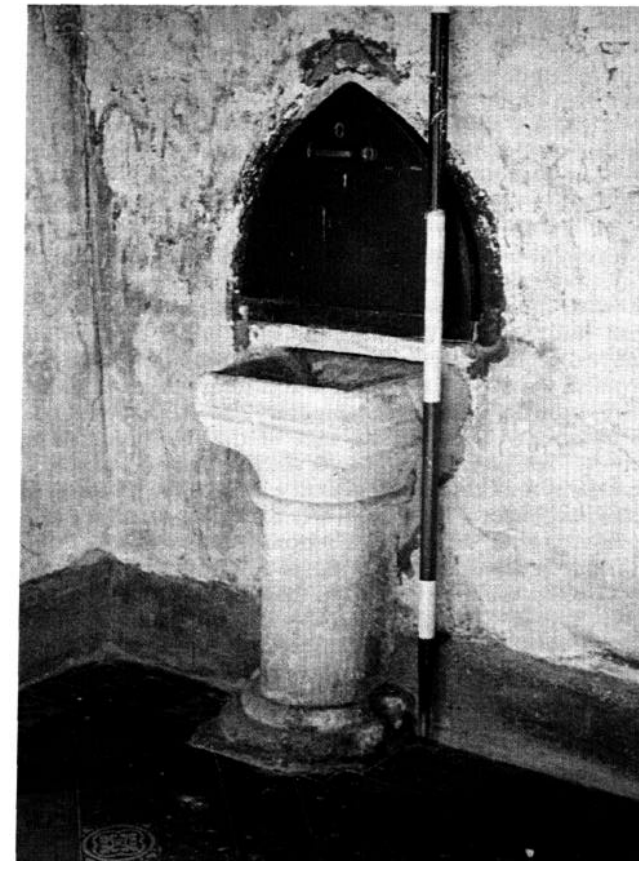

Fig 83 South Leigh, Oxfordshire, St James: pillar piscina (height 660mm)

The prehistory of the piscina: ablution drains and relic pits

The crucial evidence, as far as England is concerned, comes yet again from the excavated pre-conquest church at Raunds. On the axis line of the nave of the period 1 structure, and about one-third of the way from the east end, was a pit containing a broken but complete early St Neots ware pot, 185mm in height. It showed signs of earlier use and had been fractured before being put into the pit. Subsequent silting showed that water had passed through it. The position of this feature is shown in Fig 78. At the time of writing it is still not entirely clear whether it belongs to the second phase of the church and thus relates directly to the arrangements shown in the plan, or whether it was part of the phase 1 church, which consisted of the nave alone. In either case, however, the pit would have been closely associated with the altar, in phase 1 perhaps directly beneath it, and an interpretation connecting it with the liturgy seems called for. The burial of the pot cannot be regarded as random, because it was buried whole and the right way up, as well as in a significant position.

The suggestion proposed for this feature in the excavation report is that it formed the soakaway of a floor drain intended to receive the water from the washing of the priest's hands at the Mass and of the chalice after the service (Parsons forthcoming). There is a parallel for this arrangement in the church of St Mary in Tanner Street, Winchester. Against the south wall of the square-ended chancel was an irregular pit containing a pottery vessel, broken but complete, as at Raunds. The pot, dated 'not later than *c* 1150', was thought to have been the soakaway for a piscina (Biddle 1970, 303 & fig 8). As originally published, this feature, together with an altar base on a platform against the east wall, was assigned to the late 12th/early 13th century levels, but phase K of the church, which saw the addition of the chancel, was subsequently dated to the late 11th century (Biddle 1975, 312 & fig 15). There seem to be various problems of interpretation here. In particular the position of the soakaway is farther west than the expected place for a piscina and thus in an unusual relationship with the altar at the east end. This problem might be resolved if the two features should prove to be not strictly contemporary, but it is not possible to comment further in advance of the final excavation report. Meanwhile, however, if the altar base is a primary feature in the chancel, it is good evidence for an easterly altar position at a relatively early date, and perhaps to be compared with St Martin, Thetford (see above, p 107).

An even closer parallel with the Raunds pot was found by excavation at Oosterbeek in the Netherlands (Glazema 1949, esp 46-8). It had been placed in a pit at the very centre of a rectangular single-celled building; it was enclosed in a thick skin of mortar with Carolingian potsherds and below it was a further sand-filled pit, possibly of earlier date, Despite the excavator's hesitation, this seems an ideal arrangement for a soakaway, especially since the pot was covered by a pierced stone slab. The position in the centre of the church makes it possible that it was intended for a font, and it is noticeable that the pot is more than twice the size of the Raunds jar (385mm), but an interpretation linking it with one of five altars attested for the church is not out of the question (Dr H Halbertsma, pers comm). As to date, Glazema's suggestion of the second half of the 10th century has been questioned in the literature but now appears to be confirmed (Binding 1970, 577). A related case is the 11th century church at Höllstein, Baden-Württemberg, West Germany, where a round stone block was found in a position closely comparable with that of the Raunds pot. The stone was pierced by a hole interpreted by the excavator as a 'runaway for holy font water' (List 1967, 32, 33). It would be unusual to have a font in front of the chancel arch, and a drain for ablution water is perhaps more likely, though the hole through the stone is rather large (400mm diameter). The form of any drainage arrangements under the stone block is not known.

Oosterbeek and Höllstein are two of the examples quoted in an important paper on 'Springs, wells and relic pits in churches' (Binding 1975). Professor Binding has brought together an impressive amount of evidence for underfloor features in churches but despite the fact that the starting point for his paper is water, he does not discuss the disposal of the ablution in connection with any of the examples he examines. What he does discuss is the disposal of relics and of what may be termed 'holy rubbish' - candle ends and remains of objects used in the liturgy - in pits or channels under the floor, which he refers to as 'relic graves' or *piscinae sacrae* (Binding 1975, 44). This is presumably the equivalent of the term *sacrarium* applied to the Oosterbeek pot by Glazema (1949, 48), but without explanation. In many of the instances cited by Binding there was evidence of burning in the pit, and this characteristic led to a misinterpretation of the Raunds pot in early discussions. It has now been established that the pot had been burnt before burial in the church floor at Raunds, but it may be of significance that the pit appears to have been dug through an area of an earlier floor which had been locally affected by burning. The probable explanation for these examples of burning is provided by the early penitentials, which direct that if the eucharistic wafer is spoilt in any way, it should be consumed by fire and the ashes placed *sub altare* (Lockton 1920, 42-3). I argue elsewhere that this expression may mean 'in front of as well as 'below' the altar (Parsons forthcoming, and see below, p 115). This procedure echoes, perhaps consciously, the placing of saints' relics beneath the altar. In one early instance, recorded by Gregory of Tours in the 6th century, the relics themselves consisted of ashes: the cremated remains of the Ainay martyrs were placed under the altar of the church in Lyon erected in their honour (Vieillard-Troiekouroff 1976,145). In the 7th century the pseudo-Clement extended the ruling of the penitentials to include old altar linen and other worn-out sacred objects; one of the options for the disposal of the ashes was a hole in the floor (Lockton 1920, 118). This injunction was still known *c* 1200, since it was quoted in the *Gemma ecclesiastica* of Giraldus Cambrensis: *in fossis pavimentorum* (Brewer 1862, 36; Lehmann-Brockhaus 1955-60, no 5435). Later in the Middle Ages matter which had come into contact with the sacred elements also had to be burned; various instances in the Sarum Customary and the Hereford Missal are noted by Jessiman (1957-8, 69), who makes it clear that the *sacrurium,* the piscina, the reliquary, and 'a place near the altar' were almost indistinguishable as repositories for the ashes. The Constitutions of the Diocese of London, *c* 1215-22, provided that altar cloths on which communion wine had been spilled should be burned and the ashes placed *in*

sacrario. On the other hand, a corporal stained with communion wine was to be cut up and kept *in loco reliquiarum.* In the case of a fly or spider falling into the chalice, it should be washed as thoroughly as possible and then burned over the piscina and the ashes put into the *sacrarium (et postea super piscinam comburi, et . . . sacerdos cineres ponat in sacrario;* Woolley 1915, 294; Lehmann-Brockhaus 1945-60, no 5446).

Water, sometimes mixed with wine, was similarly dealt with in the early Middle Ages. In the order for the consecration of a church the Egbert Pontifical of the 8th century provides for the blessing of water and its mixing with wine. After the aspersion of the altar and the length and breadth of the church, the remaining water was to be poured away at the foot of the altar *(fundit [pontifex] quod remansit de ipsa aqua benedicta ad bassem altaris;* Greenwell 1853, 39). A similar injunction is found both in the Frankish Missal and the Roman Order; in the latter case *ad basim altaris* is interpreted as 'la piscine qui est sous l'autel' (Rohault de Fleury 1883, 140). The same documents contain in the admonition to candidates for ordination as subdeacons the instruction that corporals (the pieces of linen upon which the elements were consecrated) should be separately washed and the ablution water poured away in the baptistery (Greenwell 1853, 15; Lockton 1920, 121; Anon 1848, 359). This parallels another of the options available for the disposal of burnt altar palls, according to the pseudo-Clement (see above; Lockton 1920, 118, etc). It is not immediately apparent whether a separate room, or a baptismal tank, or a font is meant by *baptisterium.* In the Eastern church, a special cistern under the altar *(thalassa:* 'sea') served all these purposes, and was also used for the consignment of damaged images and dubious relics (Anon 1848, 329-30nn; Rohault de Fleury 1883, 141). A circular feature excavated at Emmaus was considered to be one of these (Vincent & Abel 1932, 116-17, 202-4); a similar feature was identified in the Propylaea church at Gerasa, while in Bishop Genesius's church a stone with a hole in its centre under the altar covered a *thalassa* or a relic chamber (Crowfoot 1938, 231 & fig 7,250).

By the late 11th century it becomes a little clearer what should be done with the rinsings of the chalice, which at an earlier date had frequently been collected in a portable basin. The Constitutions of Ulrich of Cluny instruct the subdeacon to pour them away in a hollow place made of brick tiles near the altar *(in caveam de lateritiis tegulis factam in proximo altaris;* Anon 1848, 338; Lockton 1920, 123). Since no piscinas (as now understood) survive from this period, Lockton assumes the hollow place to be in the floor.

Throughout the whole early medieval period there seems to be a marked reluctance to give these features a name, and the instructions frequently refer to a clean or proper place. Ulrich seems to be one of the first to use the word *piscina* in this connection at another point in his text. It seems a most appropriate term if the ablutions of the time were poured into a container under the floor. The link through the early form of baptismal tank with the domestic Roman bath, also called *piscina,* is an interesting one. Also interesting is the use of such features to receive solid waste as well as ablution water, and the continued association of burning with the piscina later in the Middle Ages. In the 8th century and earlier the evidence points to a position under or close in front of the altar for the ablution drain, a tradition continued by the Eastern *thalassa.* Taking up a suggestion of Jessiman (1957-8, 69), the equivalent expression in this country for the underfloor element, even where there was a piscina of normal height, may have been *sacrarium (see* also above, p 112-13, Constitutions of London). This seems a useful term to apply to excavated features of the kind discussed by Binding 1975, especially where no ablutionary function is suspected, in which case Binding's *piscina sacra* would be potentially misleading. The later medieval usage of the word *sacrarium* is discussed in the Appendix below: eventually it came to mean what is now understood by 'piscina'.

Possible sacraria *discovered by excavation*

To my knowledge there is no other excavated *sacrarium in* Britain which compares closely with the pits containing pottery vessels at Raunds and Oosterbeek. There are some instances of pits with burnt material in their fill, especially on the main axis of the church. A good example was discovered in the limited excavation in the redundant chapel of St Mary at Brentingby, Leicestershire (Liddle & Hughes 1978-9, esp 5, 11-12, & fig 2). The pit F6 appeared to belong to the early church, which must have been of 11th or 12th century date; it contained not only black and grey ash but also two bone fragments, and was flanked by small areas of burning. A pit in the north-west corner of the nave of St Mary in Tanner Street, Winchester, was also filled with burnt material, and this feature persisted throughout all the changes to the building from phase Q to phase U (Biddle 1969, fig 2).

There are also examples of tank-like structures in church floors. Particularly noteworthy is St Baruch's Chapel, Barry Island, S Glamorgan, where excavation revealed a rectangular cist-like feature in front of the chancel arch and enclosed within what appears to be an altar surround (Knight 1976-8, 44-6). It is interpreted by the excavator as a relic chamber. A timber-lined tank was observed during demolition just inside the chancel of St Nicholas, Colchester (Rodwell & Rodwell 1977, 31), while at Ormesby, Cleveland, a channel running north-south in front of the chancel steps may be comparable with several linear *sacraria* noted by Binding 1975 (Brown 1976, 6). Two large steep-sided pits discovered at Burnham, S Humberside, lay outside the earliest church building, and are presumably not relevant (Coppack 1978). It may be noted that the first stone church at Burnham, apparently of late 10th century date, had its altar close to, but not adjoining, the chancel east wall; in the early 14th century it was moved right up to the wall.

The continental examples discussed by Binding 1975 were drawn largely from the German-speaking and related areas. There are in addition some extremely interesting instances in France, and no doubt a thorough acquaintance with the local journals would reveal more. At Ligugé the abbey church acquired a short crypt with a western antechamber at the end of the 7th century. The plan of the building *c* 1100 shows an irregular feature in this antechamber, running north-south and labelled *fosse* (Coquet 1978, plan on p 3). There appears to be no description of this feature in the literature. An excavation in the nave of Saint-Bénigne at Dijon, Côte d'Or, revealed 'une impression en creux accompagnée de canalisation, qui semblerait indiquer une cave à buts liturgiques'. After its initial construction this feature was protected by

enclosing walls in succeeding periods (Chronique 1978, 282). Near the apse of Sainte-Croix at Lyon, Rhône, was a disused well filled with potsherds, animal bone, and ashes (Chronique 1976, 346). At Beauvais, Oise, the church of Notre-Dame-de-la-Basse-Oeuvre was altered in the 13th century and a piscina introduced into the wall of a chamber attached to the south transept. At the foot of this piscina was found *une petite fosse á reliques* containing many fragments of plain glass, a bronze ring, and two billets of lead (Chronique 1976, 340). The excavator himself compares this find with that of two relic caskets in the choir of a subsidiary chapel of early 1lth century date, one containing an oil flask and the other coins of a late 10th century bishop. This deposit is linked with the consecration of the altar (Chronique 1976, 341). A similar discovery was made in the choir of the chapel of Saint-Benoît at Donzère, Drôme, with the excavation of *l'armoire aux burettes avec lavabo rituel* attributed to the 1lth or 12th centuries (Chronique 1977, 272). Unfortunately it is not clear from this brief report whether the *lavabo* was an architectural fixture or a portable basin.

From *sacrarium* to piscina

It is apparent that there is an impressive amount of evidence for underfloor *sacraria,* usually close to the altar, sometimes clearly used for disposing of ablution water; in some cases where the matter to be disposed of was solid, there is a demonstrable connection with a conventional piscina. What is not yet established is the process by which *the sacrarium* became a piscina of the type familiar from the 13th century onward, but it is possible to postulate two developmental sequences which future investigation may confirm or amend.

Form sequence

i The first stage is the floor level drain implied by the Constitutions of Cluny, and represented archaeologically by the Raunds and Oosterbeek pots. The dating of these and the lack of evidence for any kind of piscina before *c* 1100 suggest that this was the common form until the 1lth century.

ii It may be assumed that the introduction of the pillar piscina was merely a matter of greater convenience and dignity for the user of the drain, normally the subdeacon. The *raising* of the receptacle for the ablutions by the simple expedient of placing it on a shaft over the drain would mean that the subdeacon could empty a handbasin or a chalice into it with ease, and the celebrant could wash his hands actually *over* the piscina in a dignified manner. An intermediate stage between the floor drain and the full height piscina is represented by the dwarf pillar piscina at Bintree, Norfolk (Fig 84). This is fashioned from a single stone and stands only 397 mm (15½ in) high. It was perhaps this kind of piscina which was considered unsuitable at the visitation of Walton-on-the-Naze, Essex, in 1251, when the complaint was made *Item lapis sacrarii nimis humilis est et exaltandus* (Simpson 1895a, 27; Lehmann-Brockhaus 1955-60, no 4496). Although it is possible to read this in a figurative sense as meaning that the stone was poor in appearance and needed improving, the literal translation' is perhaps to be preferred: *the sacrarium* stone is too low and needs raising.

iii The full-height pillar piscina and the sill level of niche piscinas in the wall typically measure just under a metre from the floor. The range of complete pillar piscinas measured by me is 660-995mm. The example at Finchampstead, Berkshire, incorporated into a modem recess, is only 605mm high, and may belong to category ii.

Fig 84 Bintree, Norfolk, St Swithun: dwarf pillar piscina (height 397mm; courtesy National Monuments Record)

Position sequence

a The earliest position for the disposal of ablutions and 'holy rubbish' was, according to the documents, 'at the base of the altar' or even *sub altare.* Though it sounds unlikely, the latter expression may be literally translated. The form of the altar excavated at Barton-on-Humber, with two pedestal supports towards the north and south ends of the altar slab (Rodwell & Rodwell 1982, 299 & fig 6), would allow the construction of a *sacrarium* in the floor below the centre of the slab. Unfortunately later disturbance of this area at Barton had destroyed any evidence there might have been. Another form of altar which would allow the use of a drain immediately below is the table type. Several of the earlier manuscript illustrations collected by St John Hope show altars on legs, the feet of which can be seen below the altar hangings (Hope 1899, pls II & III). Nevertheless, there clearly were also altars with solid bases and substructures, best illustrated by the square foundation in the Old Minster,

Winchester. In these cases the *sacrarium* must be sought directly in front of the altar in a central position. The Latin *sub* may have had the same force as 'beneath' in English sources, such as the 15th century contract for the nave at Fotheringhay, Northamptonshire, where it means 'to the west (of)' (Salzman 1967, 506-9). The evidence at Raunds, Oosterbeek, and Barry Island fits very well into such a context.

b By the time of the Constitutions of Cluny (late 11th century), the directive is less specific, and the *sacrarium* has only to be *in proximo altaris.* If the Early Christian tradition of westward celebration had persisted then a drain placed centrally in front of the altar, even if surmounted by a pillar piscina, would have been well out of the priest's way during the performance of the mass. In the case of a priest standing in front of the altar, celebrating eastward, a *sacrarium* in this position would have been quite impossible and a more convenient place would have to be found. This may be the reason behind Ulrich of Cluny's more general directive. It had already been customary to have the separate bowl for the ablutions actually on the south end of the altar, and it is no surprise to find that other ordinances specify a position to the right of the altar for the *sacrarium/* piscina. The *Gemma ecclesiastica* of Eiraldus Cambrensis echoes the wording of earlier documents: *piscina quoque decenter secus dextrum altaris cornu* (Brewer 1862, 36; Lehmann-Brockhaus 1955-60, no 5435). It would presumably be in this position that one would originally have found pillar piscinas, such as the one at Tollerton, Nottinghamshire (Fig 82), which were decorated on all four sides and obviously intended to be free-standing. The curious small altar at Asthall, Oxfordshire, which has four legs and a piscina incorporated into the south-western one, is presumably a rather idiosyncratic example of this stage of development (Bond 1916, 8).

C Before the final incorporation of the piscina into the south wall there was a probably brief intermediate stage during which pillar piscinas were designed to be placed against the wall, and were decorated on only three sides accordingly. This is the type called 'half-pillar' by Jessiman (1957-8, 56, 57). Some examples have a shaft designed to fit against the wall, as at South Leigh, Oxfordshire (Fig 83), where its section is not circular, but a stilted semicircle. This type continues into the 13th century and occasionally beyond, but it becomes an integral part of a design whose principal feature is a full wall niche.

d The final stage of development is the simple niche in the wall without any pillar-like element protruding from the surface of the wall. It is the normal type from *c* 1200.

The two sequences have been treated separately because there is no guarantee that they synchronized with each other. It is possible to imagine, for example, a *sacrarium* in the 'primitive' position in front of the altar surmounted by a fully developed pillar piscina. Conversely, it would be possible for the position to change without any development of form, resulting in a floor drain without any piscina serving it to the south of the altar. There is at least one actual example of this combination surviving at Monkton in Thanet, Kent, where a floor-level drain is incorporated in a niche in the south wall (Bond 1916, 150). Other instances of surviving floor drains south of the altar are discussed below.

Floor drains in the later Middle Ages

The development of the niche piscina did not lead to the total disappearance of the drain in the floor. There is widely quoted in the literature an injunction in a 13th century document to the effect that in the absence of a piscina there should be a floor drain to the south of the altar (eg Bond 1916, 154). These unattributed references seem to derive from the *Gentleman's Magazine* for 1799 (n 7 on pp 837-8), which mentions 'Lincoln Injunctions', supposedly in a Bodleian manuscript. Enquiries at the Bodleian Library have so far failed to identify this document. There is archaeological evidence, however, for floor drains at this period, principally in monastic churches. In the Nine Altars Chapel at Fountains Abbey there is a drain in several of the bays (Hope 1900, 296-8 & folding plan) and St John Hope refers to further examples at Furness, Rievaulx, Kirkham, and Langdon. Another example was found in the south chapel of the south transept of the abbey church at Bardney (Brakspear 1922, 25 & p11), and it is probable that a thorough search of the literature would reveal further instances. In a secular context, there are several in chapels in Lincoln cathedral: one in each of the transept chapels immediately flanking the crossing, where they are let into the top of the plinth supporting blind arcading shafts perhaps as secondary features, a little behind as well as to the south of the altar; and a third example in the Morning Chapel (beyond the north aisle at the west end) almost directly below a big double piscina of 13th century date.

The association of drain and niche piscina occurs frequently in the limited number of parish church examples. Many of these are to be found for some reason in Norfolk. The famous double drain in the chancel of St Andrew, Barton Bendish, is surrounded by a medieval tiled floor, possibly of much the same date as the Decorated piscina in the wall above. The tiles appear to overlap the stone forming the drains, which may therefore be earlier than the piscina, but a full investigation would be required to establish this. At Wilton, also in the chancel, a big square drain cover against the south wall is again directly below a 14th century piscina. At Tilney All Saints the drain cover in the south-east chapel (now a vestry) is small and rectangular, and once more below the piscina (cinquefoil-headed). At Hevingham the rectangular slab was originally in the south transept but has been lifted during the present incumbency. A fifth example, at Burnham Overy, has not been inspected by me. Outside Norfolk, drains have been noted only in Rutland (now Leicestershire). The example in the south aisle of North Luffenham church takes the form of a standard 14th century piscina set below a window with the bowl almost on a level with the modern altar platform. There are two examples at Little Casterton. One is in the modern chancel extension, and is claimed to have come from the demolished medieval church at nearby Pickworth; the other is an *in situ* example in the north aisle, against the east respond of the north arcade *(VCH Rutland,* 2, 240-l). There appears to be a further instance, not noted in the literature, in the chancel at Everdon, Northamptonshire, where what may be a floor drain slab is let into the eastern stall of the sedilia. This seems to be a secondary arrangement rather than an original piscina bay. There are further examples of slabs lying loose, eg in All Saints, Aldwinkle, Northamptonshire, and St Martin's, Wareham, Dorset. No doubt this list could be extended by

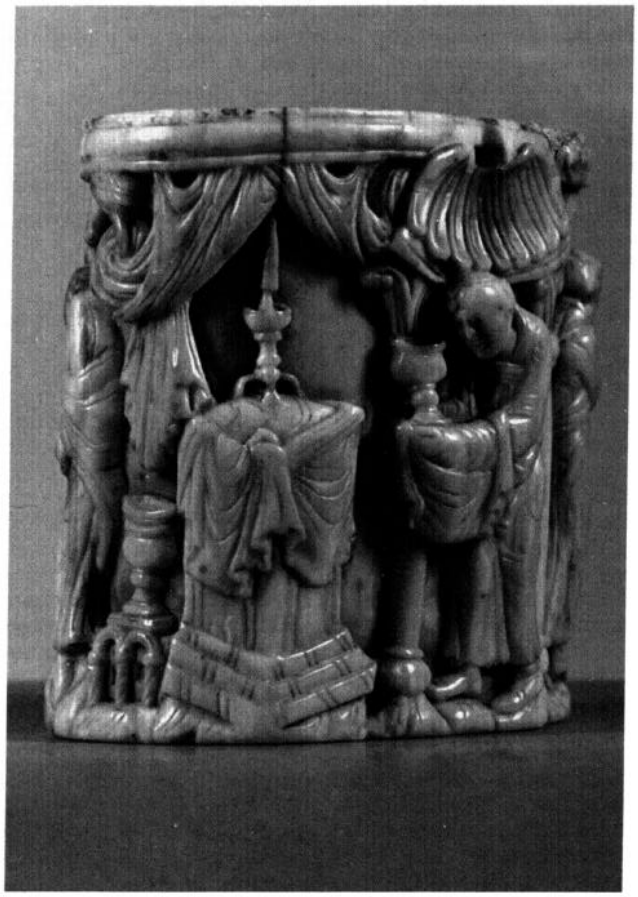

Fig 85 11th century ivory box, showing possible representation of a pillar piscina (height 65mm; Crown copyright; courtesy Victoria and Albert Museum)

anyone with first-hand knowledge of churches in a specific area. Nothing is so far known about the nature of the soakaway beneath any of the examples noted here.

Contemporary illustrations

Returning briefly to the arrangements for the disposal of ablutions before the development of the niche piscina, it follows from the arguments above that there was a period, perhaps quite a brief period, during the 12th century when free-standing pillar piscinas would have been in fairly common use, either to the south or even just in front of the altar. If this was any more than a passing fashion, it might be expected that illustrations of this arrangement would appear in manuscripts or other media of the period. In fact, manuscripts have not so far produced any evidence of this kind, but there are two possible examples, one in ivory and the other in glass. An oval walrus ivory box in the Victoria and Albert Museum (Beckwith 1972, no 19; Arts Council 1984, no 191; Backhouse *et al* 1984, no 116) has been variously dated from the second half of the 10th to the early 12th century. It is carved with scenes once tentatively identified as a miracle of St Lawrence but claimed more recently as a version of the *visitatio sepulchri* (Heslop 1981), though neither interpretation is without its problems. One scene shows a cleric with a chalice in his hands approaching a square altar (Fig 85). On the far side of the altar, and interpreted by Beckwith as forming part of the next scene to the left, is an object described as 'a large chalice on an arcaded stool' (Beckwith 1972, pls 25 [reversed], 44, 45). This explanation, which Heslop does not enlarge upon, seems a little unlikely, and it is possible to see this object as a low pillar piscina of the Bintree type on an architectural plinth. Any further deductions, for instance about the position of the piscina relative to the altar, are not appropriate because of the designer's problems of layout on the tight curve of the end of an oval box, and because the cleric is not necessarily celebrating at the altar, so no orientation need be implied.

The other, perhaps rather more convincing, example comes from a 13th century window in the cathedral at Bourges, Cher, France, showing the invention of the relics of St Stephen. In the lower quadrant of the centre roundel the priest Lucian is kneeling at an altar (Focillon 1969, pl 63). In the left-hand corner of the picture is a moderately large chalice-shaped object. It may represent a pillar piscina on the south side of the altar, in which case Lucian is kneeling (?celebrating) to the east of the altar, facing west. However, the legend of the Invention begins with Lucian sleeping in the baptistery, guarding the sacred vessels, and the object may be intended to represent a font as a means of identifying the scene. The shape is not entirely convincing (though it would be in a 17th/18th century context), but perhaps such distinctions may not have been of any significance to the 13th century artist in view of the piscina - *sacrarium* - *thalassa* - baptistery confusion.

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APPENDIX
The meaning of *sacrarium*

Disregarding metaphorical usages, the general meaning of *sacrarium* appears to be 'holy place or building'. The supplement to the *Anglo-Saxon Dictionary* quotes an example of the word being glossed 'haligern', which otherwise has that meaning (Toller 1921, 503). Not surprisingly, *sacrarium* is used more specifically to mean 'church' or a particularly holy part of it (eg sanctuary, chancel). This is attested in the early 9th century by Æthelwulf's poem *De abbatibus* (Campbell 1967, 13, line 119). A century earlier Bede had described the burial place of Abbot Sigfrid at Monkwearmouth in relation to the *sacrarium* of the church *(HA,* 385, section 20); the most recent translation of the *Lives of the Abbots* renders this as 'a spot just south of the sanctuary' (Farmer 1983,206). It is not likely that the word refers to the church as a whole, since Bede consistently uses *æcclesia* for this elsewhere in the passage. The exact meaning of *sacrarium* is less clear, however, when the usage is apparently more specific than this. In the European literature there is an almost universal assumption, presumably based on the usage in Continental sources, that it means 'sacristy', the room set aside for the safekeeping of liturgical vessels and for the preparation of the eucharistic species. As far as German scholarship is concerned, this view is conveniently represented in the index to Lehmann-Brockhaus 1955–60, where *sacrarium* is glossed *Sakristei,* while on the French side *sacristie* is the second of two architectural definitions given to the word in the glossary to the Nuit des Temps series (Oursel 1983,384). The British sources do not apparently allow for such precision in the interpretation, for the *Medieval Latin Word-List* gives a variety of meanings, ranging from 'sacristy' to 'tabernacle' and finally 'piscina' (Latham 1965, 415). The first entry here, 'cemetery', is rather surprising, and presumably refers to Bede's account of the miracles of St Oswald's relics; the water in which the saint's bones had been washed was poured away, and thereafter the soil which had received the ablution was found to have healing powers *(HE,* iii, 11). The water was poured away *in angulo sacrarii,* and since the miraculous soil *(ipsa terra)* is referred to later in the chapter by the expression *de pulvere pavimenti,* the location was presumably indoors rather than in the cemetery, though the latter interpretation is given as an alternative in the standard translation (Colgrave & Mynors 1969, 247, n 3). The word used in the main body of the translation is 'sanctuary', though 'sacristy' may be thought more likely in view of the widespread evidence, on the continent at least, for the use of this room in connection with the disposal of ritual ablutions arising from liturgical uses (Lockton 1920).

The bulk of the evidence for the use of the word *sacrarium* comes from the post-conquest period. It can be divided into four categories, depending on the degree of precision afforded by the context for the meaning of the word. To the first group belong the unspecific references for which a variety of interpretations could be argued, but which would not be inconsistent with the 'sacristy' meaning. The second group includes references occurring in the context of lists of chancel furnishings, where the 'sacristy' interpretation is less likely, and would require a degree of special pleading. In the third group the usage implies that *sacrarium* is a relatively small object, potentially portable, and in some cases provided with a cover or lid. Many examples in the first three groups imply that the *sacrarium* was associated with ritual ablution; the fourth group consists of references which specifically mention the disposal of ablution water in terms that cannot possibly apply to a sacristy. In this case *sacrarium* can only mean the drain, or piscina, itself. The evidence is presented below in more detail, category by category.

1 The examples in this group all have some connection with ablution, but none so explicit as the Hereford Missal, which directs that the priest *eat ad sacrarium et lavet manus suas* (shall go to - or into - the *sacrarium* and wash his hands; Henderson 1874, 135). This could mean that the priest entered the sacristy, but alternatively it could mean that he went to a piscina or similar arrangement within the body of the church. Around 1200 Alexander Neckam's *De utensilibus* also refers to the ablutionary function of *the sacrarium* with the gloss *hic presbyter lavat manus* (Wright 1857-73, 119). Two less specific examples come from records of visitations undertaken on behalf of the chapter of St Paul's cathedral in the middle of the 13th century. In either case the reference occurs in an inventory of church effects without any part of the building being specifically mentioned. At Furneaux Pelham the entry reads: *Item ad sacrarium sunt parva manutergia de crismalibus* (there are small chrismatory towels in – or for – the *sacrarium;* Simpson 1895a, 19; Lehmann-Brockhaus 1955–60, no 1802). Since many of the items listed must have been stored 'in the sacristy', it is unlikely that *ad sacrarium* is used to mean that in this instance; the reference is presumably to an aumbry, probably in the chancel, where the vessels with holy oil were kept. The towels, incidentally, are not those used by the priest for the normal ablution, a towel for which is separately mentioned two sentences previously. The same distinction is made in the Brent Pelham inventory, where the item reads: *nulle palle ad sacrarium nec ad manus sacerdotis* (no cloths for the *sacrarium* or the priest's hands; Simpson 1895a, 21; Lehmann–Brockhaus 1955–60, no 413). A third example comes also from the St Paul's visitations in 1252. The inventory for Aldbury church includes the item *manutergium unum ad sacrarium integrum et sufficiens et aliud parvum ad lectorium* (an undamaged and proper towel for the *sacrarium* and another small one for the lectern; Simpson 1895a, 17; Lehmarnn–Brockhaus 195 5–60, no 93). The association with the reading desk suggests that *the sacrarium* is also an item of chancel furniture, rather than a sacristy. It is thus a possible candidate for inclusion in the second group.

2 The St Paul's visitations also provide evidence for *sacrarium* in the context of lists of furnishings, where to regard it as meaning 'sacristy' would constitute wilful misinterpretation. The Belchamp St Paul inventory of 1297 mentions *sacrarium honestum* without giving any idea whether it was a tabernacle, an aumbry, a piscina, or some other article of furnishing. The items immediately before and after refer to the altar, so that some such interpretation is likely (Simpson 1895b, 37; Lehmann-Brockhaus 1955-60, no 295). The same expression occurs in a

similar context in the Sidbury inventory of 1301 recorded in the register of Waiter de Stapeldon, bishop of Exeter (Hingeston-Randolph 1892, 368; Lehmann-Brockhaus 1955-60, no 4233). The Register of St Osmund, *c* 1230, refers to the *sacrarium* as *sufficiens* in the context of a list of altar furnishings and vestments (Jones 1883, 291), and a later Salisbury inventory includes *sacrarium insufficiens* in a similar context (Jones & Macray 1891, 370). About 1315 a comparable Canterbury inventory lists *.j. tersorium ad sacrarium* (Legg & Hope 1902, 77), while some 50 years later the York fabric rolls record *unum bonum manutergium pro sacrario* (Raine 1859, 275). The St Paul's visitations of the mid 13th century provide another instance of *sacrarium* in the context of an inventory of furnishings; the Westley list includes the interesting description *contritum et dampnatum* (worn or broken and blocked up; Simpson 1895a, 9; Lehmann-Brockhaus 1955-60, no 4566). These adjectives serve to reinforce the suggestion that 'sacristy' is not meant, for a building is not likely to be described as 'crushed' or 'eroded' *(ruinosus* is the commonest description for fabric in disrepair), nor would it be 'blocked up', though a doorway into it might be. The list goes on to record a basin *(pelvis szagnea)* provided for the *sacrarium* (Simpson 1895a, 10), which is at least consistent with an interpretation of this feature as a piscina, though of course it does not rule out the meaning 'sacristy'.

3 Examples in the third group make it even more clear that an article of furniture and not a building is intended, and in some cases its purpose and something of its form are apparent. The synodal decrees of bishop William de Blois for the diocese of Worcester in 1229 include under the heading *De ornatu chori the* expression *unum sacrarium immobile,* repeated by his successor Walter de Cantilupe in 1240 under the heading De *munditia ecclesie* (Powicke & Cheney 1964, 171,296). The adjective *immobile* (fixed) implies that whatever *sacrarium* is, it could potentially be a portable object, and certainly not a sacristy. Bishop Peter Quivel's 1287 Exeter statutes, which derive from Walter de Cantilupe's, improve on the description: *sacrarium lapideum et immobile* (Powicke & Cheney 1964, 1006). What sort of object could be potentially portable, yet made of stone? Of the various suggestions made above in the discussion of the second group, the aumbry must be discounted because it is essentially part of the masonry fabric, and there would be no call to describe it as *immobile.* In theory a tabernacle is possible, though experts on the subject of eucharistic reservation regard the use of a tabernacle as rare in England, despite its popularity in various parts of the Continent (Dix 1942, 31-44; King 1965, 71, 87). Dix accepts the Exeter injunction as a reference to the Continental kind of tabernacle (1942, 43) but does not think that instructions to instal such tabernacles were carried out in England. There is, however, the well-known example in the south wall of the chancel at Stanford in the Vale, Oxfordshire (formerly Berkshire), which is undoubtedly a fixture (Bond 1916, 174, 211; Cook 1954, 37). It is fair to say that Bond regards this feature as an aumbry, while Cook describes it as a reliquary. This latter interpretation suggests another possible meaning for *sacrarium.* A reliquary is certainly an object which was frequently portable, though fixed stone examples are also known, such as the one found in Brixworth church, Northamptonshire, in 1809 (Dryden 1893, 79-82). This example is of particular interest, since it is made from two separate pieces of stone, one of which serves as a cover or lid, which could have some bearing on the literary references discussed below.

There is a fair amount of evidence, again from the St Paul's visitations in 1297, for the covering of the *sacrarium.* The references are general for the most part: *velamen decens* (or *competens) ultra sacrarium* (Simpson 1895b, 46, 44, 41; Lehmann-Brockhaus 1955-60, nos 94, 415, 1804). In one instance the altar is also mentioned: *velamina ultra sacrarium et altare* (Simpson 1895b, 26; Lehmann-Brockhaus 1955-60, no 2223). The use of the word *velamen* shows that the covering was, at least originally, of cloth, and this presumption is reinforced by the mention in the last quotation of the altar, where presumably the normal altar covering of linen is meant. The use of *ultra* in the sense of 'over' or 'above', rather than 'beyond', is attested in other contexts. What is clear from these extracts is that the sacristy and its roof are not intended. A final example from the same source refers to *velamen lapideum,* a stone cover (Simpson 1895b, 55; Lehmann-Brockhaus 1955-60, no 1271). There is, of course, no way of knowing whether this refers to fixed tabernacle work of the kind which surmounts the feature in the chancel wall at Stanford in the Vale, or to a removable lid such as that on the Brixworth reliquary. A further reference to covered *sacraria* occurs in the statutes of Richard Poore, bishop of Salisbury, as reissued by him 1228 x 1236 after his translation to Durham. They are thus 60 or more years earlier than the St Paul's records. The two main manuscripts include the instruction *habeatque sacrarium supra se honestum operculum* (the *sacrarium* shall have a proper cover on it; Powicke & Cheney 1964, 80, *nb).* Since this sentence immediately follows the instructions for the washing and drying of the priest's hands after the Mass, one may reasonably conclude that in this case *sacrarium* means 'piscina'. The later Salisbury statutes of 1238 x 1244 contain even clearer evidence for this interpretation. The instruction is quite unequivocal: *unum sacrarium immobile cum manutergio ad manus sacerdotis post communionem tergandas* (a fixed *sacrarium* with a towel for drying the priest's hand after the eucharist; Powicke & Cheney 1964,379). There can be no doubt that what is referred to in these cases is a piscina.

4 The evidence of the Salisbury statutes is so incontrovertible that it could equally form part of the fourth group: explicit references to the disposal of the ablution. These examples stand out, however, because of the detail of their description and the clarity with which they describe the function of the *sacrarium.* The late 13th century observances of the Augustinian priory at Barnwell include instructions

for the washing of the corporals and towels by the sacrist, who was to dispose of the water in the following way: *singulas lavaturas in sacrarium versare* (Clark 1897, 70; Lehmann-Brockhaus 1955-60, no 192). The use of the accusative case is crucial. The sacrist was instructed to pour away the water not *within* a sacristy, chancel, or some other part of the church building (which would require *in sacrario),* but *into* the *sacrarium,* which must therefore have been a drain or piscina (Clark 1897,243). Although the wording is different, the Barnwell usage is identical to the much earlier directive contained in Lanfranc's Constitutions (1070 x 1089). This indicates that not only the water in which the corporals had been washed but also the rinsings of the chalice were to be dealt with in the same way: *aqua qua lavantur, sicut et calicum in sacrarium proiiciatur* (Knowles 1951, 83). There can be little doubt that a piscina or its equivalent is meant.

The trend of the literary evidence is therefore clear, and even in the non-specific examples the translation 'piscina' would make perfectly good sense, although in some instances 'aumbry' or 'reliquary' might be preferable. In cases where towels or ablutions are specifically mentioned, 'reliquary' seems unlikely, however. By the end of the Middle Ages the meaning was sufficiently well established for *sacrarium* to be listed in the *Catholicon Anglicum* as a translation for 'lavatory' (Herrtage 1882, 210). Whether one may extrapolate from these mainly 13th century and later examples to Bede's account of the miracles of St Oswald is less certain, though a drain would obviously not be out of place in the context of washing the saint's bones. It must be noted, however, that a near-contemporary document, the Pontifical of Egbert, uses *sacrarium* in the sense of 'sacristy'. It might be possible to argue about the meaning where the word is first used, in the bishop's charge at the ordination of a subdeacon. Enough of the oblations should be placed upon the altar for the needs of the people, so that nothing is left to moulder in the *sacrarium (ne aliquid putridum in sacrario remaneat;* Greenwell 1853, 15). In the Mass for the dedication of a church, however, the meaning is clear: the bishop goes *into* the *sacrarium* to vest, along with the other clergy *(revertatur pontifex in sacrarium, et induant se. . . vestimentis, ipse et ceteri ordines;* Greenwell 1853, 48), and there can be no doubt that the sacristy is meant. This usage is attested later in the Anglo-Saxon period by the *Regularis Concordia* of *c* 973. On Good Friday the abbot is to enter the church for private prayer, after which he vests and goes from the *sacrarium* to the altar *(dum. . . indutus fuerit, veniens de sacrario ante altare . . .* Symons 1953, 41). Once again, the reference to vesting makes it certain that 'sacristy' or 'vestry' is the correct meaning.

There appears to be no English evidence before the Norman conquest for the use of *sacrarium* to mean 'piscina'. The earliest example quoted above is that of Lanfranc's Constitutions in the late 11th century, and this may be an indication both of the time at which the new meaning appeared and of the route by which it was introduced. Only a study of Norman or perhaps north Italian sources could confirm or refute this suggestion.

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Recognizing Christian origins: an archaeological and historical dilemma

Charles Thomas

I begin with a straight citation from Richard Morris's recent work; he refers to Atlantic Britain in the 5th to 7th centuries: 'The state of present archaeological knowledge can be summarized rapidly; there are no British church sites of this period which have been excavated in recent times and the evidence for which has been fully published' (Morris 1983, 33). This does not imply, nor was it ever meant to imply, that no such churches - in the sense of particular, theoretically recognizable, structures - ever existed. It would be peculiar if they did not; and writings from the 5th, 6th, 7th, and 8th centuries confirm that they did We even know, not necessarily what these churches were really physically like, but what people nearer to them in time *thought* they were like. Bede thought the British and Irish built in timber. Patrick for the 5th century was credited later with at least one church of turf. The earliest detectable traditions surrounding the first church at Glastonbury, the *vetusta ecclesia,* depicted it as of wattle. Constantius believed that the sub-Roman British, exhorted by Germanus, built a field-church 'woven from leafy boughs'. Early Irish annals, as A T Lucas has shown us, contain 33 instances between 612 and 795 of the burning-down of wooden churches - the misdeeds of Irishmen, not Vikings - and Adarnnan's *Vita Columbae,* written about 680 and mostly descriptive of late 6th century Iona, describes several such churches, one possibly complex, in an Irish colony in Scotland.

What, cumulatively, makes this reasonably credible is that the scant settlement archaeology of post-Roman, pre-Norse, western Britain and Ireland - taken alongside chance finds, old reports, and whatever weight one chooses to attach to material details in mainly religious writings - together show us a vast province where timber construction was probably the norm, at any rate for anything larger than a circular stone hut. I place this conclusion alongside another aspect of early English hagiography and religious writing, one clearly detectable in Bede's work (and probably latent in Gildas), the contrast between the less permanent native style with its Iron Age roots and, at best, Roman-derived technical improvements; and, on the other hand, the alleged survival past 400 of full Roman masonry buildings. This gives us a very short list - Gildas's unlocated mentioning of Roman town churches rebuilt, and of smaller *memoriae,* and Bede's very specific reference to a degree of survival of a post-313 church at St Albans and to several churches within and without Canterbury.

Any exploration of the missing British church buildings must begin with constrictive admissions. Firstly, we have to argue both backwards and forwards in time; and to realise that no purely non-English church building in these islands is demonstrably as early as Bede's post-627 'greater and more magnificent basilican church of stone . . . square in plan' at York, or the principal church plan at Yeavering, or the nave-and-apse layout at Lyminge of soon after 632, or the first, 648 or soon after, nave-and-chancel-and-porticus church at the heart of Winchester Old Minster, or, come to that, a number of other remains, some of which portray or suggest whole plans, in that impressive list of 99 7th century English sites compiled by Richard Morris (1983, 36-8).

The second admission, and I find it helpful to stress this, is that the process of development of Christian sites in western Britain and Ireland, insofar as we can understand it, seldom if ever began with the erection - in some arbitrarily selected piece of countryside - of a congregational church or a people's church or any type of *Eigenkirche.* The church seems to represent an addition, a structural development, to a pre-extant Christian site - frequently to a Christian burial-ground, after 500 increasingly to some form of monastic establishment, and conceivably to those few secular settlements, like inhabited fortified bases, that would in a Romanized world be small towns or *vici* or large estates. The British church is thus essentially a secondary, not a primary, Christian elaboration. In one way this is to the archaeologists' benefit since the, generally somewhat easier, identification of the primary Christian site (cemetery, monastery, etc) may constitute the only evidence that the site *is* Christian, and thus that a rectangular foundation is perhaps a church rather than a barn or living-quarters. And again there is increasing reason to suppose that even the crudest and simplest of British and Irish churches, putatively 8th century, are not only secondary in the context of their sitings but may be, as we encounter them, secondary or later phases of the same building. I shall come to this in a moment. I want to stress that all these comments - the church as a secondary addition, the church's nature apparent from its setting rather than its form, and the church encountered in excavation being only the outer skin of the onion - are beginning to be equally applicable to the oldest *English* churches, too. In this shared (archaeological) disadvantage, the British and the English churches reveal how - because of the major break in our islands during the 5th century - all our church archaeology must display this divergence from the normal sequences in western Europe.

Yet our starting-point is shared with Gaul, and Iberia, and the Rhineland, and was an intrinsic part of the late-Roman westward diffusion of the Christian faith, with its reflection in specific buildings, sites, art, and archaeologically-detectable practices; and here we too can begin. I hope that I have now shown, with sufficient evidence, that there is nothing (or hardly anything) in the Late Roman Christianity of Britain that cannot be paralleled in the neighbouring dioceses and provinces of the western Empire and that, *mutatis mutandis,* all the expected manifestations of urban Christianity after AD 313 exist. Let me run swiftly through the salient points, asking you to bear in mind that - whatever the numerical strength of British Christianity in AD 400 - a predominantly British population of several millions had access to the outward and visible signs of this particular religion.

The known distribution of Christian evidence is,

expectedly, yet one more 'Romanization' map; not a missionary map, not really a map of Christian belief (if such were possible). On the other hand it proves *not* to be, as formerly claimed, entirely urban. If one downgrades all the major towns and cities to small circles, the black dots that represent Christian evidences (the larger in size, the more inferentially reliable) occur in some quantity in rural situations. And, at this stage, I must also emphasize that Romanized Britannia, at its full extent, was a much larger area than that portion of it subject (approximately by AD 500) to the Anglo-Saxon settlements. If one picks out, on grounds of probability and from literary and linguistic sources, possible indicators of British Christianity after 400, a third map can remind us that for England and Wales only, let alone southern Scotland and all Ireland, a very substantial tract was still non-English.

In 4th century Roman Britain the known or suspected churches fall, contextually, into two groups whose stories must be cognate with those related, for the next two centuries, in Gaul by Gregory of Tours. These are intramural congregational churches, town churches serving small to medium Christian flocks, and extramural cemetery churches whose foci were probably Diocletianic martyrdoms or the tombs of early bishops. Silchester is a congregational church, essentially nave and apse (with reversed orientation) elaborated by narthex and what may be porticus. It possessed, I argue, an external baptistery. Richborough occurs not in a town but in a shore fort, and is similar to what I believe to be a genuine late Roman extramural cemetery church, St Pancras (phase l), Canterbury, with the simple nave and apse plan. This plan also marks what we must now see as a full town church of late 4th or early 5th century date, St Paul-in-the-Bail, Lincoln, where a range of Cl4 determinations leaves no doubt that this is late Roman and not Paulinus's 7th century structure. I leave aside for the moment the interesting further steps in its history.

The broad function of these, and a few other, churches, I would illustrate through the concept of the 'congregational area', ie the open body of the church (omitting apse, any narthex, or side-elements) available to accommodate full members of an *ecclesia* or Christian flock during a service. Since the mean of the Romano-British areas is in fact fairly close to that of the similar areas from seven Taylor, earliest period, English churches, and both conform well to the mean of areas extracted for twelve western European churches of late 4th or 5th century date, then it follows that if all *are* churches, they are meeting the same order of need as regards space deemed necessary for worship.

What is missing, so far, from Roman Britain is any clear case of a large basilican church, or basilican building employed as a church. There was, a few years ago, the possibility that a site in the extended *colonia,* the lower city, at Flaxengate, Lincoln, fell into this category. It may have done so but the evidence is unclear and the west end is missing. But - moving into the Romano-British countryside - a reduced version of the nave-and-apse church accompanying a cemetery is suggested for Icklingham, in East Anglia.

These unsophisticated structures have, perhaps, immediately Gaulish models. I select only two: what seems to have been a proprietary or estate church inserted into the semi-basement wing, perhaps a granary or store, in the vast villa-like complex at Ligugé near Poitiers; and, to emphasize the antiquity of the formal division between nave and apse, inferred through excavation at St Paul-in-the-Bail, a late 4th or 5th century intramural church at St Blaise, *Ugium,* just west of Marseilles.

Now the calendar date of AD 400 lies within the period of these churches and some at least will be 5th century. A, presumably rural, case is in the post-temple structure at Uley, in Gloucestershire, where the little nave-and-apse plan (and the nave is a double square) was surely expressed in elevation mainly if not wholly in timberwork. There is no reason why, even at this stage, a one-cell or rectangular rural church plan may not have been current. If Ivy Chimneys, near Witham in Essex, with its remarkable isolated baptistery is another case - like Uley - of a final R-B Christian site superimposed on a destroyed temple, it may have a rectangular stone-foundation chapel. In a similar context one is reminded, without pressing this, of the little intrusive building at Brean Down, Somerset.

Lastly there should be instances of the full sequence from an extramural cemetery with a martyrial tomb becoming an expanded *memoria,* or chapel-like mausoleum, and then serving as the focus of a whole succession of enlargements. This can be and has been explored for the other provinces of the western Empire, for example the Bonn *memoria.* The centrally-placed, single tomb in Christian burial-area, sequence at Esslingen-am-Neckar is perhaps better because the *very* full excavation here offered us the whole process. In Britain, we know that one promising starting-point, the late Roman cemetery at Poundbury, outside Dorchester, with its clear Christian area and its several internally-painted mausolea, simply came to an end in the mid 5th century. But, against this, Rodwell's work at Wells may have shown a case where the whole sequence, in a slightly roundabout fashion, was fulfilled. If so, it was on all fours with its European counterparts. Mett, in Switzerland, is a good parallel: a 4th century Roman mausoleum, its eastern end transformed in the 5th century into a Christian *memoria* and subsequently with the normal range of later and ever larger churches above it. The burning question is not 'How long after the 4th century did this package of Christian architecture and potential Christian archaeology continue?' It is better phrased as 'How long did a social structure that could support the creation and tradition of such Christian buildings continue?' The answer has to be symbolized by a diagonal, or rising curve, rather than a straight horizontal line across the page of history. In the north and west of what is now England, in parts of Wales and southern Scotland, the latest churches of Romano-British character may have been nearer 500 than 400. In the south and east the end was much sooner. There were surviving patches of British *romanitas* - I take it that a notable instance centred on the Chilterns permitted that special case of orthodox continuity, St Albans, where a major national martyr was buried in (or attracted around him) an extramural cemetery, and where his *memoria* formed the nucleus of a church sequence reported from the early 5th and early 8th century and probably unbroken.

That a form of Christianity, bequeathed from late Roman Britain, continued beyond the penumbra of the English conquests and spread rapidly to Ireland now seems to me, if not beyond detailed question, entirely favoured by the evidence and the balance of probability. I discount the notion of a total reintroduction from

Christian Gaul or anywhere else. That, even bereft of urban centres and any full scheme of territorial divisions (on the lines of the 4th century *civitates),* this Christianity was sufficiently orthodox to possess bishops, to group its adherents into *ecclesiae,* to hold synods, and to issue canons, is also indicated by the same body of evidence.

It is helpful to recognize that, granted this conclusion, church buildings must have existed. I invite you for the moment to ignore the likely surrounds - rural settlement, enclosed cemetery, monastery, chieftain's fort, or whatever - and address ourselves to the churches per se. Bereft of anything reported in later centuries by Bede or any other English writer the archaeologically overwhelming likelihood is that such churches were timber constructions.

Much of the architecture of Late Roman Britain must have been timber, albeit on stone or masonry footings, and Pat Morris's corpus displays any number of large rectangular barns or villa-estate components. The Richborough church stood somehow on masonry piers - the custom of the day, removing the top metre rapidly to get down to the interesting layers, unhappily deprived us of further evidence. But we now have what must be 5th century cases of really quite large rectangular buildings: at Verulamium, insula XXVII building 1, which does have masonry footings, and at Wroxeter the remarkable near-final phase Z, where the major public building may have been entirely wooden. A social historian could reflect that this display of gigantism, if expanded, may go with the rise of tyranni or local bosses and the general contraction of communities ruled by might instead of law.

But there is a scant thread of evidence that the public buildings, large, unicellular, and in timber, were maintained in British hands. A variety of public or communal buildings, appropriate to a hierarchical society rather than to conventional civil life, is the post-Roman British hall. The catalogue of these grows slowly; but from southern Britain, west of the English, we have - and make of these what you will - the hall or halls from Castle Dore, supposedly linked with a local king Conomorus, and the hall from South Cadbury or 'Camelot', supposedly linked with another early 6th century leader. Archaeologically we just have a posthole plan. So did we, with the post-temple building at Uley. So, I imagine, would we everywhere in these parts and during this phase, the only real alternative being the cill-beam and sleeper trench technique (which may be Irish and northern, in emphasis).

Allusion to the bare existence of churches is one thing; details of any single structure, another. The latter occur in the curious life of St Brigid of Kildare, by Cogitosus. Since this 7th century life describes so much of the material culture of pre-Viking Leinster in rich, authentic, and entirely supportable detail I see no reason not to accept the description as one of a real, late 6th century, church; and the Irish Annals collected by Lucas show that a century later large wooden churches were hardly unusual. The description may be full but is not absolutely clear, and there is more than one reconstruction possible. What is clear is that we are facing a structure not appreciably smaller than a Romano-British congregational church or a post-Roman British hall - though with the proviso that large church areas, appropriate for large monastic communities, may not necessarily have been required for small and isolated rural settlements.

The hard realist may say: If these did exist, prove it - put it in my hand - dig one up, as Hope-Taylor did at Yeavering. In due course this may come about. But the very continuity of site that provides us with secure Christian identification usually militates against chances of excavation. The remains of Kildare occupy a large area and there is a principal church still in use. I do not doubt that a Kildare-type church stood at Armagh, not in Patrick's day but by the late 6th century; and presumably stood below the Cathedral. And again, without repeating what I have already published at length, I contend that late Roman and sub-Roman Britain is the most likely - perhaps the *only* likely - source of models for these Irish timber churches. For the broader, European, post-Roman background, may I refer you briefly to Zimmerman's impressive catalogue, compiled mainly from hagiography, of 1st millennium AD examples of the *ecclesia lignea aut ligneis tabulis fabricata?*

Circumstances oblige me to leap onward rapidly to the British and Irish churches of the pre-Viking 8th and later 7th centuries; churches standing in a secular and religious landscape far removed from Roman times, but churches none the less presumptively the successors of British Christian architecture in the 5th and 6th centuries. It was for rather too long virtually an axiom that smallness of plan, remoteness of location, and simplicity of technique had to be equated with primacy of age, and known cases - whether, as in parts of Ireland, standing buildings, or, as in Wales and south-west Britain, ground-plans - had to be accepted as starting points. But the late Harold Leask assembled sufficient clues to show that these churches, which he took to be patently pre-Romanesque and in not a few instances pre-Viking, exhibited skeuomorphic details implying that a phase of all-wooden construction lay behind them. And in the 1950s Brian O'Kelly demonstrated that the burials lying obliquely below a Gallarus-type oratory or tiny church at Church Island, Co Kerry, were aligned with an even smaller and first-phase structure expressed simply by postholes.

The excavation of Ardwall Isle, off south-west Scotland, was carried out to see whether a similar sequence could be found outside Ireland, at first in a region known to have been subject to Irish Christian immigrants by the 7th century. On a more elaborate scale this proved to be so. O'Kelly's work for the Irish Electricity Board at Carnsore, Co Wexford, added another case. Indeed, a class of such primitive wooden churches slowly emerged. There have been a number of excavations, diffused through a considerable body of local and regional reports, where no clear plan has emerged but where postholes or earlier burials on a slightly different orientation betray the most likely story: the Derry Churches, in northern Ireland, and the long and complex sequence found by Hague at Burry Holms, off the Gower,

I want to add to this list a few churches, either dug long ago, or for various reasons grossly disturbed internally in the past, where it has been or would be now impossible to reveal this sequence but where, too, it probably pertained. Keill Woirrey is an early church in the Isle of Man, and exemplifies churches with underlying burials - these at least, in their slab graves, can be confidently plotted - where the spacing may imply a smaller posthole and timber predecessor. We have touched on south-west, south-east, and northern Ireland, south-west Scotland, south Wales, and the Isle of Man, and to show the extent of the range I conclude this with the Isles of Scilly. Here,

because of the presence of sites with both native and imported pottery, there is a chronology of sorts. Pre-Norman Scilly was still effectively one large island. This means that the early churches, two of them monastic, two others also accompanying cemeteries, were not island hermitages but actual churches disposed within a landscape slightly smaller than Guernsey. The monastic centre, St Helen's, has an original church, its 'Oratory', conforming to the regional pattern of double-square interior and south-side doorway. Harking back to my earlier remarks, it may well be secondary to its site and its altar-block contained a genuine relic cavity. Two other early chapels possess the same plan. One of them, that on Tean, lies within a long and interesting sequence and like Church Island, Ardwall, and Keill Woirrey sits partly over the primary Christian cemetery. Here again it is permissible to suggest the position of a smaller wooden predecessor; I do so because more fragmentary remains, not yet published, on another spot, the present island of Samson, involve both a stone-walled chapel and, stratigraphically earlier, some kind of timber construction.

You will not expect me to set out at length the individual arguments for date, and I ask you to accept that together they favour the notion of stone churches after, and wooden churches before, a band of time centred upon AD 700. In the cases of Ardwall, where there are other finds and a historic context, and of Tean, where there is a fairly good pottery sequence and overlapping stratigraphy, I could support this with conviction and at length. There is a Cl4 estimation for the Carnsore, Wexford, wooden predecessor: Harwell 1380, calibrated on the 1982 tables to two standard deviations as AD 605 to 875. The gradual, or perhaps not so gradual, shift from wood to stone over the 7th and 8th centuries was not, within British and Irish Christian remains, confined purely to church buildings nor - as we have seen - to the non-Anglo-Saxon parts of these islands. It was a much more radical shift and I tend to agree with Radford that, in Ireland, the stimulus may have come from the Anglo-Saxon world.

The force of the word 'dilemma' in the title of my short essay is, I hope, now fully apparent. Churches existed in much of mainland Britain - and Ireland - between the 5th and 7th centuries. Insular sources and hagiography imply they were built in wood. So, at the end of the period, do Christian Anglo-Saxon sources. It is apparent that early 5th century models were probably wooden ones and it is clear that the technology of wood construction, on large and small scales, was fully maintained. Behind the first stone churches of the 8th century we appear to discover wooden predecessors. Is this process, however thinly delineated, a continuous one? What implications does its existence hold for the development of Anglo-Saxon church architecture, especially in such regions as Northumbria? To what extent, in Ireland, in British Britain, in English Britain, was the church a product less of Christian belief than of its monastic or cimeterial or proprietary or royal or community setting?

I trust you will not expect clear or definitive answers, which would be beyond my capacity, and will be kind enough to accept here as my own little contribution simply these redefinitions of a fundamental problem in Insular church archaeology. I do not know whether an east-west three-metres shack in some isolated west British graveyard, where the Christian dead within a few miles' radius were laid to rest, is the logical successor of whatever kind of church - presumably many times larger - served the sub-Roman Christians of Wroxeter or the extensive monastic communities like Kildare. Does the apparent diminution go alongside far-reaching shifts in the nature of, mainly rural and dispersed, British and Irish, society? Are we perhaps quite unwittingly clouding the question by selecting, and trying to link, the opposite ends of a whole spectrum of scales and absolute sizes?

One proposition, which I have now put forward several times in print, I begin to think may be too negative. This is to suppose that very few congregational churches - and those in impermanent materials - existed in sub-Roman Britain and that worship, where conducted, took place in ordinary secular buildings. Accepting that, on a strict review of the evidence, even the tiny timber predecessors of the first stone British and Irish churches are (a) no earlier than the 7th century and (b) almost invariably sited within pre-existing cemeteries, I have wondered if these small rectangular structures developed only out of external or al fresco *memoriae,* the surrounds of specially-marked graves or 6th century slab shrines. In this case one *could* argue for a degree of wholly external stimulus, connected with Iberia, north Africa, and the Mediterranean, and otherwise portrayed by a range of new ideas in art, letters, and practices diffused by whatever long-distance trade brought imported pottery of Classes A and B to our shores.

There is still much to be said along such lines and I am not disposed to abandon, altogether, the refinements and innovations which are still best explained in this light. What now tips the balance, I think, in favour of some sort of continuity is partly economy of hypothesis - need we think of an external source if one, however hard to define, might be perceived internally? - and partly a fresh perception of what I will call, however clumsily, 'the behaviour of British and Irish sites, with such small churches, in their contemporary landscapes'.

There are not yet sufficient analytical studies of this and I am confined to two examples, one north-western, one south-western. The pattern of *keills* - that is, small churches in enclosed developed cemeteries - in the Isle of Man has been explored by Marstrander and Kinvig. As we see them, these churches are both pre- and post-Viking, and among their numbers will be those - probably at first with small timber churches - arising from the introduction of Christianity from 5th century Britain or 6th century Ireland. Now the combined distributions of these churches- and-cemeteries, and the local basic tenurial unit or townland, the Manx treen, allow only one conclusion. These were or became, over a period of centuries, the community or people's churches; the distribution of the Christian sites is non-random and is subservient to popular needs; and (discounting a few monasteries like Maughold and the special case of St Patrick's Isle, Peel) no other group of sites can be detected filling the same role.

Much the same applies to Cornwall, which has been very fully studied in this light. The precise equivalent of the Manx keill is the enclosed developed cemetery with small church known as the *lan.* Several hundred survive to this day because they attained later parochial status. An added bonus here is that, because Cornwall like Wales adopted from the later 5th century the custom of selectively erecting inscribed tombstones - approximately datable on several grounds - the Christian antiquity of the

individual sites is thus independently confirmed; even in cases where the original lan outline has been greatly eroded in modern urban settings. And again if we look merely at the Land's End peninsula, where about a third of the known total of pre-Norman lans attained full or partial parochial status after the 12th century, there is some implicit spatial relationship between about 30 developed-cemetery chapels, the clusters of the local basic tenurial units (the Cornish *tref),* and - at a rough guess - a pre-Norman population within the map area of perhaps 1500 to 2000 people. This peninsula is among the most thoroughly investigated tracts in British archaeology and it is just not conceivable that any other class of pre-Norman Christian site has eluded all notice.

I do not think that these arguments are affected by the general degradation of ground-plan to a unicellular one - even when some attempt may have been made to define a 'chancel end' by inserting a low step, as in the 8th century St Helen's, Scilly - or by the interesting observation that two distinct modular ground-plans existed. In Ireland, and thence in areas of Britain subject to Irish Christian influence, there was a preference for internal proportions of 3 to 2, with a west doorway; in Britain itself, a double-square or 2 to 1 internal proportion and a south-side doorway. This, like building practice proper, must reflect deep-rooted local custom and has to be divorced from the intended function of whatever was built. Common to all non-English areas is the further observation that progress through time brought about larger churches (dare one suggest, because of overall population increase?) and that enlargement generally took the form of elongation of the east-west axis.

It may seem, and I agree it may indeed be, very unsporting to end with still more problems and questions; but I shall do so, in the thin disguise of my conclusion. I have been asking you to accept the historical probability that much of non-Anglo-Saxon Britain, and Ireland, held Christian communities between the Roman centuries and the Norse invasions. If this is accepted, it follows that churches, *sensu* individual buildings lying east-west, containing altars, and employed for sacramental worship, existed; our present ignorance of their form is not relevant, except as a comment upon our archaeological progress. The material I have sketched may be thought to point towards wooden structures of simple rectangular plan and of a progressive, if not yet explicable, reduction in absolute size. The theme of the conference has obliged me to concentrate upon the church as a building, not upon the church as component of a Christian site, but the latter approach intrudes upon us when we see that the post-Roman British church was, in general, a cemetery church, and, again only in general, a secondary component of an area marked off and consecrated for the neighbourhood's Christian dead.

Two enormous challenges arise, it seems to me, out of these thoughts. In the first place, the elucidation of the missing British and Irish churches (along with the theorizing required to link late Romano-British Christianity to the tiny Church Island or Ardwall posthole structures) would demand the excavational skills of both the Biddles, Philip Rahtz, and Warwick Rodwell all combined; the meticulous patience of Harold Taylor; and much exploration in the world of Old Irish. We can only hope that another generation of multi-disciplinary workers will arise. Secondly - this concerns Northumbria (obviously) and the west Midlands (perhaps less obviously) - we are now nearly in a position to explore a very delicate and complex topic; the nature of western influences present in Anglo-Saxon Christendom in the 7th and 8th centuries.

Here I think not so much of Irishmen from Dalriadic Scotland (or Ireland) among the converted Angles of Northumbria; despite Bede's own wording, or lack of it, I point rather to the chance of influences from *British* Christianity, or of individual Irishmen in southern Britain. Consider the cases of Malmesbury, or even Glastonbury. In the north, Yeavering itself poses to us, even if it cannot resolve fully, literally fundamental matters, like the use of bedding trenches for timber structures of religious as well as secular character.

Broadening the discussion to sites as opposed to individual churches I would include the question of preferences, at a detailed level, for the precise placing of shrines. Is the external or externally-housed shrine, not necessarily placed axial to a church, an Irish-British trait; and was this linked to the problem of incorporating a large shrine within a very small church? Why, in the far north, did the Christian Picts adopt composite stone shrines of Northumbrian origin, eschewing the semi-subterranean slab shrines of Irish type entirely? What physical reflection could we expect of the sacrament of baptism in 5th-7th century British Christianity, and was that apparent Romano-British preference for the detached baptistery maintained anywhere? Which, anyhow, is the oldest individual post-Roman, pre-Norman, font still visible in the British Isles? And finally, since we have heard so many interesting things about early Anglo-Saxon churches - people's churches or private churches - standing within cemeteries, is this line of site-development wholly unconnected with the developed (contemporary) cemeteries of non-Anglo-Saxon Britain, and Ireland?

Some of these problems are familiar enough, and I and others have put them in print before now. But their familiarity does not mean that we have any answers yet, and this meeting affords a proper context to remind ourselves of that fact. My poor and inadequate tribute to the hero of our week-end, under a title wrenched from a background of uncertainty, has not resolved any of these dilemmas. However, unlike Lord Acton, Harold Taylor has never adopted a plonkingly finite view of our common field of study. Our much-loved friend once defined his own purpose (in his words) as being 'to lay a foundation upon which others may build'. Even the redefinition of current problems may claim to be on all fours with that noble aim; and, on a carefully contrived escape-line, I end my essay.

Note

Individual references to all the sites and places mentioned are given in either or both of my *The Early Christian archaeology of north Britain* (Oxford 1971) or *Christianity in Roman Britain to AD 500* (1981; rev pbk edn 1985). Both works have separate indexes for names of places, and both contain between them site-plans of most of the examples listed.

Reference

Morris, R, 1983 *The church in British archaeology,* CBA Res Rep, 47

Is there a relationship between pagan and Christian places of worship in Scandinavia?

Olaf Olsen

Thirty years ago, when I undertook my first excavation inside a Danish church, it was a widely accepted idea that our medieval churches were often built on sites of pagan worship. Therefore, it was expected that I would add to this fascinating aspect of religious life of the past through the finding of remains of pagan temples and evidence of offerings to pagan gods under the floor of the church.

However, I was not able to live up to these expectations. There was nothing to support the idea, absolutely nothing. And in the years to come, I had to disappoint several rectors (why does the clergy love paganism so much?) in telling them that I had found no trace whatsoever of heathen relics under their churches. In the end, this absence became so striking that it provoked me to venture into a proper investigation of the whole question of continuity from pagan to Christian sites of worship in Scandinavia. In 1966, I published the results in a book, *Horg, hov og kirke.*[1]

The first thing I had to do during this investigation was to scrutinize the sources on which the supposition of continuity was based. The only written 'evidence' of some interest turned out to be the famous letter from Pope Gregory the Great to Abbot Mellitus (AD 601) which instructed the missionaries in Anglo-Saxon England to convert the heathen temples into churches. But it is indeed doubtful whether one can transfer this Roman letter from England to Scandinavia and from the year AD 601 to the late 10th century, when the time of church building started properly in the northern countries.

The archaeological basis for the theory of continuation was no better either. The prize piece was provided by, Professor Sune Lindqvist. During excavations in Gamla Uppsala church in Sweden in 1926 he found traces of earlier settlement in at least three strata. A number of postholes were found in the penultimate layer, and the excavator judged these to be the traces of the Great Temple of Uppsala which is described by Adam of Bremen *c* 1070 in his history of the Archbishops of Hamburg-Bremen. At Adam's time the temple was still standing and in use. With a short description of the find, Professor Lindqvist published a supplemented ground plan of the church with the postholes, suggesting that these formed the pattern of a building consisting of two concentric rectangles (Fig 86), obviously inspired by the plans of contemporary Slav temples (Arkona, Rethra, Karentia) just published by the German archaeologist Carl Schuchhardt.

Sune Lindqvist's Uppsala plan has been interpreted with great ingenuity by a number of daring scholars, providing us with a variety of rectangular buildings and structures (Fig 87). However, a mere glance at the plan of postholes without the theoretical additions (Fig 88) demonstrates at once the inherent weakness of the interpretation. And as it can be shown that the double rectangles of Schuchhardt's Slav temples are completely fictional phenomena, there is no reason at all for assuming the presence of a similar temple in Uppsala. The postholes cannot be proved to belong to the same structure or building, let alone to a temple. The only thing we know for certain is that they are older than the present stone church on the spot.

Another 'temple' under a church was provided by the

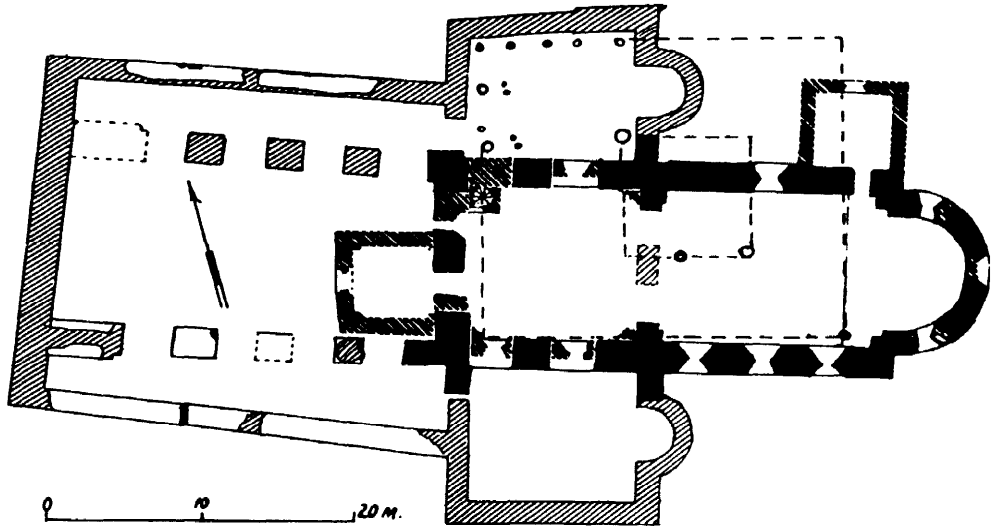

Fig 86 Sune Lindquist's plan of the church in Gamla Uppsala with the postholes found in 1926 and a reconstruction of the temple plan as two concentric rectangles

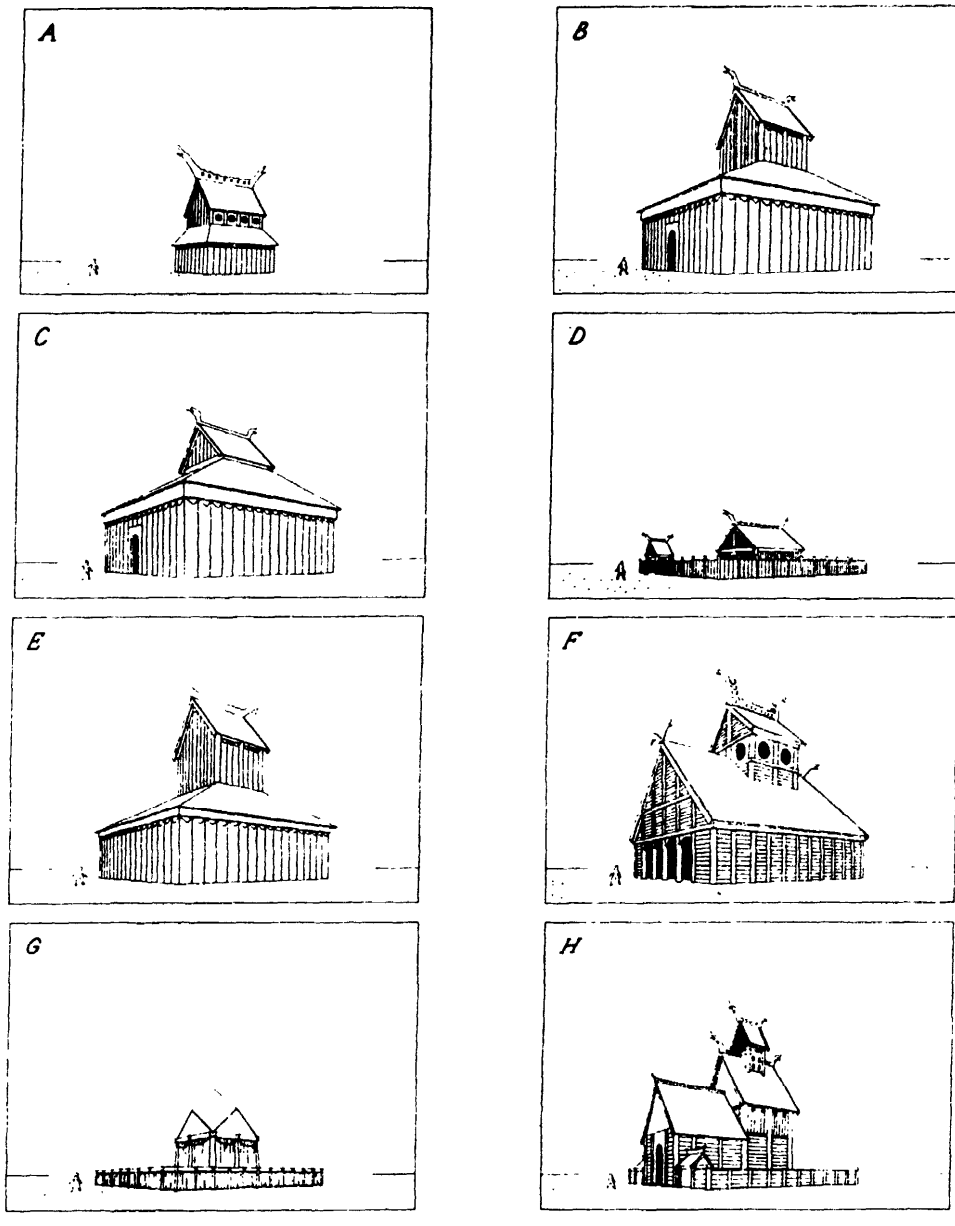

Fig 87 Eight different reconstructions of the Uppsala temple: A, Sune Lindquist 1923 (before the excavation); B, Gerda Boëthius 1931; C, Anders Bugge 1935; D, Ake Ohlmarks 1944; E, Sune Lindquist 1944; F, Allan Fridell 1948; G, Anders Bugge 1950; H, Nils Gellerstedt I950 (drawn to the same scale by Holger Schmidt)

Danish archaeologist Ejnar Dyggve in Jelling, the burial place of King Gorm, father of King Harald who *c* AD 960 turned to Christianity and made Denmark a Christian state. During excavations in 1947-51 Ejnar Dyggve found remains of two wooden buildings under the Romanesque parish church in Jelling. He interpreted one as a wooden church, but considered that the first of them was King Gorm's temple; an audacious conclusion, as his only evidence was one and a half postholes plus a few square feet of clay floor. New excavations in the early 1960s, carried out by Knud J Krogh, indicated that Ejnar Dyggve had misinterpreted the traces under the floor. The obvious explanation of the find was the presence of two wooden churches previous to the erection of the Romanesque stone church.

However, Ejnar Dyggve pointed out another feature in Jelling which fitted into his idea of continuation from pagan to Christian cult on the site. Under one of the large royal barrows he found the remains of an evidently V-shaped boundary of upright stones, with the apex pointing south and with the church lying inside the boundary. He was convinced that this was: a pagan sanctuary, a meeting place for the people when they joined their heathen king for religious festivities.

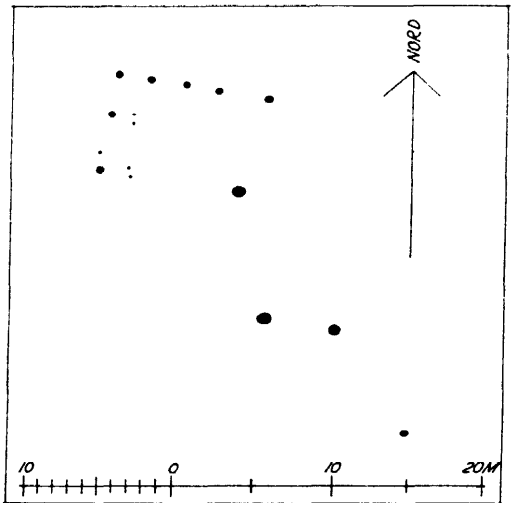

Fig 88 The postholes in Gamla Uppsala without additions

The fascinating perspectives of this observation turned V-shaped enclosures beside Danish churches into veritable battues. Ejnar Dyggve took part himself and published two similar structures, at Tibirke and Tingsted (Fig 89), finding the final proof here for the validity of his theory. But the evidence was in fact non-existent. In 1964 I dug in the 'sanctuary' in Tibirke and found that it was lying on top of a thick layer of drift sand - in some places more than two meters deep - from the 18th century. In Tingsted where Dyggve's V-shaped enclosure was based only on lines on a sketchy map from 1784, a study of proper cadastral maps and observations on the spot made it clear beyond doubt that the enclosure had never existed. I also investigated other church surroundings where the presence of V-sanctuaries' was suggested by interested laymen. Everywhere the result was negative. V-shaped lines are frequent in relation to churchyards, but this is usually due to the fact that many roads have their direction towards the churches and fork in front of the churchyards.

Of all the suggested V-shaped structures only Jelling survived my investigation - and this even with some qualification, as the long straight lines of the enclosure are mainly based on Ejnar Dyggve's suppositions. The Jelling 'sanctuary' could in fact be a variant of the boat-shaped Viking burial framed by menhirs. These are common in Denmark.

The church in Jelling is flanked by the two largest barrows in Denmark. Many other Danish churches - 156 altogether, ie 7% of the total number of medieval churches in the present Denmark - have prehistoric barrows in or just outside the churchyard. This eye-catching feature has undoubtedly strengthened the popular belief of continuity from pagan to Christian time. But this is unjustified. The great majority of the barrows are of Stone or Bronze Age date, and they are neighbours to the churches only because barrow builders and church builders both preferred hilltops. If we turn our attention towards graves from the century immediately before the Christianization, we can register only seven churchyards - one of them is Jelling - with evidence of pagan Viking burials. This figure might of course be raised a little by future investigations. But it is unlikely that it will ever exceed 2% of all churchyards.

The general conclusion of my historical, archaeological, and topographical investigations had to be a negative one. The theory of cult site continuity from pagan to Christian time was only wishful thinking and romantic dream. I could not stop my work at this stage, though, but had to put a new question: why did the religious sites of the pagans not attract the church builders? To answer this it is necessary to penetrate into the difficult problems of learning and understanding pagan religious organization and practice.

The main obstacle to this is that the contemporary written sources are sparse while there is at the same time an abundant supply of information about daily life and religion in pagan Scandinavia in mainly narrative sources from the 12th to the 14th century, ie several generations after the Christianization. These sources have been miscoloured by the Christian glasses of the medieval writers, and I have a very low opinion of their content of proper historical information. But the Icelandic sagas in

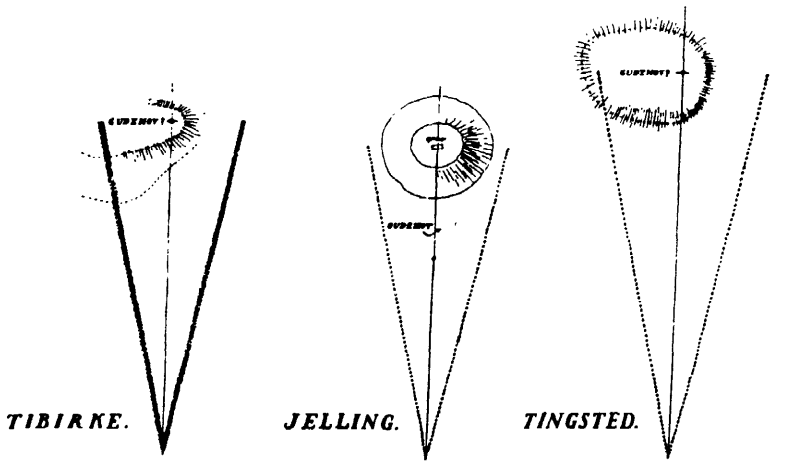

Fig 89 Ejnar Dyggve's three postulated pagan sanctuaries

particular have been trusted by many scholars searching for paganism, and I have had to throw myself into the fray with these, trying to distinguish the wheat from the overwhelming quantities of tares in the sources.

I could write at length about this, but will abstain from it here. I beg to refer those readers who might be interested to fight their way through the English summary of my book (Olsen 1966). I will confine myself to a summary of the central conclusions.

When dealing with pagan cults in the north it is important to realize that there did not exist any proper religious organization and hardly any vocational priesthood. The religious duties were carried out by the heads of the communities - at home by the head of the house, in the village by the lord (or lords), in the districts probably by the local representative of the royal power, and for the whole country by the king himself. All these heads should - each on their level - effect communion between the people and the divine powers for the promotion of good harvests, prosperity, and luck in war.

As in many other religions, the sacrifice (old Norse: *blot)* was a dominant feature in the cult. It existed both in private and in communal worship, and we meet two essentially different forms: the votive sacrifice where an offering was given to the gods (eg deposited beside an idol or in the ground or perhaps burned), and the convivial sacrifice where worshippers collectively ate and drank the nourishment consecrated to the gods.

The votive offerings often took place at sanctuaries in the open - holy trees, groves, springs, mounds, etc - and we may presume that private worship in such places was an important part of the religious life of the people. But the highlight of votive offering was mass gatherings at central sanctuaries, where people met at fixed times of the year, often in connection with moots and markets.

The best recorded mass gathering of this kind is that at Uppsala, where the Swedish king was in charge of the ceremonies. These included occasionally even human sacrifice, and Adam of Bremen gives a description of the gruesome hangings in the holy grove. But Adam also records that the sanctuary at Uppsala included a *templum,* a building housing three statues of the most prominent pagan gods, Odin, Frey, and Thor.

This is the only contemporary account of a temple building in heathen Scandinavia. Idols are known from other descriptions, but they usually seem to stand in the open, sometimes surrounded by a fence or hoarding. In my opinion, the temple at Uppsala is an exceptional feature and a late addition to the sanctuary. It had no natural connection with heathen practice, but was an attempt by the hard-pressed pagans to beat the Christians through their own means: a house for the idols.

When dealing with the question of sacral buildings in heathen times it is more relevant to turn attention towards the convivial sacrifice which seems to have been a prominent part of the worship. The common ritual meal could presuppose the presence of a building for the celebration, at least in our unmild climate. The old Norse word for such buildings is *hof.* We meet it in the Icelandic sagas in a context much resembling the structure of the medieval church - with a congregation and even with a special room for the idols.

However, an analysis of the whole material (including the many farm-names where *hof* appears) has convinced me that the *hof* was not exclusively a sacred building, but a

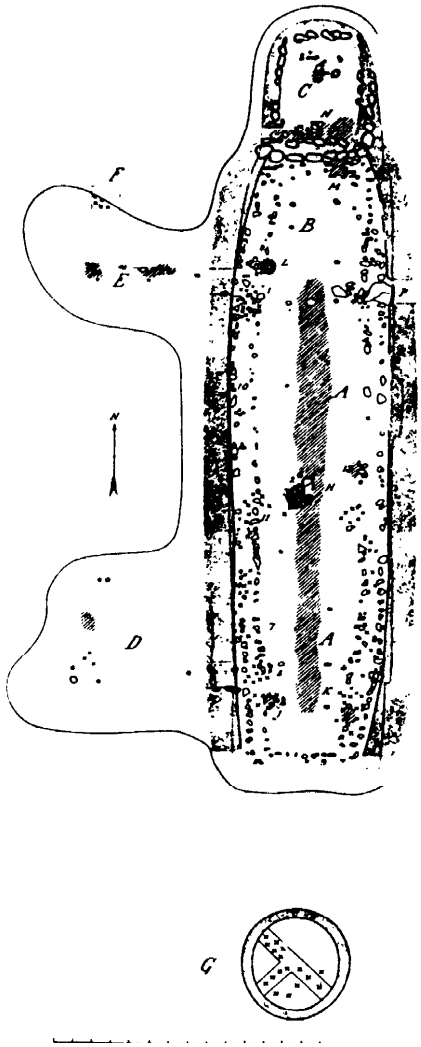

Fig 90 Ruin by the farm Hofstaðir in Mývatnssveit, Iceland (drawn by Daniel Bruun during excavation of the site in 1908)

term used for houses in private ownership which besides their normal function ai daily living quarters served as meeting places for organized pagan worship. We may assume that the free population gathered on particular days of the year at certain farms which were *hof,* in order to eat their convivial meal under the direction of the chieftain farmer. No special building was needed for this. The big living room of the farm would suffice.

In Iceland, nearly 100 archaeological sites are attributed by local legend to be *hoftóftir,* rem&s of heathen temples. Hardly one of these legends is old enough to be taken seriously, and most of the sites are clearly without any interest in relation to the question of pagan worship. Still, one of them must attract our attention. The ruin of Hofstaoir (Hof-stead) in Mývatnssveit differs from the rest. As shown in Fig 90 it is a very long house dominated by one single room (A), *c* 36m x 8m, with an extension abutting on one of the gables and two outhouses along the

west wall. This could very well be our much desired *hof*: in daily life the residential house of the chieftain farmer, on special occasions the frame for ritual sacral meals. The big oval pit outside the house (G) fits into this interpretation. It is a 'baking' pit of unusual dimensions. Its size and position in the open would make it unsuitable for daily cooking, but it would be ideal for the ritual preparation of sacrifical animals for a convivial meal attended by a large crowd.

Pope Gregory instructed Abbot Mellitus not to destroy the pagan temples in England. If they were in a good state it would be more appropriate to use them in the service of the true God. If I am right in supposing that the 'temples' in Scandinavia had both a civil and a sacral function, it will easily be understood why the missionaries of the north could not follow the old advice from the great pope. You could hardly expect the chieftains to give up their daily living rooms for churches. They would have to be placed somewhere else in the vicinity.

These were my conclusions in 1966, or at least some of them. Since that time quite a lot has happened in the field of archaeology, and it would be reasonable to conclude this lecture with some remarks about the present *Stand der Forschung*.

First, I will have to admit that a part of the basis for my investigations has been somewhat disrupted recently. A series of systematic excavations on the island of Funen has shown that the 'migrations' of the villages (often only a few hundred meters each time), which are so well known from prehistoric times, did not stop completely before the 12th century.[2] Therefore it is perhaps not so curious that we find so few pagan relics under the medieval churches. I am actually quite glad that I didn't know this when I worked with the problem of cult continuity. It might have reduced my interest in exploring the pagan religious life!

Otherwise, the new archaeological evidence has generally supported my theories. A campaign for finding new V-shaped sanctuaries in order to disprove my rejection of this phenomenon was called off after energetic but fruitless efforts. New excavations in Jelling have emphasized the weak points in Ejnar Dyggve's ideas about temple and sanctuary (Krogh 1982), and German archaeologists have pulverized Carl Schuchhardt's daring reconstructions of the Slav temples on the island of Rügen (Herrmann 1974).

In Jutland, a number of Viking-age village plans have been unearthed in large-scale archaeological operations (Becker *et al* 1979). It is significant that none of these villages seems to have had sacral buildings of any kind. And perhaps even more significant that the dwelling-houses of the major farms always contain a very large living room - the *hof*?

As far as I know, no new evidence of pagan remains has appeared from the numerous excavations in Scandinavian churches since 1966. Except in one place. Under the church in Maere in Norway, Hans-Emil Liden has found some postholes and small finds which indicate pre-Christian activity of some kind (Lidén 1969). The interpretation is anything but easy, but let us suppose that Hans-Emil Lidén is right in supposing that he has unveiled a pagan sanctuary. Maere is an old central settlement in the province of Trondelag. One may draw comparisons with the situation in Uppsala, where some of the finds under the church might be connected to the pagan mass gatherings in the area.

If we are ever lucky enough to find proper evidence of a continuity from pagan sanctuary to Christian church in Scandinavia, it is most likely to happen in the central meeting places of the people.

Notes

1 The book also appeared as a full volume of *Arbøger for nordisk Oldkyndighed og Historie* (1965), with an English summary and a complete bibliography of all relevant literature.

2 A short report of the project has appeared in English: Jeppesen & Christensen 1977.

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The study of early church architecture in Ireland: an Anglo-Saxon viewpoint

with an appendix on documentary evidence for round towers

Michael Hare
Ann Hamlin

Introduction

The purpose of this paper is to consider the study of early architecture in Ireland against the background of the work on Anglo-Saxon architecture inspired by Dr Taylor over the last generation. Many of the problems with which Dr Taylor has grappled so long are also encountered in Ireland, in particular the dearth of buildings dated by documentary evidence.

This paper is concerned with the surviving stone churches and round towers of the pre-Romanesque period, but it should be emphasized that for the whole of the early period building in wood was the principal medium. The documentary and archaeological evidence for wooden churches is summarized by Harbison (1982, 624-9) and by Hamlin (1984).

The documentary sources (Fig 91)

The documentary sources for early Christian Ireland are of a very different character from those available to the Anglo-Saxon scholar and cannot be discussed in detail here. A general introduction to the sources is provided by Hughes (1972), while their potential and their limitations in the study of church architecture are usefully discussed by Hamlin (1984, 117-20).

In England the conversion of the Anglo-Saxons during the course of the 7th century provides a firm date for the introduction (or rather reintroduction) of architecture in stone. However, there is no clear evidence to indicate when mortared stone building reached Ireland. Barrow (1979, 37), in his survey of round towers, maintained that mortared stone building probably reached Ireland from the sub-Roman world in the 5th and 6th centuries. A critical approach to the documentary sources lends no support to this view, though one cannot dismiss entirely the possibility that some churches in stone could have been erected at this time under Continental influence.

However, the documentary evidence indicates the likelihood of a much later date. The first unambiguous evidence for stone-building in Ireland comes from Duleek (Meath), a place which actually takes its name from the Irish word *damliac* (stone church). The Duleek evidence is given proper attention for the first time by Hamlin (1984, 118) who draws attention not only to the mention of Duleek in the *Annals of Ulster* in 724, but also to the appearance of the name in Tírechán's account of the life of St Patrick, dating from the late 7th century. No further references are found to churches in stone until 789 *(AU),* when a man was killed in the doorway of a stone oratory at Armagh. On the basis of the documentary sources both Harbison (1982,620) and Hamlin (1984,119) concur that stone churches were found on a few important sites in the 8th and 9th centuries, with increasing evidence in the 10th century; it is only in the 11th and 12th centuries that references to stone churches become common.

The student of early Christian architecture in Ireland is faced with an identical problem to the student of Anglo-Saxon architecture, namely the paucity of buildings which can be dated by documentary evidence. Indeed there is no single pre-Romanesque church in Ireland to which a firm date can be assigned. Ralegh Radford (1977, 3) identified the stone church recorded as having been built at Clonmacnois (Offaly) in 908 *(CS)* with the surviving remains of the ruined cathedral. The early fabric at Clonmacnois is undoubtedly of one period, having roughly coursed rubble masonry of the same character throughout with a regular system of putlog holes. It is however just as probable that the present church is to be identified with the 'great church' finished by Abbot Flaitbertach O Loingsig in 1100 *(A Clon).* The west end of the surviving Church of Ireland church at Tuamgraney (Clare) may well be the great church *(tempul mór)* recorded as having been built by Abbot Cormac Ua Cillín who died in 964 *(CS).* The west doorway at Tuamgraney has jambs of massive through-stones and a huge lintel, while there are *antae*[1] at the western angles. However the identifrcation can be regarded as no more than tentative.

It is not until the introduction of Romanesque architecture that firmly dated buildings are found, most notably Cormac's Chapel at Cashel (Tipperary), begun in 1127 and finished in 1134. Cormac's Chapel apparently stands 'at or near the beginning of the Irish Romanesque series' (de Paor 1967, 142), but even the dating of Irish Romanesque architecture presents many problems. In passing we may note the recent comment by Garton (1981, 33) that the 'problems in establishing a chronology for the Irish Romanesque are caused by the paucity of documentary evidence'.

Stone churches

Before discussing stone churches in detail, it needs to be emphasized that the great majority of early churches survive only in a ruinous or abandoned condition. The causes of this state of affairs are usefully outlined by Hughes and Hamlin (1977, 102-13). While many ruins, particularly those in state care, are well preserved, others are overgrown with vegetation, making study difficult. For instance at the early monastic site of Lynally (Offaly), there are remains of a substantial church completely overgrown with ivy. It is just possible to detect the existence of western *antae* beneath the ivy, indicating the probability of an early date for the ruins. At Lemanaghan, another monastic site in Co Offaly, there are two early churches which are heavily overgrown. The ruinous state of most churches also means that there is much less prospect of finding structural woodwork *in situ* than in Anglo-Saxon England.

The documentary sources discussed above indicate that the building of churches in stone in Ireland has a

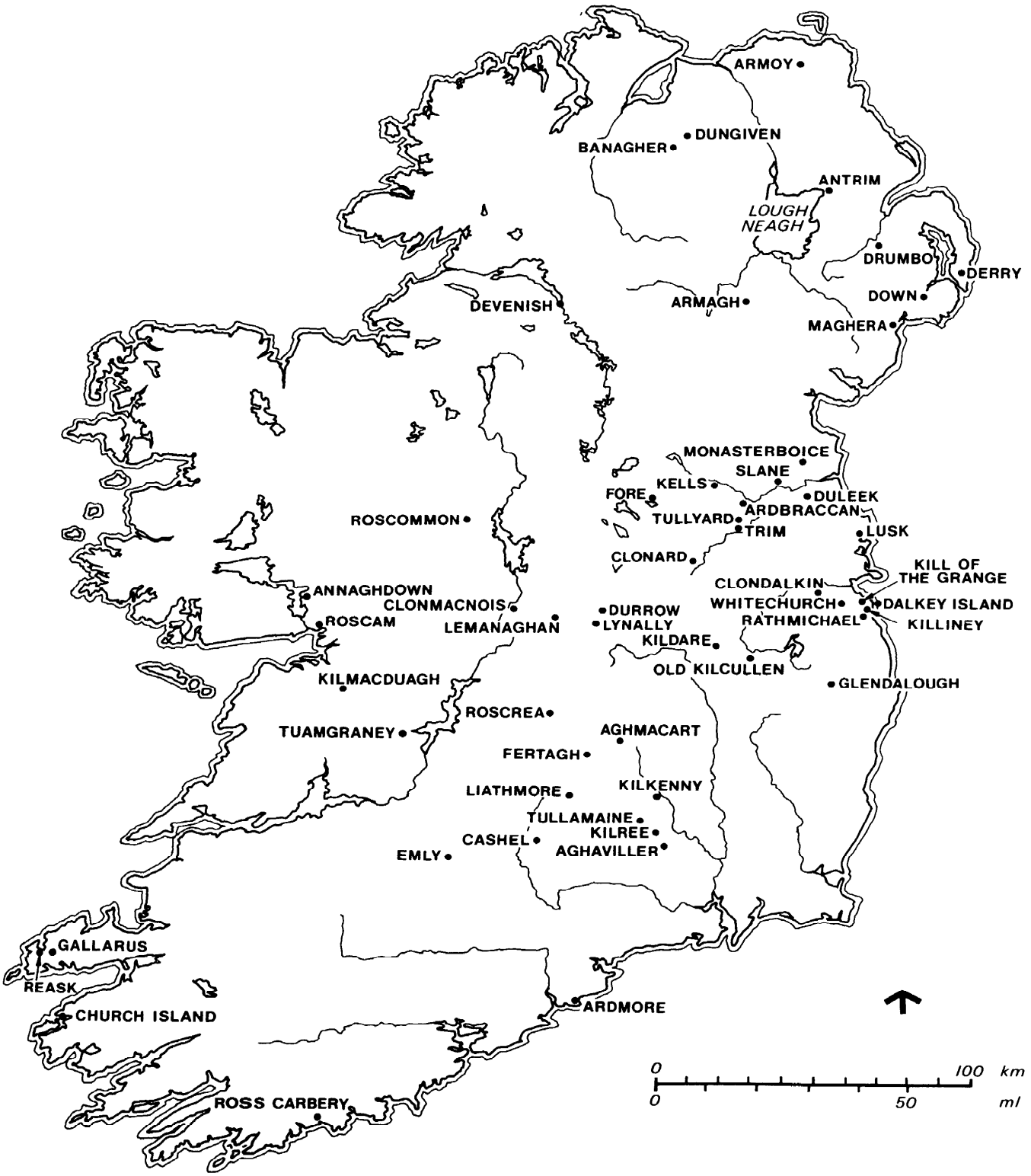

Fig 91 Map of Ireland showing sites mentioned in the text

respectable ancestry, dating back at least to the late 7th century. Studies in Anglo-Saxon architecture over the last twenty years have paid much attention to the attempt to establish an internal chronology (see Gem, this volume, pp 146-55). A large part of Dr Taylor's seminal article on 'Structural criticism' (Taylor 1972) was devoted to the ways in which our understanding of the development of early churches could be improved, with particular emphasis on churches with more than one structural phase. It is the view of the present writer that there is very little prospect of establishing a coherent internal chronology for the majority of pre-Romanesque stone churches in Ireland.

The difficulties are several. First of all churches with several pre-Romanesque phases do not exist or have not yet been recognized. The cathedral at Glendalough (Wicklow) shows two early phases, marked by a clear horizontal break. The small church of Temple Doolin, a few metres south of the cathedral at Clonmacnois (Offaly), shows complexities which appear to indicate at least two early phases. However, such churches appear to be the exception rather than the rule, and in the great majority of early churches only one building phase can be seen. It is possible that at most sites there is only one pre-Romanesque building phase in stone to be recognized, but much survey work and excavation is necessary before any such conclusions can be drawn.

Early Irish architecture does not betray the same wide range of forms as Anglo-Saxon architecture. Architectural detail is of simple character (Leask 1955, 49-78). The variety of types of quoining found in Anglo-Saxon England (Taylor 1978, 940-3) is not encountered in Ireland, and quoining is almost invariably in side-alternate fashion. Windows may be round-headed or triangular-headed, but are small and either internally splayed or (in round towers) cut straight through the wall. The double-splayed form of window is not found in Ireland, nor is there anything analogous to the double belfry window so common in Anglo-Saxon towers. The doorways of surviving pre-Romanesque churches are, apparently without exception, placed in the centre of the west wall and have flat lintels; in round towers the doorways are either lintelled or round-arched.

The rich architectural sculpture of Anglo-Saxon England (Taylor 1978, 1056-9) is not to be found in Ireland. There is nothing to compare with Anglo-Saxon roods such as Breamore or Headbourne Worthy (both Hants) or with the angel in the apse at Deerhurst St Mary (Glos). Decorated string-courses such as those at Breedon-on-the-Hill (Leics) or Hexham (Northumberland) are also absent, as are sculptured panels such as those found at Bradford-on-Avon and Britford (both Wilts). In Ireland architectural sculpture appears to be confined to gable finials (Harbison 1970, 54-7) and to simple crosses on or above the lintels of doorways (Leask 1955, 56-8).[2]

The simplicity of early Christian architecture in Ireland is perhaps most striking when the plan forms are considered. Most churches are simple one-cell structures and the more complex forms of Anglo-Saxon England (Taylor 1978, 967-1034) are unknown. The surviving churches show no trace of elaboration in the form of side-chapels or porticus. The basilican plan and the developed transept are not found in Ireland until the late 12th century. There are no recorded examples of crypts, and the east end is invariably square rather than apsidal. Nothing in the nature of a porch, let alone a westwork, survives, though there is a hint of some elaboration of the west end at Kells in 1006 *(AU).* The great Gospel of Colum Cille[3] was stolen in the night *as ind iardom iartharach in daimliacc moir Cenannsa,* 'out of the western *airdam* of the great stone church of Kells'. This has been variously translated as sacristy, porch, or narthex. The same word is found (in the plural) at Armagh in 995 *(AU)* in connection with a lightning strike. Macdonald (1981, 308-9) has discussed the word *airdam* and concludes that 'the wording is too vague to be sure what is meant'. In any event Armagh and Kells were sites of very high status, where one might expect some elaboration.

Harbison (1982, 618-l 9) has recently produced a simple but effective analysis of the plans of surviving Irish stone churches, dividing them into four categories:

1 Rectangular oratories of the 'Gallarus' type, built in the corbelling technique
2 Simple rectangular structures with upright walls, subdivided into two sub-groups according to the type of roofing used:
(a) with timber roofs covered with thatch or shingles
(b) with stone roofs supported by a stone vault
3 Simple rectangular structures with upright walls, with the addition of *antae,* again subdivided into two sub-groups according to the type of roofing used. An example of this type of church is illustrated in Fig 92
4 Churches consisting of a rectangular nave with contemporary but smaller rectangular chancel

The oratories of 'Gallarus' type were discussed in an important paper by Harbison (1970). He challenged the traditional 6th-8th century date assigned to the oratories of this type, and suggested that they could be much later, perhaps as late as the 12th century. Since Harbison's paper was published the most important additional evidence has come from Fanning's excavation of an early Christian cemetery and settlement at Reask (Kerry), where an oratory of 'Gallarus' type was discovered. The excavator comments: 'In broad terms it lies midway in the development of the cemetery and so could be as early as the seventh or eighth century AD or even as late as the twelfth' (Fanning 1981, 150).[4] The debate continues, but it is worth emphasizing that the only other oratory of this type which has been excavated, Church Island (Kerry) (O'Kelly 1958), was also a secondary rather than a primary feature of the site.

The oratories of 'Gallarus' type are confined to the extreme west coast (Harbison 1970, fig 15), but were long considered to play an important role in the evolution of Irish architecture, leading to the stone-vaulted church with upright walls. Harbison (1970,47) argued even more strongly that churches of this type were of late date, and few would differ from his recent statement (Harbison 1982, 620) that the stone-vaulted church 'is now more generally accepted as being no earlier than the late 11th century or the 12th century.' The late date proposed by Harbison is certainly more consistent with the evidence for the introduction of high-level vaulting on the Continent and in Britain than the dates traditionally assigned to buildings such as St Kevin's at Glendalough or St Columb's House at Kells.[5]

Fig 92 The south church at Deny (Co Down) from the north-east; the church had antae *projecting from the east wall, of which the southern survives intact, but the northern has collapsed (Crown copyright, Historic Monuments and Buildings Branch, DOENI)*

A brief word should be devoted to the nave-and-chancel churches. This type is far less common in early Irish architecture than is normally recognized. The three churches of Reefert, Trinity, and St Kieran at Glendalough (Wicklow) are well known, but in fact the only other pre-Romanesque example of this type known to the writer is the church at Killiney (Dublin), a mere 30km north-east of Glendalough. Radford (1977, 4) implied that the type was common in Ireland from the 10th century onwards, but the surviving remains do not support this conclusion. No dating evidence is available at Glendalough or Killiney, but as the nave-and-chancel type does occur regularly in the 12th century,[6] one may at least wonder whether the handful of pre-Romanesque examples is likely to be much earlier.

Thus the evidence tends to indicate that nave-and-chancel churches and stone-vaulted churches in the pre-Romanesque tradition are of comparatively late date. The great majority of surviving remains are however simple one-cell churches, with or without *antae,* of the wooden-roofed type. What is preserved in stone today appears to be of great simplicity, but one may wonder whether this external simplicity may not belie a far greater internal complexity, particularly as far as the larger churches are concerned.

As a starting point one may take the well-known description of the church of St Brigid at Kildare (Co Kildare) by Cogitosus (Migne 1878, cols 788-90), written in the 7th century and apparently describing a church constructed not long before. The church was probably of wooden construction throughout, and the evidence suggests that the basic ground-plan was a simple rectangle for the church was all under one roof *(sub uno culmine).* Internally the church was divided in complex fashion. Radford (1977, fig 1) has offered us a plausible reconstruction but the text is by no means straightforward, and, as Professor Thomas stresses elsewhere in this volume (above p 123), there is more than one way in which the building may be reconstructed. However, one sentence in the description suffices to capture the essential character of the building: 'In this way, the one basilica is sufficient for a huge crowd, separated by walls according to state, grade and sex, but united in the spirit, to pray to the Almighty Lord.'

The church at Kildare was probably of especial complexity, as one of the handful of women's foundations which survived as major monasteries over a long period (Hughes & Hamlin 1977, 8).

It is probable that similar internal subdivisions existed in many larger churches, whether built of wood or of stone. Among the surviving stone churches it is difficult to visualize the interiors of churches such as the cathedral at

Glendalough (14.75m x 8.96m) or the church of St Fechin at Fore (11.28m x 7.21m) as simple open spaces. Whether it will be possible to demonstrate this archaeologically is "doubtful, as evidence is unlikely to survive above ground, while screens probably left little trace below ground.

In addition to vertical divisions the possibility of horizontal divisions, such as floors and galleries, must be considered. The 7th century description of a wooden church in *Hisperica Famina* contains a reference to a *'supernam . . . camaram'*. This is translated by the editor as 'vaulted roof (Herren 1974, line 551), and Harbison (1982, 627) suggests that this might be a reference 'to a small croft which could provide a suitable ancestor to that found immediately under the roof ridge of stone-vaulted churches . . . such as St Columb's House, Kells, or St Kevin's at Glendalough.' These crofts are, however, as Leask (1955, 33-5) has pointed out, constructional expedients which result from the special character of these buildings. It is surely simpler to render *'supernam . . . camaram'* as 'upper chamber' and to suggest that what is involved is a roof chamber, formed between the roof and a flat ceiling at roof-plate level. Such upper chambers were common in Anglo-Saxon England (Taylor 1978, 827). There is indeed evidence at both Kells and Glendalough to support the idea that such upper chambers existed in Ireland, but it is to be found in the much more spacious wooden-floored chambers which existed beneath the vaults, evidenced by the joist-holes visible at springing level. [7]

Evidence for upper chambers with floors at roof-plate level is necessarily difficult to find in normal wooden-roofed churches, owing to the ruinous state of most remains. It may, however, be noted that at the pre-Romanesque church of Kill of the Grange (Dublin), the east and west gable walls each have an internal offset about 0.1m deep at roof-plate level. While the offsets may be merely an expedient to reduce the weight of the gable walls, it is also possible that they formed part of the arrangements for a floor at this level. Offsets in gable-end walls are not uncommon in later medieval Irish churches, but it is worth noting that several churches of late 12th and 13th century date in the southern part of Co Dublin in the vicinity of Kill of the Grange display similar offsets at roof-plate level. The most notable example occurs at Whitechurch, where there are offsets in nave and chancel; a narrow opening on the north side above the chancel arch is best explained as providing access between chambers over the nave and chancel.[8]

The evidence for the existence of such chambers remains slender and as in England there is no indication as to their function. However one may at least draw attention to the substantial body of evidence for the storage of lay property in sanctuary in churches (Lucas 1967,194-208).

No convincing evidence for galleries in pre-Romanesque Irish churches is known to the writer. Leask (1955, 68) drew attention to the window in the south wall of the church on Dalkey Island (Dublin) and suggested that its position indicated the position of a priest's chamber or gallery at the west end. However, the window is not as close to the west end as Leask implies, and there is no supporting evidence from joist-holes or corbels. At Clonmacnois joist-holes indicate a wooden gallery in the western half of the 13th century church of Temple Rí, and similar evidence may yet come to light from earlier churches. At Liathmore-Mochoemóg (Tipperary), the small or northern church of pre-Romanesque date contains in its side walls joist-holes at a height of about 2.5m above ground level, which would appear to have supported an upper floor along the whole length of the church.[9]

The simple character of the surviving material remains of early churches has been stressed in this paper, and Hamlin (1984, 126) stresses the contrast between this simplicity and the 'carved stones, metalwork and manuscripts on which such care and expertise were lavished'.

The written sources provide disappointingly little information about the decoration of early Irish churches, and it would not be possible to write a history of early Irish art based on the documentary evidence similar to the recent study by Dodwell (1982) of Anglo-Saxon art. For instance the description of the church in *Hisperica Famina* tantalizingly concludes (Herren 1974, lines 559-60):

> The chapel contains innumerable objects
> which I shall not struggle to unroll from my wheel of words.

Only Cogitosus' description of the church of St Brigid at Kildare provides detailed information, referring for example to 'shrines with decorations of gold and silver and settings of precious stones'. Cogitosus' description also serves to remind us of forms of decoration which have not survived. At Kildare the paintings *(pictis tabulatis)* appear to have been panel paintings similar to those introduced by Benedict Biscop at Wearmouth (Meyvaert 1979).[10] The extensive use of painting in major churches can scarcely be doubted, though it remains uncertain whether a tradition of mural painting developed such as existed in late Saxon Wessex.' A cross-wall at Kildare was decorated not only with paintings but also with linen hangings or curtains *(linteaminibus),* and in all probability a rich tradition of textiles existed in Ireland similar to that known from Anglo-Saxon England (Dodwell 1982, 129-69).

In England the use of stained glass is now well established in the 7th and 8th centuries, having been found at high-status sites throughout England, such as Jarrow and Wearmouth, Repton, St Albans, and Winchester. No documentary or archaeological evidence exists for the use of stained glass in Ireland, but the extensive contacts between England and Ireland in the 7th and 8th centuries (Hughes 1971) could have resulted in glaziers travelling to Ireland, and the possible existence of glass at major early sites should not be overlooked. Finally it is worth emphasizing that the surviving stone sculpture of early Christian Ireland (including the small amount of architectural sculpture) appears to be designed exclusively for external use. There is apparently no tradition of internal liturgical sculpture in stone, such as screens or shrines. It may be surmised that in all probability the rich tradition of external stone sculpture was matched by an equally rich tradition of wooden carving, predominantly internal.

It is to be hoped that we may yet learn something of these and other less well preserved forms of decoration from excavation.

Round towers

The round towers of Ireland have received surprisingly little study in the 20th century. The major examples are of

Fig 93 The round tower at Antrim (Co Antrim) (Crown copyright, Historic Monuments and Buildings Branch, DOENI)

surpassing beauty, dominating the surrounding landscape in a way that cannot be paralleled by any surviving remains from Anglo-Saxon England (Fig 93). The skill in the construction of the towers demonstrates that the simplicity of early Irish stone churches was not due to any technical shortcomings on the part of the masons.

The round towers have recently been the subject of a study by Barrow (1979), and at the moment any discussion must effectively take the form of an extended book review.[12] Unfortunately the book has a major flaw, the perverse belief of the author that most of the towers date to the 7th century. The documentary evidence for round towers and their date is considered by Ann Hamlin in an Appendix to this paper. The reader who wishes to make use of the book must resolutely set aside all statements which result from the author's theories as to date, for instance the special pleading which occurs whenever a round tower is known to cut earlier burials, as at Kilkenny (Co Kilkenny) and Kilmacduagh (Galway) (Barrow 1979, 38-9).

Subject to this major qualification, Barrow's book does nevertheless provide a useful contribution to our knowledge. It establishes for the first time a reliable corpus of round towers. The heart of the book is a gazetteer, consisting of an architectural description of each tower, accompanied by photographs, drawings, and sometimes by useful (though poorly drawn) sections. The gazetteer also includes notes on the early history of each site but these must be treated with great caution, as they draw widely and uncritically on the sources, especially the hagiographical material. By contrast extensive and valuable use is made of documentary sources and of illustrations from the 17th century onwards for modern repairs and alterations. The architectural descriptions are by and large adequate, though there are a few surprising errors and omissions in a book which deals with only 67 standing buildings. For instance at Aghaviller (Kilkenny) the single surviving window is triangular-headed externally, not square-headed. At Antrim (Co Antrim) the cross on the stone above the lintel of the doorway (the only such cross associated with a round tower doorway) is incorrectly described and illustrated, the author failing to notice that the stem twists into curved terminals at its base.

There is in addition an unfortunate lack of attention to structural detail, such as flooring arrangements or evidence for early scaffolding systems. Floors are often described as resting on a 'ring of corbels' but this gives a misleading impression, for what appears to be involved is usually no more than a continuous ledge of projecting stones, sometimes well cut as at Roscam (Galway), sometimes only very roughly dressed as at Kilree (Kilkenny). Where joist-holes survive the evidence indicates that floors rested on two parallel joists. The joists are sometimes widely spaced so that access from the floor beneath must have been by a ladder between the joists, sometimes closely spaced indicating that access must have been to one side of the joists. In some towers, for instance Clondalkin (Dublin) and Glendalough (Wicklow), the joists in each floor were at right-angles to the floor beneath (for a section of Glendalough see Leask 1950, fig 5), but this was not always the case as witnessed by Antrim (Co Antrim). These observations are of a preliminary nature and there is scope for much more systematic study. [13]

The exposed scaffolding system at Roscam (Galway) is passed over with a brief mention by Barrow (1979, 104) but does in fact merit further discussion. Seven lifts are visible externally, at intervals of 1.10m-1.20m, each lift having six holes (Fig 94). The putlog holes are blocked in the centre of the wall but from the fourth lift upwards can be distinguished internally as well as externally. The individual putlog holes are tall and narrow, measuring 60-80mm in width and 200-250mm in height. Four lifts of a similar system can be detected at Annoy (Antrim) though detailed study is made difficult by the fact that much of this tower is clad with ivy. At Devenish (Fermanagh) a system of triangular putlog holes is visible,[14] and close study of other towers would doubtless produce further examples.

Another defect of the book is the way in which the

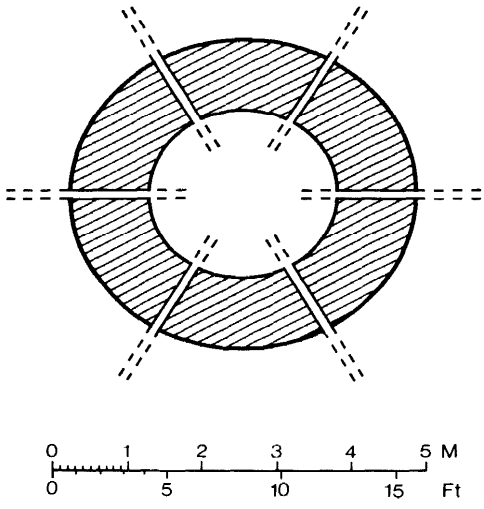

Fig 94 Schematic plan of the round tower of Roscam (Co Galway), showing the system of putlog holes

round towers are treated as *disjuncta membra,* with little or no discussion of their archaeological context. In the introduction to his book Barrow (1979, 26) makes the point that round towers are usually sited in the western part of a monastic complex, with their doorways frequently facing directly towards the doorway of the principal church on the site. But in practice this feature, which as Margaret Stokes (1928, pt 2,46) pointed out, can be very revealing, is often passed over without note. For instance at Kells (Meath), a site of major importance, the doorway faces north towards the west end of the modern Church of Ireland parish church. It is one of a number of factors in the topography of the site which suggests that the modern church is the successor to the principal early church from which the great Gospel of Colum Cille was stolen in 1006 (see above, p 133). Numerous other examples could be cited, but it will suffice to mention Fertagh (Kilkenny) where the doorway faces north-east towards a ruined medieval church (now used as a handball alley) and Old Kilcullen (Kildare) where the doorway faces north towards the west end of an early church known by excavation. At other sites the position of the doorway may well provide a clue to the position of a vanished church as at Antrim (Co Antrim), or suggest that the church has shifted as perhaps at Maghera (Down). It should however be noted that while the position of round-tower doorways tends to fit a common pattern, some caution must be exercised for it is not a universal pattern. For instance the doorways at Kilmacduagh and Roscam (both Galway) do not face towards any known church, while at Kilkenny (Co Kilkenny) the doorway is only a short distance from a terrace falling away sharply towards the River Nore.

The merits and defects of Barrow's book may usefully be summarized by reference to one individual tower, Rathmichael (Dublin), which survives as a mere stump some 1.90m high (Barrow 1979, 86). The tower is accurately described and measured and there are useful references to 18th and 19th century documentary sources. However the section on the early history of the site is misleading.

It is suggested that the name of the site may derive from St McThail of Kilcullen, but there is in fact no reason to see the patron saint as any other than St Michael himself, whose cult was well established in pre-Norman Ireland (Roe 1975). The earliest Norman forms of the name, *Rathmichael* (1179) and *Ramihel* (1190) (McNeill 1950, 3 & 17), lend support to this conclusion (O'Brien 1980, 1567). Barrow adds that Rathmichael provided an archbishop of Armagh in 834, though without citing any reference. The *Annals of Ulster* do record under 834 the installation of an abbot at Armagh named Forinnan from Rath-mac-Malais, but linguistically there is no warrant for identifying Rath-mat-Malais with Rathmichael.

Barrow notes that the round tower stands to the south of a ruined medieval church, but fails to observe that fabric identical to that in the tower survives in the eastern half of the nave. The western half of the nave is of quite different character; the break is masked by a buttress externally, but is clearly visible internally (Fig 95). It is probable that the tower stood to the south-west of an early and contemporary nave, probably with its doorway facing north-east towards the west doorway of the church. Rathmichael has been deliberately selected as an example where the evidence is far from conclusive, but one which demonstrates the importance of looking at sites in their full context.

The question of the date of round towers is largely dealt with in the Appendix to this paper. The late date which is proposed is consistent not only with the documentary evidence but with contemporary developments on the Continent and in England. As Barrow (1979, 38) rightly states there must have been a builder 'who first worked out the design of a round tower and built the first', though we shall probably never know the precise influences at work. Some would see the round tower as a direct importation of the detached campanile from the Mediterranean world, while others would lay more stress on the staircase turrets of churches in the Rhineland and on the round towers at the west end of the church in the St Gall plan. Whatever the precise models, it is surely simplest to see the round tower as a specifically Irish development in the spread of bell-towers throughout western Europe from the Carolingian period onwards.

Further research

Although Barrow has produced a corpus of round towers, no corpus comparable to Taylor and Taylor (1965) exists for early Irish churches and a great deal of work is necessary before it can be produced. Hamlin (1984, 124-6) suggests various potential lines of research, and this paper concentrates purely on the need for more detailed structural analysis of individual buildings.

There has been little detailed fabric study of early churches in Ireland, though the examination by Smith (1972) of the Cathedral at Ardmore (Waterford) is a notable exception; Smith disentangles the pre-Romanesque church from a complex series of later alterations. By contrast the study by Mettjes (1977) of the buildings of Glendalough (Wicklow) is a disappointment. He attempts to produce a coherent chronology, based on a study of the development of plan-forms and architectural detail, but his conclusions carry no conviction as they are inevitably based on circular arguments. For instance in his discussion of the churches of Trinity and Reefert, which

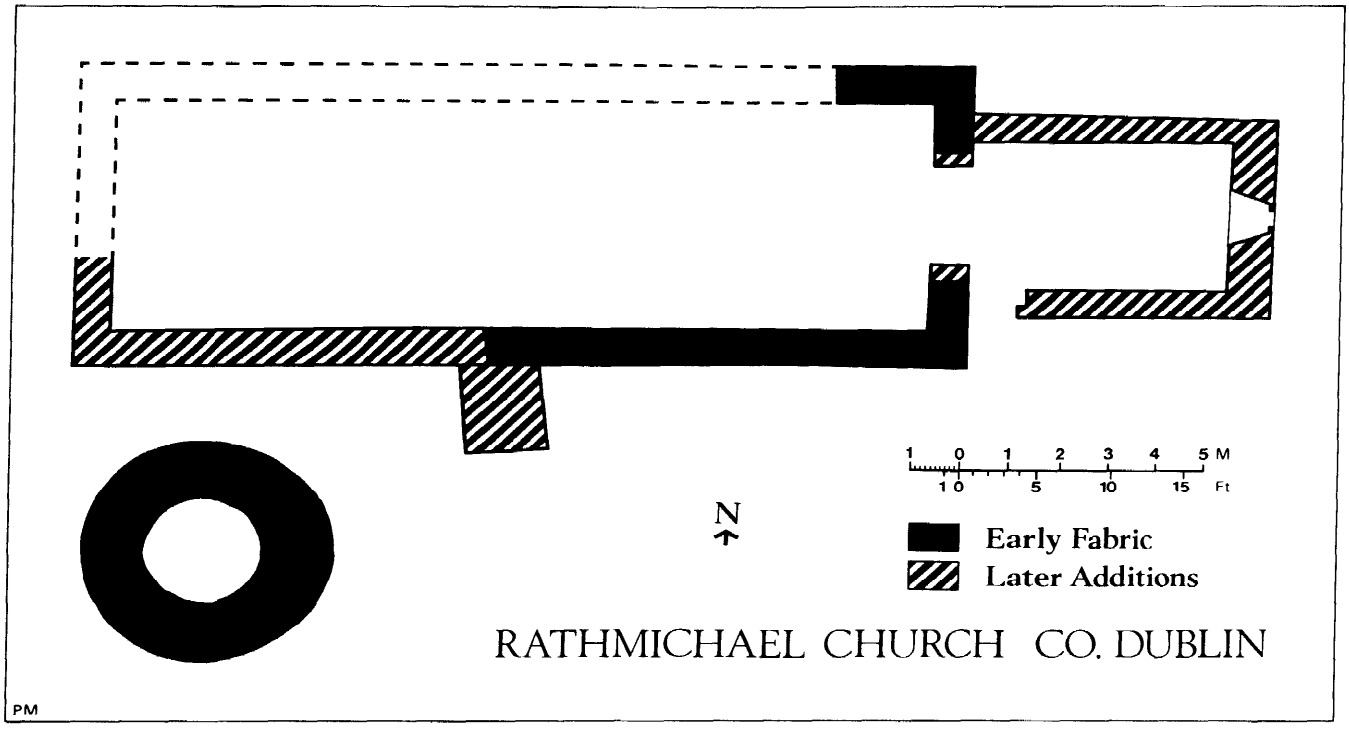

Fig 95 Plan of the ruined church and round tower of Rathmichael (Co Dublin) based on a survey by E O' Brien

are almost identical in plan and elevation, he concludes that Trinity is of earlier date than Reefert because of the better quality of its masonry (Mettjes 1977, 86). The argument that one building is earlier than another because it is built of superior masonry is a fallacy too well known to warrant further discussion here. There is indeed scope for further research at Glendalough, but detailed study of individual buildings should take priority over attempts to generalize. There is also a need for an overall plan of Glendalough, and it is disappointing that no accurate plan yet exists of the 'monastic city', let alone of the complex of early remains which stretch along the length of the valley.

As yet no Irish church has been recorded on a stone-by-stone basis, and it is to be hoped that studies of this nature will develop in Ireland as they have done in England under Dr Taylor's influence over the last twenty years. Dr Taylor himself demonstrated in his study of the chancel of St Giles, Barrow (Shropshire), how a greater understanding can he achieved by this means even of a comparatively simple structure (Taylor 1971).

In recent years particularly interesting results have come from the structural examination of churches undergoing restoration. The potential was demonstrated in Ireland by Waterman (1967) in his recording and excavation during consolidation work of the two churches at Derry in the Ards Peninsula (Down). Although his report concentrates on the excavation, much structural detail was observed, particularly in the pre-Romanesque south church (Fig 92), where features of interest included a cavity for a lacing timber in the east gable at wall-plate level.

The study of round towers is particularly likely to be advanced by examination during restoration. The upper parts of round towers are difficult to study at the best of times, with more than 30 towers surviving to a height in excess of 20m and 20 towers to a height in excess of 25m, with Kilmacduagh (Galway) the highest surviving example at approx 34, high; moreover most towers have lost their internal flooring. In England recent studies of towers undergoing restoration have produced a wealth of structural information, as at Barton-on-Humber (Humberside) (Rodwell & Rodwell 1982) and Clapham (Bedfordshire)[15] (see also below, pp 167-71).

At Clapham an almost complete system of putlog holes was recorded, arranged in sixteen lifts. Some putlog holes retained sawn-off timbers in varying degrees of preservation, including one putlog of hawthorn in perfect condition, retaining even its original bark. While putlog hole systems have been noted above at a handful of Irish towers, there are many where no system can readily be detected and where it is only likely to be revealed during restoration as at Clapham. The joist-holes for three early floors were recorded at Clapham, with the end of one joist still embedded in the wall; it is hoped that dendrochronological examination will provide confirmation of the late 11th century date postulated for the tower. Many other structural features were observed including building breaks, both daily and seasonal.

The chance to study a round tower in detail occurs only rarely, and it is much to be hoped that when the occasion of restoration permits the examination of one of the major surviving round towers, the opportunity will be seized.

Acknowledgements

I am very grateful to all those who have encouraged and helped me in the preparation of this paper. I owe a special debt of gratitude to Dr Ann Hamlin for her constructive criticism of the first draft which saved me from a number of pitfalls and for allowing me to see her recent paper prior to publication; I am also grateful to her for providing the photographs which accompany this paper. I have also benefited from a number of stimulating discussions with Betty O'Brien and she has kindly allowed me to make use of her unpublished researches into the interesting but little known churches of south-east Co Dublin. I am indebted to Professor Etienne Rynne for providing a ladder and for helping me to carry it across three muddy fields in the depths of winter, in order to enable me to examine more closely the scaffolding system at the round tower of Roscam. On this side of the Irish Channel Carolyn Heighway read and commented usefully on the text. The drawings were prepared by Phil Moss and the text was typed by Shirley O'Brien.

APPENDIX

Documentary evidence for round towers

Ann Hamlin

Lennox Barrow's recent book (1979) on round towers contains much that is valuable, but one of its disappointing characteristics is the cavalier use of early written sources. Two quotations will illustrate Dr Barrow's attitude: 'Documentary sources on the towers are few and unreliable' *(ibid,* 13), and 'it cannot be too strongly emphasised that written records on this subject are all very much secondary' *(ibid,* 15), though he allows that the annals are of limited value. This note investigates what *can* be learned about round towers from early written sources, especially from the annals which, despite Barrow's strictures, are in some cases first class contemporary sources.

This is not the first such attempt. George Petrie drew heavily on written sources in his study of towers (1845), and in Lord Dunraven's *Notes on Irish architecture* (1875-7) Margaret Stokes listed annal references to round towers. In her own still valuable *Early Christian art in Ireland* (1928) her list included traditional, but undocumented, building dates.[16] Barrow 1979 included annal references in each tower's bibliography. My justification for another investigation is twofold: some of the annals have appeared in new editions or been published for the first time since Margaret Stokes' day, and Barrow has not always taken account of these; and there may be something to be learned from looking again at the spread of annal references as a whole, rather than site by site.

My search through nine annal collections has produced 62 references altogether (Table 3), which cover 26 separate events and 22 different towers. The word *cloicthech,* variously translated as round tower, bell tower, steeple, or belfry, needs little discussion. Literally 'bell house', it focuses attention on one of the uses of round towers, and is quite distinct from other kinds of towers, for which annalists used the word *tuir.* In one case *cloicthech* is employed figuratively in describing a miraculous event, an atmospheric phenomenon: 'a steeple of fire was seen in the air over *Ros-Deala' (CS* 1052, *AFM* 1054). A different word was used to indicate the top or cap of a tower, the *bennchobbor,* particularly vulnerable to lightning or storm damage, though *AI* employed it in 996 when two other annals used *cloicthech.*

All the events involving round towers recorded in the annals belong to the period between 950 and 1181 except for two in the 13th century.[17] Barrow (1979, 37) derides the scholarly caution of those who (like myself) prefer a later rather than an earlier date for the origin of towers, yet any scholar who studies written sources must accept the discipline inherent in their use, and also recognize that arguments from silence are dangerous. Study of sources shows that, although references to buildings are not as numerous in the annals before 950 as in the later 10th and 1lth centuries, the earlier sources do attest to a wide range of monastic features - enclosures, churches, kitchen, refectory, abbot's house, other houses, guesthouse (Macdonald 1981, 305-l 1) - but nowhere is a round tower mentioned before 950.[18] There can be no certainty that towers were being built for more than a generation or so before that first reference in the annals. The onus of proof is firmly on those who want to claim an earlier origin, and none has been offered by Barrow.

A non-annalistic source which attests to the building of round towers in the middle decades of the 12th century is the obituary notice of Donnchad Ua Cerbhaill, who became King of Airghialla probably in 1136 and died in 1168. This was copied into a late medieval breviary, known as the *Antiphonary of Armagh* (Kenney 1929, 766, 770), and includes the claim that 'in his time tithes were received . . . and churches were founded, and temples and *cloictheachs* were made, and monasteries of monks, and canons, and nuns were re-edified' (Petrie 1845, 394). The latest date at which the building of a round tower is recorded is 1238 at Annaghdown (Galway). Barrow suggests that the stump at Kilcoona, not far away, may be the 1238 tower (1979,98; Gwynn & Hadcock 1970, 389). Its joggled joints would be consistent with that date as they do seem to be a feature of some Romanesque and transitional masonry.[19] An interesting historical question is raised by this 1238 reference, chronologically firmly within the period of reformed diocesan organization. If Kilcoona was indeed the site, rather than the site of the cathedral or one of the reformed houses at Annaghdown, this would underline the association of round towers with pre-Norman ecclesiastical establishments.

There are few references specifically to the building of round towers. The 964 obit of Cormac Ua Cillín records that he built the great church and round tower at Tuamgraney (Clare), and the 1120/25 record of the finishing of the round tower at Clonmacnois (Offaly) names both abbot and king as builders. The late (1238) reference to the building of the tower at Annaghdown has already been mentioned in the context of dating. But building was clearly something normally taken for granted and was only rarely mentioned.

What did attract attention was the fate of towers - catastrophes which befell them and dramatic events that happened in them - and these references can in turn throw *some* light on the uses to which towers were put. Twenty-two incidents of mishaps to towers are reported. In two cases we learn simply that towers *fell, in* 1039 at Clonard and in 1181 at Ardbraccan (both Meath). No reasons are given. Structural instability is a possibility, though high winds or lightning could have been involved.

Table 3 Chronological list of annal references to round towers

Date	Site	Event	AU	ALC	A Tig	CS	AI	A Con	MIA	A Clon	AFM	COMMENTS
950	SLANE (Meath)	Burned by Vikings with crozier, bell, lector and others	*	0	0	949		0	0	945	948	First reference in annals Lector –*ferleigind*
964	TUAMGRANEY (Clare)	Death of its builder: abbot and bishop		0	0	*		0	0			*Terminus ante quem* for the building
981	LOUTH	Many steeples fell in storms including Louth		0				0	0	*		AFM at 986 gives *dertech* of Louth, so some doubt over A Clon 'steeple'
995-6	ARMAGH	Burned by lightning		0	995	994	996	0	0	989	995	AU 996 records fire but not tower. AFM has plural, *cloicteacha*. AI uses *bennchobbor*
1015(6)	DOWN	Burned by lightning			0			0	0		*	Only AFM refers to tower, other to fire
1020	ARMAGH	Burned 'with its bells' in major fire	*	*	*	1018	*	0	0	1013	*	Cause of fire not specified
1039	CLONARD (Meath)	Fell						0	0	*	*	No cause given
1050	ROSCOMMON	Burned by the men of Breifne						0	0		*	CS records the event in 1047 but churches burned: tower not mentioned
(1054)	ROSDALLA	A steeple of fire was seen			*	1052		0	0		*	Figurative use of *cloicthech*, not an actual tower
1058	EMLY (Tipperary)	Burned entirely, stone church and steeple	*	*				0	0		*	No cause given. AI records burning of *damliac* not tower
1076	KELLS (Meath)	King of Tara Killed by king of Gailenga in	*	*	*	1073		0	0	1075	*	

Date	Site	Event	AU	ALC	A Tig	CS	AI	A Con	MIA	A Clon	AFM	COMMENTS
1097	MONASTERBOICE (Louth)	Burned with books and treasures	*			1093		0	0		0	Cause not specified
(1109)	CLONMACNOIS? (Offaly)	*Erdamh* of Ciaran covered with shingles and *benncobhar*				*		0	0			Could this suggest an attached tower of Kevin's Kitchen (Glendalough) type?
1121	ARMAGH	Wind knocked off cap	*	*				0			*	*Benncobhar* – cap
1121	TULLAMAINE (Kilkenny)	Split by a thunderbolt	*	*				0			*	Falling stone killed a student in church
1124	CLONMACNOIS (Offaly)	Finished by abbot and king				1120		0			*	CS specifies the great belfry : *an cloictech mor*
1126	TRIM (Meath)	Burned during warfare with many people in						0	*			AI refers to event in 1128 but not to tower
1130-1	DRUMO (Down)	Plundered during warfare					0	0	*			Oratory (*duirrtheac)* and books also plundered
1135	CLONMACNOIS (Offaly)	Head knocked off by lightning	0			1131	0	0			*	*Chinn* – head
1135	ROSCREA (Tipperary)	Pierced by lightning	0			1131	0	0			*	
1137	Unspecified	Many steeples blown down	0				0	0		*		
1147	DULEEK (Meath)	Cap knocked off by a thunderbolt	0	0			0	0			*	*Bendchobhar* – cap
1156	AGHMACART (Laois) FERTAGH (Kilkenny)	Burned during warfare and lector killed Chief master killed in		0	*	0	0	0			*	*Fer leghínd* in A Tig, *ardmhaighistir* in AFM, is same man. Clearly a single event, not two

Date	Site	Event	AU	ALC	A Tig	CS	AI	A Con	MIA	A Clon	AFM	COMMENTS
1171	TULLYARD (Meath)	Burned during warfare with its full of people			*	0		0			*	
1176	DEVENISH (Fermanagh)	King of Fir Mhanach burned by his kinsmen in				0		0	*			
1181	ARDBRACCAN (Meath)	Fell			0	0		0		*		No cause given
1238	ANNAGHDOWN (Galway)	Built		*	0	0		*	*		*	
1285	ROSS CARBERY (Cork)	Blown down by a very destructive wind			0	0	*		0			

Notes on Table 3

1 The abbreviations and editions of the annals will be found in the bibliography.
2 The date in the first column is based, where possible, on the *AU* entry. If the event occurs in another annal under a different date, this date is entered in the list. An asterisk indicates the same event at the same date.
3 In many of the annals certain years are missing. An 0 indicates that the particular year falls in a *lacuna*. There has, however, been no attempt to show the gaps in *A Clon* as the dates are of out of phase with the other annals and there are numerous gaps, resulting from the 17th century translator's defective original.
4 On the annals see Hughes 1972, chapter 4, and MacNiocaill 1975.

The annals sometimes specified that towers were burned or otherwise damaged through natural disasters like lightning, 'thunderbolts', and storms, but in other cases no cause was stated and the context remains unknown. There are nine clear cases of natural disasters - towers damaged by wind or tops knocked off or burned by lightning - and one collective reference, though in three cases no cause for the fire is stated. We learn from the 17th century English of *A Clon* that in 1137 'There was Boysterous tempestous windes this yeare that it fell dowen many trees, houses, turrets, steeples, and other things'. In 1285 the tower at Ross Carbery (Cork) was blown down, a fate which befell the round tower at Maghera (Down) about 450 years later: the tower 'was overturned by a violent Storm, and lay at length and entire on the Ground like a huge Gun, without breaking to Pieces; so wonderfully hard and binding was the Cement in this Work' (Harris 1744, 82).

Towers as well as churches were involved in warfare and dynastic struggles. The earliest reference, to the tower at Slane (Meath) in 950, is to a Viking raid, but in 1050 the tower at Roscommon was burned by the men of Breifne. The tower at Kells (Meath) may have been damaged when the fugitive king was killed in it in 1073/76, and a century later the king of Fir Mhanach was burned by his kinsmen in the round tower on Devenish (Fermanagh), and burning suggests damage. Drumbo tower (Down) was plundered during warfare in 1030-1, and Trim and Tullyard (both Meath) were burned during hostilities in 1126 and 1171 respectively.

The uses to which towers were put were very fully rehearsed by Petrie, who convincingly argued that they were multiple (1845, 358-80). It is in the nature of the annals to dwell on the unusual rather than the commonplace and we do not read of the everyday ringing of bells from the top windows, though the word *cloicthech* reminds us of this use, and in 1020 the round tower at Armagh was burned 'with its bells'. The annals leave us in no doubt over their use as refuges for people and safe storage-places for treasures. In 950 *(AU)* 'The Belfry of Slane was burned by the Foreigners of Dublin. The crozier of the patron saint, and a bell that was the best of bells, [and] Caenechair the lector, [and] a multitude along with him, were burned' - an example of unsuccessful use of a tower for safety. Monasterboice tower was burned 'with its books and many treasures' in 1097 *(AU),* which is, as Miss Roe points out (1981, 10), the only reference to books in this context. At Trim (Meath) in 1126 the church and belfry were burned 'with many people in them' *(MIA),* and Tullyard (Meath) was burned in 1171 'with its full of people in it' *(AFM).* In addition to the lector *(ferleigind)* at Slane in 950 we find the 'chief master' *(ardmhaighistir)* burned in the round tower at Fertagh (Kilkenny) in 1156 *(AFM),*[20] and I have speculated elsewhere that perhaps one of the lector's special responsibilities was to retreat to the round tower, when danger threatened, with the monastic books and treasures (Hamlin 1976, 73).

Laymen were also killed in round towers: there were royal victims at Kells (Meath) in 1076 and Devenish (Fermanagh) in 1176. It has generally been assumed that the kings were taking refuge from their enemies in the towers as the places of greatest safety, though Barrow (1979, 167) has also suggested that a round tower could have provided a secure lodging in troubled times. The annals provide no insights into other suggested uses, such as watchtowers, beacons, and heavenward-pointing symbols. It is, however, clear from the chronological spread of references that round towers continued to be used after the main period of Viking pressure as places of safety in domestic unrest in the 11th and 12th centuries. The annals also remind us that churches were used for refuge and safe storage: in 1125 the altar of the great stone church at Clonmacnois was opened and precious things taken out of it *(CS)* and in 1133 'Lusk, with its church full of people and treasures, was burned' *(ALC)* (see also Lucas 1967).

The killing of a student in the church at Tullamaine (Kilkenny) in 1121, when a stone 'leapt out' of the storm-damaged cap, indicates close proximity of church and tower, something which is still clear on the ground, and perhaps also a fairly flimsy roof covering on the church. It is interesting to find how often *cloicthech* and *damliac* (stone church) appear together in the annals, a reminder that the main period of round tower building saw also an increase in the use of stone for building churches (Harbison 1970; 1982; Hamlin 1984).

I cannot claim to have made an extensive search through other early written sources, but there must be more information about round towers to be gleaned from them. Petrie (1845, 364-6) quoted a section of the Ancient Laws of Ireland which laid down building stipulations and rates of pay for builders of wooden churches, stone churches, and round towers, and perhaps from Dr Binchy's new edition of the laws more information about towers will emerge. A list of impossible conditions specifies jumping over a round tower as one (Quinn 1968, 246), so clearly in Early Christian times they were regarded with some awe as the technological achievement they undoubtedly are. Late in the 12th century Giraldus Cambrensis acknowledged their distinctiveness; recounting the story of a drowned settlement under the waters of Lough Neagh he wrote, 'Fishermen of the lake have clearly seen under the waves in calm weather towers of churches, which, as usual in that country, are tall, slender and rounded' (O'Meara 1951, 48).

Notes

1 *Antae* are projections of the north and south walls of a church beyond the east and west gable-walls (see Fig 92). They appear as buttresses, though they do not serve this function (Leask 1955, 55-6).

2 It is possible that the crosses on doorways are connected with the right of sanctuary. Lucas (1967, 188) draws attention to the numerous killings at or before the door of a church and he concludes that 'there is a pattern of slayings at church doors extending from the 8th to the 16th century and an obvious explanation is that the persons concerned, or most of them, were either dragged from sanctuary within the church and dispatched outside it or cut down as they emerged from the building.' Although crosses only survive at a few churches, the normal practice could have been to paint a cross on the lintel of the doorway or indeed on the door itself.

3 The Gospel was later recovered and is almost certainly what we know today as the Book of Kells.

4 Unfortunately no skeletal material survived for radiocarbon dating owing to the extremely destructive nature of the soil conditions (Fanning 1981, 81).

5 In particular St Columb's House at Kells has frequently been dated to 813 by *an* entry *in* the *Annals of Ulster,* referring to the completion of a church at Kells.

6 See Leask 1955, *passim,* for plans of nave-and-chancel churches of 12th century date, with examples also of chancels added to earlier churches in the 12th century.

7 For a section of St Kevin's at Glendalough see Leask (1950, fig 9). As to St Columb's House at Kells, Leask (1955) refers to the joist-holes in his text (p 33) but they are omitted from his section (fig 8).

8 I am grateful to Betty O'Brien for drawing my attention to this feature of churches in south Co Dublin.

9 My own notes, made on the occasion of a visit in 1980, indicate that the joist-holes appear to be contemporary with the fabric. The possibility that they belong to a late phase of secular occupation has been suggested to me, but I have been unable to return to the site to check my original conclusions.

10 Although the theme cannot be explored in detail here, the terminology employed by Cogitosus and the arrangement of the paintings at Kildare are similar to the terminology and arrangements found in Bede. For instance at Kildare emphasis is placed on a cross-wall, described as *'unus paries decoratus, et imaginibus depictis, ac linteaminibus tectus, per latitudinem in orientali ecclesiae parte, a pariete ad alterum parietum ecclesiae se tetendit'.* At Moukwearmouth Bede describes *'imuginem . . . beatae Dei genetricis semperque virginis Mariae, simul et duodecim apostolorum, quibus mediam eiusdem aecclesiae testudinem, ducto a pariete ad parietem tabulato praecingeret'* (Meyvaert 1979, 70).

11 See particularly the recent article on the wall paintings at Nether Wallop (Hants) by Gem and Tudor-Craig (1981) and the forthcoming study of East Shefford (Berks) by Professor Martin Biddle and Birthe KJølbye-Biddle.

12 A different perspective will be found in the useful review article by Rynne (1980).

13 Study is made difficult by the fact that where modern floors have been inserted these usually obscure earlier arrangements, while if there are no floors only the lowest portion of the tower is available for study.

14 I am grateful to Arm Hamlin for drawing the putlog hole system at Devenish to my attention.

15 Clapham was studied by the present writer and by Angela Simco during extensive restoration in the winter of 1981-2; publication is in preparation.

16 I have not included 'traditional' dates, unsupported by early sources. For an example of how misleading they can be, see the entry for Dungiven (Londonderry) in Margaret Stokes' list (1928): '1100 Church and Belfry, Dungiven'. There is no early evidence for the 1100 date, and the 'belfry' was part of a late medieval tower-house, not an ecclesiastical round tower!

17 I have not systematically searched the later medieval annals, but there is a reference to the plundering of Clonmacnois by the English of Athlone in 1552 when the large bells were taken from the round tower *(AFM).*

18 Petrie (1845, 387-9) believed that an incident described in Adomnan's *Life of St Columba* could refer to a round tower in the saint's own time, and Barrow (1979, 176) agreed that this interpretation was possible, but I prefer to see the fall *'de monasterii culmine rotundi'* as from a round monastic house at Durrow, not a round tower, the view also taken by the Andersons in their edition of the *Life* (1961, 113 & 494-5).

19 Northern examples of joggled masonry include Devenish (Fermanagh) in Romanesque work and Banagher Church (Londonderry) in the early 13th century added chancel.

20 The killing of the lector at Aghmacart recorded in *A Tig* at 1156 is clearly the same event. The two sites are close together.

Abbreviations and editions of annals

A Clon	*The Annals of Clonmacnoise,* ed D Murphy, Dublin, 1896
A Con	*The Annals of Connacht,* ed A M Freeman, Dublin, 1970
AFM	*Annals of the Kingdom of Ireland by the Four Masters,* ed J O'Donovan, Dublin, 1854
AI	*The Annals of Innisfallen,* ed S MacAirt, Dublin, 1951
ALC	*The Annals of Loch* Cé, ed W M Hennessy, London, 1871
A Tig	*The Annals of Tigernach,* ed W Stokes in *Revue Celtique,* l6-18, 1895-7
AU	*Annals of Ulster,* eds W M Hennessy & B MacCarthy, Dublin, 1887-1901
CS	*Chronicon Scotorum,* ed W M Hennessy, London, 1866
MIA	*Miscellaneous Irish Annals,* ed S Ó hInnse, Dublin, 1947

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A B C: How should we periodize Anglo-Saxon architecture?

Richard Gem

The problem of 'first principles'

The publication of the third volume of HMT's *Anglo-Saxon architecture* in 1978 brought to a new stage a great enterprise begun 65 years earlier with Baldwin Brown's pioneer work of the same title. The enterprise had been one of trying to construct a typology of Anglo-Saxon architecture, and to discern in the process the different periods through which this architecture developed. In relation to such an objective considerable significance must be attached to HMT's comments in his preface: 'As I have worked on my task . . . I have become certain that the time is not ripe for firm pronouncement about the dates of more than a handful of . . . buildings . . . therefore in this volume I have laid aside the hope of achieving firm date ranges for more than a few churches' (Taylor 1978, xvii-xviii). These comments, however, are best taken not as a counsel of despair, but as a challenge. It is the intention of this paper to look at one aspect of the way forward.

In the first place it is perhaps worth stating why a way forward is important. The most fundamental reason is that we are studying Anglo-Saxon architecture as historians (in the broadest sense) and that a discernment of the underlying patterns of development is essential to our understanding - be it in the field of social and economic history, of technological history, of political history, of religious history, of the history of ideas, or of the history of art. Without chronology we cannot make comparisons; without comparisons we cannot discern patterns; and without patterns there is no comprehensible history. It is therefore not optional whether we continue our efforts to establish a chronology of Anglo-Saxon architecture - unless we wish to abandon the subject altogether.

The ways forward are perhaps multiple, but at the same time complementary. Two of them HMT has drawn attention to himself. First there is typological analysis (to which his third volume is devoted), and here there is perhaps still further work that might be done through the use of computing techniques. Secondly, and perhaps even more importantly, there is the application of archaeological techniques to the study of individual churches. The most significant development of the past decade or so in the study of Anglo-Saxon architecture has undoubtedly been the growth of a specialized church archaeology. This subject is given good coverage in the other papers in the present publication and for this reason need not be further discussed here.

A third approach is the application of the art-historical method to Anglo-Saxon architecture. The distinctive tools of the art historian, style criticism and iconography, are critical implements to be added to those of the archaeologist and typologist. However, this paper is not perhaps the best place to expound upon this further, since both methods are the subject of recent publications elsewhere (Fernie 1983; Gem 1983).

What has seemed most important here is to go back to the problem of the first principles of chronology (especially since HMT has directed our attention so consistently to this area) and to look at some of the considerations that must precede the application of all particular methods.

HMT's own contribution to the definition of first principles he has summarized in his third volume (Taylor 1978, 735-7). The chronology of the fabric of Anglo-Saxon buildings must be established on the primary evidence of one or more of the following: contemporary historical documents; archaeological analysis of the upstanding building; or archaeological excavation of the site of the building. In other words, the chronology of each building must be established on internal evidence before it may be used in any comparative argument. The first principles as thus defined lay the foundations for an empirical approach to the chronology of Anglo-Saxon architecture, and must provide the most reliable framework for historical study. However, HMT has drawn attention to the difficulty of applying this approach rigorously while at the same time producing any very extensive results. Only a small number of buildings is dated by contemporary documents or by archaeological research and, whereas it may prove possible in the future to subject many more buildings to archaeological study, yet this study is more likely to produce relative chronological sequences than absolute ones.

The problem may be illustrated by reference to some of the major research projects of recent years. At Barton-on-Humber indeed it has proved possible to establish a good relative chronology and also to pin down the absolute date of the main Anglo-Saxon fabric by the scientific analysis of surviving timbers. But elsewhere, as at Brixworth and Deerhurst, scientific analyses of different materials have produced far more ambiguous results. It may of course be that scientific analysis will reach an ever greater degree of precision, and that further excavations will in addition produce important coin evidence (as at Repton), but this is at best an uncertainty. These intrinsic problems, coupled with the political and economic problems of actually funding large numbers of church excavations, must render very tenuous the hope of being able to construct in the forseeable future a chronology of Anglo-Saxon architecture unassailably based on empirical first principles.

But can the definition of first principles be extended in order to meet the actual situation we face? It may be argued that it can, and as a first step towards this we may examine the logical foundations from which any first principles must be derived. The empirical method, which has been discussed so far, rests upon *inductive* reasoning: that is, it argues from what is observed to general principles. It assumes that if, for example, we were able to carry out an archaeological and documentary examination of every known building with a double-splayed window, and if we were able to show thereby that all these windows occurred in Late Anglo-Saxon contexts, then we should be able to conclude that all double-splayed windows are Late Anglo-Saxon. But of course, although the conclusion may be true, the argument is not valid: all the windows

observed hitherto may indeed be Late Anglo-Saxon, but it cannot logically be excluded that someone will discover a previously unknown example which is Mid Anglo-Saxon. Without going into the problem of the validity of inductive arguments concerning the natural sciences, it is probably true to say that all inductive arguments about Anglo-Saxon architecture will conform to the above pattern, and that none of our general statements therefore will be necessarily true in the logical sense. Of course we may not claim that our general statements about Anglo-Saxon architecture are a matter of logical necessity; but it is still worth making the point because there may be a danger of our assuming that the inductive method is the only logical one for approaching the subject - whereas this is not the case in fact.

If we were to look at the problem of double-splayed windows not from an inductive but from a *deductive* point of view we might argue as follows: all double-splayed windows are Late Anglo-Saxon; this church has a double-splayed window; therefore this church is Late Anglo-Saxon. This in terms of logic is a valid argument - though to be sound the premise itself must be true, which brings us back to the problem of empirical observation. This particular form of deductive argument may not seem to take us very far in our concrete study of Anglo-Saxon architecture; but it may be used to show that logical validity is as much or more a matter of deduction as of induction, and that if we are concerned to use our empirical observations logically we are as entitled to set them into a deductive context as into an inductive context.

The inductive method would have us observe every example of an Anglo-Saxon church and on the basis of our observations draw general conclusions: these conclusions we would have reasonable grounds for thinking true, though they would not be necessarily true. The deductive method would have us formulate an *a priori* premise and analyse what the consquence would be if the premise were true: we should then be able to observe Anglo-Saxon churches to see whether or not they provided reasonable grounds for supposing that our premise might be true. Either of these methods would be equally logical and, in view of what we have seen above about the practical limitations on advancing more than a limited way with inductive methods, there seems a good case for examining the possible applications of deductive methods in addition.

What is being suggested here is that if we assume a hypothetical general pattern to explain a class of phenomena, then we can examine the individual occurrences of these phenomena (or a representative sample) to establish whether these lit the hypothetical pattern. If they do, then we have good reason to think that the hypothesis is, as far as it goes, an adequate explanation; if they do not fit, then the initial hypothesis must be rejected and an alternative one formulated. The general pattern need not be one drawn directly from a prior examination of the architecture. Rather, it assumes that the architecture of the Anglo-Saxons forms an integral part of the culture of the period and that, if a framework is established based on an examination of other aspects of that culture, then there may be postulated a pattern which may (or may not) explain the architectural history as well. This general pattern may be termed a 'cultural paradigm'. The method is one which in fact has been employed, albeit not explicitly, in the study of Anglo-Saxon architecture since Baldwin Brown's day - which brings us to the A B C (Table 4).

A survey of previous interpretative frameworks

The use of an alphabetical nomenclature as such for designating the periods of Anglo-Saxon architecture is of no intrinsic importance; what is of importance is the reason why Baldwin Brown first suggested a tripartite division of Anglo-Saxon architecture. The reason, however, is not altogether straightforward to discern since Brown's explanation is not without contradictions. In the 1903 edition of his work (p35) he admits that the tripartite division is a matter of convenience, but that the distribution of monuments between the three periods is based on the examination of the monuments themselves. In the 1925 edition (p3), however, he claimed that it was a careful analysis of the details of the buildings and a study of their history that had made it possible for him to draw up a general scheme for the chronology of Anglo-Saxon architecture (that is, the tripartite scheme), and that the fact that his division into three periods had not been seriously challenged suggested to him that it was valid. The change between 1903 and 1925 is between the claim that the tripartite scheme was a-prioristic and that it was empirical. It seems clear, however, that the 1903 statement was closer to the truth, and that in the intervening years Brown had become so convinced of its validity that he thought he had arrived at the scheme empirically.

If the A B C was a-prioristic and Brown was presenting a hypothetical explanation of the development of Anglo-Saxon architecture, can we see what reasons led him to formulate it in the particular way he did? Fortunately, yes, because the reasons are stated. A, the early period, ran from the conversion of Æthelbert of Kent to the first Viking attacks; B, the middle period, covered the epoch of the Danish wars of the 9th century; C, the late period, began with the monastic revival of the reign of Edgar and continued till the Norman conquest. In other words, Brown thought that, if the Christian Anglo-Saxon period was to be subdivided, then three principal events might be taken as landmarks: the Conversion; the Danish invasions; the monastic revival.[1] The positive significance of the first and last of these landmarks is obvious; the second seems of a different nature, that is, it is a negative factor. Here for the first time we have the Viking invasions brought in as an explanatory factor in the development of Anglo-Saxon architecture, and it has remained with us ever since. There will be a further examination of this below, and here it will be sufficient to note only how Brown himself used the 'Viking factor'. He did not use the Vikings as a terminus to bring one period of creativity to an end, and mark an hiatus before a subsequent period of creativity began; his intermediate period was not as negative as this. Rather he saw the intermediate period as one during which the art of building was checked 'but by no means brought to a standstill' (Brown 1903, 297): the Viking invasions might be a major factor, but throughout the period the architectural contacts established in the early period between England and the Continent continued. This is perhaps the appropriate point to say that possible Continental influence was another factor of the

Table 4 Comparative summary of principal chronological schemes for Anglo-Saxon architecture, and for contemporary Continental architecture (following Gem)

	Brown	*Clapham*	*Taylor*	*Cherry*	*Fernie*	*France*	*Germany*
550						Merovingian	
575							
600							
625	AI	period of Heptarchy I	AI	Early Anglo-Saxon	Early Anglo-Saxon		
650							
675	A II		A II				
700							
725							
750	A III		A III				
775		period of Heptarchy II				Carolingian	Carolingian
800							
825			B I				
850	B				Viking invasions		
875			B II	'Obscure'		Late Carol-ingian	
900					Late Anglo-Saxon I		
925		Carolingian	BIII				Ottonian
950							
975	C I		C I	Late Anglo-Saxon		'Proto Romanesque'	
1000							
1025	C II		C II				
1050	C III					Romanesque	Romanesque
1075		Anglo-Norman	C III		Late Anglo-Saxon II		
1100							

greatest importance in Brown's interpretation of Anglo-Saxon architecture, but that he did not explicitly use the periodization of Continental architecture' as a direct point of reference for establishing his scheme for the English material.

Before discussing the present validity of Brown's paradigm, it is necessary to pass in review the chronological schemes that have been proposed by subsequent writers so that these also may be evaluated at one and the same time. Sir Alfred Clapham neither used nor criticised Brown's scheme, but introduced his own alternative (1930). His division was basically a bipartite one: the period of the Heptarchy from the Conversion to the mid 9th century; and the period of Carolingian architecture which succeeded the former and continued till the Norman conquest. The former period he further subdivided into two stages, the first corresponding to the 7th century, and the second to the 8th century and first half of the 9th. Evaluation of Clapham's scheme is difficult since he does not state his reasons for adopting it, which must be construed from the text as a whole. In the first place it seems clear that the scheme, like Brown's, was an a-prioristic one and not empirically based. Secondly, it would be fair to say that the paradigm implied, insofar as it is implicit rather than explicit, should perhaps be seen as a matter of convenience rather than as the product of Clapham's considered judgement. Yet it must be pointed out that the paradigm is internally inconsistent. The bipartite scheme is divided in the middle of the 9th century, and it is clear that this is intended to correspond to the interruption of the Danish invasions (Clapham 1930, 46-7). On the other hand, the later period is called Carolingian, which should imply that it corresponded chronologically with the Carolingian period on the Continent and began in the second half of the 8th century.[3] Thus we may extract two possible paradigms from Clapham's work, two that cannot in fact be used simultaneously. One of these suggests that the architecture of the Anglo-Saxon period may be divided into two parts sharply divided by the Danish invasions of the mid 9th century. The other implies that a division can be made corresponding to the development of the Carolingian style of architecture on the Continent which, it is assumed, transformed an earlier pre-Carolingian style of Anglo-Saxon architecture. Both these hypotheses, however, are open to objection, as will be seen later; but here it is only necessary to note that Clapham's use of the 'Viking factor' is radically different from Baldwin Brown's.

Among contemporary writers, HMT in 1965 revived Baldwin Brown's A B C periodization, only altering marginally the chronological boundaries between the three periods. However, while HMT does indeed quote Brown's rationale for the scheme (Taylor & Taylor 1965, 1, xxv), it seems that he does not use it for the same reasons. Brown was making use of an a-prioristic explanatory hypothesis with his A B C; but HMT, insofar as he has been following the inductive approach, has had no use for such a framework, and the A B C (with its 1 2 3 subdivisions) has become in practice almost entirely a shorthand for specifying dates: thus, for example, 'A 1' has become a shorthand for 'between *c* 600 and 650'.

Bridget Cherry, in her admirable essay of 1976, attempted to review the state of knowledge at the time of her writing, and did not herself seek to put forward a new synthesis. She did not, therefore, suggest a new scheme of periodization , but took the traditional approaches and criticized them. There is thus a reflection of both the tripartite scheme of Brown and the bipartite scheme of Clapham. The basic treatment is bipartite in that the material is considered under the headings of 'Early Saxon' and 'Later Anglo-Saxon', but there is reference also to an 'obscure' intermediate period between these, lasting from *c* 800 to 950. This ambiguity undoubtedly reflects the widespread misunderstanding caused by Brown's and Clapham's use of the 'Viking factor'; they meant different things by it, but have been taken as meaning the same thing by a conflation of part of the ideas of each. From Clapham has been taken the notion that the Viking invasions marked a clear break between an earlier and a later Anglo-Saxon period; from Brown has been taken the idea that the Viking period lasted from the end of the 8th century to the middle of the 10th. Thus a chasm has been created of 150 years or more between an early and a late period.

Most recently Eric Fernie, in his important new book *The architecture of the Anglo-Saxons* (1983), has unambiguously followed the deductive approach and has set up an a-prioristic paradigm for which he states his debt to Clapham. However, if it is Clapham's, it is so with a difference - not the least important being that Fernie argues closely his reasons for adopting his scheme. What does derive from Clapham is that the scheme is basically bipartite and that the two parts are separated by the Danish invasions of the mid 9th century. Where it differs is in calling the two periods Early and Late, and in abandoning the confusing 'Carolingian' label for the latter.

When it comes to Fernie's arguments for rejecting Brown's tripartite scheme in favour of Clapham's bipartite one, a further divergence in detail from Clapham's views can be seen. Fernie's arguments should be summarized here, however, not only for this reason but also for their intrinsic importance (1983, 90, 92). First, Fernie states his conviction that the Danish invasion represented a violent hiatus during which a decline in building activity should be expected, and that a bipartite scheme divided by this hiatus is the most natural one to follow. The implication of this is that Brown was wrong in believing that there could be cultural continuity through the Danish invasions; but against this view a good case can still be made *a priori* for thinking Brown was right. This will be considered further below.

Secondly Fernie argues that having a period B creates a vacuum effect; that is, that merely labelling the years 800 to 950 as a distinct period will have the psychological effect of making scholars wish to assign buildings to this period whether on good evidence or not. The real force of this argument is uncertain, though it does contain a point. On the other hand, it seems as likely that the very existence of the century and a half in question will tend to attract material whether or not the period is labelled. Conversely, if a label is refused, may this not tend by the same effect in reverse to expel material that rightly belongs?

Thirdly and fourthly Fernie argues that the setting up of a period B both obscures the natural grouping of the buildings of the first half of the 9th century with those of the preceding Early period, and also artificially divides buildings in Wessex in the first half of the 10th century from those of the era of monastic reform in the second

half. This would be true only to the extent that the divisions between periods are regarded as hard and fast boundaries; but they need not be so regarded.

Last, Fernie argues that the setting up of period B was perhaps instrumental in forming the view that Late Anglo-Saxon architecture was essentially Carolingian in character, whereas Fernie believes that the architecture of the Late period should be seen rather in the context of the early development of Romanesque architecture in Europe. This, however, is quite unfair to Brown, for it was not he but Clapham who was responsible for the 'Carolingian' label applied to Late Anglo-Saxon architecture; that is, it arose with the bipartite and not the tripartite scheme, and can hardly be advanced as a substantial argument against the latter. However, Fernie is certainly right in saying that Anglo-Saxon architecture needs to be evaluated in terms of a more up-to-date appreciation of Continental architecture than was available to Brown or Clapham.

Within the overall structure of his bipartite scheme, Fernie suggests (1983, 90) that in the Late period can be discerned two stages of activity: the first during the years from Alfred the Great up to and including the monastic revival of the late 10th century, the second during the reign of Edward the Confessor (whether there was any lull in building activity between the two stages he regards as unproven). The development from the first stage to the second he proceeds to consider in terms of the emergence of what he calls an 'Anglo-Saxon Romanesque' style. He certainly does not thereby suggest that the Late period as a whole can be labelled Romanesque; only certain currents within it. However, whereas Fernie is right in seeking to focus attention on any possible relationship between Late Anglo-Saxon architecture and the developing Early Romanesque styles of the Continent, it may be felt that he has used the term rather too liberally and that confusion is likely to result. Fernie himself has indicated that although there are constituent features of the Romanesque style that may have their individual origins in the 10th century or earlier, yet it is not until the 1lth century that these constituent elements come together in a style that can be called unequivocally Romanesque. If, therefore, we were to consider the Late Anglo-Saxon architecture of Fernie's scheme under the heading Romanesque, we should be open to the same criticism as that levelled earlier against Clapham. That is, there is an inconsistency involved in seeking to use both the Danish invasion of England in the mid 9th century and at the same time the emergence of the Continental Romanesque style of the early 11th century in establishing a single bipartite paradigm for Anglo-Saxon architecture; there are in reality two distinct hypotheses involved here.

Having now surveyed the principal interpretative frameworks advanced by scholars from Brown to Fernie, a summary must be attempted of what may be learnt from them, and then suggestions must be made about a way forward. Common to the different schemes is their selection of factors which are taken as of such significance that they justify *a priori* the subdivision of Anglo-Saxon architecture into different periods. The principal factors that have been suggested are these:

The conversion of England to Christianity
The devastation caused by the Viking raids and the Danish invasions
The English recovery under Alfred the Great and his successors
The monastic revival
The second Danish period
The accession of Edward the Confessor
The development of the Carolingian style
The development of the Romanesque style

Among these it may be observed that there is a considerable divergence: some are political factors, some economic, some religious, some stylistic. Or, again, some are taken as having a positive significance and some a negative significance in promoting or retarding architecture. The confusion is considerable; but we should not neglect the attempt to sort it out. To achieve this, we may first consider how various hypotheses may be set up *a priori;* then some account must be given of how they may be tested empirically.

Towards a new interpretation

Establishing cultural paradigms

One of the weaknesses of the earlier attempts at interpretation that have been examined above is that they sought to set up a single paradigm while employing divergent, if not inconsistent, factors to establish the subdivisions within it. It may be contended, however, that any paradigm must be self-consistent, and that to attain this we must have in the first instance not a single paradigm but a multiplicity: that is, separate political, economic, religious and stylistic ones, and probably others as well. We should recognize that these are likely to be interrelated in a variety of ways, but we may only attempt a fusion into a single cultural paradigm if and when we have demonstrated an identical pattern in each area of culture. In the present paper an examination of all areas of culture cannot be attempted, but representative areas can be taken to illustrate what is involved - even if the treatment must perforce be rather superficial in view of the limitation of space.

First let us consider how an ecclesiastical-historical paradigm might be established. Consideration would need to be given to what factors in the ecclesiastical history of the Anglo-Saxons seemed most likely to have marked stages in their cultural development and, specifically for the present purpose, to have influenced architecture. Some of the following would certainly be important:

1 In the pagan period we should not expect to see any flourishing of ecclesiastical architecture in the areas of Anglo-Saxon settlement, but we might look for pagan cult sites and for a survival of Christian ones among the residual Romano-British population.
2 With the period of conversion to Christianity from the end of the 6th century and through a large part of the 7th, we might expect the beginnings of an ecclesiastical architecture formed by the experience of the missionaries from Italy and Gaul on the one hand, and from Scotland and Ireland on the other.
3 With the archiepiscopate of Theodore (668-90) and the consolidation of the administrative structure of the church at a national level, and also with the work of figures such as Aldhelm, Biscop, and Wilfrid, we might expect a growth in the provision of churches

and the development of buildings less 'missionary' in character but reflecting more the church's now established role in society. At the same time, in view of the Continental contacts of leading churchmen, and the Anglo-Saxon missions to pagan Germany, we should expect these buildings to show some acknowledgement of contemporary Continental architecture.

This phase of consolidation and accommodation to the structure of society we should expect to continue through the 8th century. For, even though there survives no connected written history following Bede's death in 731, there is other evidence from synodal acts and from ecclesiastical correspondence which shows a vigorous church life (though not without abuses) continuing, and remaining in contact with the church on the Continent.

4 English churchmen, first Boniface and then Alcuin, were among the originators of the reform of the Frankish church which took place under the early Carolingian monarchy, and they were also proponents of reform in the English church. Furthermore, there is specific evidence from Canterbury for a Carolingian-type reform of the community of Christ Church under Archbishop Wulfred in 813. There seems good reason to think, therefore, that the ideas leading to church reform and to a new Carolingian ecclesiastical architecture on the Continent may not have been unfamiliar in England from the late 8th century onwards.

5 The effects on the church of the Viking raids and then the invasion of the Great Army are difficult to determine. The earlier raids on the Continent coincided with the period of the greatest splendour of Carolingian culture. In England there is no reason to assume that the raids of the same period necessarily had a devastating effect on church life. From 866 onwards, however, the situation was transformed: the Viking settlement of Northumbria, East Anglia, and half Mercia must have disrupted the political and economic structure of the church, and without doubt some churches were destroyed and religious communities dispersed at the same time. But evidence for the actual extinction of Christianity in the areas of Scandinavian settlement is conspicuously lacking. Alfred the Great, when he speaks about the ravaging and plundering of churches and about the decay of Latin learning (Keynes & Lapidge 1983, 124-6), is a witness to the fact that the invasion and settlement had a negative effect also in southern England, but this is not the same thing as a complete hiatus in church life and culture; the church continued and its architectural requirements must have continued with it.

Alfred, whose reign coincided in large part with the worst of the Viking onslaught, was himself a promoter of ecclesiastical reform and of new building projects. This reform preceded the specifically 10th century reform movements on the Continent (Gorze, Cluny, etc) and belonged still to the Anglo-Saxon tradition parallel to the Carolingian reform on the Continent. It would seem artificial, therefore, to divide the late 9th century radically from the early 9th century.

6 The fundamental reorientation of church life in the post-Viking period came only in the second half of the 10th century, and was less a result of the cessation of Viking activity than a product of influence from the 10th century reform movements on the Continent. The monastic revival we know from documentary sources alone led to numerous architectural projects both for new foundations and for the restoration of old ones. This in itself should make the revival an important landmark in any paradigm for the development of Anglo-Saxon architecture. The force of the revival continued into the early years of the 11th century, by which time it was largely spent (Gem 1978).

7 The renewed Danish attack on England, leading to the accession of Cnut, must have had a depressive effect on the economy of the church (Gem 1975), but there is little evidence for any radical break in church culture at this time, and a continuation of late 10th century norms might be expected.

8 With the accession of Edward the Confessor the church was exposed to a new wave of continental influence that coincided with the early stages of the papal reform movement; some reflection of this might be expected architecturally.

In summarizing the development outlined here, it might be said that ecclesiastical history suggests a basic continuity in the Anglo-Saxon church, without any fundamental break caused by the Vikings or other factors. This, therefore, would not provide grounds for establishing a paradigm with rigid compartments, whether tripartite or bipartite. It does on the other hand allow us to see, perhaps, a number of stages within the continuous development, and some of these stages might be grouped together. A tentative grouping of the stages discussed above might be:

c 600-750x800	Period of conversion and consolidation
c 750x800-900x940	Period of attempted reform parallel to the Continental Carolingian reform
c 900x940-1010x1045	Period of successful monastic reform
c 1045 ff	Period of papal reform

Whether Anglo-Saxon architecture in fact relates typologically or stylistically to this ecclesiastical-historical paradigm is a matter for empirical testing, and this will be examined further below. First, however, consideration must be given briefly to some other alternative approaches.

Another possible scenario assumes, not without some evidence, that cultural contacts existed between England and the Continent and that therefore the chronology of the succession of styles in Continental architecture may provide a paradigm. In outline the Continental development is this:[4]

Until *c* 751	Merovingian style
c 751-919 (in Germany)	
c 751-987 (in France)	Carolingian style
c 919-1025 (in Germany)	Ottonian style
c 980-1020 (in France)	Proto-Romanesque style
c 1020-1060x1100	Early Romanesque style
c 1060x1100 ff	High Romanesque style

In this scheme the dates given for the Carolingian and Ottonian styles correspond with the dates of the dynasties of these names. This may appear to involve circular reasoning, insofar as it seems to presuppose a link between political and stylistic events. The difficulty can only be acknowledged here, for it would take a longer argument to demonstrate the justification - that is, that it was indeed the direct patronage of the Carolingian and Ottonian courts that created the styles named after them. The dates given here should be regarded as only approximate stylistic boundaries.

A political paradigm indeed would seem a further possibility. One for this country might start from a basic division between the period of the Heptarchy and that of the unified kingdom of England, separated by the Viking invasion of the second half of the 9th century which destroyed the old political order. The two main periods might be further subdivided, with stages corresponding to, for example, the period of Mercian dominance in the 8th century, or to the rule of the Scandinavian kings in the early 11th century. However, this paradigm could not be developed very far unless we knew a great deal more than we do about the cultural policies of the political authorities involved; it is only in isolated cases (such as that of Alfred) that an assessment is possible.

Finally there is the problem of constructing an economic paradigm. Economic factors are profoundly important in determining the development of architecture, while at the same time they provide a bridge between the study of architectural history and the socio-economic concerns of many contemporary historians and archaeologists engaged upon the study of other aspects of society. Recent years have seen a considerable volume of research on the early and high medieval economy; but no consensus has yet emerged and it may be felt that it would be rash to attempt a synthesis here. This problem perforce, therefore, must be left on the agenda for the future, together with the task of constructing other paradigms to correspond with further aspects of Anglo-Saxon culture.

Testing cultural paradigms

Even before we have got to the stage of working out an extensive series of cultural paradigms, it is necessary to say something about the way in which they may be used. In the first place it is essential to remember that any paradigm is only a working hypothesis until such time as it has been tested empirically; but how do we test it?

Returning to the outline of the deductive method given above, the paradigm can be set into the following form of exemplary argument: 'Culture forms an integrated whole and different branches of one culture will tend to fall into similar patterns of historical development; the church is a branch of Anglo-Saxon culture and falls into the pattern of development X Y Z; architecture is also a branch of Anglo-Saxon culture: therefore Anglo-Saxon architecture falls into the pattern of development X Y Z.' The empirical testing of such an argument is not designed to establish the truth or otherwise of the initial premise, it is intended rather to test the truth of the conclusion derived from it. To do this, what is required is that we should be able to show that the conclusion in practice provides an adequate account of the observed phenomena of Anglo-Saxon architecture (that is, of our typological and archaeological and stylistic data).

It should perhaps be pointed out that the premise of the argument does not require that the conclusion should always be the pattern X Y Z rather than something else. We might say, without changing the form of the argument, that the pattern of economic development was P Q R, and that the pattern of architectural development was therefore also P Q R. The point is that architectural development could be X Y Z and also P Q R at the same time, the quality of being X Y Z or P Q R not being exclusive of other qualities.

It is now possible to examine in relation to the empirical evidence two of the paradigms tentatively sketched above: that deriving from the history of the culture of the Anglo-Saxon church, and that from the history of Continental architectural styles which may have influenced England. The frameworks suggested by these are not identical, though they do have similarities, and each should require separate testing. For reasons of space, however, and yet without abandoning the general principle of separate testing, the two will here be examined in parallel - though without conflating them, it is hoped.

No-one would challenge seriously the contention that Anglo-Saxon ecclesiastical architecture began with the conversion to Christianity and followed a fairly continuous development until the death of Bede or later. There is also fairly general agreement that the primary inspiration of this architecture must have come from the Continent, whether from Italy or from Merovingian Gaul, and parallels have not proved impossible to find in practice (for example, between the plans of early churches in south-east England and those in 5th and 6th century north Italy and Gaul). The question of Scottish and Irish influence has been more difficult to evaluate in the absence of adequate comparative material from these areas.

The second phase of the ecclesiastical paradigm is altogether more problematic. It has been suggested here that in the late 8th and early 9th centuries there was evidence for a movement towards reform in the Anglo-Saxon church related to the early Carolingian reform of the Frankish church. It has also been suggested that the policy of Alfred the Great at the end of the 9th century was still inspired by ideas belonging to the same current. Hence it may be argued that there was some sort of cultural continuity through the 9th century, which may have been disrupted by the Vikings but was not totally destroyed. If we turn to the Continental architectural paradigm we will find a remarkable parallel. The Carolingian architectural revival, begun in the late 8th century, continued through the 9th century and into the early 10th before it was finally dissipated; its extent, therefore, coincided precisely with the duration of the Viking period which impinged upon Carolingian culture but did not break it. Are we able to see, therefore, a parallel continuity in Anglo-Saxon architecture from the late 8th century and through the 9th? The problem here is

the absence of adequate empirical data - though the situation is beginning to change.

Especial interest would attach to the architecture of King Offa's foundations at St Alban's Abbey and at Winchcombe Abbey, and to the Cathedral church at York built by Alcuin and Eanbald. These would allow a picture to be formed of major building projects of the late 8th century - and the current work of the Biddles at St Albans may therefore be especially welcomed. For the 9th century, on the other hand, the current excavations at Repton have already started to fill the lacuna in our knowledge for Mercia, since Repton was certainly a minster of capital importance for its region right up to the Danish settlement. Here the Biddles have shown that an imposing mausoleum (probably that known to later tradition as the 'mausoleum of King Wiglaf', who died *c* 840) was incorporated into a church which itself was subsequently incorporated into the defences of the Viking winter camp of 873-4. The problem remains, however, whether the existing superstructure of the chancel, with the rest of the church belonging to it (Taylor 1971; 1979), is that which was in existence in 873, or whether it represents a rebuilding sometime following the English reconquest of the Repton area c917. If the church is indeed as early as the third quarter of the 9th century it is of major significance, for it exhibits many of the features of plan and decoration that traditionally have been regarded as typical of post-Viking architecture. If they are here pre-Viking it must reinforce the case for regarding the 9th century not only as a period of continuity but even of innovation.

For the late 9th century and beginning of the 10th there are one and possibly two monuments of major significance that have been examined archaeologically in recent years and that may belong in part to this period. About one of these, St Oswald's Minster in Gloucester, founded shortly before 900, another paper is published in this volume (see p 188). Suffice it here to remark that the plan in general relates to both pre-Viking and post-Viking buildings elsewhere in England, while the western apse relates to Continental Carolingian types (such as the contemporary church of Reichenau-Oberzell, *c* 888x913). The other major building is Deerhurst, not far from Gloucester. Here we still await the final publication of the archaeological research programme of some years ago (Rahtz 1976; Butler *et al* 1975), and especially the revised radiocarbon determinations. But in advance of these, there seems to be an important piece of dating evidence provided by the animal-head sculptures that decorate many of the archways. D M Wilson (cited in Taylor 1978, 1057) has commented that the metalwork parallels to these sculptures are 8th and 9th century and certainly not later than 900 while it may be argued further that the specific similarity to the Alfred Jewel suggests a late 9th century date. If the main fabric of Deerhurst (as rebuilt on an essentially earlier plan) is indeed Alfredian - or, more probably, the work of Ethelred and Æthelflhed - then to find so accomplished a work of architecture at this date is again an indicator of a more lively 9th century tradition than has been allowed by proponents of the Viking-catastrophe theory.

Of the developments of the 10th and 11th centuries more than a summary consideration is not here possible, but a few points perhaps stand out. On documentary evidence we can point to a body of material that corresponds with the monastic revival (Fig 96), and it seems that the period was one of considerable architectural activity. It is difficult, however, to make comparisons with the Continental centres of the reform, such as Fleury, Ghent, and Gorze, since on the one hand these Continental buildings are themselves largely unknown, and on the other hand we have neither surviving nor excavated any of the major monasteries founded on *new sites* in England (Ramsey Abbey would be the prime case for excavation). Nonetheless, we do know about the architecture of such major sites as Winchester Old Minster, Glastonbury Abbey, and St Augustine's Abbey, Canterbury, and these allow certain comparisons with the paradigm derived from Continental architectural styles. The second half of the 10th century on the Continent was one of divergent currents: in Germany the emergence of the Ottonian style; in France the attenuated survival of the Carolingian style and then the revival in the decades around 1000 that started the development to Romanesque. The English buildings in question, simply by their decision to retain old structures on the site and to add to them - rather than to pull them down and start again - display their distance from the major Ottonian and proto-Romanesque projects on the Continent. Furthermore, where clear Continental influence is manifest, as in the great westwork of Winchester (Biddle & Kjolbye-Biddle 1981, fig on p 167; Kjolbye-Biddle 1975, fig on p 93), it derives from a model that is essentially conservative and Carolingian (such as the westwork of Werden-an-der-Ruhr, begun *c* 876-7, dedicated 943). The evidence is lacking therefore for thinking of the late 10th century in England as a period of dynamic architectural change, and on the Continental stylistic parallel it might best be classified as 'late Carolingian' - though this would not be an appropriate term to introduce into general currency in an English context.

The final major stage in the ecclesiastical-historical paradigm was the period during which the English church was transformed by the influence of the papal reform movement both before and after the Norman conquest. The documentary evidence again witnesses to the considerable body of architecture in this period (Fig 96), and the survival rate of this is excellent, at least for the post-conquest period. Such a survival of dated buildings allows us to see the direct influence of the new Romanesque architecture of the Continent upon England at this time, and thereby helps validate the stylistic paradigm. The Romanesque influence in the post-conquest period is obvious and uncontroverted; but it is apparent also in the pre-conquest period in such buildings as Westminster Abbey (begun *c* 1050 under the patronage of King Edward (Gem 1980)), and perhaps also the lower parts of the crossing of Stow church (rebuilt probably in the 1040s and early '50s under the patronage of Earl Leofric),[5] where native Anglo-Saxon themes were developed in a Romanesque vein. How far this Romanesque influence had spread in England in the pre-conquest period, however, remains too large a problem to be debated here.[6]

Conclusions

It has been possible here to refer to only one or two key buildings the examination and interpretation of which seem to correspond to a development of Anglo-Saxon

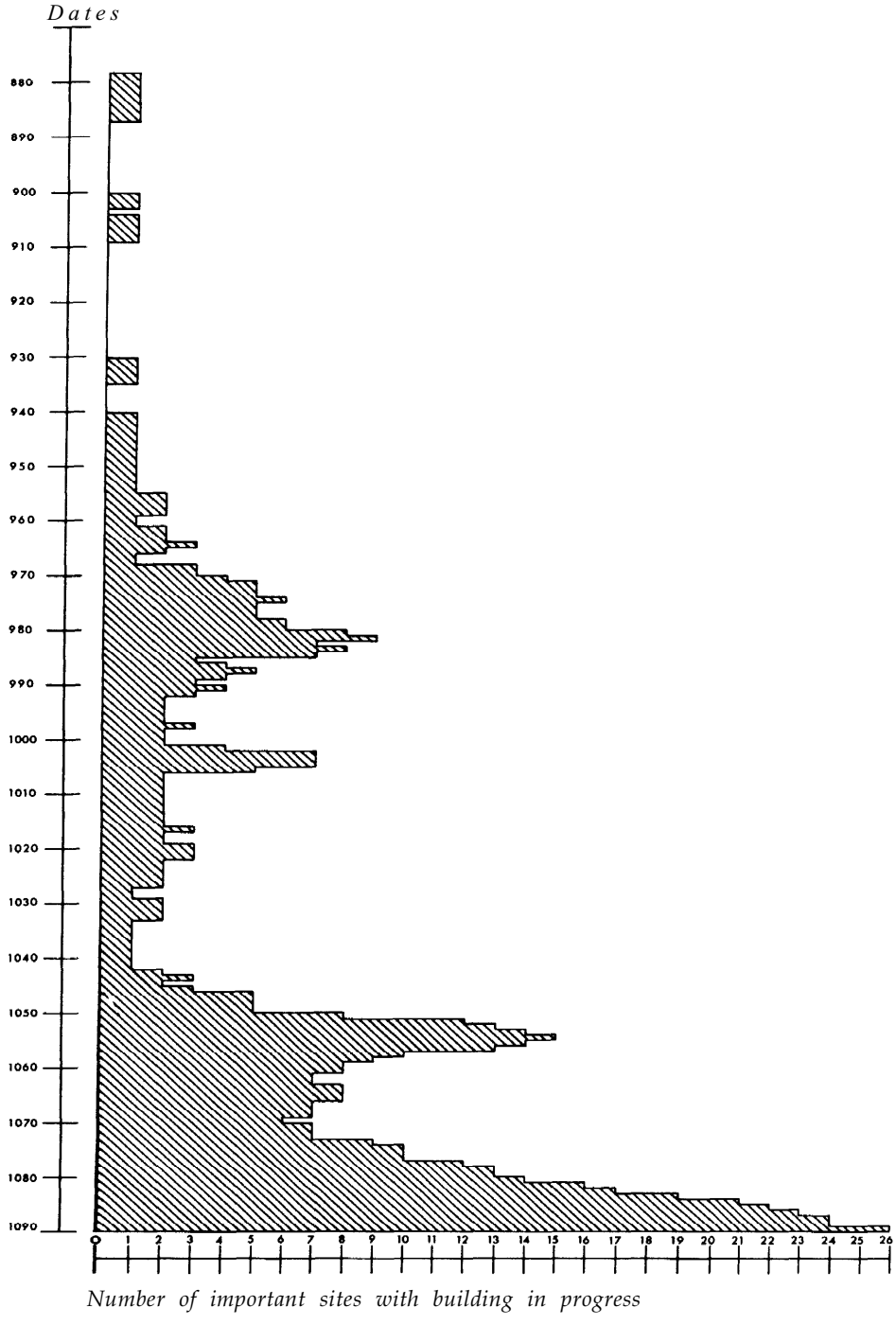

Fig 96 Graph showing the number of ecclesiastical building projects in progress between 870 and 1090 as recorded in the documentary sources. Classes of information included are: i, building projects whose dates are known precisely (where only one terminus is known a five-year period is assumed before or after that terminus as appropriate); ii, building projects whose dates are known within a fifteen-year margin; iii, building projects which are inferred from the establishment of a new religious foundation on a virgin or abandoned site. The documentary evidence is discussed in extenso *in Gem 1974*

architecture conformable to the cultural paradigms here outlined. The process would need to be pushed much further and in greater depth before we could claim to draw reliable conclusions; but enough may have been said to indicate that this is potentially a worthwhile approach.

Nothing much has been said here about nomenclature, both because this would have been a distraction from the main issues, and also because the premature labelling of periods can give an illusory impression of finality. This is not to say that we need necessarily abandon using the letters A B C in the way that HMT has done - that is, purely as a chronological label - although it may be wondered whether their usefulness has not now been outlived, and whether we might not do better now to speak of actual dates. As to the labels Early, Mid, and Late Anglo-Saxon, it would seem only sensible to agree to abide by the definition of these terms current among archaeologists, and not seek a different definition when applying them to architecture. Thus they will apply respectively to the 5th and 6th centuries (Early), the 7th and 8th centuries (Mid), and the 9th to 11th centuries (Late). This will not only avoid confusion but will allow us if we wish to use these terms neutrally, without prejudging the periodization of Anglo-Saxon architecture.

It would be appropriate, however, to end on a different and more positive note. HMT in his work over the past years has consistently drawn our attention back to the question of first principles, and has laid the foundations for an unassailably sound empirical approach. What has been said here presupposes this empirical approach as fundamental: it has been attempted above to extend our concept of first principles to allow further approaches which are equally logical; yet these further approaches can perhaps only ask the questions that the method advocated by HMT will provide the data to answer. Nonetheless, the ideas outlined here are not entirely of secondary importance. The aim of our study of Anglo-Saxon architecture is to deepen our knowledge of Anglo-Saxon culture as a whole and it seems, therefore, highly desirable to find ways in which we can work simultaneously with both the empirical data and their cultural context. Thus we may be able even now to reach some general conclusions about Anglo-Saxon architecture, albeit provisional ones, rather than deferring this central historical task to an indefinite future.

Notes

1 The further subdivision of Brown's main periods is here passed over. Except in the case of period C they have little conceptual significance.

2 The periodization of Continental architecture as understood by Brown is, as might be expected, considerably different from the modern understanding which rests upon research carried out since Brown's day.

3 In Clapham's day it would still have been acceptable perhaps to make no distinction between Carolingian and Late Carolingian or Ottonian architecture on the Continent, and hence to have applied the unqualified label 'Carolingian' to a period continuing to the end of the 10th century. However, the Continental examples of Carolingian architecture actually quoted by Clapham (1930, 77–85) are mostly structures of the late 8th and 9th centuries – above all St Riquier.

4 The development suggested is that which seems to the author most probable. Other writers will be found to have adopted a slightly different phasing and chronology for the Romanesque.

5 The piers of the crossing at Stow are attributed to the mid 11th century on stylistic grounds. This might bring them into conjunction with the rebuilding of the church attributed to Earl Leofric by Henry of Huntingdon (*Historia Anglorum*, **6**, ed T Arnold, Rolls Ser, **74** (1879), 196: this is a local source and for that reason perhaps more reliable than the text of Florence of Worcester which is anyway corrupt at this point) and the re-endowment of the chapter by Leofric and Godgifu (Robertson 1939, 212–17).

6 For a further discussion see Gem 1984.

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Anglo-Saxon church building: aspects of design and construction

Warwick Rodwell

Background

Although my interest in the archaeology of buildings was first aroused more than twenty years ago, it was not until 1971 that the opportunity arose to undertake a large-scale investigation on a completely intact parish church, when a three-year project was initiated at Rivenhall, Essex. The project involved not only extensive excavations around the parish church, but also detailed recording of the entire upstanding fabric. Rivenhall church had generally been dismissed as a building of minimal architectural interest, on the presumption that it was largely a Victorian rebuild. However, investigation demonstrated that the hitherto unknown shell of an Anglo-Saxon nave and chancel still stood to a height of 6.25m behind a mantle of recent stucco (Rodwell & Rodwell 1973).

Although the church lacked sumptuous sculpture and most of the diagnostic architectural detailing normally associated with Anglo-Saxon buildings, it had much to offer by way of constructional evidence. The Rivenhall discovery came at an opportune moment, when Harold Taylor was searching for fresh means to advance our knowledge of the constructional history and chronology of Anglo-Saxon church architecture. In pursuit of this aim he was jointly responsible for the initiation of research projects at Deerhurst in 1973 and at Repton in 1974; and he was instrumental **in** the promotion of a programme of excavation and structural study at Hadstock, also begun in 1974. From the outset all three sites returned impressive yields of fresh information, demanding significant changes to the generally accepted architectural histories of those buildings. But more than this, the techniques and equipment of the Anglo-Saxon builders began to be unveiled: at last it **became** possible to comprehend these churches not just as specimens of art history, but also as works of constructional engineering.

Rivenhall, Deerhurst, Repton, and Hadstock all have living churches, and the extent to which their sites and fabrics can be disturbed in pursuit of academic knowledge must, perforce, be **limited.** What was really needed - to obtain the maximum yield of evidence - was a substantial Anglo-Saxon church where there was no obstacle to mounting a programme of intensive archaeological and architectural study **on** the building and its site, both internally and externally. The redundant church of St Peter, Barton-upon-Humber, met all the required conditions, and it must be acknowledged that one of Harold Taylor's major achievements was to persuade the Department of the Environment in 1977 to facilitate and fund at Barton the fullest programme of investigation so far to take place on a **parish** church in Britain. For the first time it has been possible to study an Anglo-Saxon (and medieval) stone building, and the processes involved in its construction, from the foundations to the roofs.

Barton-upon-Humber was a particularly apt choice for investigation, since it is a church about which a great deal has been written, and it is instructive to compare previous attempts to expound **its** architectural history with the evidence now fully revealed (Rodwell & Rodwell 1982, 283-8). St Peter's Church made its debut in architectural history in 1819 with Thomas Rickman, and has subsequently been discussed by numerous scholars. By 1974 the possibilities for further superficial study of the church had reached the point of exhaustion; with typical Taylorian succinctness, the situation was summed up thus: 'It will be clear from what has been said that much of the history of this important church remains uncertain. . . . It is very much hoped that full opportunity will be taken of the present period of redundancy to enable a thorough investigation to be made, both inside and around it, using all the specialized techniques of modern archaeology . . . ' (Taylor 1974,373).

It is not appropriate in this paper to expound the results of archaeological investigations at either Barton-upon-Humber or any other particular site; instead an attempt will be made to outline some of the classes of constructional evidence which have been studied in recent years, in varying depths, on a score of Anglo-Saxon buildings.

Structural criticism and structural dissection

The need to examine carefully and to appraise critically all the component parts of an Anglo-Saxon church has been discussed by Taylor (1972), particularly in relation to vertical joints in walls, quoin types, fabric changes, and inserted features. The processes he describes, and has himself used extensively, Taylor calls 'structural criticism'. They are non-destructive and therefore essentially superficial, and can thus be applied to any building without detriment to fabric or decoration, It is, however, readily apparent when undertaking structural criticism that, if circumstances allow, a much deeper probing into the stone and timber fabric of a church will yield greater returns of information, and will permit enigmatic features to be explored and ambiguous relationships to be correctly determined. This process, which we might term 'structural dissection', is essentially an extension above ground of the principles and techniques of archaeological excavation.

The purpose of structural dissection is similar to that of biological dissection: to open up the specimen, to discover and examine its constituent parts, and to ascertain their composition, interrelationships, and mode of functioning. While structural dissection, like structural criticism, can be used to examine a particular feature, or features, within a building, it can be as dangerous and misinformative as keyhole excavation. Its real value lies in its ability to demonstrate, stage by stage, the processes involved in the erection of a building. Anomalies such as inserted features, raised walls, patched or refaced masonry, and even recycled materials will almost automatically proclaim themselves if the principles of building and the techniques of dissection are correctly understood and applied. In essence, the investigator has temporarily to assume the role of the Anglo-Saxon builder, and follow the construction of the church, stone by stone and timber by timber.

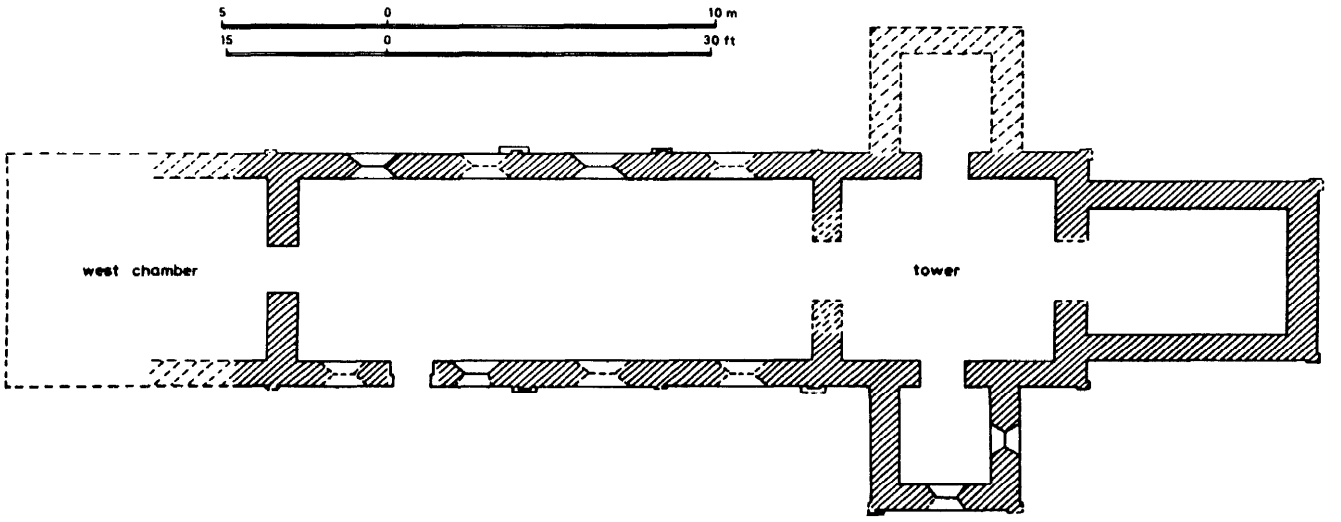

Fig 97 Breamore: reconstructed plan of the Anglo-Saxon church, which is based on the Northern rod (15 N feet). The tower is externally 25 N ft square (1 2-3 rods), and the nave is a double square of the same dimension (25 by 50 N ft), with the pilasters approximately marking bays. The porticus were added as squares, half the size of the tower, and the chancel is 20 N ft (1 1-3 N rods) in length

It would be premature to attempt a treatise on Anglo-Saxon building, since few standing structures have been intensively investigated, and since building practice clearly varied from one geographical region to another. What follows here is essentially an introduction to some of the classes of evidence for Anglo-Saxon building technique, as revealed by recent investigations on a small number of churches, augmented by some more generalized observations.

Elements of church construction

1 Ground plans and foundations

It has often been assumed that because a significant number of Anglo-Saxon churches display irregularities in their ground plans no precise unit of measurement or procedure for laying out the foundations could have been employed (eg Bosham, Sussex). Serious doubts are now being cast upon this premise, for two reasons. First, careful recording has recently demonstrated that many secular and ecclesiastical buildings, both in timber and in stone, exhibit ratios between the lengths of their walls which presuppose the use of a standardized measuring rod of fifteen 'northern' or long Roman feet, equivalent to 16½ statute feet, or 5.03m (Huggins ***et al*** 1982). Secondly, churches which may be geographically distant from one another, or locally grouped, can display such similarities of proportion or absolute measurement as to leave little room for doubt that master-plans existed in pre-conquest England.

Birthe Kjølbye-Biddle has convincingly demonstrated that a large, multi-cellular church such as the Old Minster at Winchester was designed and laid out with the Drusian foot as the unit of measurement (see pp 196-209). The smaller minster church at Breamore, Hants, exhibits an impressively regular plan, based on the Roman foot (Fig 97; Rodwell & Rouse 1984), as does the much simpler two-celled Rivenhall church (Huggins ***et al*** 1982, fig 2.14; Rodwell & Rodwell forthcoming). Some notable irregularities in church plans, such as the skewed west end at Hadstock, have turned out upon investigation to be later interferences with the Anglo-Saxon plan (Rodwell 1976, 60-l); but in other instances the anomalous ground plan is demonstrably original. This applies at Barton-upon-Humber, where the western baptistery is set askew to the turriform nave (see Fig 111): it is plainly obvious that the baptistery was intended to be a mirror-image of the chancel, but that a simple error occurred during setting out (Rodwell & Rodwell 1982, 296). Builders' errors in setting out have always been, and still are, commonplace; scrutiny of an accurate plan can frequently explain the nature and magnitude of the error, even if the reason for its occurrence is not always apparent. Foundation plans often differ from wall plans, and it is not uncommon to find that an accurately planned church could rest upon seemingly irregular foundations (cf the Old Minster, Winchester). The converse can also be true; and one wonders, for example, what the foundation plan of Chickney, Essex, might look like. There, the nave and chancel appear to be parallelograms, a circumstance repeated in the plan of the 12th century Fishermen's Chapel at St Brelade, Jersey; but recent excavation of the chapel has shown that it rests upon a broad foundation of contemporary date and rectangular plan.

Most of the excavations at churches on clay and sandy subsoils in lowland England have revealed foundations of layered form, extending to a depth of up to one metre. These foundations usually comprise two distinct materials, deposited and compacted in alternating layers: one material is coarse and granular (gravel, chalk, or stone rubble), while the other is finer and more cohesive (clay, sand, or crushed mortar from demolished structures). Foundations of this nature have a remarkable stability in ground which is liable to slight seasonal movement.

On waterlogged and unstable ground timber or

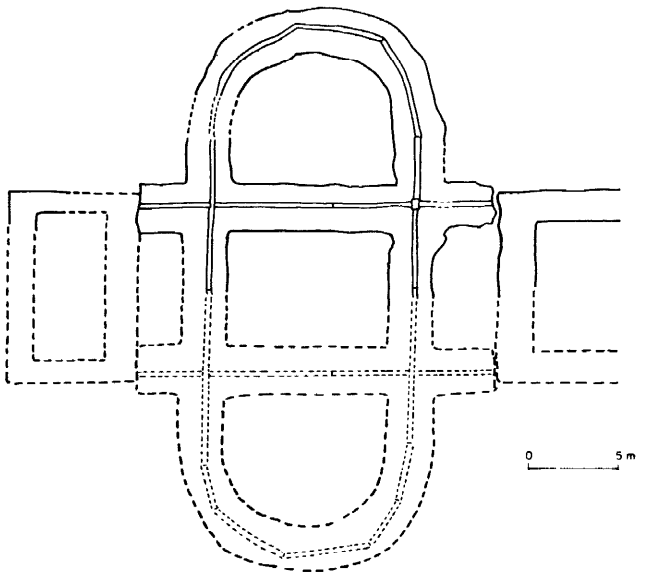

Fig 98 Winchester Old Minster: foundation plan of the late Saxon west end, showing the timber-laced chalk raft which supported an axial tower and lateral apses; the southern half is a reconstruction

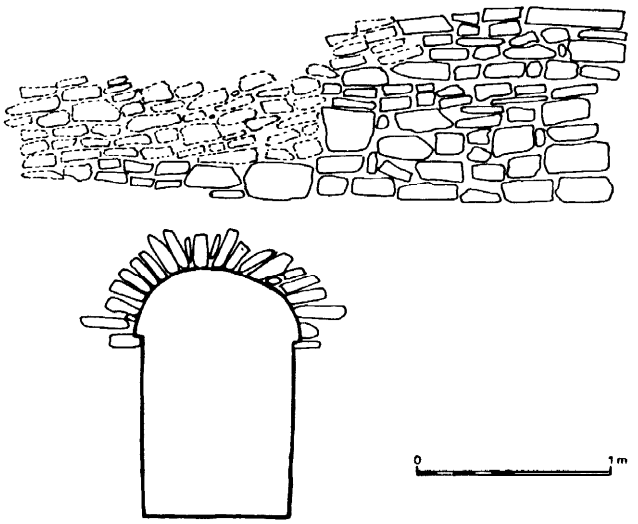

Fig 99 Barton-upon-Humber: &tail from interior of north wall of baptism, showing rear arch of double-splayed window with slight ledges to support centring; above is a sample of rubble walling showing roughly coursed masonry on the right, interleaved with 'heap' building (dotted outline) on the left

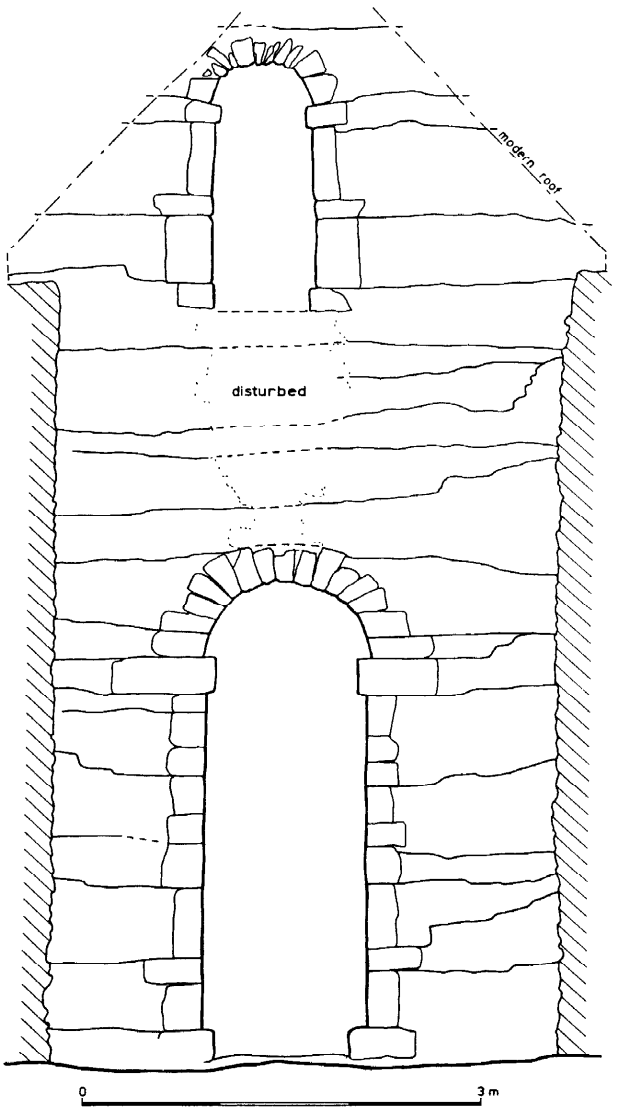

Fig 100 Barton-upon-Humber: west face of tower, seen inside the baptistery. Interpretation diagram of the building lifts, showing typical features of rubble-wall construction: coincidence of some lifts with joints in the ashlar dressings; 'humping' of the lift which incorporates the major arch; and stepping of courses towards the outer walls, owing to the corners having been built up first

timber-laced foundations were constructed, and a splendid example of the latter was recorded in one of the lateral apses of the Old Minster at Winchester (Biddle 1969, fig 6 and pls LXIV-LXVI). Here, a chalk raft-foundation was spinally laced with jointed timbers (Fig 98). The Anglo-Saxon church at Headbourne Worthy, Hants, rests on a mud-bank and is almost entirely surrounded by water, a tributary of the river Itchen. When its walls were underpinned some years ago the church was described as having no foundations, and it seems probable that the

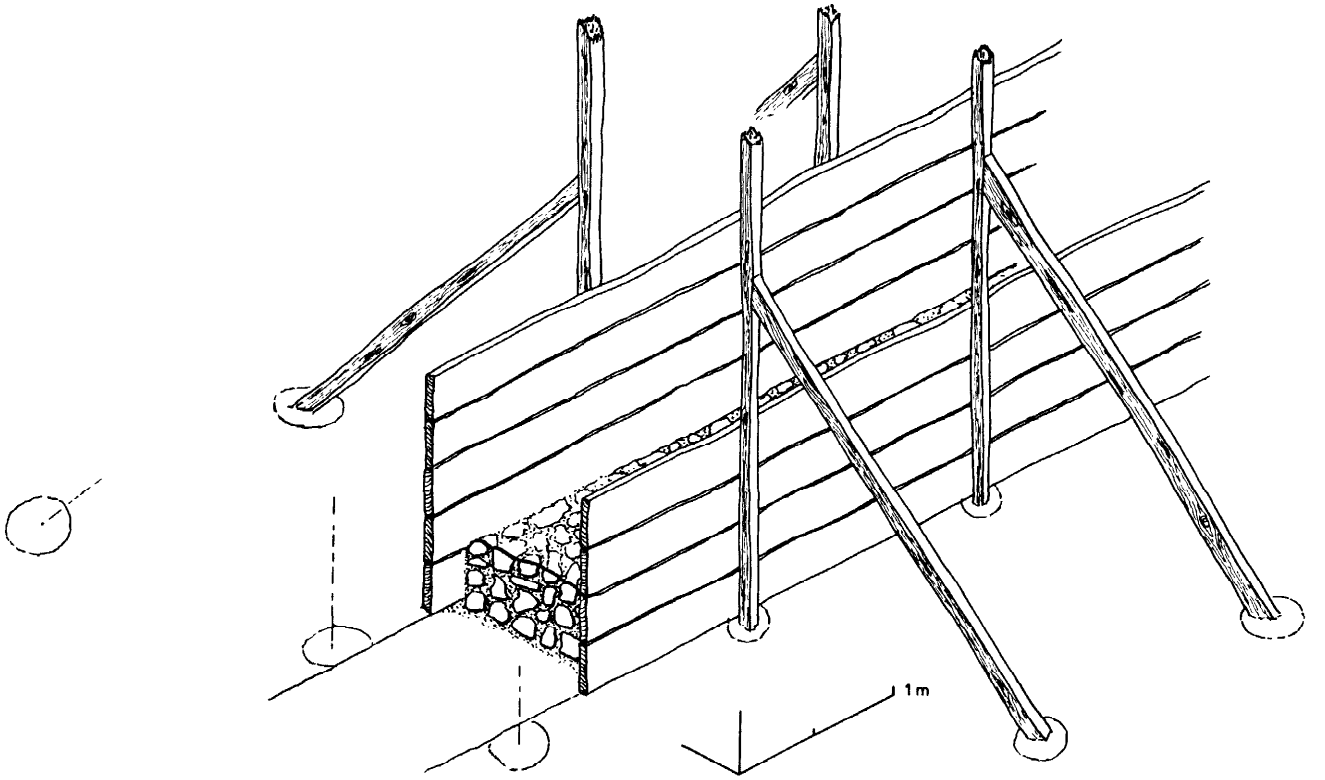

Fig 101 Reconstruction of the timber shuttering required to build walls of small flint rubble in vertical lifts of 0.3m

building was erected on a timber or brushwood raft which had decayed, leaving the superstructure virtually unsupported.

2 *Wall construction*

Three basic forms of construction were used in Anglo-Saxon walling: coursed ashlar, roughly coursed stone, and small rubble. The stonemasonry techniques involved differed for each form of construction. Coursed ashlar is the most straightforward and in some ways is the least informative archaeologically, although much can be learnt about the reuse of earlier, generally Roman, masonry by examining tooling patterns and secondary cutting marks on faces which now run into a wall and are normally concealed by pointing.

The commonest form of Anglo-Saxon walling in central and southern England is undressed stone rubble laid only in very approximate courses, as seen at Brixworth or Barton-upon-Humber. There, and elsewhere, one can see with remarkable clarity the vertical stages in which the walling was raised, and within the stages it is sometimes possible to detect the laying of several masons working alongside one another. Each man would have between 1.5m and 3m of wall length to work on, and it is commonly observable that a relatively well coursed section of walling will abut and intermesh with a section of very haphazard build, where the individual stones are neither coursed nor always horizontally bedded. The most apt description for this technique is 'heap building' (Fig 99). Surely we see in this widespread phenomenon the presence of masons and their apprentices working side by side on the scaffold? By the time a wall had been raised 0.5m or 0.75m its upper edge had to be levelled to remove the ever-increasing switchback effect caused by irregular building. Thus one or two levelling courses, laid by a competent mason, would be introduced; these were generally coursed in with the ashlars that formed quoins and lined openings. Thus stone walls of this kind tend to exhibit a series of readily definable 'lifts', each of which seems to represent a single working session, perhaps a day.

The pause between working sessions may be punctuated in two ways. At the close of a day's work the upper surface of the wall would be roughly flattened with the trowel, compressing the wet mortar and smearing some over the laid stones. Then, when work resumed, a bed of fresh mortar was laid to take the next course of rubble. Thus a slightly thicker joint than usual could be created. In addition, if there was a time gap of a day or more between lifts the exposed mortar surface would dry out sufficiently for there to be an imperfect union between the old and the new courses, resulting in a permanent hairline crack at the interface. To the trained eye this is readily detectable. Observation is made easier when there is a ferruginous component in the sand, and iron salts consequently migrate to the drying surface of the mortar, staining the interface brown.

When large stones were used to form quoins and to dress openings these were invariably set in position first, and then the stonework infilled between, frequently accompanied by a slight sagging of the courses towards the centre of the wall length. The reverse phenomenon is seen as walling on either side of an arched opening approached

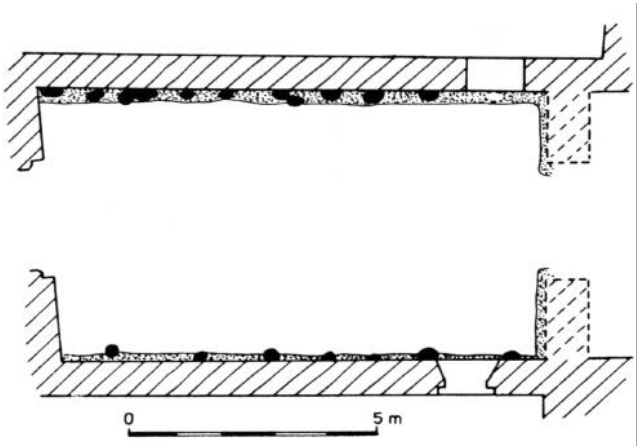

Fig 102 Hadstock: plan of the nave, showing postholes used for supporting temporary wall shuttering; note that these holes pierce the top of the hoggin foundation (stippled)

the crown, and the stones may tilt within their courses, and the entire lift may exhibit 'humping' over the voussoirs (Fig 100). This provides a reliable indication of the originality of an arch to its adjacent walling. These features are well demonstrated in the east and west arches of the turriform nave at Barton-upon-Humber, in the lateral nave arches at Brixworth, and at Heysham, Lancs.

Building with irregular rubble inherently involved the use of prodigious quantities of mortar, with the consequence **that** drying and setting were not rapid processes, particularly in cool or damp weather. There was thus a limit to the number of courses that could safely be laid in a single session, without the risk of slumping: on average, some 0.5 to 0.6m of walling constitutes a single lift. When small flint nodules comprised the basic building material (as in East Anglia and much of southern England), the problem of slumping was greatly exacerbated. On average, a rubble wall built with small flints has 30% mortar in its volume, and the impervious nature of flint means that it does not exert any significant suction on the wet mortar, resulting in a considerable increase in the required drying time. It is thus extremely difficult and laborious to construct thick and tall walls in flint, but the Anglo-Saxon builders - like the Romans before them - overcame this problem with the use of timber shuttering. Flint and other walls of small rubble were built in coursed lifts between tiers of horizontal planks laid on edge and supported by lines of vertical posts and raking shores (Fig 101). The planks were mostly cut to a standard width of about one foot (0.3m), which determined the height of the lifts. Series of postholes set hard againt the wall faces at Hadstock and Winchester Old Minster provide clear evidence for the shuttering supports needed to build those flint churches (Fig 102).

Where there was a ready supply of Roman brick or stone which could be employed to dress openings and quoins - and at the same time to give them added strength -advantage was taken of this. Thus numerous churches of the Rivenhall type exhibit an admixture of flint and brick, but others are wholly of flint. There is no better example than the late Saxon tower at Little Bardfield, Essex, the angles of which are entirely devoid of dressings (Fig 103). Since a complete carcase of timber shuttering had to be constructed for the erection of this tower there was no compelling need to form separate quoins. Circular flint towers were somewhat more difficult to build, in that the shuttering had to be erected in short vertical lengths and strapped around the entire circumference, in barrel-fashion.

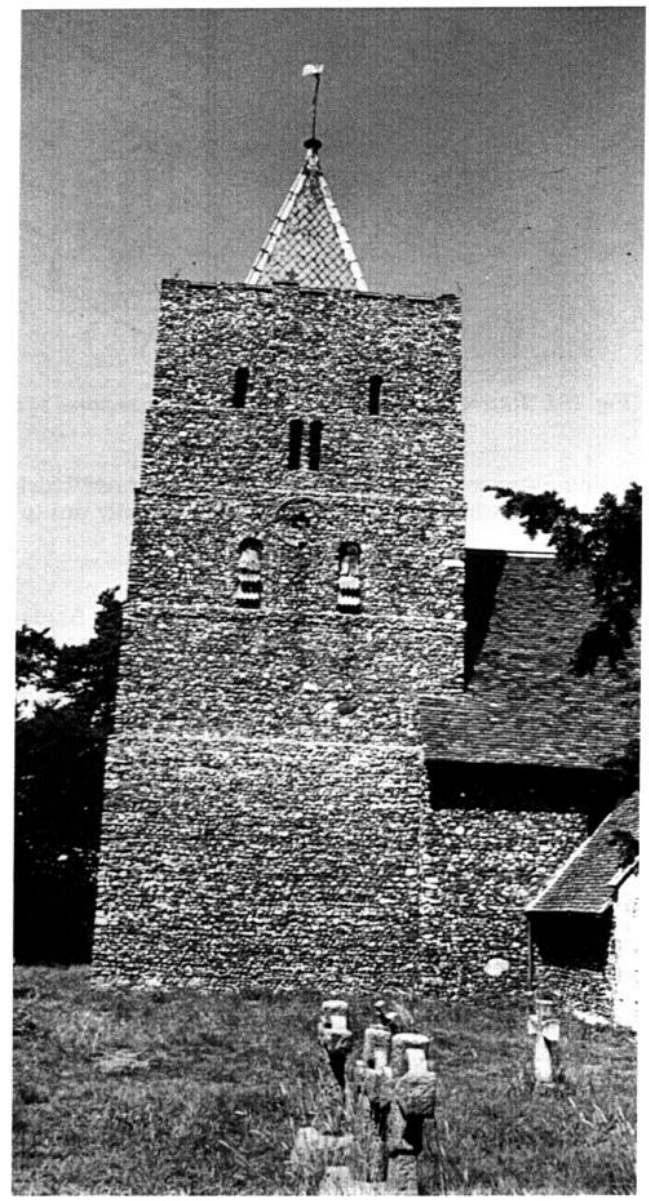

Fig 103 Little Bardfield: tower built wholly of small flint rubble, erected in jive stages (photo: W Rodwell)

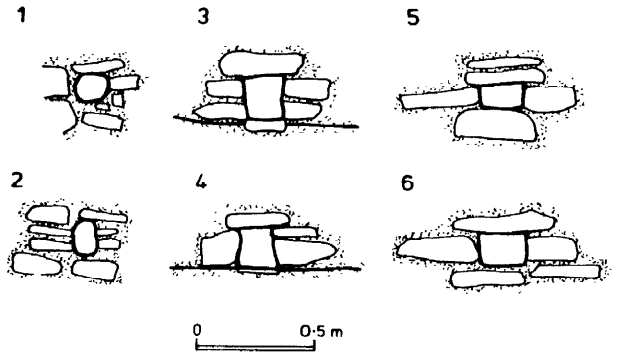

Fig 104 Barton-upon-Humber: examples of putlog holes in the tower: 1, 2, built-in putlogs of branchwood; 3, 4, built-in squared timbers serving both for scaffolding and internal framing (note these features rest on building lifts); 5, 6 removable putlogs of squared timber

Rubble walls were often provided with some kind of stiffening at approximately regular intervals through their height. This commonly took the form of two or three bonding courses of Roman brick or thin stone slabs; alternatively, courses of pitched or 'herringbone' masonry could be introduced at intervals. The strength of the bond in herringbone work is several times greater than that of horizontally coursed masonry. In most if not all cases herringboning was not a decorative technique, since it is clear that Anglo-Saxon rubble masonry was generally plastered both internally and externally. As a third alternative walls, like foundations, could be timber laced for strength (Wilcox 1981). This technique, derived from the Romans and much used by the Normans, has only recently been recognized in pre-conquest churches. When the tower of Sompting church in Sussex was repointed in 1962 the voids of horizontal mid-wall lacing beams were discovered both above and below the belfry openings.

At Barton-upon-Humber oak beams which are flush with the inner faces of the walls of the turriform nave still survive at two levels on the north and south sides. These timbers not only laced the walls but also formed seatings for the ends of the joists of the first and second floor levels within the tower. The exceptionally tall tower at Clapham, Beds, was laced by its own floor joists on three levels. The joists ran alternately north-south and east-west, tying the walls of the tower together; their lacing properties derived from the rigidity provided by nailed floor boards.

3 Scaffolding

Two types of scaffolding have been observed in Anglo-Saxon churches: groundfast and cantilevered. For the most part the former was reusable and the latter non-reusable. There were three elements to the framework of the groundfast scaffold, namely standards, ledgers, and putlogs. The standards were set vertically in rows on either side of the wall to be constructed, at a distance of 1.0 to 1.25m from its face; the spacing between individual poles varied according to the nature of the work under construction, but was usually between 1.5 and 2.0m. The postholes used to support scaffold poles are frequently encountered in church excavations, and a virtually complete pattern has been obtained from the internal excavations at Barton-upon-Humber. A less complete pattern has been recovered at Hadstock. Owing to the disturbances caused by grave-digging it is very rare to discover early scaffold settings outside churches. Postholes inside churches have caused much confusion in the archaeological record: Professor Olaf Olsen has pointed out (p 126) that the so-called pagan timber temple at Gamla Uppsala in Sweden is a misinterpretation; it could be scaffolding for the construction of the first stone church on the site. At Wharram Percy, Yorks, some but not all of the internal postholes clearly belong to the scaffolding of the first stone church; other holes may be assignable to a previous timber structure (Hurst 1976, fig 13). It is worth noting that postholes found very close to walls cannot normally be interpreted as scaffolding for their construction: they are usually associated with shuttering (see above) or other fixtures such as benches or doorcases.

At each scaffold stage the standards were tied together with a horizontal ledger, which supported the outer ends of the putlogs; their inner ends were embedded in the masonry of the wall. The depth of penetration may be as little as 0.1m, but it is usually twice this. When the end of the putlog had been laid on the fresh wall top it was often flanked by a pair of squarish stones (or sometimes several pieces of Roman brick), and then capped with a large flat stone (Fig 104, nos 5,6). The embedded putlog was thus framed with stone, preventing the timber from becoming too firmly embedded in the wet mortar, and facilitating its withdrawal when the scaffolding was struck (ie dismantled). These reusable putlogs were often of squared timber having sides of 100 to 120mm. The vertical stages in an Anglo-Saxon scaffold could vary between *c* 1.3m (Rivenhall) and *c* 2m (Barton-upon-Humber), and the ground stage was often taller than all subsequent stages. This is seen particularly well at St Peter's, Bradwell-on-Sea, Essex, where the complete scaffolding scheme for the outer face of the south wall can be read in the fabric (Fig 105). The first scaffold stage, which appears only on the west end of the chapel, is at 1.5m above ground; this is omitted from the south side, where stage two alone appears at 2.5m above the ground. Stage 3 is at a further 1.7m, where it was designed to clear the tops of the pilaster-buttresses and permit some putlogs to pass through window openings, resting on the cills. The fourth stage was placed only 1.3m above the third, being determined by the height of the apse wall at the east end of the chapel. Stage 4, at the east end, would not have continued around the apse, but would have run across the tops of its walls against the east face of the chancel arch. A further 1.5m above the fourth stage was wall-plate level along the sides of the nave; this equated with stage 5 of the scaffold, which was only required at the east and west ends, for the construction of the gables. Thus, what looks at first sight a somewhat irregular pattern of scaffolding at Bradwell is in fact an entirely logical and economical scheme.

Where a tower or other high structure, such as a clearstorey (eg at Brixworth), was to be erected above the general eaves level of the nave, another type of scaffolding was often employed which did not involve the use of groundfast poles. Instead, long putlogs (*c* 3m in length) were laid across the tops of the walls, with equal projections inside and outside the building; unsquared

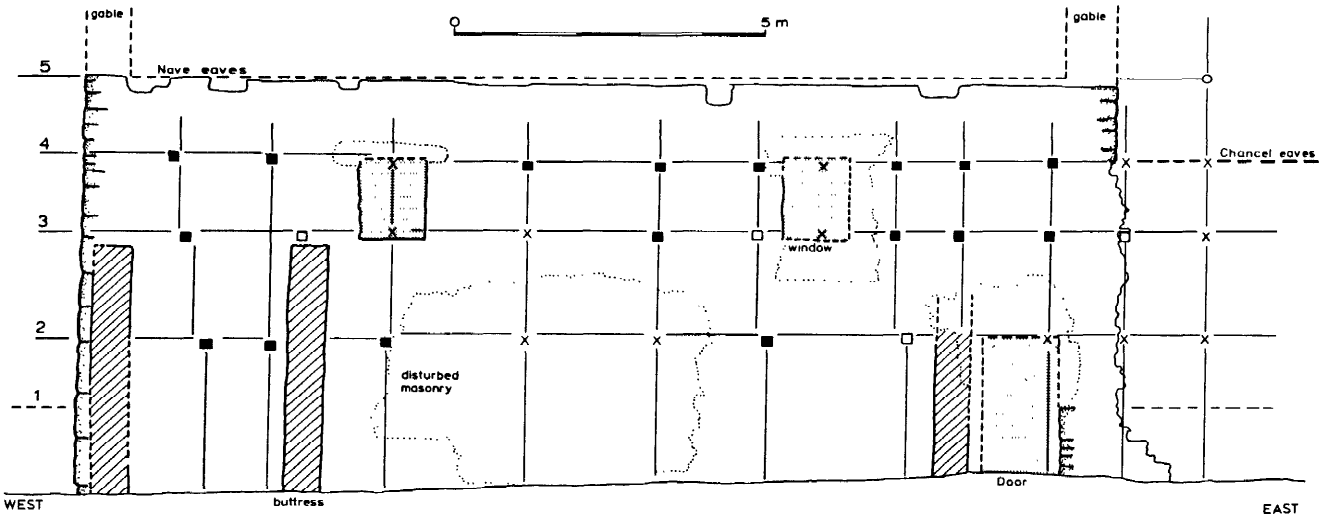

Fig 105 St Peter's Chapel, Bradwell-on-Sea: south elevation, with putlog positions indicative of five scaffold stages; blocked putlog holes are shown as black squares (certain examples), and open squares (probable); crosses indicate presumed putlogs for which no evidence has survived

branchwood tended to be used, sometimes with a diameter of less than 80mm. A few courses of masonry were laid over the putlogs, firmly embedding them in the fabric of the wall. There was no necessity to support the outer ends of the putlogs: Anglo-Saxon builders clearly did not have any qualms about working on a rather springy, cantilevered scaffold. In order to carry the scaffold platform around the outer angles of a tower putlogs were set diagonally through the corner of the walls; this is clearly seen in the second stage of the tower at Barton-upon-Humber (Fig 106).

The building of towers and other upper stories usually involved the simultaneous construction of timber floors, the joists of which were bedded directly into the wall fabric. These floors naturally provided ready-made internal working platforms upon which supplies of stone and mortar could be stacked, and from there passed out to the masons working from the flimsy cantilevered scaffolds. There was thus not always a need for high-level scaffolds to support great weights. Materials, particularly heavy stones which were required for quoins, arches, and string-courses, were hauled up from the ground with the aid of temporary jibs and other crane-like contrivances. The socket for a cantilevered beam *c* 0.45m square was found running diagonally through the south-east corner of the tower at Barton-upon-Humber, just above second floor level (Fig 106). A rope and pulleys attached to the outer end of this jib would have allowed large blocks of stone to be raised from the ground immediately beside the chancel, and then swung onto a platform resting on the tops of the chancel walls (there was in any case an Anglo-Saxon floor at this level). In a second operation the stone could be hoisted to the required position on the tower. The same beam could also be used for internal hoisting.

Putlogs of branchwood which were deeply embedded in wall cores, or which passed right through walls, could not be recovered for reuse (see Fig 104, nos 1,2). They were simply cut off flush with the wall-face. The decayed remains of several have been discovered during recent archaeological investigations: one at Barton-upon-Humber is of silver birch, and one at Deerhurst is of ash (Taylor 1977, 14); hawthorn was used at Clapham (inf M Hare). Brixworth has yielded fragments of several putlogs, and a discussion of scaffolding arrangements in relation to that church has been offered by David Parsons (1980).

Anglo-Saxon towers built of flint rubble required a more substantial scaffolding arrangement for the upper stages because this had not only to support working platforms but also the shuttering needed to contain the flint walls. Thus at Little Bardfield squared putlogs passed right through the walls of the tower (Hewett 1978, 327). This flint tower was erected in five separate stages, each inset slightly from the last in order to establish a firm new bed to take the weight of shuttering. The first shuttering stage (from ground level) rises to the same height as the side walls of the nave, but subsequent stages are considerably shorter. In a few instances even the walls of a flint-built nave of moderate height were shuttered in two distinct stages, with a horizontal offset halfway up, usually at window cill level (eg Little Easton and Elsenham, Essex).

4 Arches, vaults, and centring

Wherever possible, internal and external scaffolds were tied together by passing putlogs through window and door openings, and scaffold stages are frequently seen to correspond to cill and impost levels. This was partly for convenience of working on the construction of these features, and partly to enable window templates and arch centring to be given temporary support by props from the scaffold. Numerous churches containing Anglo-Saxon and Norman round-arched windows retain impressions of timber centring in the mortar of their splays and archivolts, showing the several methods of construction

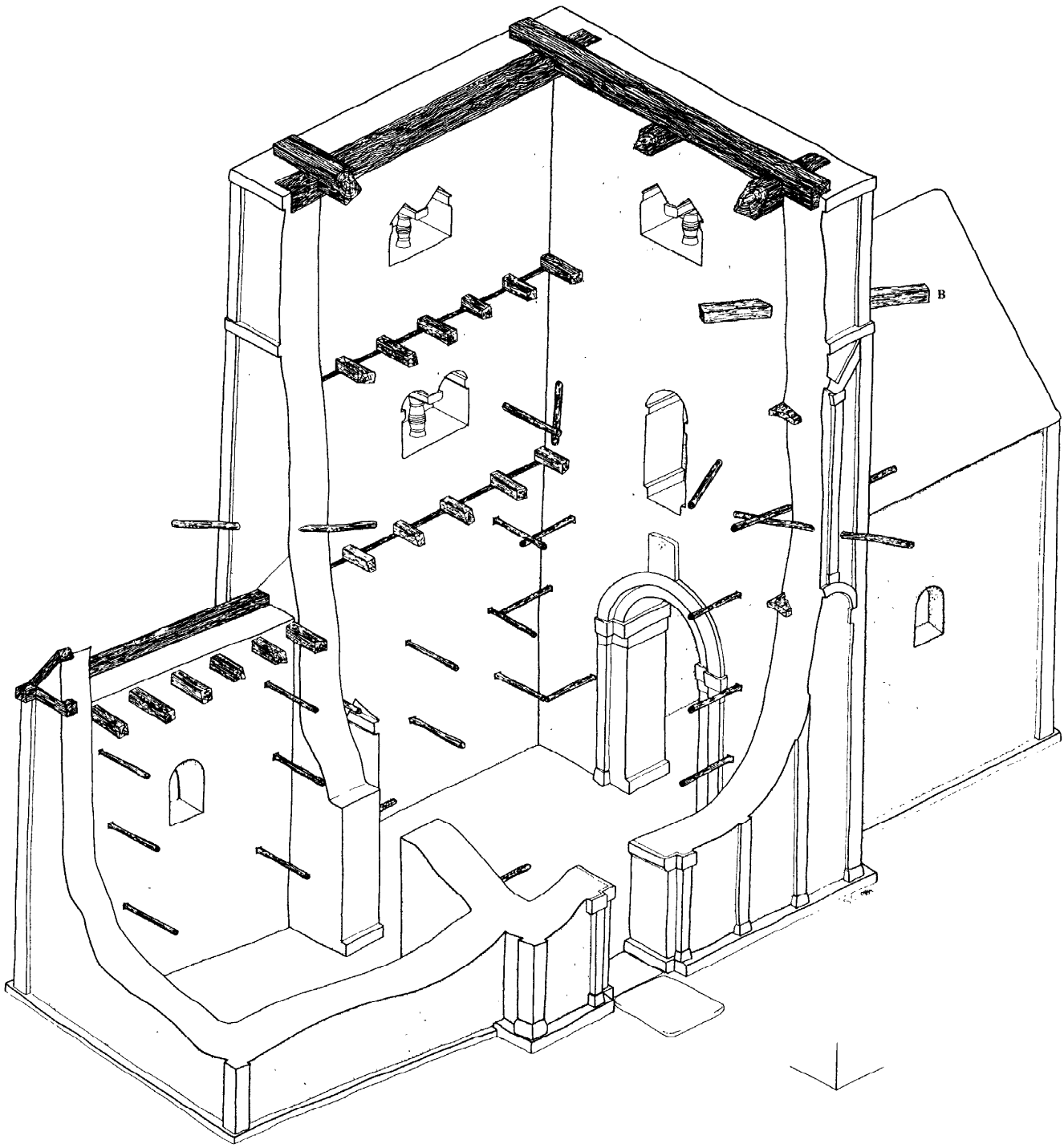

Fig 106 Barton-upon-Humber: cutaway isometric drawing of the Anglo-Saxon church, showing positions of recorded putlogs, floor and roof timbers, and crane beam (B) (drawn by Steve Coll)

Fig 107 Hadstock: semicircular head of a jointed window frame, showing arc of small holes used to anchor the basketwork hood which served as a forthe arch of flint rubble (photo: W Rodwell)

employed. Single-splayed windows built of rubble or small ashlar normally had both their inner and outer apertures built around prefabricated wooden templates, which could be used over and over again. The conical archivolt between the two apertures was formed by building a barrel-like construction of tapered staves between the two templates; and in each reveal, at the point where the vertical face meets the archivolt, a narrow ledge is often seen. The function of this was to provide support for the centring staves through the full thickness of the wall. This arrangement is very clearly seen inside the towers at Clapham and Sompting; see also Fig 99.

A different construction was required for double-splayed windows, where the narrowest aperture was at or near the centre of the wall. Here, a carpentered frame or pierced board was built into the wall, and conical archivolt shuttering had to be constructed on both sides. Pre-formed templates were once again provided at the inner and outer apertures, but instead of using staves for centring under the archivolt a hood of woven basketwork was formed *in situ. The* mid-wall frame was drilled, from both sides, with a semicircle of small holes around the head of the aperture, so that the basket hood could be firmly plugged in position (Fig 107). This was essential to ensure that the basketwork did not distort under the weight of rubble and wet mortar piled upon it to form the window arch. When the mortar had set and the masonry arch was firm the timber formwork could be removed from the apertures, but the basketwork was of course irretrievably embedded; it was simply plastered over and left in position. Traces of basket hoods survive in the mortar at Hadstock (outer splay) and at Hales, Norfolk (inner splay; Taylor & Taylor 1965, fig 483). In some instances the mid-wall frame was of stone and not timber, but the principle of construction was exactly the same and the stone had to be drilled to receive the basketwork (cf Avebury; Taylor 1978, 1062-3).

The seven double-splayed windows at Clapham are interesting hybrids: the wooden frames are set one-third of the way in from the outer face of the wall (as at Witley, Surrey, where window boards have also been found). Basketwork hoods were formed in the external splays, while the inner ones were arched with wooden staves (see above).

The construction of an arch which passed straight through a wall could be achieved on two or three semicircular templates resting directly upon the projections of the imposts, if long voussoirs were available. When smaller stones were used a complete half-cylinder of timber formwork had to be erected on the imposts. Some windows, belfry openings, and small doorways were formed with monolithic stone heads at the wall faces and infilled between with a rubble core carried on timber formwork (eg Barton-upon-Humber, Fig 108).

The great arches in the north and south walls of the nave at Brixworth are formed with double rings of recycled Roman bricks, built on staved formwork. But it is apparent from the arrangement of bricks and adjoining

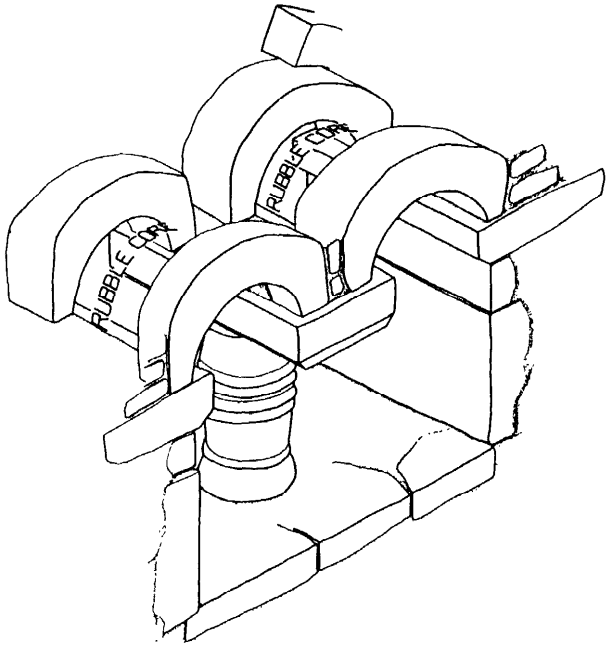

Fig 108 Barton-upon-Humber: isometric *drawing of one of the gallery windows in the tower, showing semicircular stone facings to a rubble vault erected on timber centring (drawn by Steve Coll)*

masonry in the wall faces that a more sophisticated type of centring was used than a mere half-cylinder of staves: there were also semicircular flanges on the ends of the formwork, giving the appearance of giant cotton-reels or cable-drums. The method of building the Brixworth arcades can be read from the fabric (Fig 109). First, the rectangular piers and responds to east and west were raised to springer level. Secondly, diminutive imposts were formed by corbelling out two or three courses of Roman brick; these imposts not only ran through the thickness of the wall, but were also returned along the inner and outer faces for a distance of *c* 0.3m. Thirdly, the cable-drum-shaped wooden formers were erected upon the imposts, with their flanged ends resting on the returns of the imposts. Fourthly, the formers were anchored firmly in position by laying a few courses of masonry and some bricks on top of the imposts, between the wooden flanges. Fifthly, the inner orders of the arches were constructed, using the rims of the wooden flanges to guide the arcature of the extrados. The masonry which anchored the formwork served the equally vital function of preventing the brickwork of the inner arches from spreading laterally under its own weight while the mortar was setting. In some of the arches it is also evident that the lowest parts of the outer ring of bricks (or stones) were laid while the inner ring was being built, in order to give additional lateral support. The sixth stage was the forming of the outer ring, and the seventh was the infilling of the masonry spandrels between the arches.

Some Anglo-Saxon arches exhibit a deformity which clearly occurred during construction as a result of partial failure of the centring. If not properly secured, the formwork could move on the imposts or could become distorted through too much weight of masonry being applied on one side, without being counteracted on the other side. This effect is seen in the small archway in the west side of the north porticus at Stow (Fig 110).

Viewed from inside the porticus, the intrados has a tighter arcature on the right than on the left. The reason for this is that the voussoirs on the left are much more massive than those in the middle and on the right, resulting in the exertion of unequal thrust on the centring. The mason building the arch perceived what was happening and quickly added an outer ring on top to equalize the pressure; the adjacent walling was then built up, the courses dipping slightly towards that ring. This is, incidentally, a clear case where, on constructional evidence, the archway and the wall containing it must be contemporaneous.

Finally, Anglo-Saxon and Norman rubble-built vaults - surmounting crypts, passages, spiral stairs, and features such as the semi-domed recesses incorporated in the primary west front of Lincoln Cathedral - were all built on timber formwork related to that described above (p 164) in connection with window splays. The subject has been discussed by David Parsons (1978) in relation to barrel-vaulted staircases, and all the evidence for the nature of the formwork can be seen in the Anglo-Saxon stair-turret at Broughton, Humbs. There is, however, one detail in Parsons' reconstruction of the centring used in helical barrel-vaults which requires re-examination, and that is the use of nails. These seem to have been a precious commodity in Anglo-Saxon England and were not used liberally. If all the staves forming the staircase vault at Broughton were nailed to the cross battens a minimum of 500 nails would have been required. Pegs would probably have been used if any fixings were required; but since there are no marks of nail-heads or peg-ends in the preserved mortar imprints of the timber formwork, it seems likely that neither was used. If the formwork and masonry of a staircase were raised together the staves should hold themselves in position under the weight of rubble.

5 Window-frames and doorcases

Until recently it was not generally accepted that wooden window-frames, exposed to the natural elements for a millennium, could have survived down to the present day. Taylor and Taylor (1965, 275) argued for the acceptance of the mid-wall frames at Hadstock as being original to the fabric of the nave, and in 1981 it was discovered that two of the windows in the tower at Clapham also retained similar frames. At Odda's Chapel (Deerhurst) and Thursley, Surrey, mid-wall slabs of oak survive in round-headed windows, while at Barton-upon-Humber perforated oak boards remain in two small circular windows in the west wall of the baptistery. These latter also exhibit small holes around the edge of the aperture to which conical basket formwork was affixed. Similar evidence has been recorded at South Lopham and Framingham Earl, Norfolk.

In 1979 the opportunity arose to study in detail the four surviving carpentered frames at Hadstock and to correct previous reconstructions published by Cecil Hewett (1978, fig 13; 1980, fig 21). While it seems probable that

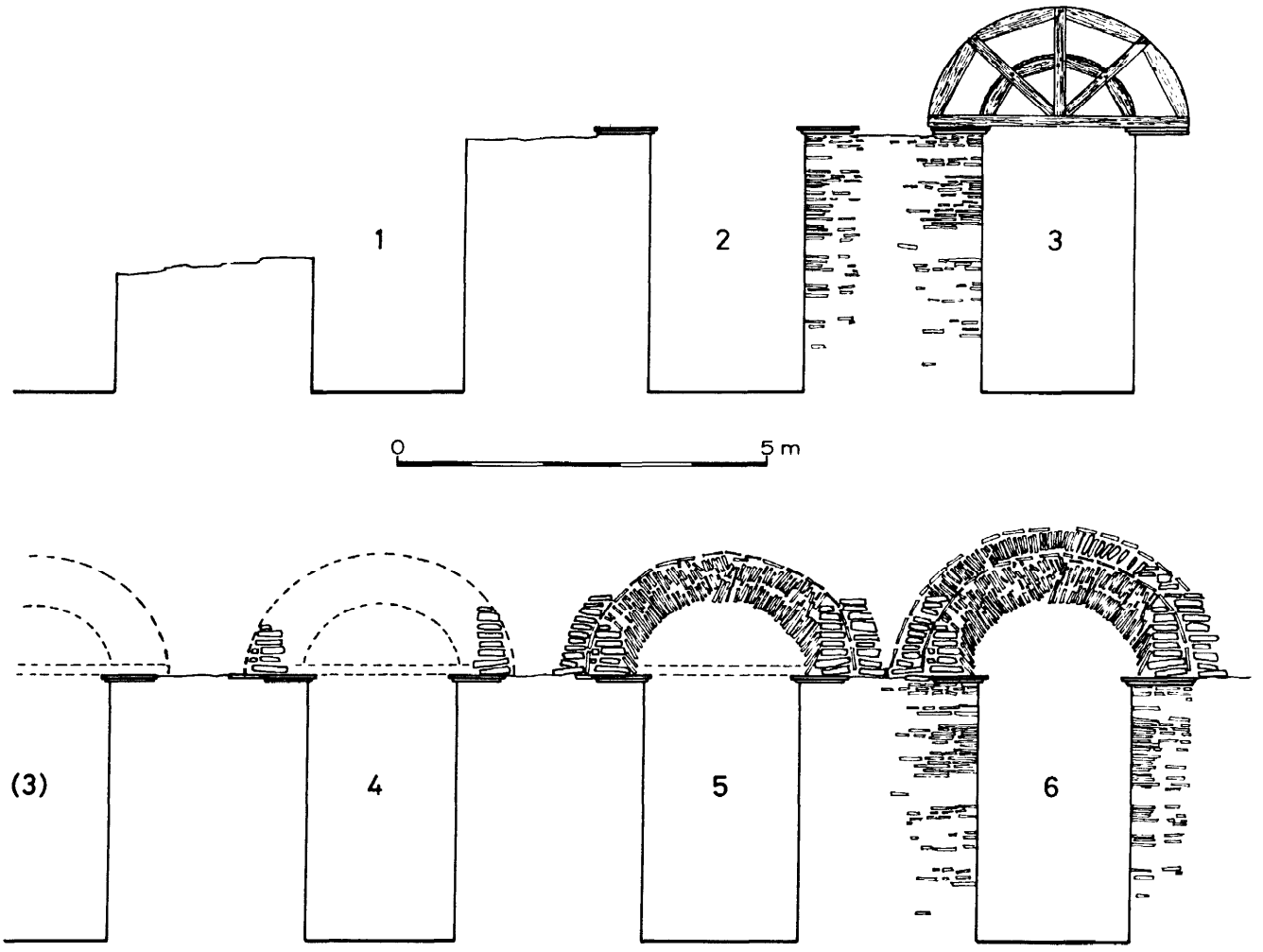

Fig 109 Brixworth: diagram to illustrate the constructional processes in the nave arcades, based on evidence from the easternmost arch on the south side; the timber framework is omitted from stages 4 *to 6 for clarity*

all double-splayed windows had a mid-wall frame or slab of timber or stone, there is little evidence at present for frames in single-splayed windows. Examination of the Anglo-Saxon windows at Rivenhall, during unblocking, indicated fairly conclusively that there had been no original frames; in the north chancel window, however, an oak cill board was discovered and shown to be a secondary insertion. It yielded a radiocarbon date of ad 1000 ± 60 (HAR 2427). The cill was associated with a mortar filet which had secured some form of secondary glazing close to the outer aperture (Rodwell & Rodwell forthcoming). Although the wooden frames at Bradwell-on-Sea are all modern, it seems possible that these replace original work of generally similar form, at least in the four side windows of the nave. Here the openings are rectangular and single-splayed, and the survival of Anglo-Saxon masonry above them indicates that the windows were always square-headed (see Fig 105). The openings were bridged with a series of heavy timber lintels set side by side.

A similar form of construction was used in the small square-headed doorway at Clapham which led from first floor level in the tower to the roof-space over the nave. The jambs of this doorway are formed in stone, but the head comprises six oak lintels set side by side, through the thickness of the wall. This feature, which seems not to have been previously noticed, is entirely original and undisturbed.

It has long been appreciated that Anglo-Saxon doorways, especially those constructed of very large stones, are seldom internally rebated for hanging a door, and in some cases it may be argued that all iron crooks and staples in a given doorway are post-conquest additions. Furthermore, it is noticeable that the stonework used to line Anglo-Saxon doorways usually presents an unadorned and relatively rough face to the interior of the church. There is thus good reason to postulate that the doors themselves originally hung in timber surrounds, or doorcases. The dilemma was resolved in 1974, when excavations inside Hadstock church revealed a pair of deep and substantial postholes flanking the doorway into the north porticus. It was suggested that these represented the groundfast posts

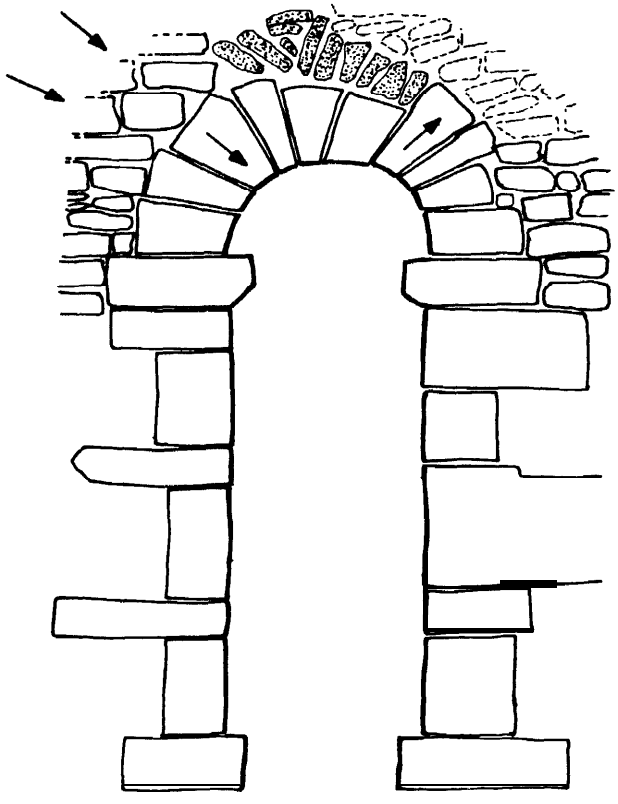

Fig 110 Stow: arch in west wall of north porticus, showing distortion caused by the thrust of masonry on the left-hand side; additional weight at the centre was provided by an outer ring of rough voussoirs (stippled), and rubble was piled to the right (dotted outline)

of a timber doorcase (Rodwell 1976; 1981, fig 52), an interpretation which received striking confirmation by excavation at Barton-upon-Humber in 1979 (Fig 111). Here, deep postholes were discovered against the inner faces of both north and south doorways, complete with the 'ghosts' of squared timbers (Rodwell & Rodwell 1982,298 and fig 6). Similarly, paired postholes have been found to flank internal archways at Barton and Hadstock; these were shallower features which may not have supported doorcases, but ornate timber architraves surrounding the openings.- It is probably legitimate to turn to the Norwegian stave churches for illumination of this subject, where timber doorcases and architraves abound.

There are hints also that shallow porch-like timber structures may have been built outside the doorways of Anglo-Saxon churches, and Barton again provides evidence in the form of a pair of postholes flanking the stone threshold and set 0.6m in front of the pilaster strips which frame the south doorway. The south doorway to the tower at Barnack, Cambs, embodies three large, square stones having the appearance of plain corbels; two rest upon the imposts, and the third on the crown of the arch, where it serves as a base for a pilaster-strip. The size and projection of these blocks might indicate that they were designed to support timbers. Could they therefore be associated with a former porch?

6 Timber floors and roofs

Cecil Hewett's assertion that certain floor and roof timbers in Anglo-Saxon churches are of similar age to the buildings themselves added a new dimension to the study of pre-conquest architecture (Hewett 1978; 1980, ch 1). The spire at Sompting he claims to be Anglo-Saxon, but archaeological examination of the top of the tower suggests that the principal timbers here are not coeval with the masonry. The same may be said about the roofs of St Martin's, Canterbury, or the Harlowbury Chapel (Hewett & Taylor 1979), both of which appear to be of 14th century date with, at present, little plausible evidence for earlier roof forms. Hewett also maintains that upper floors in the towers at Sompting and Holy Trinity, Colchester, are original; and some timbers in Earls Barton and other Anglo-Saxon towers may be primary, if not actually *in situ.* Indeed, there is every likelihood that some Anglo-Saxon and early Norman timbers survive, unrecognized, amongst later work in floors and roofs since it is commonplace to find reused timbers in 14th and 15th century refurbishments of tower interiors. Only detailed archaeological scrutiny and the selected application of dating methods will reveal the extent to which early timbers have survived.

While at present the spire at Sompting stands alone, several other church roofs may potentially incorporate Anglo-Saxon elements, most notable of which are the nave at Hadstock (tie-beams, a wall-strut, and other timbers) and the stepped pyramidal roof of the central tower at Breamore.

When a roof has entirely disappeared it is not usually possible even to reconstruct its basic form (although Barton-upon-Humber provides an exception, see below), but the situation is different in respect of timber floors within towers and upper parts of churches. A good deal of evidence for the positions, and the construction, of upper floors and galleries remains in Anglo-Saxon churches. High-level doorways and windows have been recorded by Taylor, and their structural implications assessed, for example at St Mary, Deerhurst, and Tredington (for summary, see Taylor 1978, 1017-19). In other churches, such as Clapham, there is a good deal of evidence - only recently noticed and recorded - for the original timber floors within the tower. None now survives, but the sockets which formerly housed the ends of the joists can be discerned, albeit that they are blocked. Thus, one can recover the levels of the three original floors, the directions of the joists (two sets north-south, the other east-west), the number of joists (five) per floor, and the precise dimensions of every timber.

It will be useful to discuss here, in brief, the case of Barton-upon-Humber as an illustration of the extent to which evidence for Anglo-Saxon roofs and floors remains latent in the fabric and can be revealed by structural dissection . Once fully revealed and recorded, the evidence can be used to make considerable progress with the reconstruction of the timber components in a church. When structural dissection began in 1978 no evidence of any kind for Anglo-Saxon timberwork in St Peter's Church had been adduced, save the two fragmentary

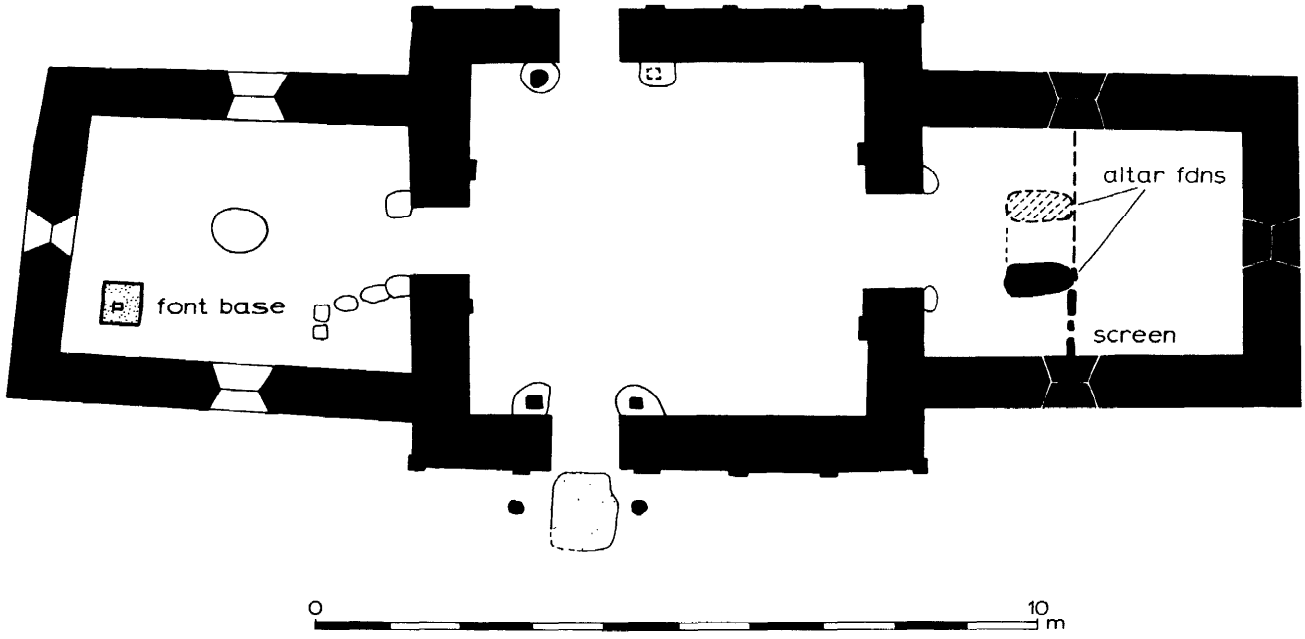

Fig 111 Barton-upon-Humber: excavated plan of the Anglo-Saxon church, showing evidence for furnishings and structural fixtures such as timber doorcases

mid-wall slabs in the small circular windows at the west end. The three upper floors in the tower were demonstrably Victorian, with some old joists apparently reused in the second floor. The treatment of the internal wall faces varied: ancient crumbling plaster, Victorian plaster, and plaster of 1920 covered some surfaces, while others had been stripped and the rubble walling pointed in 1897. In the process of dissection everything, down to the most modern, has been recorded. The 19th and 20th century plasters and cement pointing have all been removed, disclosing not just the Anglo-Saxon fabric, but also sizeable patches of original wallplaster. Some three hundred archaeological 'features' were detected in the Anglo-Saxon fabric, including putlog holes; sockets for floor joists, roof fixings, and bell hanging; disturbances resulting from the construction and later removal of staircases, galleries, and other futures; and patches and repairs of all ages. As far as possible these features have all been excavated and recorded in the normal stratigraphic manner: plans, sections, and elevations were prepared both of individual features and complete walls. From these overall records phase-plans and phase-elevations have been extrapolated, and these in turn have been used to prepare three-dimensional reconstructions, period by period.

Three levels of primary timbering could be reconstructed within the tower at Barton: a first-floor gallery, a belfry floor, and a base-frame for the roof structure (Fig 112). The turriform nave was without windows at ground level, and derived its illumination from double windows in the north and south walls of the chamber above. For this and other reasons, the first floor cannot have been a solid construction, but must have been galleried, and the arrangement of joists supports this notion. There were six north-south joists, the central pair of which would have been trimmer-joists rather than continuous timbers spanning the full width of the tower. A four-sided gallery was thus created around a void 3.4m square; the walkway was 1.6m wide. The gallery floor lay at the threshold of the two high-level doorways opening to east and west; access from the ground was by ladder, probably in the north-west corner. The belfry floor above was carried on seven continuous north-south joists, presumably with ladder access from the gallery.

A massive frame was embedded in the tower at wall-top level. Two east-west beams were set flush with the top of the masonry; partially trenched into these were two north-south beams, which projected above the wall-top; and these were given additional support from below by a fifth (east-west) beam. The arrangement was plainly designed to support and anchor a roof structure of substance; further large timber sockets at a lower level (not illustrated here) are less certainly associated with this primary roof. Neither a flat roof nor a very low pyramidal one would have called for such an arrangement of timbering, and two alternative reconstructions would fit the evidence, although these cannot be argued in detail here. First, a stepped pyramidal roof, related to the Breamore type, and secondly a modest spire may be proposed. The latter, in particular, has much to commend it. While the Sompting spire is supported on masonry gables, the arrangement envisaged at Barton would only have had timber-framed gables, mounted on the wall-top frame. A spire of this kind, with four shingle-covered gables, is depicted on the 10th century bronze censer-cover from Pershore (Wilson 1964, no 56). The form of the roofs which covered the east and west chambers at Barton can be ascertained with precision. Each chamber was floored at wail-top level with six north-south joists; one of these joists over the baptistery remains *in situ* to this

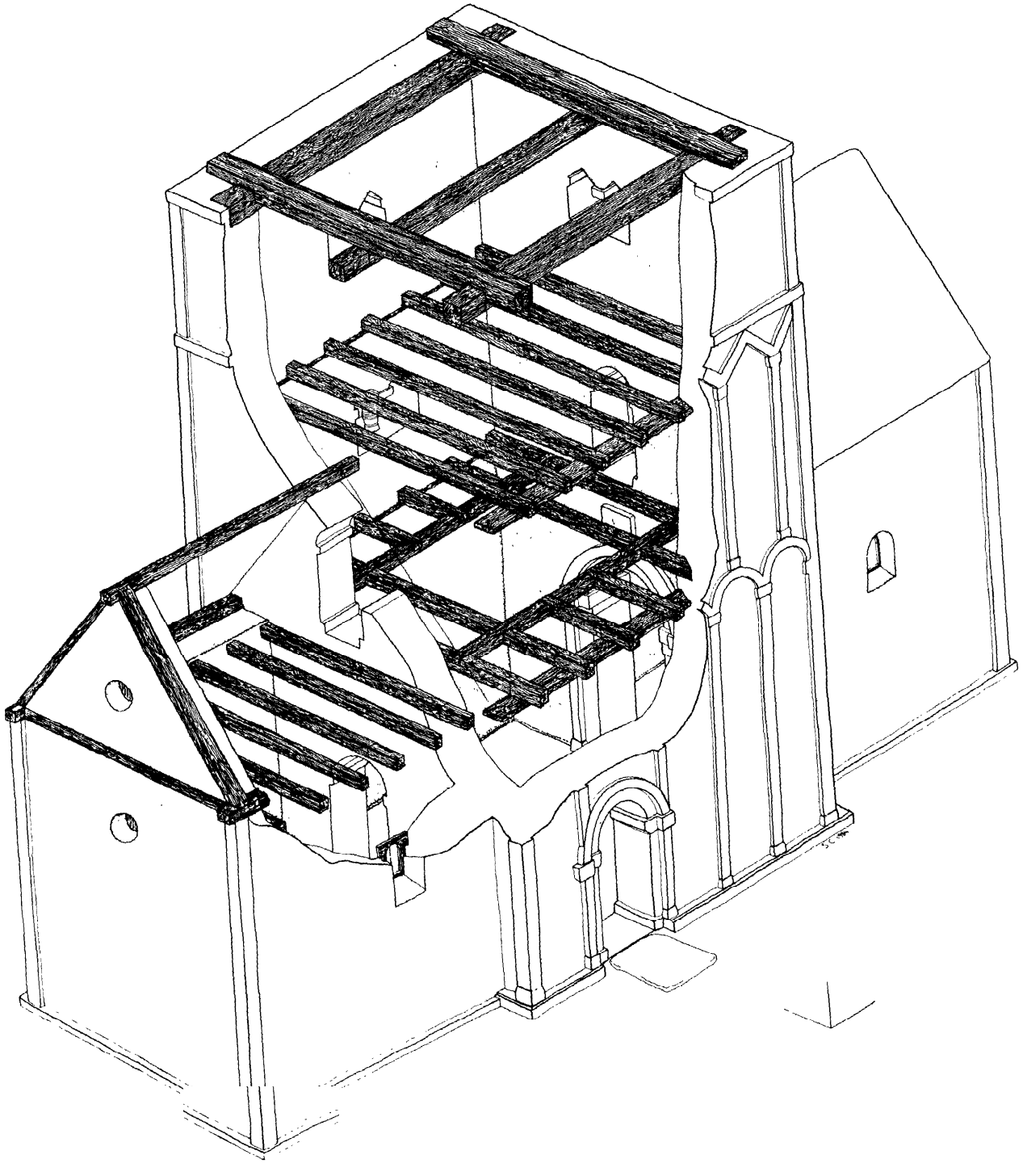

Fig 112 Barton-upon-Humber: isometric reconstruction of floor and roof timbers in the Anglo-Saxon church, based on evidence encapsulated in the walls (drawn by Steve Coll)

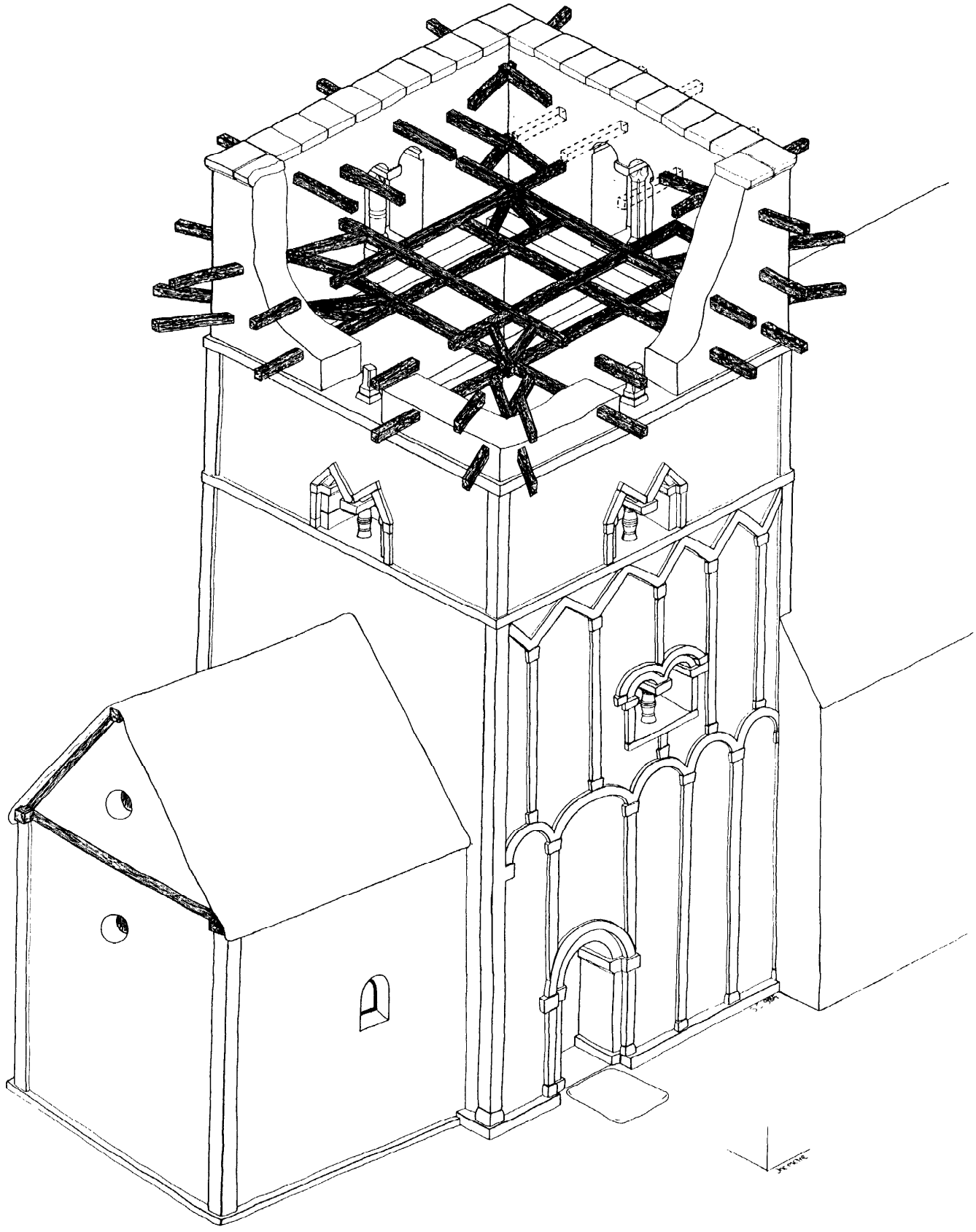

Fig 113 Barton-upon-Humber: cutaway isometric drawing showing reconstruction of the timber framing erected as part of the Saxo-Norman belfry on top of the earlier tower; this framing probably served to anchor a roof spire, and also projected through the walls as cantilevered scaffolding (drawn by Steve Coll)

day, and the sawn-off stubs of others survive in the side walls. The chancel and baptistery thus had flat ceilings with attics above, lit by small circular windows in the end-gables. Floor level was continuous with that of the nave gallery. The roof rafters were carried between wall-plates, set against the outer faces of the north and south walls, and a ridge-piece. All three timbers were deeply socketed into the tower walls at their inner ends, while the outer ends of the wall-plates appear to have been secured by a tie-beam housed within the masonry of the gable. The pitch of these lower roofs was sixty degrees. A sample from the complete floor joist in the baptistery was submitted for radiocarbon dating and returned a result of ad 900 ± 70 (HAR 3106).

In the mid to late 11th century the tower roof at Barton-upon-Humber was removed and a new belfry stage was constructed on top of the old walls. The base-frame of the previous roof was allowed to remain *in situ,* providing support for internal scaffolding and a working floor. The new belfry was built from cantilevered scaffolding which, unlike that used in the earlier Saxon construction, was of substantial squared timber, not branchwood (p 162). There were three levels of timbering, for which nearly all the wall-sockets have been found and recorded (Fig 113). The very precise siting of these timbers, including those obliquely positioned at the corners, revealed a dual function. They served not just a temporary purpose for scaffolding, but were conceived as fully-jointed internal frames in which the bells were hung. Moreover, the timber-framing could have been, and probably was, used to anchor a spire-like roof onto the tower. The ends of the frame timbers which projected through the walls to support cantilevered scaffolding were, of course, cut off flush with outer faces upon completion of the new belfry; for the putlog holes see Fig 104, nos 3, 4.

Masons or carpenters?

Although it is the work of the mason which has principally survived in the extant Anglo-Saxon churches, it must be apparent from the foregoing that the role of the carpenter and joiner was in no way less significant. Recent research has demonstrated that there was considerably more structural and other functional timberwork in the early churches than has perhaps hitherto been appreciated. Add to this the requirements of scaffolding, formwork, centring, and wall shuttering, and it is self-evident that the number of carpenters employed in church construction can hardly have been smaller than the number of masons. Moreover, when it is recalled that the vast majority of other buildings associated with religious life, and almost all secular buildings, were also of wooden construction, the pre-eminence of a timber technology in Anglo-Saxon England needs no justification. Nor does the fact that the verb *timbrian* simply meant 'to build'. Stonemasonry was by far the lesser craft in the construction industry down to the end of the 11th century.

While to a large extent our knowledge of pre-conquest timber churches lies in the realms of speculation - there being but one extant example (Greensted-juxta-Ongar), a few written descriptions, and less than a score of excavated plans - there are powerful arguments to be advanced for the former existence of a very great number of these between the beginning of the 7th and close of the 11th centuries. Archaeological investigations have so far failed to increase, to any significant degree, the total of Anglo-Saxon stone-built churches antedating the late 10th century, beyond the generally accepted legacy of such buildings. In particular, very little stonemasonry can be attributed to the period between the later 8th and the mid 10th century.

Thus when a church such as St Peter's, Barton-upon-Humber, or the tower at Earls Barton were erected it was at the end of a long era of timber technology. Consequently, the question to which we must address ourselves is, whence came the stonemasons responsible for such constructions. Some men were doubtless imported from the Continent, but it is scarcely plausible to imagine that masons and their apprentices arrived in England in scores, let alone in hundreds. It is inherently far more likely that much pre-conquest churchbuilding, especially in the Lowland zone, was undertaken by men who were turning their hands from the skills of the carpenter to those of the mason. While this proposition may initially be difficult to embrace, a carefully objective and disapassionate examination of the extant structural evidence lends no small measure of support. To do this one must examine churches through the eyes of the practical builder, rather than those of the architectural historian. There are several strands of evidence to consider.

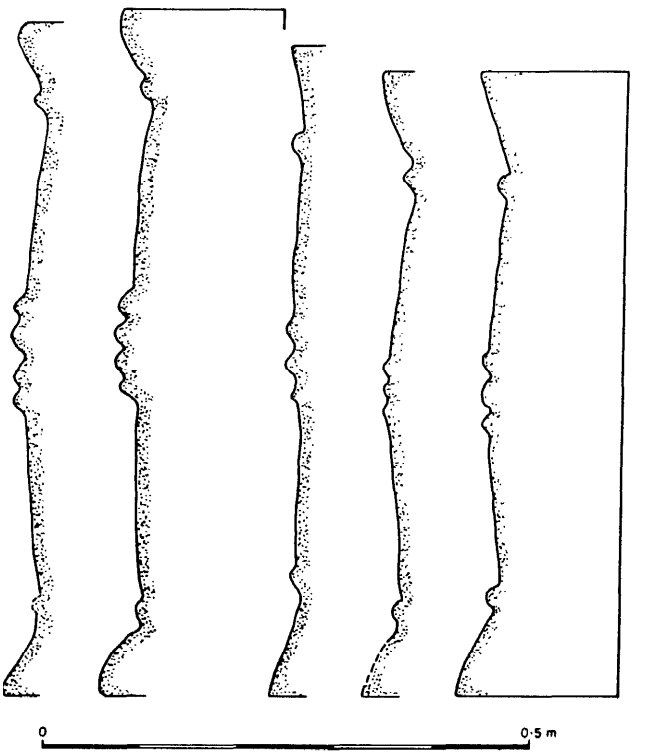

Fig 214 Barton-upon-Humber: profiles of stone mid-wall shafts, hand-cut in imitation of lathe-turned wooden balusters; there is no structural reason for the varying lengths of the shafts: they probably reflect the dimensions of the Roman stones from which they were cut

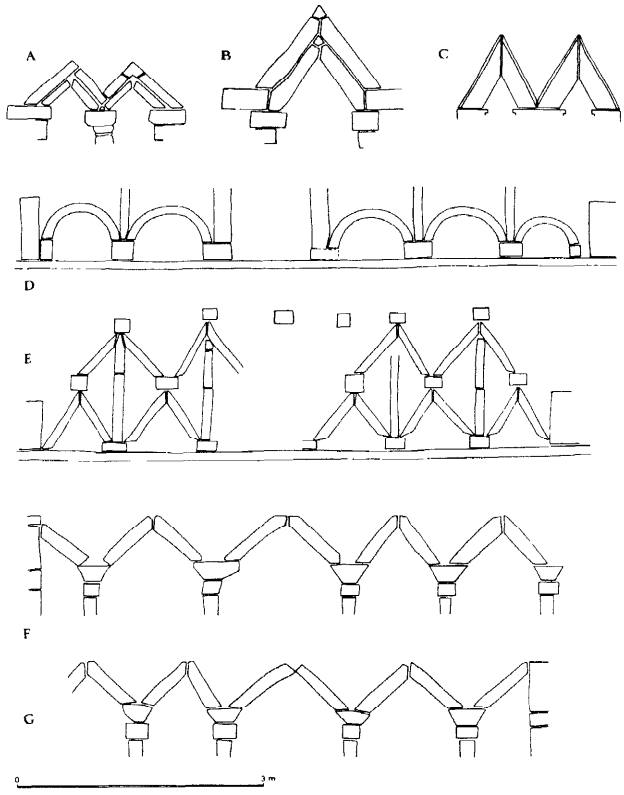

Fig 115 Pilaster-strips and gable-headed features: A, Barton-upon-Humber: belfry opening, north side; B, Barton-upon-Humber: north doorway; C, Deerhurst: tower windows, east side; D, Earls Barton: arcading, south side; E, Earls Barton: gable-headed features, south side; F, Barton-upon-Humber: arcading, south side; G, Barton-upon-Humber: arcading, north side

First, those buildings constructed of flint or other small rubble, with little or no dressed stone, even for quoins and arched openings (pp 159-61), testify to the skill of the carpenter rather than that of the mason. A tower like that at Little Bardfield (p 160) took its form from the enormous timber carcase which had to be constructed, albeit in stages, as a mould into which mortar and flints were poured. The art of the stonemason proper is absent in such a building. Secondly, a mistrust of the cohesive strength of rubble masonry is suggested by the use of lacing and other large timbers in walls; mention might also be made of the unnecessarily deep seatings provided for joists and beams. Thirdly, a number of architectural features in stone which have load-bearing functions can be seen as direct copies of timber prototypes. No better example than double-belfry openings can be cited, where the through-stone and mid-wall shaft represent a highly unsatisfactory use of masonry in place of timber. The concept is that of a counterbalanced beam pivotally supported on an upright post, and is precisely the kind of everyday propping arrangement which would have been used by Anglo-Saxon carpenters in the construction of centring and formwork. But in belfry windows it has been translated into the permanence of stone. The weight of the inner and outer arched openings, and the walling above them, apply shearing forces to the through-stone which must have resulted in many failures and consequence collapses (one of the through-stones at Barton-upon-Humber sheared under its load in 1979). No-one properly schooled in masoncraft could have invented such a concoction, or would willingly have permitted its use in a stone building. The mason's method of constructing a double (or multiple) opening of the kind in question would be either to build a thin spine wall between the arches, or to carry them not on a through-stone, but on a through-lintel. There, the stone passing through the thickness of the wall would have been supported at both extremities by columns, placing it under more uniform compression.

The mid-wall shaft employed in double openings and mu1tiple openings, as at Earls Barton, is also a transmutation into stone of a lathe-turned wooden baluster. The bulbous shapes, with ribs, grooves, and neckings, are quickly and easily turned on the wood lathe: they are an unmistakable hallmark of the turner. But to imitate concentric work of this nature without the use of a lathe - and most, if not all, Anglo-Saxon stone balusters were demonstrably not lathe-turned - is an incredibly laborious and pointless activity (Fig 114). There is a difference between producing circular drums for a Roman or Norman columnar structure, and the fashioning of one-piece balusters.

Although larger in scale, columns such as those in the

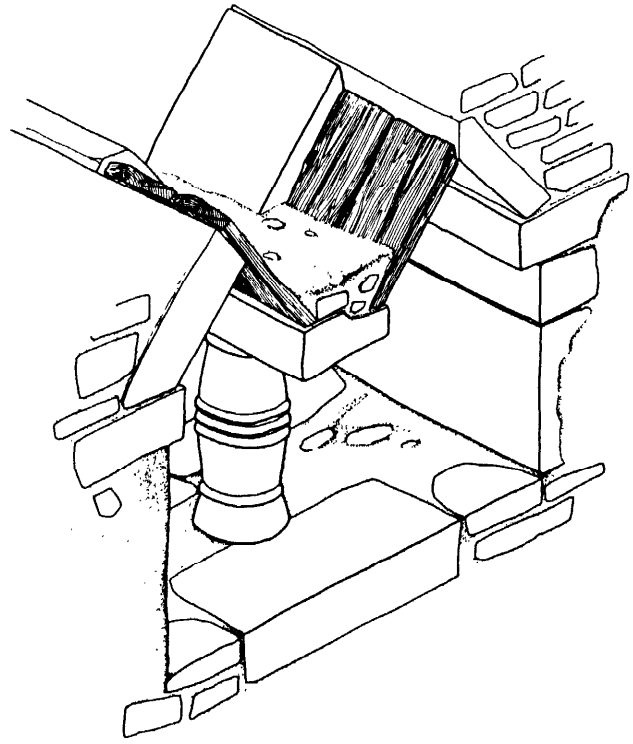

Fig 116 Barton-upon-Humber: isometric view (internal) of a belfry opening showing wooden boards used instead of stone slabs to form parts of the gable heads (drawn by Steve Coll)

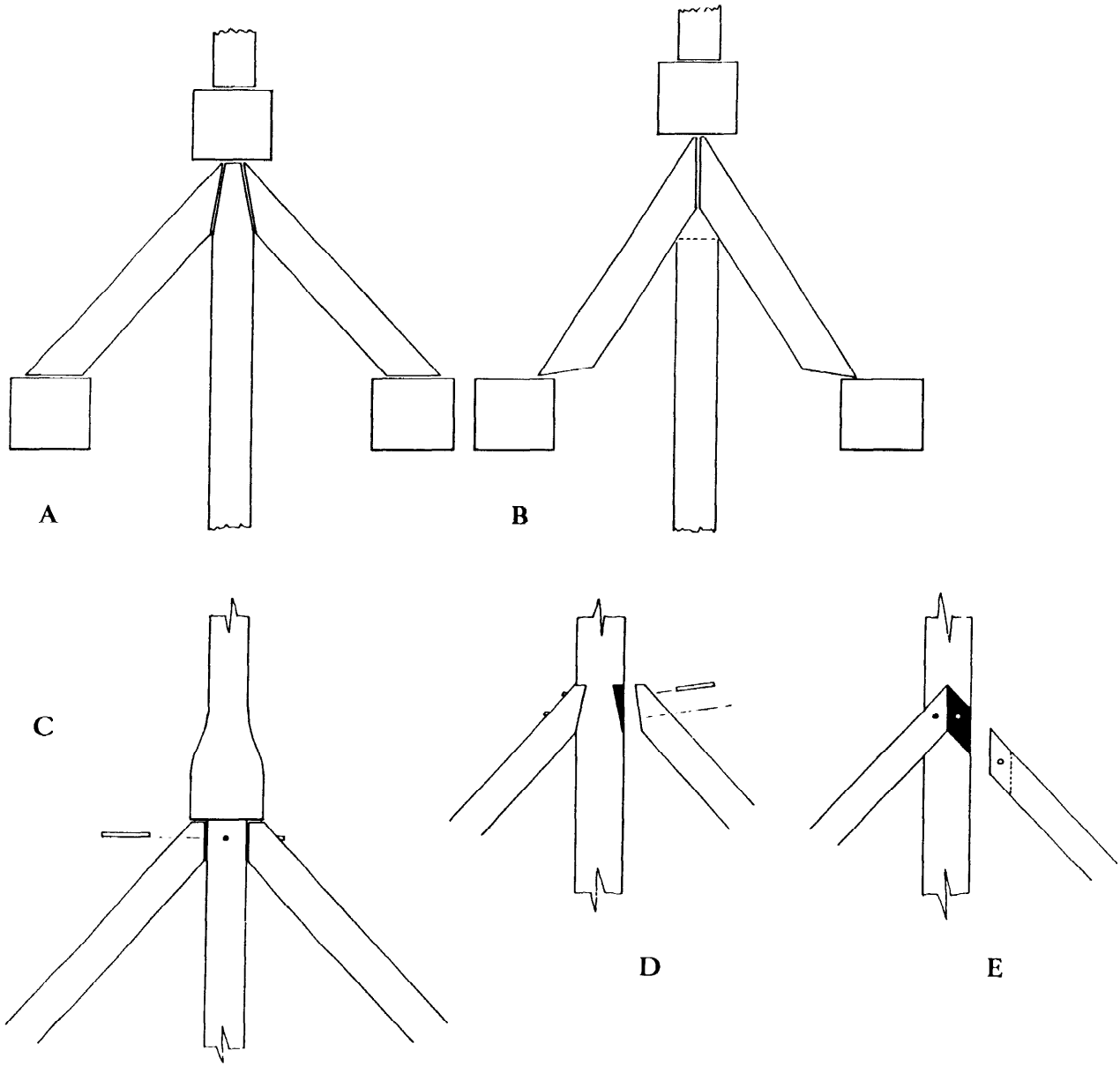

Fig 117 Earls Barton: diagrams to illustrate the use of carpentry joints in the pilaster-stripwork of the tower (not to scale): A, pilaster with braced lap joint; B, pilaster with mitred lap joint; C, spire mast at Sompting with wooden braces; D, wooden post with lap-jointed braces; E, wooden post with mitred and lap-jointed braces

crypt at Repton were made basically in the same manner as balusters, and once again are copies of wooden prototypes. The coarse, barley-sugar twist with a raised rib seen on the Repton column shafts has been laboriously cut in emulation of spiral wood turning (an advanced technique involving considerably more skill than plain turning). This is not quite the same thing as spiral fluting, and Fernie's comparison of Repton with Utrecht is invalid (Fernie 1983, 120).

The fourth category of evidence to consider includes all those features that are non-load-bearing, and not of major structural importance, found in certain stone buildings and for which no entirely satisfactory explanation has yet been forthcoming. Translated into timber, some of these features - such as pilaster strips - can immediately be appreciated as integral components of a framed structure. There has been much discussion of the origin and purpose of pilaster strips in Anglo-Saxon buildings, and the arguments have been admirably summarized by Taylor (1970). One early suggestion, that the strips are purely decorative and merely imitate wooden framed construction, has fallen out of academic favour, but is urgently in need of resurrection. Examination of the pilaster strips on the tower at Barton-upon-Humber has shown that they

are cut from reused Roman ashlars of varying dimensions, and they do not seem to be set into the rubble walling to a consistent depth. Indeed, some are very shallowly bedded, and it is difficult to envisage any structural function that they could perform. Long vertical joints introduce weakness into a wall, especially when poorly bedded with sizeable voids in the mortar. I therefore incline to the view that the principal function of pilaster strips and the blind arcading frequently associated with them was ornamental. Indeed, a glance at the hopeless jumble of arcading on the tower at Earls Barton is sufficient to make this point.

Previous discussions of the origins of pilaster strips have tended to concentrate on geographical and art historical considerations, with little attention directed to constructional details. It is to those that we must now turn, since they beyond all else betoken the influence of the carpenter. The form of jointing used in gable-headed openings and arcading was in the great majority of cases lifted directly from the carpenter's repertoire: gable stones were angled at their bases in order to rest on the imposts and, more particularly, they were mitred at the apex joint. This is clearly demonstrated by the double window in the east face of the tower at Deerhurst (Fig 115C). Roman gritstone blocks were being recut for use as dressings at Barton-upon-Humber and consequently some compromises were permitted in order to accommodate stones of predetermined dimension; thus in the belfry openings there was a tendency to butt and lap stones in a variety of ways. In only one gable head was a proper mason's mitre used with an apex block and right-angled joints (Fig 115A, right). In contrast to this is the remarkable expedient found in two of the four belfry openings, where wooden boards were used in place of gable stones on the inner face of the tower (Fig 116). In both the openings where this original feature is found boards of much slighter dimensions than the adjoining gable stones have been employed to form the V-shape resting on the through-stone. Gritstone slabs were evidently scarce in supply by the time the builders reached the uppermost levels of the tower, and the substitution of timber in places where it would not be noticed was a natural solution. Such a compromise would be unthinkable to a true mason, emphasizing that the builders of the Barton tower were carpenters at heart.

The treatment of the north doorway at Barton is interesting, with carpenters' joints between the gable stones and the imposts; the apex joints are also carpenters' mitres, but with the *ad* hoc addition of two filler pieces (Fig 115B). These were necessitated by the fact that the Roman stones were slightly too short to receive full-length mitres, like those at Deerhurst. The same problem is encountered in the gable stones of the blind arcading at Barton (Fig 11SF, G): all the mitred joints on that work are of carpenters' type, not masons'.

A similar situation is found at Earls Barton, on the gable-headed arcading of the tower (Fig 115E). Here, additional evidence for Anglo-Saxon building practice is seen, in the form of prefabricated components. The gable stones all have carpenters' mitres at the apex and at the feet, and while the former joints are correctly fitted together, the latter are for the most part obvious misfits. In particular, it is evident that the feet of the gable stones are too acutely angled for the bases which carry them. In effect the gable stones stand on tip-toe. The explanation for this is found in one gable head on the south side (Fig 115E, left); this is illustrated diagramatically in Fig 117A. What we see here is an imitation of a form of lap joint used by carpenters for bracing a vertical post (cf the braced post in Fig 117D, and the bracing of the spire mast at Sompting, Fig 117C). The design for the jointing at Earls Barton was not, however, followed rigorously, and most of the pilasters were not clasped by the gable stones; instead, the more expedient arrangement shown diagramatically in Fig 117B was adopted. This copied the carpenter's mitred lap joint (cf Fig 117E), and would have made little visual difference to the finished work were it not for the fact that the gable stones had already been cut to length and angled at both ends for the joint-types previously described. The effect was to steepen the pitch of the gabling and narrow the span (Fig 117B).

There are many curiosities about the tower at Earls Barton which lead one to believe that the design of its prototype was wholly for timber, where prefabricated framing would be brought onto site ready for erection. The concept was translated into stone, even down to prefabrication, but something went drastically wrong with the erection process and one cannot help but feel that the design drawings were mislaid. As a result the 'kit of parts' was incorrectly assembled, to such an extent that I believe major elements to have become transposed. For example, the thin, semicircular hoops which stand on a string-course were surely intended to be heads for arcading, as at Barton-upon-Humber (Fig 115D). The hoops have, incidentally, been cut as one-piece stones with a greater labour input than would have been required for the production of their timber prototypes (simple rings turned on the wood lathe, and then cut in half).

The fifth, and final, category of evidence which will be mentioned here in connection with the transmutation of wooden architecture into stone concerns decorative elements. There are many cases where a piece of stone has been handled and decorated as though it were a balk of timber. Two examples will suffice to make the point. The shallow, concentric grooves on the face of a semicircular arch stone, as at St Patrick's Chapel, Heysham, are in imitation of faceplate-turning done on the wood lathe. Mid-wall slabs used in belfry and window openings were easily made from timber (pp 165-6), but could also, with commendable skill, be cut in stone, and slotted into the fabric in exactly the same way; these are best seen at Barnack and Earls Barton. The former has examples of both pierced scroll decoration and slotted openings exactly like those still to be found in medieval boards in belfry openings.

Conclusion

Many aspects of Anglo-Saxon building have been discussed by Dr Taylor in recent years in varying detail, according to the evidence currently available.

However, in a very short space of time a mass of fresh data has become available through excavation and structural dissection, and it has been a very great pleasure to work with Harold Taylor in the collection and analysis of this material. I offer this essay as a series of footnotes to his publications. The definitive account of the Anglo-Saxon builder has yet to be written.

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Much has already been said of the Taylors' great survey of Anglo-Saxon architecture and I would therefore like to remind you of another facet of Dr Taylor's work. He served as a Commissioner of the Royal Commission on Historical Monuments and I wish to pay tribute to the scholarship and careful guidance which he brought to its work. I must also record my gratitude to him for the kindness and encouragement which he gave to the staff and in particular to me when I embarked on a study of the churches of north Northamptonshire. It will, I am sure, become clear just how much the work I am about to describe to you owes to his scholarship and inspiration.

The involvement of the Royal Commission on Historical Monuments in Northamptonshire is considerable. A survey of the archaeological remains of the county has been published in four volumes (RCHM(E) 1975-82). This series has been completed by a further volume covering Northampton and the area immediately surrounding it (RCHM(E) 1985). Architectural work began somewhat later in the north of the county with a general survey covering 24 parishes and this was published in traditional Inventory form in 1984 (RCHM(E) 1984).

The 22 parish churches included in the area demonstrated the potential for a study of the development of the medieval parish church in Northamptonshire. Much evidence of the effect of early fabric on later development emerged but the number of churches examined was too small to allow firm conclusions on wide patterns of development. To remedy this and to provide a sample suitable for comparative analysis it was decided to undertake a survey of all the medieval parish churches in the county, that is to say some 270 buildings. This work is being carried out by Dr T H Cocke and myself and is now well under way, over a third of these churches having been examined at the time of writing. At the suggestion of Professor C N L Brooke, the scope of the enquiry has been widened by the employment of Dr M J Franklin to study documentary sources relating to the parochial development of the county. This is an expansion of his doctoral thesis on early ecclesiastical organization in Northamptonshire (Franklin 1982).

As the collection of data, both architectural and documentary, is incomplete I will confine this paper to the examination of one particular building type relating to the Saxon period which occurs in the parts of the county already surveyed, and to a discussion of Saxon churches and their organization in a small area in the south-west of the county. Before I do this I think it would be helpful to review the known physical evidence for Anglo-Saxon churches in Northamptonshire, both to familiarize the reader with this background material, and to provide a context for my two case studies (Fig 118).

Brixworth

This church, an extraordinarily complete survival, perhaps from the 8th century, is earlier than the other surviving Anglo-Saxon churches in Northamptonshire which probably date to the 10th and 11th centuries. The Brixworth excavation committee has been at work on the church for a number of years and until their very detailed investigation is concluded it would be premature to say more.

Nassington

The core of the west tower and the whole of the nave are of pre-conquest date. The Anglo-Saxon tower or westwork has been encased in later masonry on three sides but a triangular-headed doorway is preserved high in the east wall. Long and short quoins survive at the south-west corner of the nave and these coupled with the homogeneity of the walls and the level of the high doorway suggest that the long, tall nave is Anglo-Saxon. Later, the chancel was rebuilt, aisles were prolonged north and south of the tower, and the clearstorey was cut down into the walls of the Saxon nave.

Geddington

The nave is Anglo-Saxon. Pre-conquest windows and a blind arcade survive in the north wall and there are long and short quoins at the two eastern corners. Early roof lines of both nave and chancel are preserved above the chancel arch. The present chancel is unusually long, perhaps owing to the retention of the short Saxon nave.

Brigstock

The west tower with a circular stair turret and the nave, up to eaves level, are of pre-conquest date. Both the nave and tower have long and short quoins rising to a considerable height. Many other Anglo-Saxon features survive, including the west doorway of the tower, the tower arch, and a nave window. Later developments include, like Nassington, aisles which run north and south of the tower and a clearstorey which is cut down into the walls of the nave.

Earls Barton

Only the tower is Anglo-Saxon. Its form shows that it was freestanding on the north, south, and west and that there was probably a compartment, narrower than the tower, adjoining on the east. This may have been a chancel. In the 12th century the church developed to the east, the tower occupying a conventional position at the west end.

Stowe-Nine-Churches

Only the west tower is of pre-conquest date, but the form of the junction between the tower and nave suggests that the width of the Anglo-Saxon nave is preserved. The church east of the tower was drastically rebuilt *c* 1860 but a

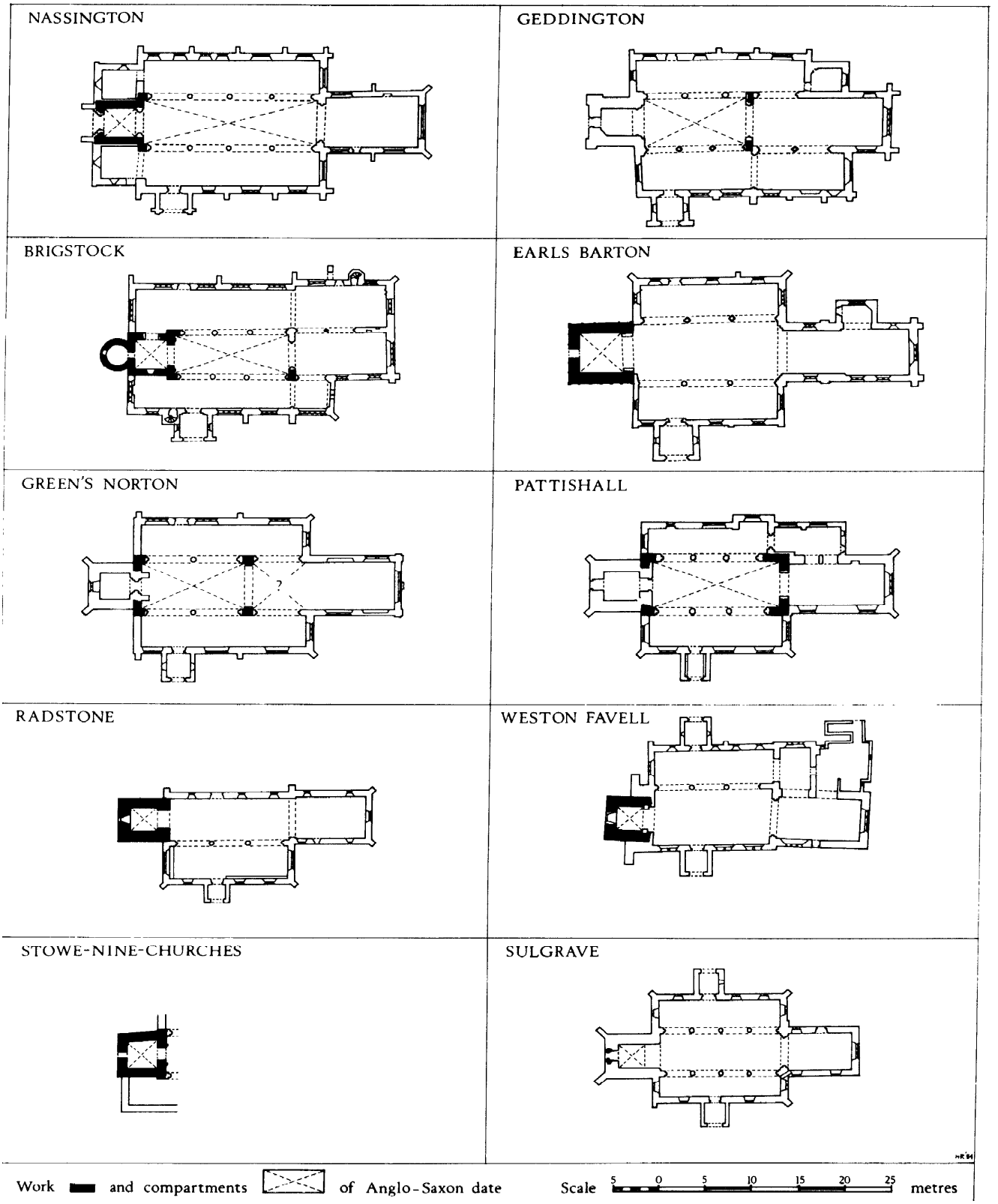

Fig 118 Plans of churches in Northamptonshire with identified Anglo-Saxon fabric (omitting Brixworth)

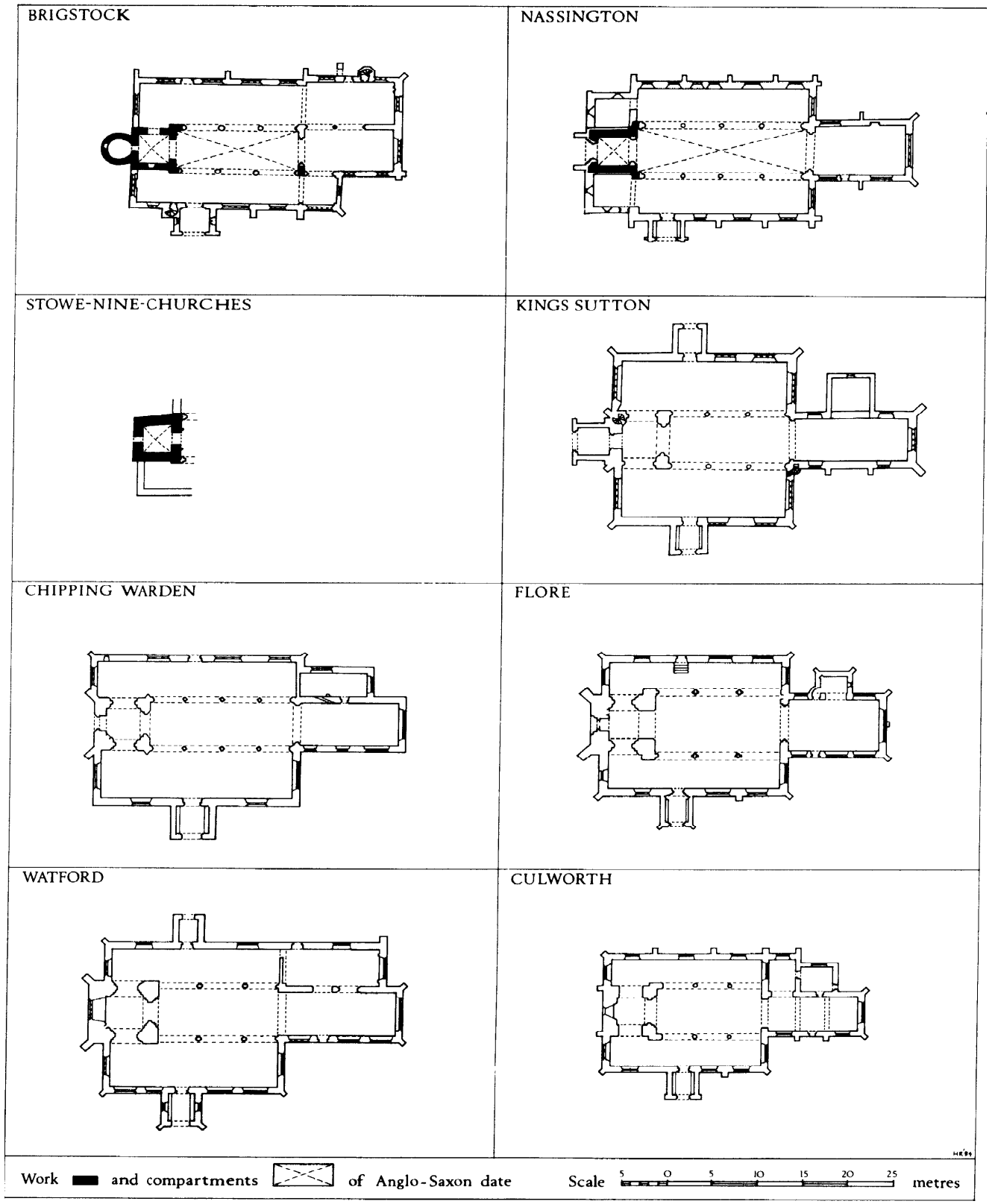

Fig 119 Plans of 'clasped tower churches in Northamptonshire

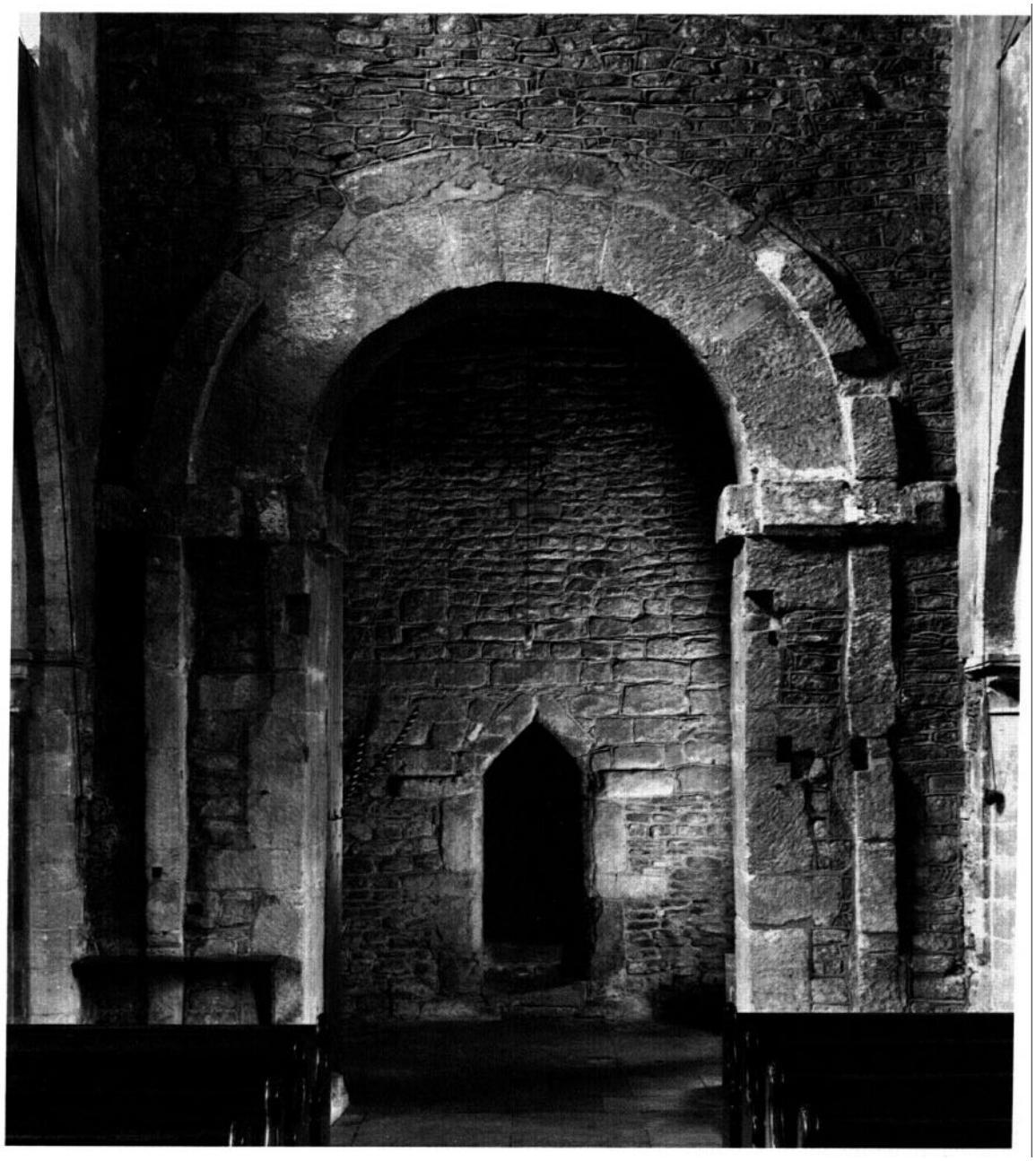

Fig 120 Brigstock church: tower arch (copyright National Monuments Record)

drawing of the exterior by George Clarke and an account and sketch plan of the church by Sir Stephen Glynne record its form before alteration (Clarke drawings; Glynne, church notes). It had a short nave and a south aisle which clasped the tower.

Pattishall

The nave is of pre-conquest date. Long and short quoins are preserved at the northern corners. Later developments include a large 11th century chancel and north and south aisles. A very late clearstorey is cut into the north wall of the Saxon nave.

Green's Norton

The nave is Anglo-Saxon and has long and short quoins at three corners and a triangular-headed door high in the east wall. Traces of the outline of the roof and blocked windows in the side walls of the nave are also visible. The doorway in the gable of the east wall of the nave and the later development of the church with an abnormally long

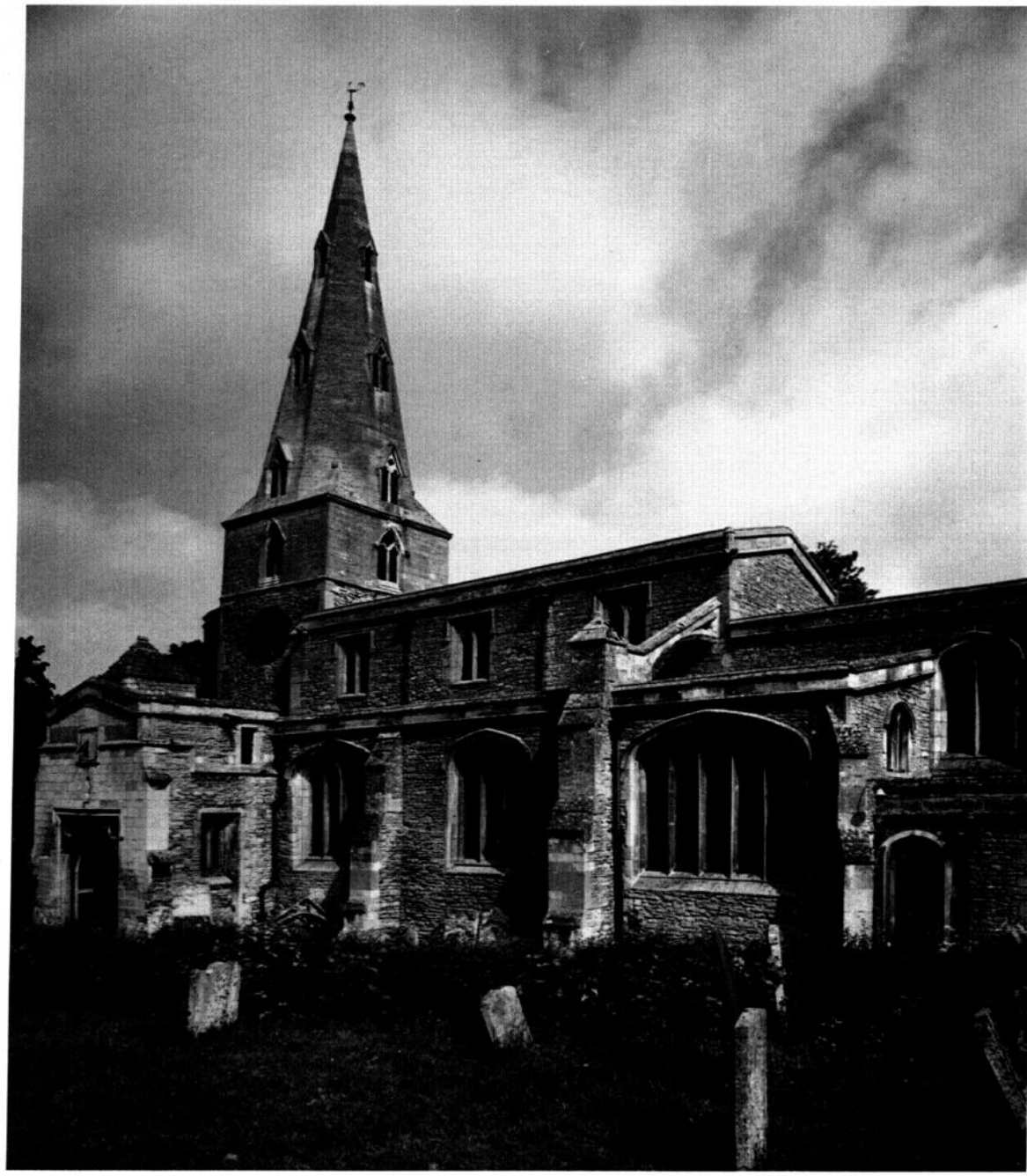

Fig 121 Brigstock church: south elevation (copyright National Monuments Record)

chancel, the west end of which is within the body of the church and open to the aisles, suggest that the Saxon church may have had a central tower.

Moulton

A small window of late Anglo-Saxon date is preserved in *situ* in the north wall of the nave, and suggests that this wall, at least, is of pre-conquest origin.

Weston Favell

The west doorway of the tower is of late Saxon character. The arch is not constructed with shaped voussoirs but is turned with very narrow pieces of stone; the jambs are plain.

Radstone

The lower part of the present tower including the tower

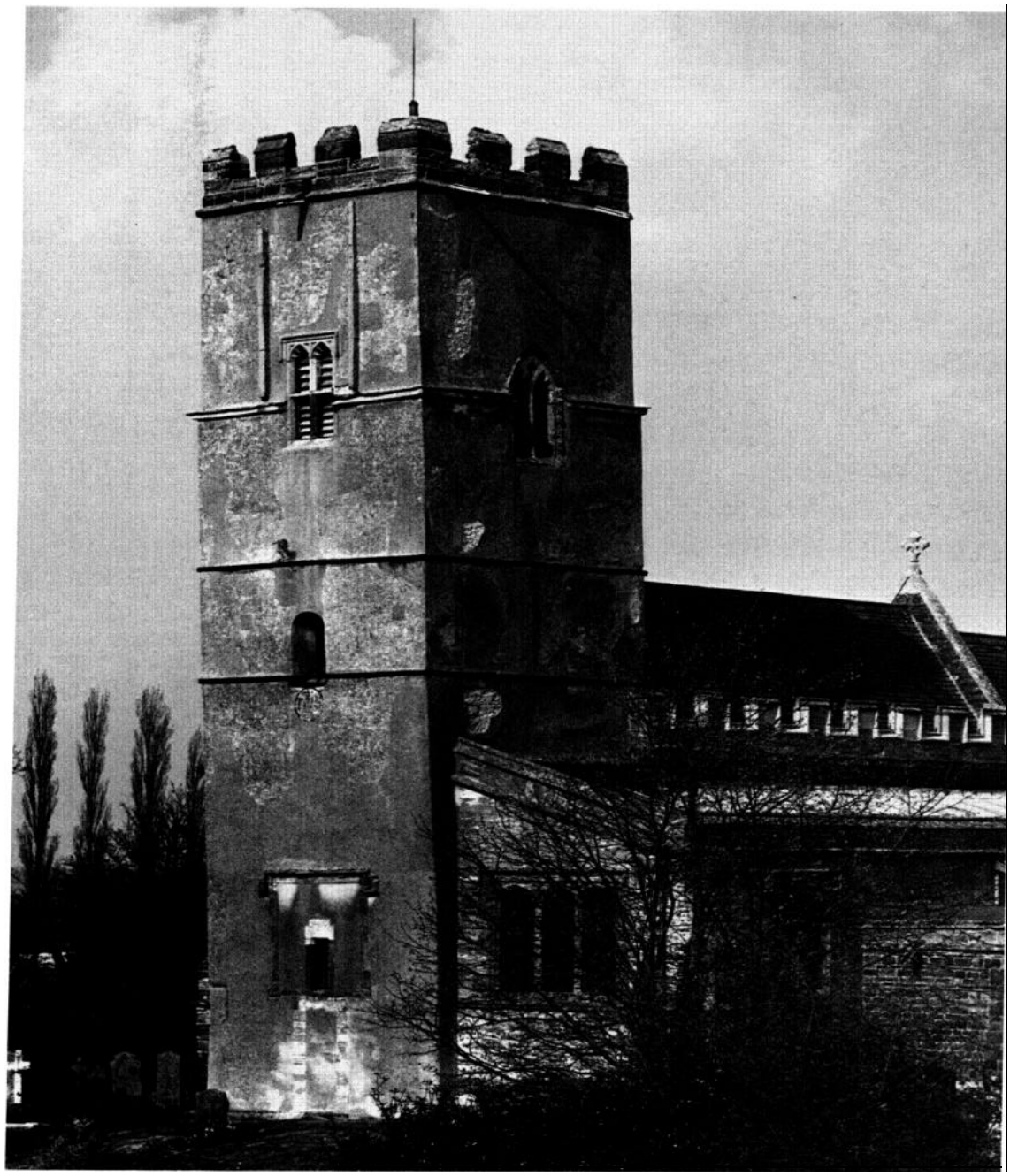

Fig 122 Stowe-Nine-Churches church: tower from south-west (copyright National Monuments Record)

arch and much of the east wall are of late Saxon date. The outline of an earlier nave with a tall section and a roof pitch of about 45 degrees is preserved on the east face of the tower.

Sulgrave

The only visible Anglo-Saxon fabric is a triangular-headed doorway in the west wall of the tower. Excavation of the Norman ringwork west of the church has shown that a Saxon manor house lay below the castle, the main buildings of which were in line with the tower (Davison 1977). Thus the doorway may be in its original position although incorporated in later work. The medieval development of the church eastwards is asymmetrical with the tower. A high section without clearstorey windows is

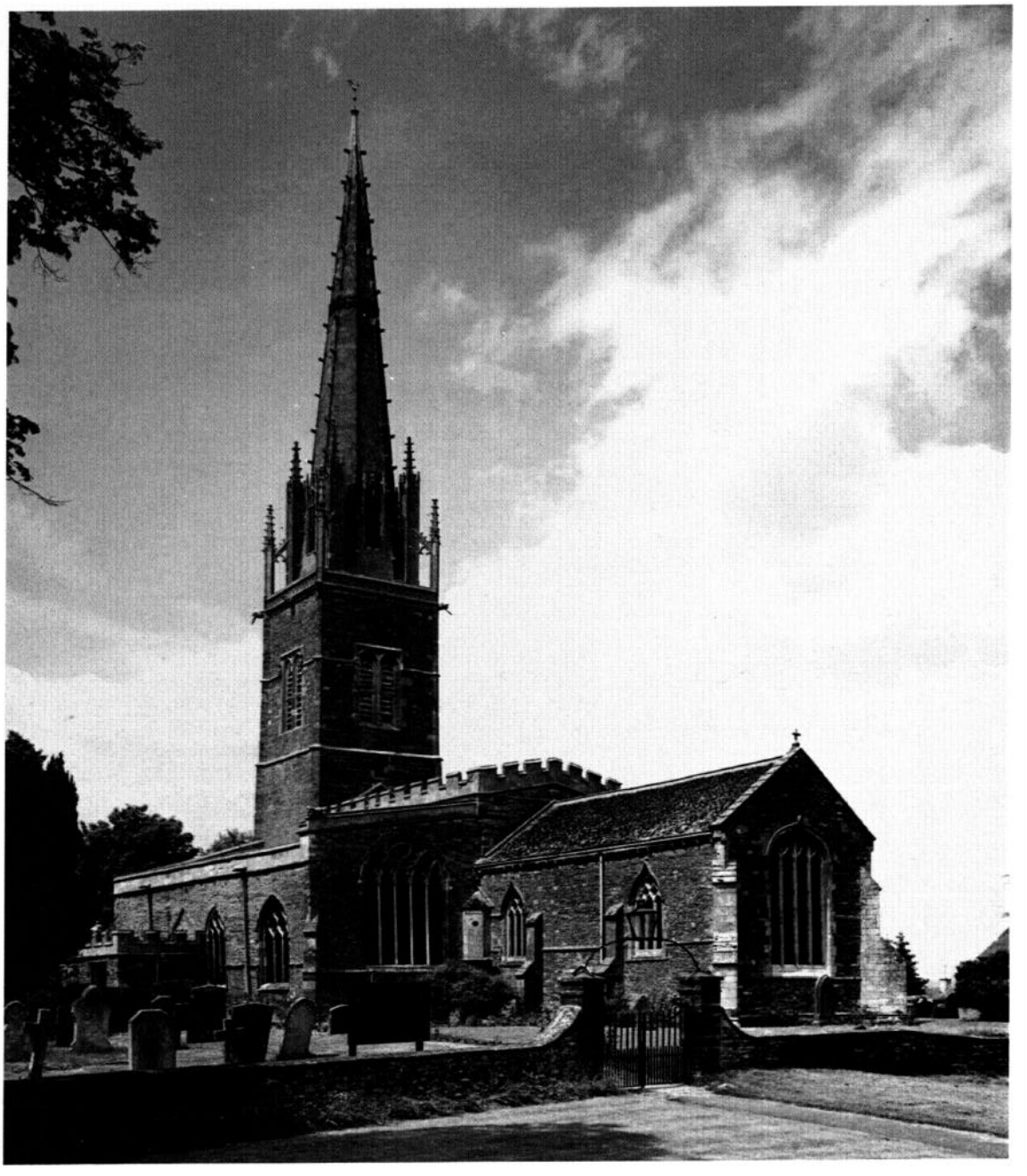

Fig 123 Kings Sutton church: view from south-east (copyright National Monuments Record)

preserved on the south side of the nave. The tower and the south wall of the nave may thus be of Anglo-Saxon origin.

Twelve out of a total of 270 churches retain recognizable Anglo-Saxon fabric, little of which can be closely dated but which in general belongs to the period after the Danish invasion and may even be as late as the 1lth century. The small number and the very uneven distribution of these churches throughout the county suggest that they are only a fraction of those in existence before the conquest (cf Rodwell 1981,141; Faull & Moorhouse 1981, 1, 217).

How then can more churches of Anglo-Saxon origin be identified? Excavation would clearly provide the most comprehensive result but to employ such a technique over the whole county is clearly impossible. A combination of architectural and historical enquiry when applied over a large area may provide further evidence by establishing a network of relationships.

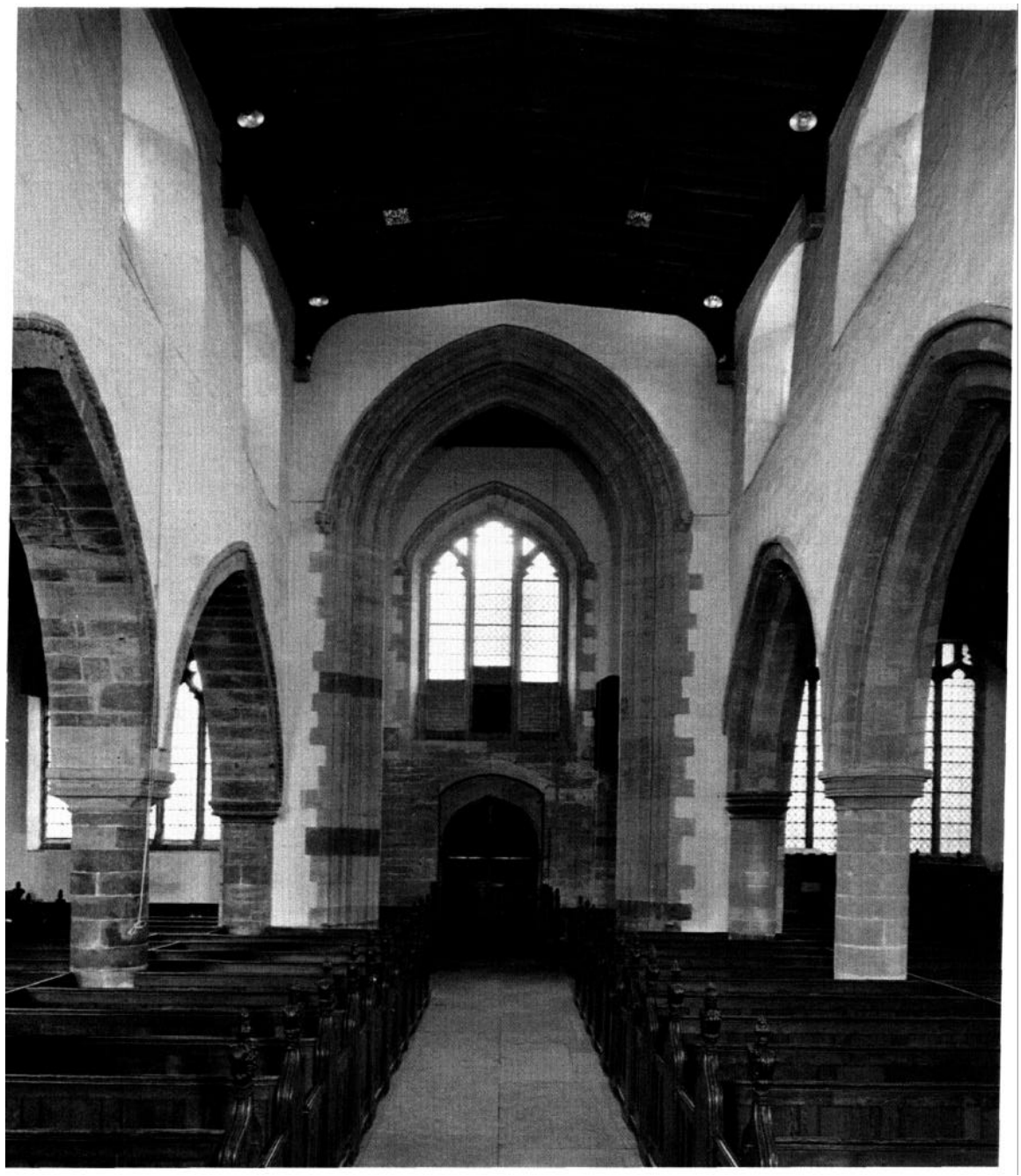

Fig 124 King Sutton church; nave looking west (copyright National Monuments Record)

The historical contribution involves the study of medieval ecclesiastical documents, which record earlier relationships between one church and another, particularly church Scot, the payment of dues to a mother church from a subsidiary parish in the Anglo-Saxon period. The architectural side consists of the recognition of elements peculiar to Anglo-Saxon churches which have survived the removal of all stylistic evidence during later alterations and development, for example a short nave with high unbroken section in combination with a large west tower. In other instances Anglo-Saxon cores of this type appear to have generated a particular pattern of development and thus, even when all the Anglo-Saxon work has been subsequently replaced, it is still possible to suggest an Anglo-Saxon origin for the church.

The form of church which I will discuss next has been identified by all three methods. It occurs five times in the area looked at so far. I have called it the 'clasped tower'

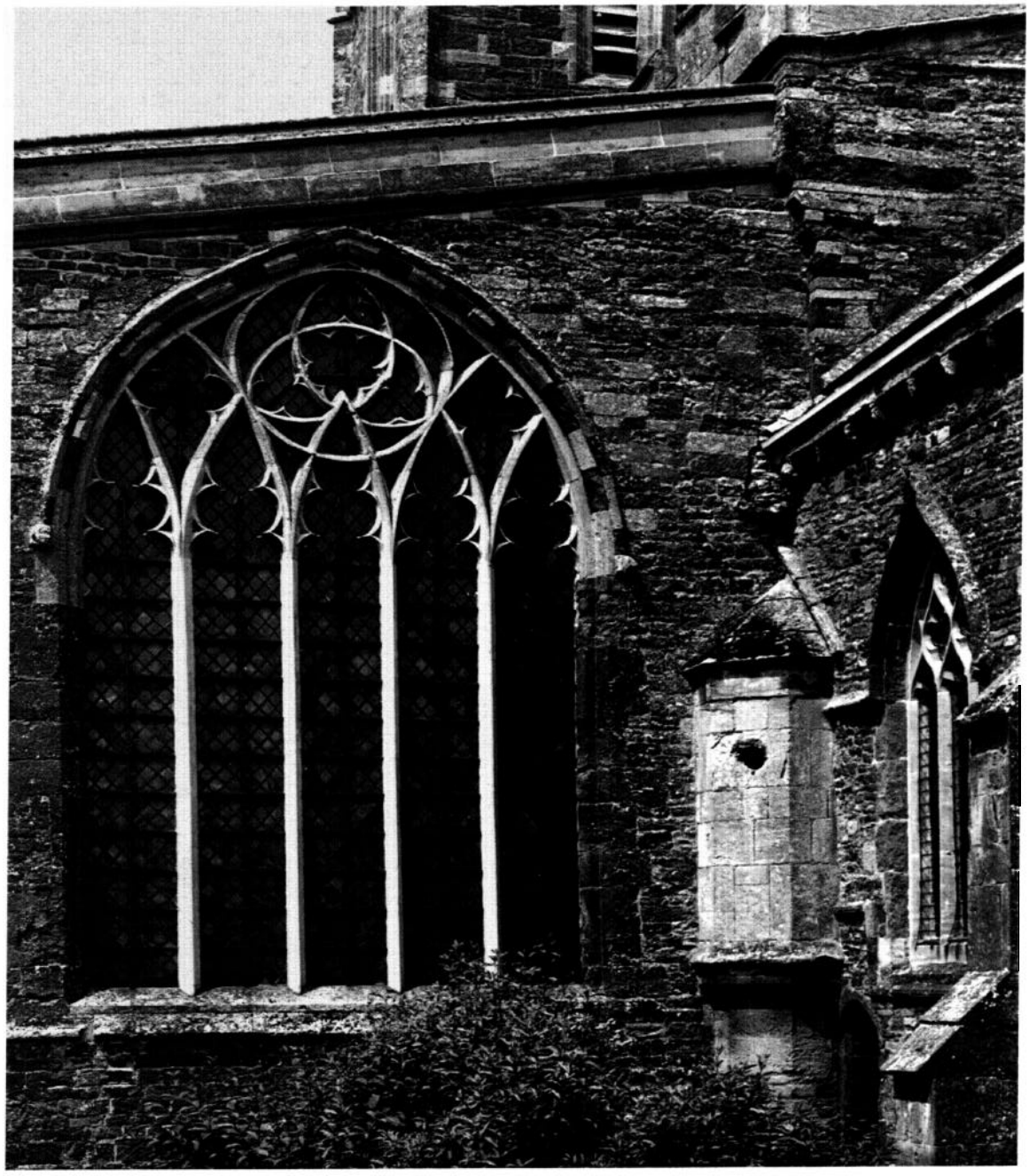

Fig 125 Kings Sutton church: east elevation of south aisle, showing former valley gutter at junction with chancel (copyright National Monuments Record)

type; that is, an aisled church with a west tower clasped by the aisles (Fig 119). It is a form which developed after the conquest and appears to have been determined by the retention of the core of an earlier nave and tower which prevented the lengthening of the nave to the west, which was the normal medieval practice. The first three examples belong to the group of Saxon churches already identified. The first is at Brigstock where the form of the Saxon tower and relatively short nave can be distinguished from the later compartments around them, a long chancel and north chapel, wide north and south aisles, and a clearstorey (Fig 120). This development is conventional except that the aisles clasp the tower and the clearstorey is cut down into the walls of the Saxon nave. A semicircular headed doorway in the north wall of the tower suggests that on that side at least the tower was already clasped by an aisle in the 12th century. The same elements exist at Nassington, except that the nave is much longer. The nave

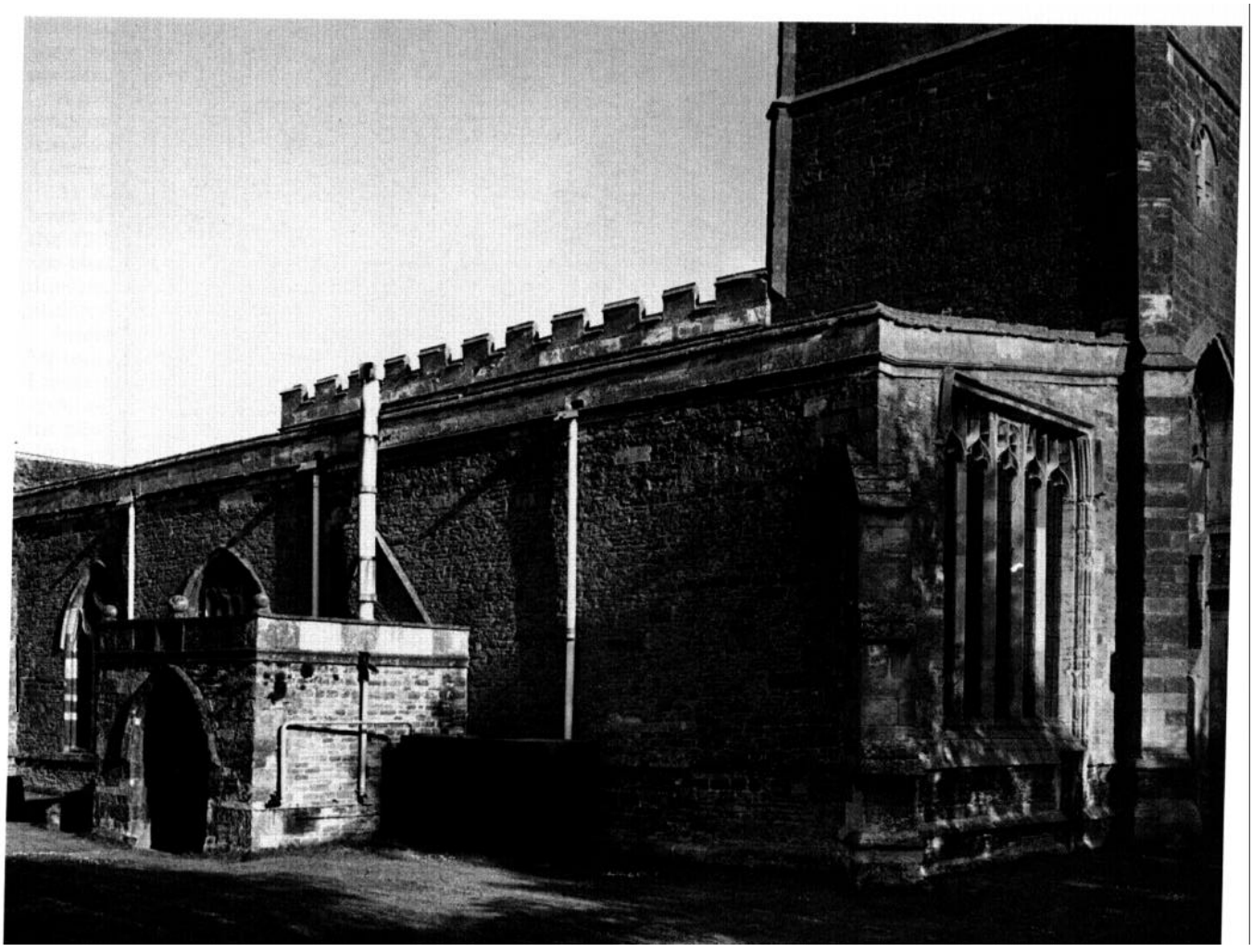

Fig 126 Kings Sutton church: west elevation of north aisle, showing how arch of west window was cut down when gable replaced by present roof (copyright National Monuments Record)

and tower are Anglo-Saxon, the aisles clasping the tower are 13th century, and the later clearstorey is cut down into the walls of the nave (Fig 121). The third example is at Stowe-Nine-Churches where the tower is clasped by an aisle on the south side alone, probably because the ground falls away steeply on the north and west sides of the church (Fig 122).

At my fourthexample, King's Sutton in the south of the county, the earliest datable fabric in the church is of the 12th century but the shape of the building has a number of Anglo-Saxon characteristics (Fig 123). The nave is rather short but very tall (Fig 124). The weathering of an early steep-pitched nave roof survives on the east face of the tower indicating an eaves height level with the top of the present clearstorey. The nave walls are of uniform width throughout and there is no sign of a break in fabric at the base of the clearstorey, suggesting that the clearstorey, which dates from the 16th or 17th century, was cut through the pre-existing nave walls. The absence of a clearstorey before that time is further supported by the survival of steep gabled roofs over the wide north and south aisles until after the 15th century (Figs 125, 126). The outlines of the nave with a short plan and a high section without a clearstorey suggest a church like Brigstock. The chancel is only a little narrower than the nave, a relationship unusual in the 12th century, which is the apparent date of the chancel. Thus the width of the chancel, at least, may also be of Saxon origin. The detailing of the massive west tower is of the 14th century but it is clasped by both the aisles and therefore may be a rebuilding of a Saxon tower, the retention of which had prevented the extension of the nave to the west. Later expansion was confined to the aisles.

To this architectural analysis can be added documentary evidence which shows that King's Sutton was at the centre of a large estate of considerable antiquity and

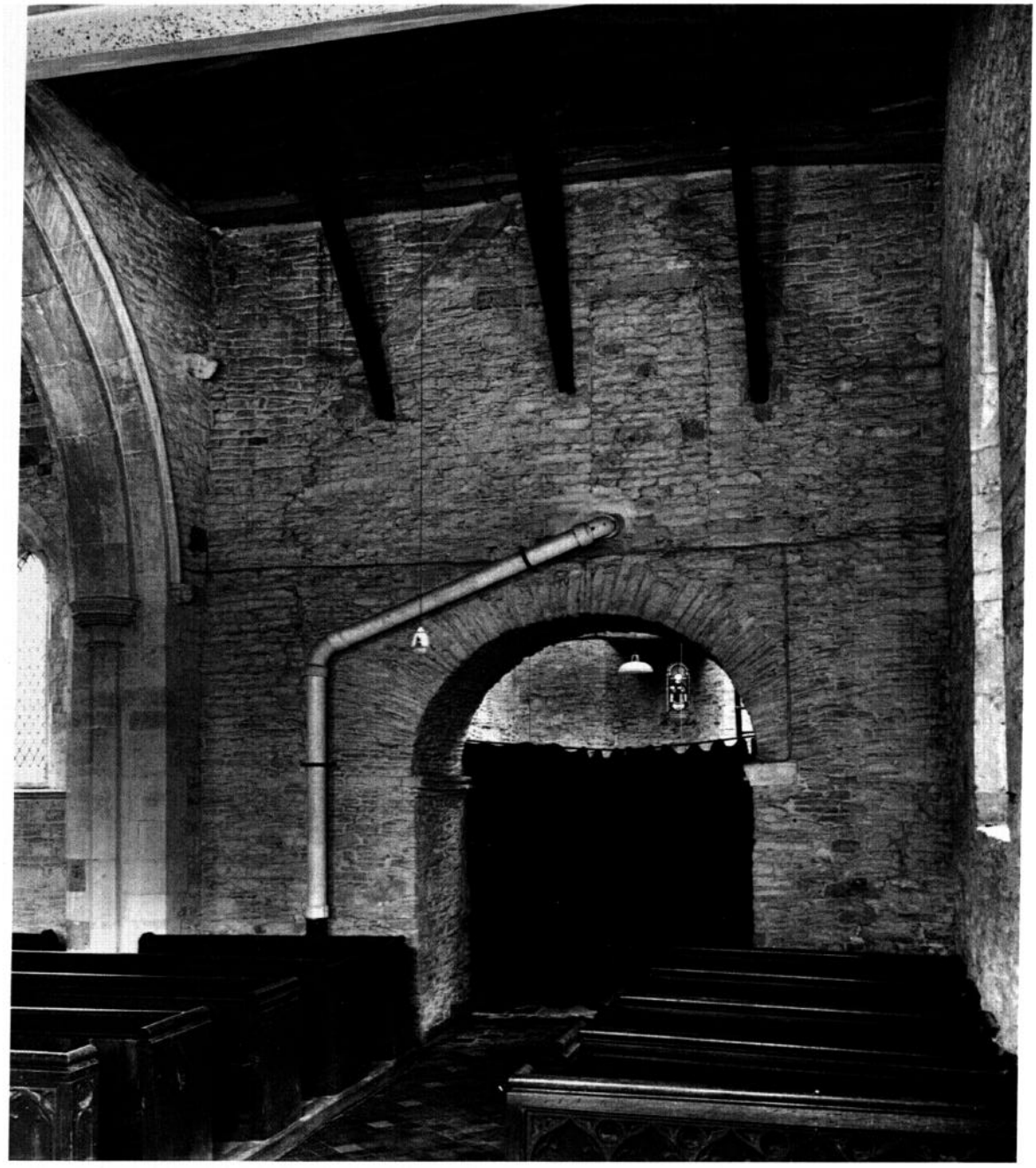

Fig I27 Radstone church: tower arch (copyright National Monuments Record)

that it had a royal minster perhaps from as early as the 7th century (Brown & Taylor 1978). There is little doubt of the status of the church as a *matrix ecclesia* as it was royal, relatively wealthy, and above all it received church scot from a wide area (Franklin 1982, 261-300). As late as the 14th century the prebendary of Sutton who inherited the rights of the church claimed church scot in Radstone, Thenford, Aynhoe, Whappenham, Westcot, Evenly, Thorpe, and Astwell. Thus in this instance, the form of the church, its later development, and the documentary evidence combine to suggest an Anglo-Saxon origin.

The clasped tower plan also occurs at Chipping Warden, Flore, Watford, and Culworth, all in the western part of Northamptonshire. None of these churches has any identifiable Saxon fabric, but the first three have high sections and all have relatively short naves. Both Chipping Warden and Culworth were places of some significance during the Saxon period but little is known of their

ecclesiastical status. The significance of these churches may be better understood when the documentary and architectural survey is completed.

A pilot study combining documentary and architectural evidence was undertaken in the south of the county which involved the three churches of King's Sutton, Marston St Lawrence, and Radstone.

At King's Sutton, which has already been shown, in spite of the absence of stylistic evidence, to be earlier than the 12th century, the form of the building suggests that the chancel, nave, and west tower are of Saxon origin and documentary evidence demonstrates that the church was a minster.

Marston St Lawrence is about five miles north of King's Sutton. The earliest datable features in the church of St Lawrence are of the 13th century and the bulk of the fabric appears to be of the 14th century and later. Nevertheless the plan form of the church with a long narrow nave and a short chancel sets it apart from others in the county and may suggest an early origin.[1] The church was certainly in existence by 1121x1129 when Ranulf of Chester confirmed the grant by Robert de Rothelent of the Church of Marston to the monastery of St Evroul *(Cal Docs France,* no 636). Later documentary evidence shows that Marston was at the centre of a web of dependent chapels, amongst which were Middleton Cheney, Warkworth, and Radstone (Franklin 1982, 288-90).

Radstone is three miles east of Marston and six miles north-east of King's Sutton. Here, as described earlier, there is firm architectural evidence of a Saxon church in the lower part of the tower (Fig 127). A 14th century document establishes that Radstone paid church scot to King's Sutton and was thus almost certainly dependent upon it in the Saxon period (Bishop Dalderby's Memoranda, f 69v).

This brief summary of architectural and documentary evidence indicates three levels of pre-conquest ecclesiastical organization. Radstone provides the key as it is clearly of Anglo-Saxon origin, was a daughter chapel of Marston St Lawrence, and paid church scot to King's Sutton. Thus, as Radstone was a subdivision of the *parochia* of Marston St Lawrence, Marston St Lawrence must in turn have been a subdivision of the *parochia* of King's Sutton. As Radstone is of Anglo-Saxon origin so also was Marston St Lawrence. This analysis shows something of the potential of a combined approach to the study of early ecclesiastical development.

The two lines of enquiry, historical and architectural, must of necessity be pursued separately. When both are complete their interrelated conclusion should produce a web of evidence which will enhance understanding of both the structures and the organization of the Anglo-Saxon church in Northamptonshire.

Acknowledgements

I wish to thank the Commissioners and the Secretary of the Royal Commission on Historical Monuments (England) for their permission to write this paper. I must also record my gratitude to Dr T H Cocke, Dr M J Franklin, Dr B E A Jones, Mr B M Thomason, Mr A T Donald, and Mr S W Cole, all of whom are actively engaged on different aspects of the survey.

Note

1 This form of church has not been discussed but may also indicate the survival of an early core consisting of a nave and chancel.

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A reconstruction of the 10th century church of St Oswald, Gloucester

Carolyn Heighway and Richard Bryant

The town of Gloucester has its origins as a Roman fortress and *colania* (Hurst 1976). It stands at a strategic bridging-point of the River Severn in a fertile valley near the border between England and Wales. There is little evidence for the town's existence in the 5th to 8th centuries (Hurst 1976, 80; Heighway 1984), although a small community presumably existed when Gloucester was chosen as the site of a monastery, dedicated to St Peter in 679-81 (Finberg 1972). This was Gloucester's Old Minster. The centre of the old Roman town was reoccupied by the 9th century (Heighway *et al* 1979). The area closest to the river was also occupied, and was possibly defended by the Roman quayside wall (Fig 128) (Garrod & Heighway 1984). In the late 9th century the town was probably fortified by Æthelflæd and Æthelred of Mercia (Radford 1978, 133) and the town's street pattern (Fig 128) may have been laid out in this period (Hurst 1974, 67-8). About lkm north of the Roman town, on the site of an earlier Roman fort and a major burial ground at Kingsholm, there was the royal hall of Kingsholm, described as a 'palace' in the 11th century (Hurst 1975).

At about the time of the assumed creation of a 'burh' at Gloucester, a New Minster was found by Æthelfæd and Æthelred, 'in the time of Alfred', that is before 899 *(Gesta Pont,* 293). The relics of St Oswald were transferred 'to Mercia' in 909 *(ASC,* 61) and in the late Saxon list of the 'Resting places of the saints' it is said, 'St Oswald's head is with St Cuthbert, his sword arm at Barnborough, and the rest of his body at Gloucester in the New Minster' (Liebermann 1889, 9-10).

The acquisition of the relics of St Oswald, 7th century king and saint, ensured the fame of the New Minster and perhaps also helped to consolidate Æthelflæd's political position in Mercia (Thacker 1982, 211). The church was under royal jurisdiction from its foundation (Thompson 1921, 90, 128). From at least the 13th century, it maintained a chapel in the king's hall at Kingsholm as well as another chapel dedicated to St Thomas *(VCH* forthcoming). It had the cure of souls of a large rural parish which must once have borne some relation to a royal estate attached to the royal hall (Heighway 1980, 217-20).

The church of St Oswald at Gloucester stands a few hundred metres north-west of the Abbey of St Peter (now the Cathedral). It survives as a ruin which is a palimpsest of architectural details of different dates, most of which relate to the church's later history as a Priory of Augustinian Canons. Excavations and analysis of the fabric were carried out by Gloucester Museum in 1967, 1975-8, and 1983. The five seasons' work has shown that the 12th century arcade, hitherto often taken as dating the ruin, is the ninth phase in a series of rebuildings, six of which predate 1086 and the earliest of which is manifested in the standing building (Heighway 1978; 1980). It seems reasonable to assume, although it cannot be proved, that the church of Period 1 (Fig 129) is that founded by Æthelflæd and Æthelred before 899. The main concern of this paper is the reconstruction of that late 9th century church and some important early 10th century additions to it (Periods 1-3). As a preliminary exercise in the reconstruction process, a model of the period 2 church of *c* 950 was built at 1: 100 scale (see Fig 133).

The Period 1 church has a rectangular chancel, north and south porticus, and a western apse (Fig 130). The foundations are unmortared, and built of large stone blocks, all of the local oolitic limestone, stabilized by ramming earth over each layer of stone. The whole building includes a high proportion of reused Roman stone, including architectural fragments. Most of the church walls were robbed in the 17th and 18th centuries, but the width of the original standing walls (lm) is ascertainable from the extant north wall of the nave and the surviving wall-stubs which protrude from the ruin into the robber trenches.

The reconstructed height of the nave *(c* 9.75m or 32ft) is based upon the surviving height of the Period 1 masonry, plus the height of the destroyed upper half of the windows (calculated on a minimum height to width ratio) and an additional *c* 1.5m. This last is similar to measurements above the clearstory windows at Brixworth and the south porticus first-floor window at Deerhurst. All roofs are pitched at 45 degrees, in the absence of any evidence. The porticus, both north and south, have been reconstructed to the same height as the nave (Fig 132). The scar of the interrupted bonding of the east wall of the north porticus is visible within lm of the top of the ruin (Fig 131), and no roof scar is visible on the surviving blockwork above this. Further, the bottoms of nave and porticus robber trenches are at the same level. Initially, the porticus walls were reconstructed to a slightly lower height than the nave (see the model, Fig 133) but difficulties were encountered in joining the roofs at the eaves line. Taking all this into consideration, it seems reasonable to assume nave and porticus to be the same height.

The chancel walls have been reconstructed to a lower height than the nave because this is normal in nave-and-chancel churches. The western apse, although bonded into the Period 1 walls, had very shallow foundations (Fig 132) of mortared rubble, not large blocks. The apse is therefore assumed to have been lower, of one storey: it may even have been timber-framed.

There are two doorways in the north elevation (Figs 131, 132). The door in the north wall of the nave, only half excavated on the north side, but fully exposed on the south, was lm wide and has been reconstructed to a height of 2.5m. The height was, in use, reduced by a threshold stone which was inserted soon after the construction of the church.

The other doorway opened into the north porticus. Only one side of the doorway survives, but a rebated jamb is clearly visible, showing that the entrance was closed by a door which opened inwards into the porticus. Only later, in Period 5, was this door converted to an archway.

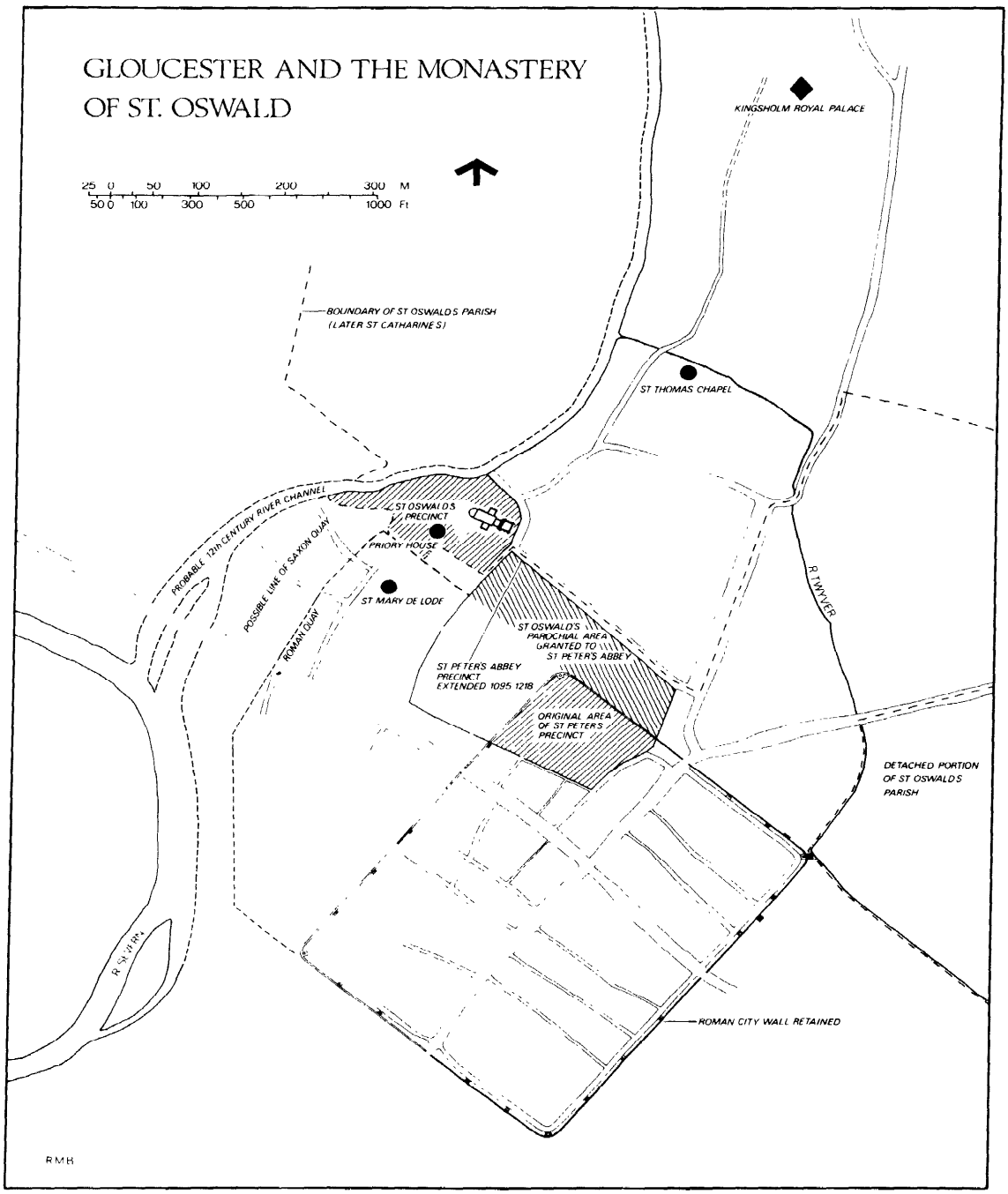

Fig 128 The late Saxon 'New Minster' of St Oswald at Gloucester: location plan

There were originally two upper windows in the north wall of the nave. All that survives are the splays and cill of the eastern window and one splay of the western one. The windows were single-splayed. The western window was later cut down to form a door, a conversion which may imply the addition of a western gallery, added after the demolition of the western apse.

A 10th century bell-pit was discovered *c* lm from the west gable wall, inside the nave (Heighway 1978, figs 2 & 5). If the bell, a small one 300mm across, was made close to its hanging-point (cf Blagg 1974, 134), it could have been hung in a small bellcote on the church's west gable.

All the floor levels of Periods l-3 were removed by later activity: the earliest surviving floors were 11th century. It is possible that both the western apse and the chancel had floors raised above those of the nave.

Early in the church's development, perhaps in Period 2,

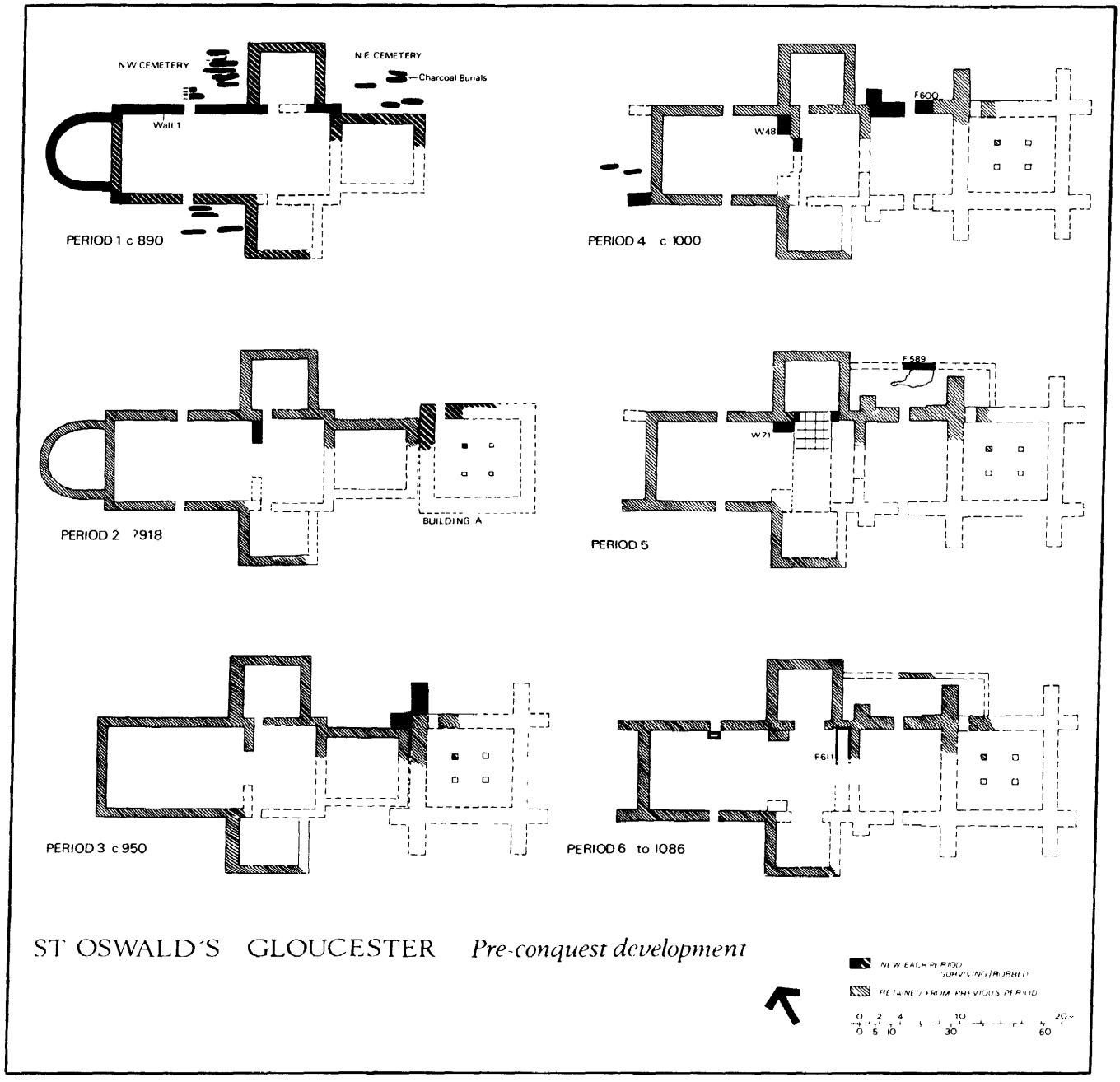

Fig 129 The late Saxon church of St Oswald, Gloucester: development plan

a cross-wall was built across the nave. It was lm wide and built of reused Roman stone similar to the walls of Period 1. In Period 4 this cross-wall was thickened (Wall 48) to form a pier; this pier was shortened (Wall 71) in Period 5. Walls 48 and 71 produced a remarkable collection of carved stone, including four grave-covers, three of them carved with 10th century foliate ornament (West 1983). There is also a doorhead with pelleted ornament and cable pattern (Heighway 1980, pl XXIa). Demolition of the Victorian garden wall at the beginning of excavations in 1983 produced another fragment of foliate ornament, also in 10th century style, possibly a door-jamb or engaged column. There is no doubt that the church itself contained decorated architectural details of similar quality to the grave-covers. A few fragments of red and white painted wall plaster, also found in Wall 48 of Period 4, are a further indication of the decorative schemes employed in the earliest phases of the church. The sculpture must belong

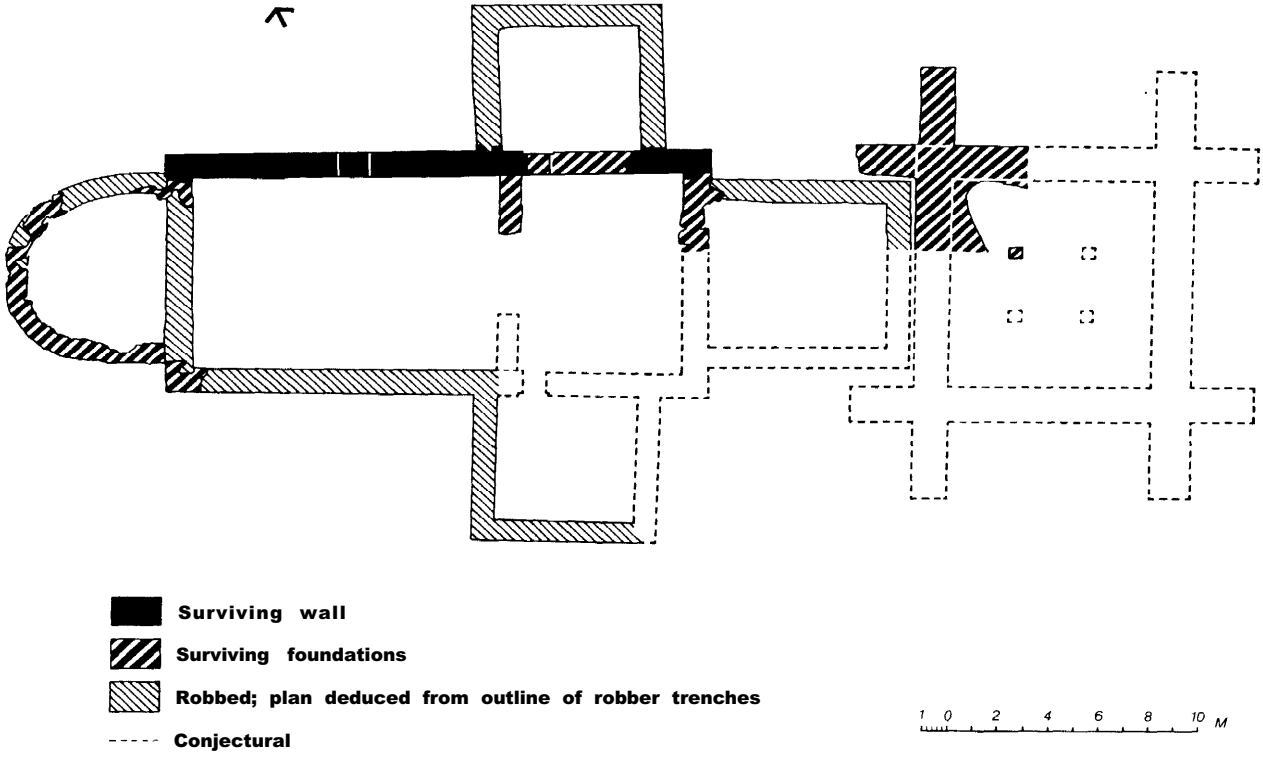

Fig 130 St Oswald's, Gloucester: plan of the late 9th century church of Period 1 and the added eastern crypt of Period 2 (drawn by Philip Moss)

to Periods l-3 and amply justifies the later commentary about the riches that were devoted to the building of the church *(Gesta Pont,* 293). We are seeing the results of patronage of a very high order.

In Period 2, a remarkable structure, 'the crypt' or 'Building A', was added to the church. Its walls have been totally robbed, leaving only one course of foundations made of pitched stone (lias and oolite) in yellow mortar. The remains of one pier-base of similar construction were recorded. The floors of this building would have been about 1.5m below the floors of the church. The complete plan of 'Building A' is unknown, but the three-bay reconstruction seems the most sensible one. The pier is set 2.3m from the west wall and 3m from the north wall. Only the core of the pier survived, and parts of this fell away as soon as it was exposed; even so, it looks as if the vaulting spans of the crypt were slightly irregular. The crypt had no surviving floor; the 18th century fill rested on natural sand. A layer of late or post-medieval rendering, incorporating late medieval tile, remained along the line of the west wall, and showed that the crypt walls had been about 1.5m thick. There was no floor beneath this rendering, which had collapsed onto the wall foundations. Presumably the crypt had had a flagstone floor which was removed early in the robbing process.

There is no evidence for access to the crypt, or to the chapel which was presumably above it. Because the crypt was butted onto the church, the total wall thickness between chancel and crypt was 2.5m, which suggests that there was no direct access from the chancel. Moreover the chancel at this stage was only 6m wide, and doorways to both crypt and the chapel above would have left little space. External entrances to the crypt are likely. In the 13th century there was a low level entrance to the crypt on the north side, and this entrance (shown on Fig 129) may have been an original one, or at least in the original position. The timber north annex of Period 6 may have been a covered way leading to this entrance. The upper chapel may also have had an external entrance; it would have been reached by a flight of stairs. Alternatively, in spite of the combined wall thicknesses, it is possible that a chancel arch was inserted in Period 2 in the east end of the old chancel, and a new chancel created above the crypt.

The height of Building A is unknown, but allowing for a chapel above the crypt it must have been at least as high as the nave. Massive buttresses were added in Period 3 (one of these cut a charcoal burial, indicating that the buttresses are later than the Period 1 church). Their presence may imply that there was a tower either pre-existing or added in Period 3.

Reconstructing the roof of Building A was difficult in view of the uncertainty about the exact plan and height. The pyramid roof we put on the model would be a practical solution if Building A were an independent tower. If not, the most sensible roof would be a saddle-back roof on the same axis as that of the nave. This is the way we have reconstructed it in Fig 132.

The robbing of Building A was very thorough and had removed most of the evidence for its position in the sequence. Theoretically, the crypt structure could be first in the whole sequence. However, two main points argue against the pre-church existence of Building A:

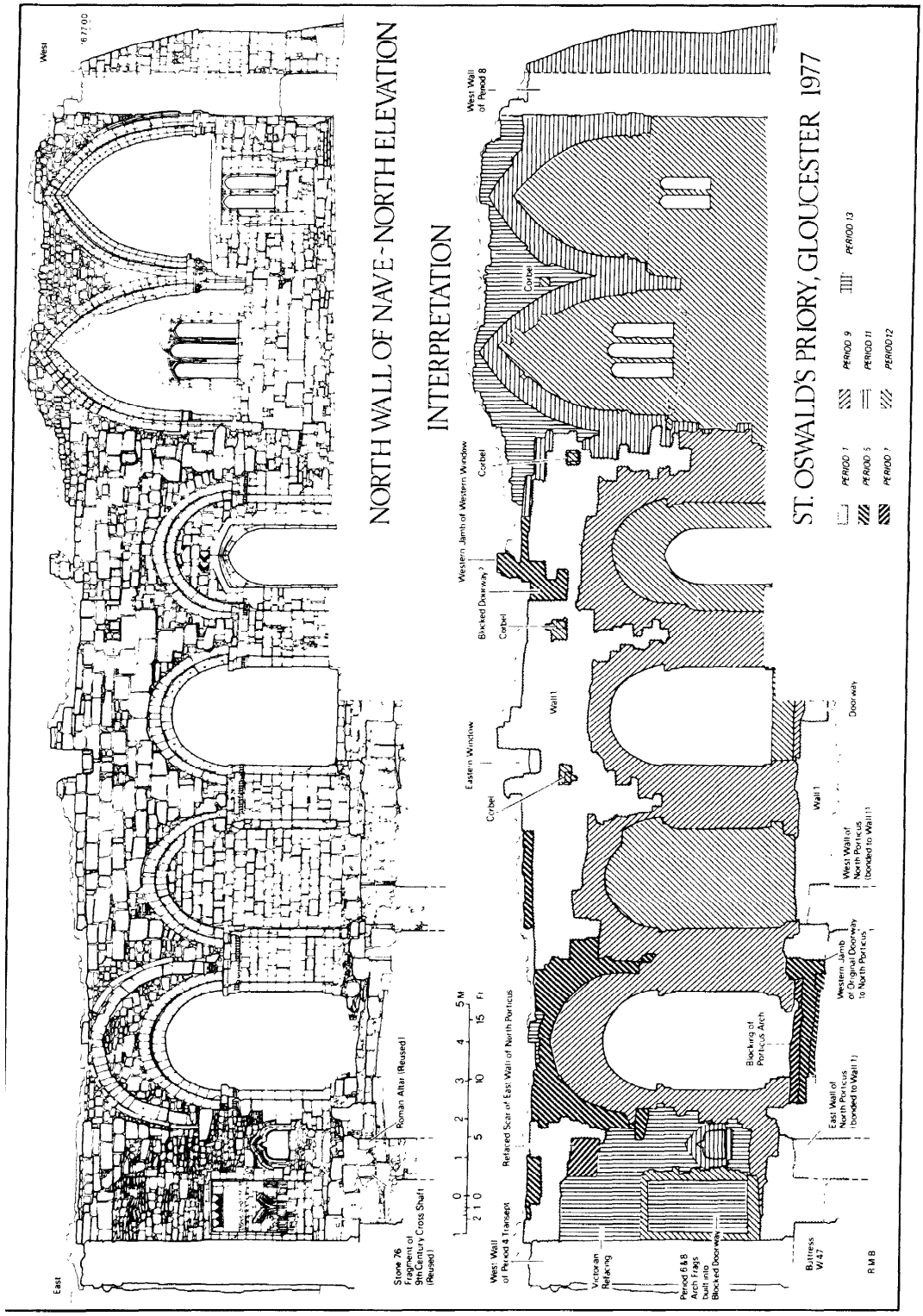

Fig 131 North elevation of the ruin of St Oswald's, Gloucester (drawn by Richard Bryant)

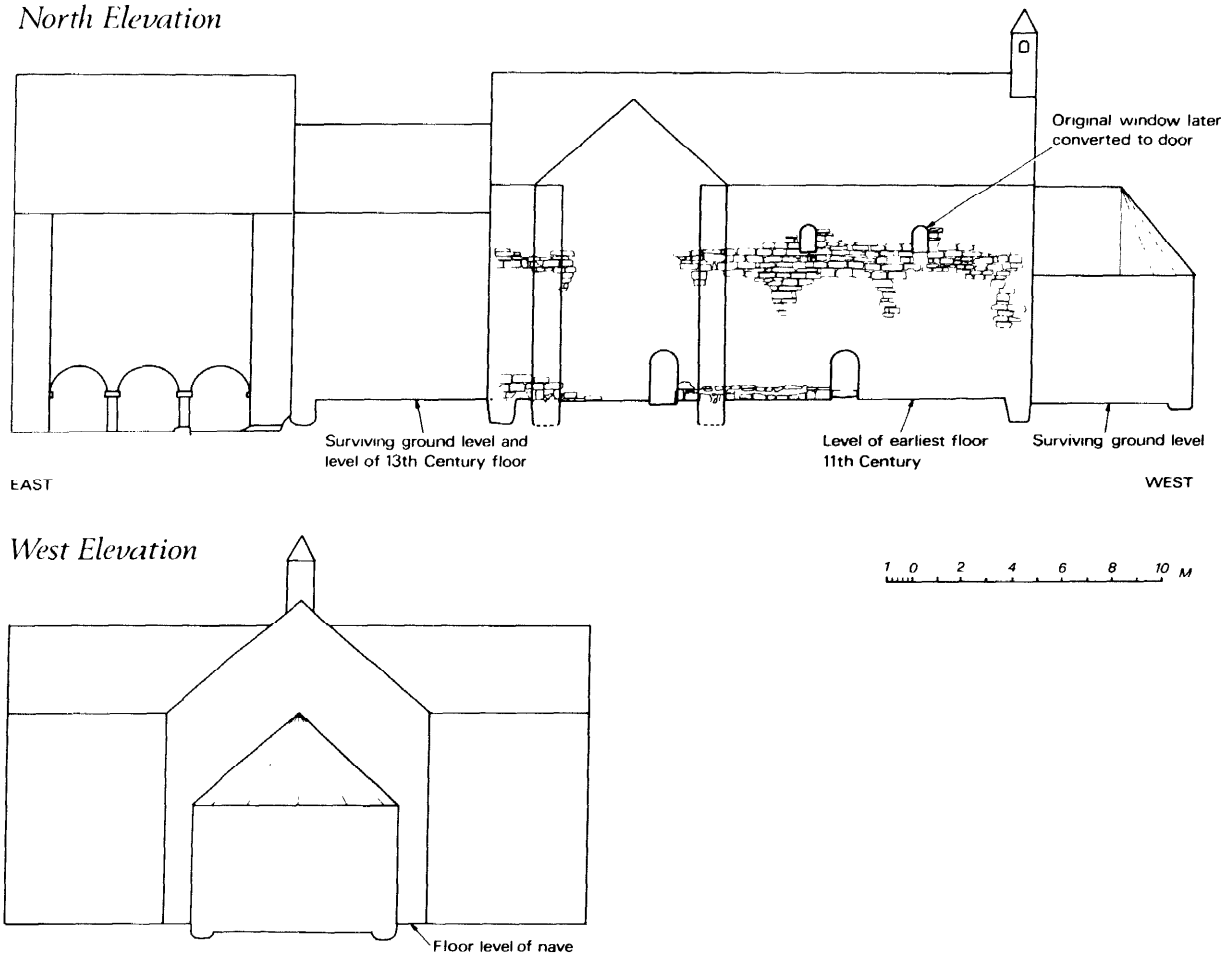

Fig 132 St Oswald's, Gloucester: reconstructed elevation of the 10th century church of Period 2; surviving wall not shown below floor level (drawn by Philip Moss)

1 There are no burials predating the church of Period 1. All the Saxon burials excavated are outside the church and respect its walls. If 'Building A' had been a free-standing 'mausoleum' or ecclesiastical structure of any kind, one would surely expect some associated burials, particularly in the undisturbed area later occupied by the chancel. The only burials here were Roman of 4th or 5th century date, separated from church activity by a dense layer of loam representing many centuries of cultivation.

2 If the church was added to Building A, the side walls of the chancel should have been keyed into the west wall of Building A. This would have caused least disturbance to the foundations of Building A and would have been the most economical building method. Instead, the chancel and the crypt have completely independent foundations; there may even have been a space of about 200mm between the west wall of Building A and the east wall of the chancel. If a *sunken* building was being added, such separate foundations would be necessary.

If, as seems most likely, Building A was added to the Period 1 church, then it predated all other church alterations, and may have been built within a generation of the completion of the church. Several historical occasions might have been the cause of the construction of Building A: the translation of St Oswald's relics in 909, the death of Æthelred in 911 *(ASC,* 62), and the death of Æthelflæd herself in 918. It is true that the Mercian Register records that Æthelflæd was buried in 'the east chapel of St Peter's church' *(ASC, 67).* However, since St Oswald's can only have acquired its dedication some time after 909, an original dedication to St Peter is not impossible. William of Malmesbury says Æthelflæd 'was buried at St Peter's which she had founded and to which she brought the bones of St Oswald' *(Gesta Regum,* 136). Later he asserted that Æthelflæd and Æthelrd had been buried in St Oswald's *(Gesta Pont,* 293; Thompson 1921, 129). Building A is explicable both as a burial-chamber and as a reliquary-crypt, with a superficial similarity to the various phases at Repton, but with no obvious parallels. Like the western apse, the crypt suggests Carolingian

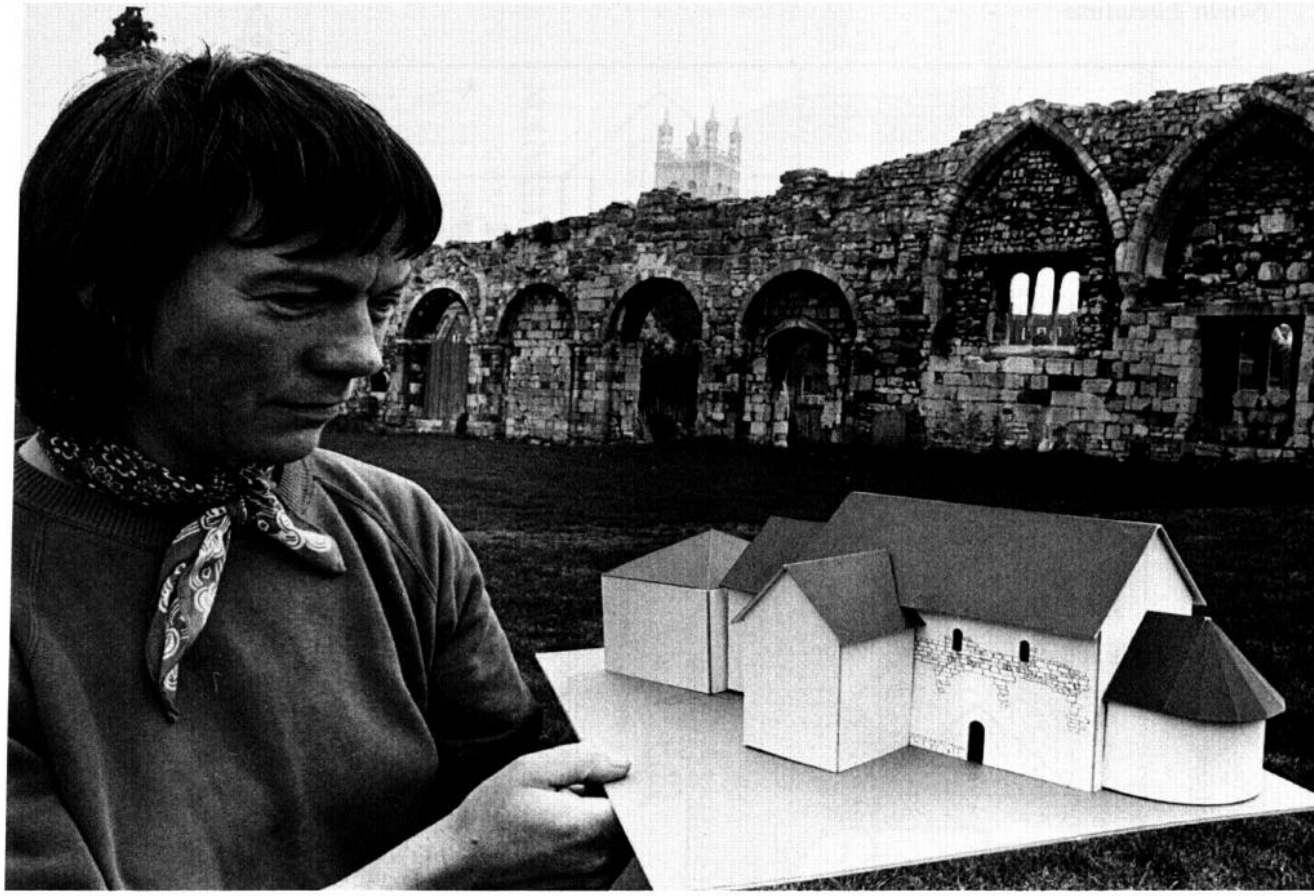

Fig 133 Carolyn Heighway with the model of the Period 2 church of St Oswald; in the background is the ruin as it is today, with the tower of the Cathedral (once St Peters Abbey) in the background; view south (photo: The Citizen)

influence without evincing direct imitation of any known Carolingian plan. This makes it impossible to know how this building was used and it may have possessed the infuriating yet fascinating quality of being unique.

Acknowledgements

The excavations of 1974-9 at St Oswald's took place under the auspices of Gloucester Museum and were funded by the Museum, the Department of the Environment, the Manpower Services Commission, the William Cadbury Trust, and the Pilgrim Trust. The 1983 excavations were carried out for the Museum and the Western Archaeological Trust and were funded by local industry and contributors and by the Civic Trust, the Gloucester and District Archaeological Research Group, the Bristol and Gloucestershire Archaeological Society, the Society of Antiquaries, the British Academy, the William Cadbury Trust, the Pilgrim Trust, the Ernest Cook Trust, and the Francis Coales Charitable Foundation. We are grateful to John Rhodes, the Museum Curator, for his help, and to Michael Hare and Jeffrey West who read and commented on the text. We would like to thank all those, too many to name, who have helped on the excavations and in many other ways. We are grateful to Professor Martin Biddle and Dr Harold Taylor for their encouragement and support. Finally, our thanks are due to Simon Meredith, who surrendered his garden for six months. Without his cooperation the plan of St Oswald's Minster would still be incomplete.

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The 7th century minster at Winchester interpreted

Birthe Kjølbye-Biddle

The first church in Winchester was built by King Cenwalh of Wessex *c* 648. It was not the see of Birinus, the bishop of Wessex, for that was in Dorchester on Thames. The church became a cathedral about 662 when Wini was appointed. This cathedral became known as Old Minster after another church (New Minster) had been constructed immediately to the north *c* 901-3.

In 1093-4 Old Minster was utterly demolished to make way for and provide building materials for the nave of the Norman cathedral. Not only were the standing walls demolished, but the foundations were robbed out so that all that was left of Old Minster was a negative imprint in the ground, a pattern created by robber trenches (lettered R-T; Fig 134). The church which was demolished in 1093-4 was very different from the church Cenwalh constructed almost four and a half centuries before. During those centuries Old Minster went through alterations and enlargements (Fig 135), but that which had taken centuries to create was destroyed in two short years. New Minster was demolished in *c* 1110. The sites of the two minsters were lost for almost 850 years, until the late Roger Quirk so perceptively read the historical clues and initiated the excavation of the Old Minster and New Minster sites in 1961 under the direction of Martin Biddle (Quirk 1957).[1]

Old Minster was excavated during the summers of 1962-9. The excavated area covered (apart from narrow baulks) about three-quarters of the robbed remains of the 7th century church (Fig 136). The south wall of the nave and the south porticus have been reconstructed symmetrically around the east-west axis. The pattern of 10th and 1lth century robber trenches (Fig 135) obscured the plan of the 7th century church to such a degree that the nature and extent of its plan was not understood until 1968.

The principal elements discovered (Fig 136)

The walls of the 7th century church comprised three elements: foundations, footing wall, and standing wall. The 2.5m wide foundations were found throughout the area excavated. Upon them was built a footing wall of reused and retrimmed squared green sandstones, found in *situ* only on the south side of the east porticus (W.25). The bottom edges of the robber trenches (R-T), often with imprints of the footing blocks surviving, show the maximum possible width of the footing wall in all cases. No part of the foundation was robbed, the whole remaining *in situ.* By contrast no part of the standing wall was ever found in position on the footing. Postholes found around the east porticus are interpreted as the settings for scaffold-poles used in the original construction.

Central axis

From the evidence of the 1964 excavations a centre-line was established for the building, running along 500N. Further excavation showed this to be almost the true centre-line, but the 1969 excavation in the area of the east porticus has allowed a new and more accurate centre-line to be established for the 7th century church along 500.25N ± 50mm. A centre-line along 500.25N was at first followed in the theoretical reconstruction.

Thickness of the standing walls

Below R-T C part of the footing wall (W.25) was found *in situ.* The width of the robber trench bottom above this footing wall shows that the standing wall above the footing can have been at most 0.92m wide. This point is still below the 7th century ground level, above which there is good reason to suppose that the standing wall was even narrower above some kind of offset.

There are other limits: if the north wall of the nave was straight, then it cannot have been further north than 505.85N (R-T edge), or further south than 505.00N(R-T U). This gives a width of 0.85m. These measurements are again below the 7th century ground level, and it is unlikely that the standing wall was placed right on the outside edge of the footing wail. If the south wall of the nave is reconstructed symmetrically around the centre-axis, then its north edge cannot be further north than 495.50N, or more probably 495.45N. North of the centre-axis the corresponding line would therefore run along 505.05N. If 0.10m is allowed on the north side of the nave between the standing wall and the north edge of the robber-trench (ie the north edge of the footing wall), then the north wall of the nave would run between 505.05N (south side) and 505.75N (north side), and the wall would be 0.70m thick. A wall 0.70m thick was therefore used for the theoretical reconstruction. The wall however might have been 0.75m thick if the evidence is pushed to the limit, or the wall could have been thinner than 0.70m.

The theoretical layout of the nave

The external lines of the walls were followed as established above and the centre-axis along 500.25N was at first accepted (AL-AK; see Fig 136 for the lettered points, although this shows Cenwalh's church as it has finally been reconstructed (see below, p. 209)).

1. *North wall:* Wall line (0. 10m south of the north side of R-T) shown as line C-D along 505.75N theoretically.
2. *South wall:* South side of the wall shown as line F-E theoretically along 494.80N.
3. Distance C-D and F-E was *10. 95m.*
4. If one supposes that the nave was twice as long as it was wide, then the length would be *21.90.m* There is room for this length: at the west end there are only broad limits, but at the east end the nave wall will have to avoid R-T O, R-T U, and R-T L_2. If one allows 0.10m between the east side of the east wall of the nave and the west end of R-T E (R-T C is a complicated robbing, and its west end is not directly relevant here), then the east end of the nave falls on

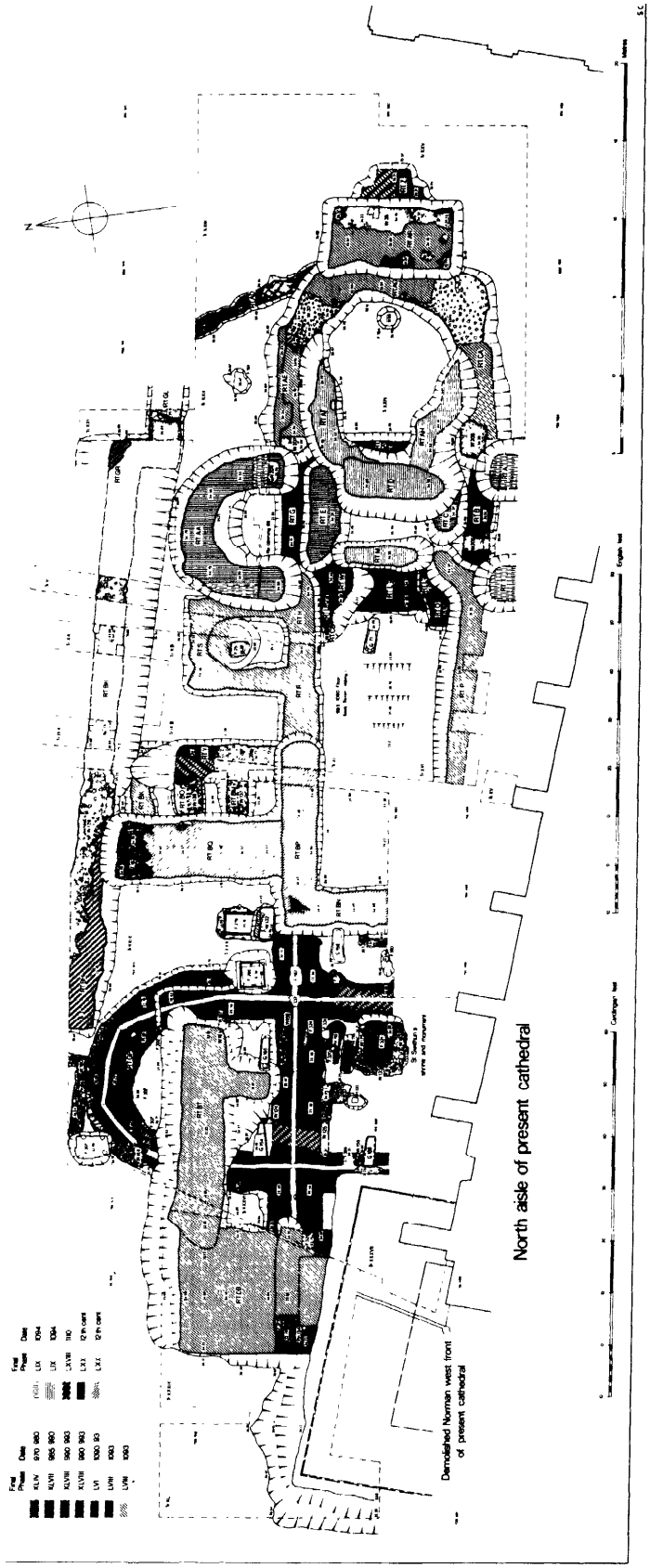

Fig 134 Winchester: plan of the robbed Old Minster and the south wall of New Minster (Wall 128, R-T BH) (scale 1:400)

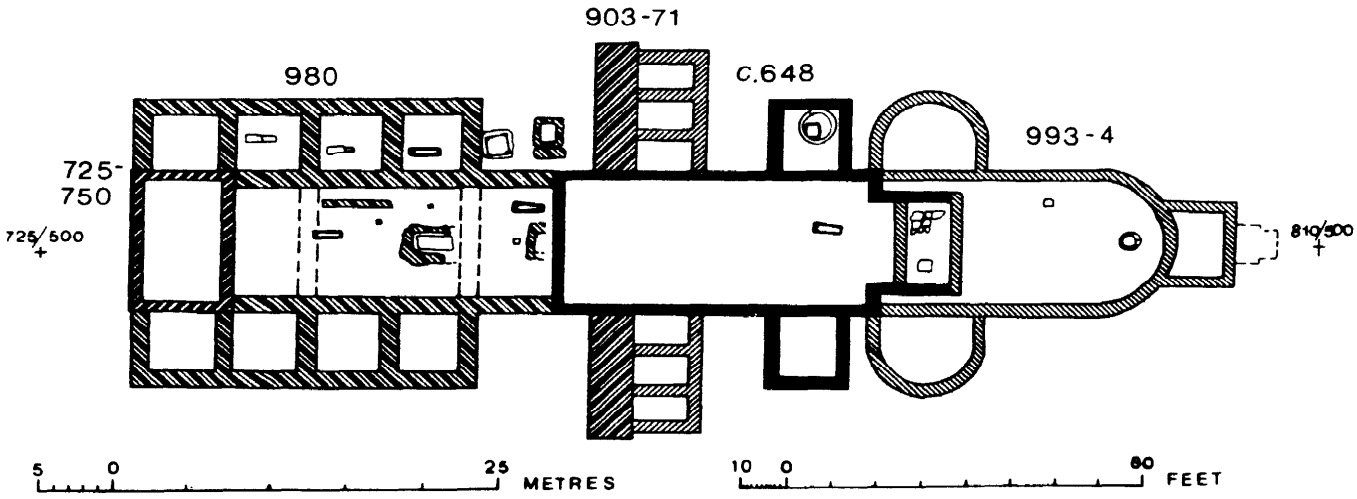

Fig 135 Winchester: Old Minster in its final stage c *993/4-c 1093/4; the plan shows reconstructed standing walls; 7th century minster church in black (scale 1:500)*

line D-E along 780.40E. If 21.90m is accepted as the length of the nave, the west end will fall along 758.50E, line C-F. Points C, D, E, and F thus each mark an external corner of the nave.

5 The nave as first reconstructed was a rectangle 21.90 x 10.95m, consisting of two large squares each 10.95 x 10.95m or eight smaller squares each 5.475 x 5.475m. These smaller squares are called *Base squares.* The side of the Base square is called x. The centre of the eastern large square is point AS; the centre of the western large square is point AZ. A circle centred on these points and circumscribing the large squares will have a radius equal to the diagonal of a Base square = AZ - C = AZ - F = AS - D = AS - E. On the theoretical layout the length of this radius, called the Base *radius,* is 7.7428m.

Eastern porticus

The faces of the south wall have to lie between 496.31N and 497.55N (the edges of R-T C). The north wall has to lie between 503.00N and 504.25N (the south edge of R-T E and the southern limit of the scaffold postholes along the north side of R-T E).

The foundations and the scaffold postholes show that the plan of the east porticus was probably square rather than rectangular. There are various theoretical possibilities:

1 An east porticus one-quarter the length of the nave, that is the size of a Base square. This is not possible since the standing walls would not fit on the footing walls (this porticus is too small for the footing walls).

2 An east porticus the length of which equals one-third the length of the nave. There is room to construct a square porticus this size.

3 A square with sides equal to the Base radius (theoretically 7.7428m) cannot be constructed in the porticus areas, as the south wall of such a porticus would overlap a later wall foundation built against the footing wall of the 7th century wall (W.206). There is therefore no room for a square east porticus with sides equal to Base radius.

The construction and robbing of the east porticus is extremely complex, involving the construction of an apsidal east end on the 7th century foundations in the 8th century, as well as the conversion of the east porticus into a crypt in the late 10th century (Fig 135). These complexities and their understanding will not be considered here.[2]

North and south porticus

The total east-west external length of the 7th century church is: nave + east porticus (1/3 nave) or 4x + 1/3x = 5 1/3x (where x = side of Base square). Half the total east-west length is $2^2/3$; theoretically this is 14.56m. The centre-point east-west of the church would be at 773.09/500.25 (point BF) as theoretically reconstructed. The west faces of the north and south porticus can theoretically fall on a north-south line through this halfway point. The edges of the robber trenches of the walls of the north porticus, together with the robbing of the 10th century baptistery in the north porticus (R-T S), narrowly define the limits within which the standing walls of the porticus could have stood. A porticus constructed with its western face along 773.09 E could have its external dimensions equal to the sides of a Base square (x). The porticus could not be any wider east-west, but there is room (because the bottom line of the robber trench for the north wall was not well understood) for a porticus measuring up to about 5.80m north-south. Such a porticus would leave an unexplained and astructural gap between the 10th century clay baptistery lining and the inner face of the north wall. The reconstruction which fits best and leaves least to be explained has been accepted, namely a north (and south) porticus which corresponds to the area of a Base square. The distance north-south across the full width of the two porticus (Fig 136, BA-BB) is the same as the length of the nave, namely four Base squares (4x).

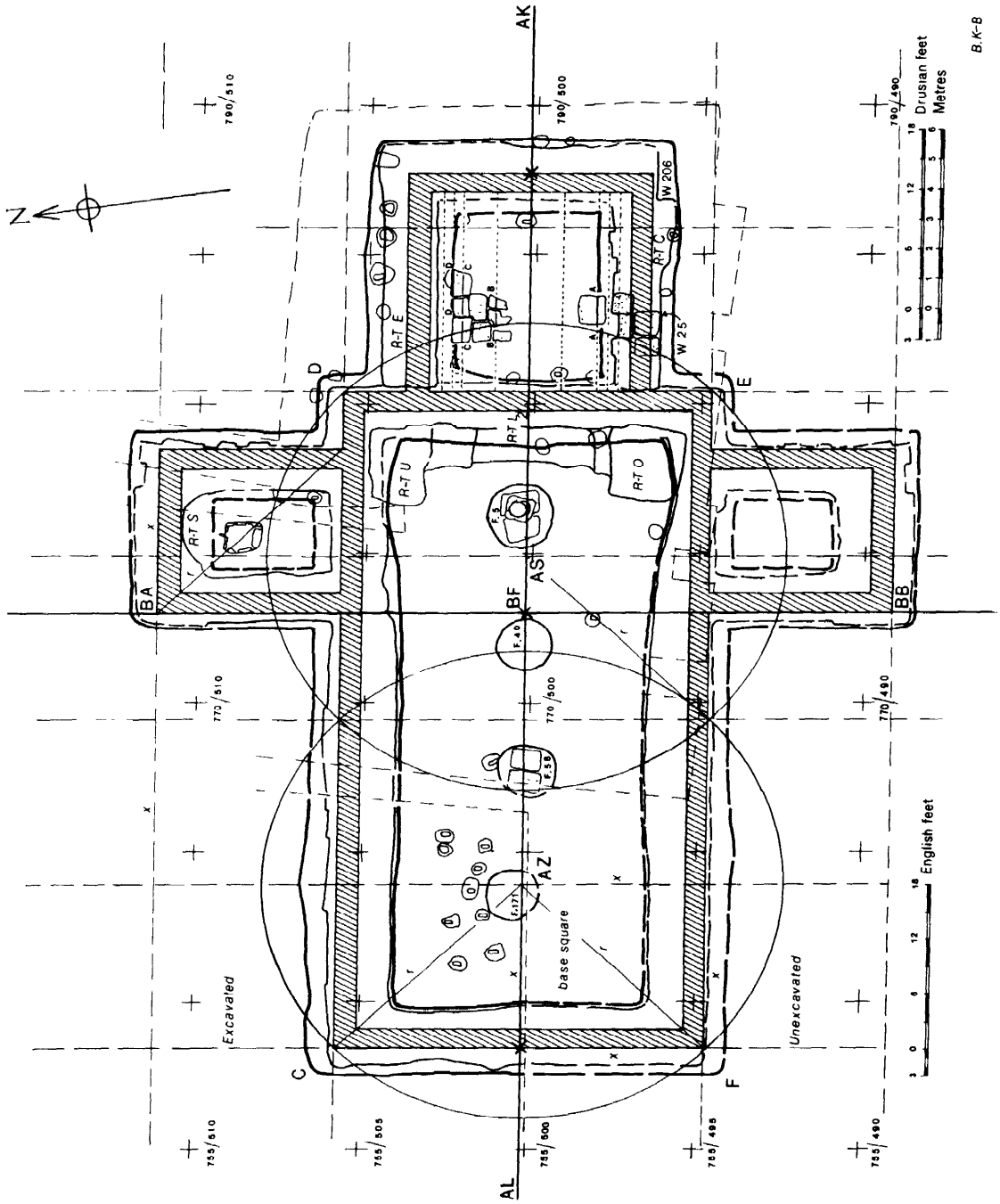

Fig 136 Winchester: 7th century minster church. Plan in the site grid showing foundation trenches (heavy outline), robber trenches (thinner outline), scaffold-postholes, circular foundations in the nave, and original floor in the east porticus. Superimposed upon the archaeological evidence are: 1 Standing walls (hatched) with a width of 2 Drusian feet; 2 A grid of Base squares of 16½ x 16½ Drusian feet; 3 Base circles enclosing the nave (scale 1:200)

The plan (Fig 136)

Cenwalh's church in Winchester may therefore have had the following dimensions:

Nave 1ength:width	2:1
Nave 1ength:east porticus	3:1
Nave east-west: porticus north-south	1:1

This is a simple plan, easy to lay out on the ground and pleasing to the eye.

The unit of measurement: some possibilities

So far metric coordinates derived from the excavation survey grid have been used to describe the elements found on the ground. In the 7th century, of course, the metre was not used.

There are several units of measurement which might have been used in the construction of the 7th century church.

1 The classical Roman foot, equal to 0.295m
2 The English (or Staufian) foot, equal to 0.3048m
3 The Drusian (or Carolingian; or indeed 'Northern') foot, equal to 0.333m (Grierson l971, 35-7; Skinner 1952, 179-81)
4 The long Carolingian (or *pied de Lyon)* foot, equal to 0.34m[3]

Table 5 shows the measurements of the 7th century church expressed in terms of these different units.

The figures provided by the excavation results and their interpretation are generally accurate within ± 0.l0m. For example, the wall width is theoretically assumed to be 0.70m, but the walls could be 0.75m or 0.65m wide; they could not be any wider, but they could be narrower. The length of the nave used in the calculations is 21.90m, and the ratio 1:2, nave width to nave length, is presumed correct. The nave could be up to 0.10m shorter or up to 0.20m longer and this same ratio could still be maintained. Any greater variation from 21.90m would be impossible, since the standing walls would then either override their foundations or would be cut into by, or would cut, features in use with these walls. Thus the nave cannot vary more than +0.20m or - 0.l0m from 21.90m. External measurements have been used for these basic proportions. If the walls were to be much narrower than 0.70m, it would have to be the internal wall face which was moved, since the external face seems fixed by the general coherence of the proportional system.

Because there is generally no more than 0.10m tolerance in any measurement, no more than one-quarter of any foot should have to be added or subtracted to produce a number (of units) used in the external measurements. Slightly greater variation is permissible for internal measurements.

From Table 5 it can be seen that none of the various units divide into the metric measurements to produce an even number of feet. In Tables 6 to 9 the 'best' numbers of feet have been used for the four possibilities considered, and the amaunt added or subtracted to produce a whole number of units is given in brackets.

Internal arrangement

Only comparatively little evidence for the internal arrangement of the 7th century church was discovered in excavation.

Nave

Along the central axis four circular foundations were found, numbered from west to east: F.171, F.58, F.40, and F.S. F. 171 and F.40 were robbed before *c* 993-4 and all four were sealed by the late 10th century floor of the nave. In F.58 and F.5 there remained two rectangular stone blocks set in pale yellow mortar and stone dust with many limestone chips. On the blocks in F.5 there was set a further square stone with a circular depression cut into its uppermost side. This stone was placed to the east of the centre of F.5. The centre of the circular depression lies approximately on 776.45/500.40, and the centre of F.171 is approximately on 763.50/500.40.

Because the western three circular foundations are somewhat irregular, their centres cannot be established with an accuracy of more than ± 0.l0m in the case of F.171 and F.58, while for F.40 the tolerance is greater, perhaps ± 0.15m. By contrast, for the circular depression of F.5 an error of as little as ± 0.05m is permissible. F.5 also shows that the actual focus of each foundation need not be above the centre of the foundation pit.

As a working hypothesis, however, I presume that the centres of the three western foundations were the same as the finished foci. For F.5, the centre of the circular depression is used.

The overall distance east-west between the two outermost centres ('foci') of F.171 and F.5 is 12.95m ± 0.15m. Converted into the various feet this distance would be:

Classical Roman feet	= 44 feet (12.98m)
English feet	= 42 feet (12.80m)
Drusian (Carolingian) feet	= 39 feet (12.999m)
Long Carolingian feet	= 38 feet (12.92m)

The distance between the 'finished foci' of the four features should be, if they were equidistant, 12.95m ÷ 3 = 4.32m. In the various feet this would be:

Classical Roman feet	= 44 ÷ 3 = 14 2/3'
English feet	= 42 ÷ 3 = 14'
Drusian (Carolingian) feet	= 3 9 ÷ 3 = 1 3 '
Long Carolingian feet	= 38 ÷ 3 = l2 2/3'

The centre of F.58 lies on 767.75E ± 0.10m; the centre of F.40 lies on 771.95E ± 0.15m; the centre of F. 171 lies on 763.50 E ± 0.10m.

The foci of these features could have been equidistant if the focus of F. 171 was 0.06m west of its 'centre', if F.58's focus was 0.0lm east of its 'centre', if F.40's focus was 0.13m east of its 'centre,' and if F.5's focus lay 0.05m west of its 'centre'.

The distance between the 'corrected' focus of F. 171 and the inner face of the west wall of the nave on the 'uncorrected' metric plan is in theory 4.24m. This is 0.08m shorter than the distance of 4.32m established above as the possible distance between the 'finished foci'.

It can be seen from Tables 6 to 9 that certain tolerances have been accepted in order to fit the various feet to the metric measurements. Only those feet which have

Table 5 The dimensions of the 7th century church

Dimensions	Metres	0.295 m. Roman foot	0.3048 m. English foot (equals staufian foot)	0.333 m. Drusian foot (Carolingian)	0.34 m. Long Carolingian foot (pied de Lyon)
A. EAST-WEST					
a. Length of nave					
(i) external	21.90	74.2373	71.8504	65.7658	64.4118
(ii) internal	20.50	69.4915	67.2572	61.5616	60.2941
b. Length of eastern porticus					
(i) external	7.30	24.7458	23.9501	21.9219	21.4706
(ii) internal	6.60	22.3739	21.6535	19.8198	19.4118
c. Overall length of church					
(i) external	29.20	98.9831	95.8005	87.6877	85.8824
(ii) internal	27.80	94.2373	91.2073	83.4835	81.7647
d. Length (east-west) of north and south porticus					
(i) external	5.475	18.5593	17.9626	16.4414	16.1029
(ii) internal	4.075	13.8136	13.3694	12.2372	11.9853
B. NORTH-SOUTH					
a. Width of nave					
(i) external	10.95	37.1186	35.9252	32.8829	32.2059
(ii) internal	9.55	32.3729	31.3320	28.6787	28.0882
b. Width of eastern porticus					
(i) external	7.30	24.7458	23.9501	21.9219	21.4706
(ii) internal	5.90	20.0000	19.3570	17.7177	17.3529
c. Width (north-south) of north and south porticus					
(i) external	5.475	18.5593	17.9626	16.4414	16.1029
(ii) internal	4.775	16.1864	15.6660	14.3393	14.0441
d. Width of church across north and south porticus					
(i) external	21.90	74.2373	71.8504	65.7658	64.4118
(ii) internal	20.50	69.4915	67.2572	61.5616	60.2941
C. OTHER DIMENSIONS					
Wall thickness	0.70	2.3729	2.2966	2.1021	2.0588
Radius of base-circle (= base - radius)	7.7428	26.2468	25.4029	23.2517	22.7729
Half base-radius	3.8714	13.1234	12.7014	11.6258	11.3865
Side of base square	5.475	18.5593	17.9626	16.4414	16.1029
Circumference of nave	65.70	222.7119	215.5512	197.2973	193.2353
Circumference of church overall	102.20	346.4407	335.3018	306.9069	300.5882

Table 6 The dimensions in classical Roman fact (1'=0.295 m)

Dimensions	CLASSICAL ROMAN FEET: Figure used	Rounded by	Divided by: √2	2	3	4	5	6	7	8	9	11	Other		ELL ($1\frac{1}{2}$ FEET): Figure used	Divided by: √2	2	3	4	5	6	7	8	9	Other
A EAST–WEST																									
a. Length of nave external	$74\frac{1}{4}$	$(+\frac{1}{100})$	$52\frac{1}{2}$	$37\frac{1}{8}$	$24\frac{3}{4}$						$8\frac{1}{4}$	$6\frac{3}{4}$			$49\frac{1}{2}$	35	$24\frac{3}{4}$	$16\frac{1}{2}$			$8\frac{1}{4}$			$5\frac{1}{2}$	
b. Length of eastern porticus external	$24\frac{3}{4}$	$(+\frac{2}{500})$	$17\frac{1}{2}$		$8\frac{1}{4}$						$2\frac{3}{4}$				$16\frac{1}{2}$		$8\frac{1}{4}$	$5\frac{1}{2}$			$7\frac{3}{4}$				
c. Overall length of church external	99	$(+\frac{1}{50})$	70	$49\frac{1}{2}$	33	$24\frac{1}{2}$		$16\frac{1}{2}$			11	9	$8\frac{1}{4}$ x 12		66	$46\frac{2}{3}$	33	22	$16\frac{1}{2}$		11		$8\frac{1}{4}$	$7\frac{1}{3}$	
d. length of north and south porticus external	$18\frac{5}{8}$	$(+\frac{13}{200})$	$13\frac{1}{8}$												$12\frac{1}{3}$										
B. NORTH-SOUTH (external only)																									
a. Width of nave External	$37\frac{1}{8}$	$(+\frac{3}{500})$	$26\frac{1}{4}$												$24\frac{3}{4}$	$17\frac{1}{2}$	$12\frac{3}{8}$	$8\frac{1}{4}$			$4\frac{1}{8}$			$2\frac{3}{4}$	
b. Width of eastern porticus external	$24\frac{3}{4}$	$(+\frac{1}{500})$	$17\frac{1}{2}$		$8\frac{1}{4}$						$2\frac{3}{4}$				$16\frac{1}{2}$		$8\frac{1}{4}$	$5\frac{1}{2}$			$7\frac{3}{4}$				
c. Width of north and south porticus external	$18\frac{5}{8}$	$(+\frac{13}{200})$	$13\frac{1}{8}$												$12\frac{1}{3}$										
d. Width of church across north and south porticus	$74\frac{1}{4}$	$(+\frac{1}{100})$	$52\frac{1}{2}$	$37\frac{1}{8}$	$24\frac{3}{4}$						$8\frac{1}{4}$	$6\frac{3}{4}$			$49\frac{1}{2}$	35	$24\frac{3}{4}$	$16\frac{1}{2}$			$8\frac{1}{4}$			$5\frac{1}{2}$	
C. OTHER DIMENSIONS																									
Wall thickness	$2\frac{1}{2}$	$(+\frac{13}{100})$		$1\frac{1}{4}$			$\frac{1}{2}$								$1\frac{2}{3}$										
Radius of base-circle (= base-radius)	$26\frac{1}{4}$	$(+\frac{3}{1000})$		$13\frac{1}{8}$	$8\frac{3}{4}$		$5\frac{1}{4}$		$3\frac{1}{4}$						$17\frac{1}{2}$		$8\frac{3}{4}$			$3\frac{1}{2}$		$2\frac{1}{2}$			
Half base-radius	$13\frac{1}{8}$	$(+\frac{1}{500})$													$8\frac{3}{4}$					$1\frac{3}{4}$		$1\frac{1}{4}$			
Side of base square	$18\frac{5}{8}$	$(+\frac{13}{200})$	$13\frac{1}{8}$												$12\frac{1}{3}$										
Circumference of nave	$222\frac{3}{4}$	$(+\frac{1}{25})$		$111\frac{3}{8}$	$74\frac{1}{4}$						$24\frac{3}{4}$	$20\frac{1}{4}$	89 x $2\frac{1}{2}$		$148\frac{1}{2}$	105	$74\frac{1}{4}$	$49\frac{1}{2}$			$24\frac{3}{4}$			$16\frac{1}{2}$	
Circumference of Church Overall	$346\frac{1}{2}$	$(+\frac{3}{50})$		$173\frac{1}{4}$	$115\frac{1}{2}$			$57\frac{3}{4}$	$49\frac{1}{2}$		$38\frac{1}{2}$				231		$115\frac{1}{2}$	77	$57\frac{3}{4}$	$46\frac{1}{5}$	$38\frac{1}{2}$	33		$25\frac{2}{3}$	11 x 21
D. INTERNAL ARRANGEMENT: a. Distance: F.171 -F.5, focus	44			22	$14\frac{2}{3}$	11	$8\frac{4}{5}$	$7\frac{1}{3}$		$5\frac{1}{2}$		4			$29\frac{1}{3}$		$12\frac{2}{3}$		$7\frac{1}{3}$				$3\frac{2}{3}$		
b. Distance: F.171 – F.58, F.58-F.40, F.40-F5	$14\frac{2}{3}$			$7\frac{1}{3}$		$3\frac{2}{3}$						$1\frac{1}{3}$			$9\frac{7}{9}$				$2\frac{1}{3}$						

required a lengthening of the nave are relevant here. In these cases, the tolerances are:

The classical Roman foot	= 3/50th foot or 0.0177m
The English foot	= 3/20th foot or 0.04572m
The Drusian foot	= 6/25th foot or 0.07572m
The Long Carolingian foot	= 9/100th foot or 0.0306m

The nave needs to be 0.08m longer for the distance between F. 171's focus and the west wall to be the same as the distance between the foci of the four foundations. Only the Drusian (Carolingian) foot suggests a nave almost exactly 0.08m longer; the other feet allow only half or less of that amount to be added.

This is obviously a very tentative calculation, since there are so many uncertainties, but the arrangement of the circular foundations and their relation to the nave seem to favour the Drusian (Carolingian) foot (0.333m) as the unit of measurement.

The relationship of F.5 to the east end of the nave is more complex because there was an opening towards the east; no calculation should be made.

Eastern porticus

Eight flagstones remained *in situ* from the original 7th century floor. They not only give an idea of the impressive treatment of the interior as well as the level of the floor, but also preserve a series of four shallow and parallel east-west 'steps' in their surface. The flagstones sealed the scaffold postholes around the walls of the east porticus and lay on a layer of pale yellow stone dust and mortar mixed with limestone chips, a deposit exactly the same as that found in the postholes themselves, and in the four circular axial foundations discussed above. There is no question but that the flagstones are part of the original 7th century floor. The surface of the flagstones and the 'steps' was in some places covered with the same kind of pale yellow 'dust-mortar' with a hard smooth surface, and this was particularly well preserved over the 'steps'. It seems very unlikely that the 'steps' were secondary.

These 'steps' are important. The southern 'step' (A) runs along 498.20N, the next 'step' (B) along 501.20N, the third 'step' (C) along 502.20N, and the fourth 'step' (D) along 502.53N. The 'steps' are only between 0.02m and 0.03m deep. They are not completely vertical and have an uneven finish. Where they were covered with the hard-surfaced dust-mortar they have been almost smoothed out. It is perhaps as if they were not meant to be seen once they had served their purpose. The only foot which fits the distances marked by the 'steps' is the Drusian (Carolingian) foot of 0.333m. The distances between the 'steps' are:

A-B = 3m	= 9′ (Drusian)
B - C = 1 m	= 3′ (Drusian)
C-D = 0.33m	= 1′ (Drusian)

The lines of the 'steps' are accurately measured, but as their finish is irregular, the distances between them would vary ± 0.01m between any two points. This is unimportant for 'steps' A, B, and C where we either have a good long run or a large enough distance to measure, so that 0.01m does not matter. For 'step' D which is short, the irregularity matters. The distance C-D seems to give us our unit of measurement. However, had this been the only evidence available for the unit of measurement, it could not have been used to get to a firm conclusion. Fortunately the distance C-D does not stand alone.

No flagstones survived between 'steps' A and B, and therefore there is no evidence to say how many 'steps' there might have been between them. There were no 'steps' between 'steps' B and C which indicate a Drusian 3-foot unit at this point.

The 'steps' step down from the outer edges of the floor towards the middle of the porticus, but it is impossible to say whether there would have been a stepping down or up from the outer edges of the preserved floor to the inner sides of the walls. The overall differences in floor level are so small that no significance can be placed on them.

As already seen, the central axis has been reconstructed along 500.25N, with a 0.05m tolerance. The axis could thus have run along 500.20N, ie along either a missing 'step' or at least equidistant from 'steps' A and C. The distance between the central axis and the inner faces of the north and south walls is 2.95m. This is no immediately obvious multiple of the Drusian (Carolingian) foot, although 2.95m is 10 classical Roman feet. The 'steps' do not however fit with the classical Roman foot. Had the walls been narrower (that is, the internal faces would move out) as would be required for a wall 2 Drusian (Carolingian) feet thick, then the inner wall faces would be along 503.20N and 497.20N respectively, which is 9 Drusian (Carolingian) feet north and south of the centre line. This would give the following internal divisions in the east porticus:

Inner face of north wall to 'step' D	2 Drusian (Carolingian) feet
'step' D to 'step' C	1 Drusian (Carolingian) foot
'step' C to 'step' B	3 Drusian (Carolingian) feet
'step' B to centre-axis	3 Drusian (Carolingian) feet
centre-axis to 'step' A	6 Drusian (Carolingian) feet
'step' A to north face of south wall	3 Drusian (Carolingian) feet
Internal north-south width	18 Drusian (Carolingian) feet

One might well presume that 'step' A on the south corresponds to 'step' C on the north, and that there might have been divisions at one foot north of 'step' C and south of 'step' A. Of these only part of 'step' D has survived. It is clear however that the Drusian (Carolingian) foot alone works with the steps in the east porticus. None of the other feet fit.

Construction unit (external measurements)

The classical Roman foot (Table 6)

Table 6 shows that the rounded figures in this foot do not divide into any simple unit in feet, but that the ell (a unit of 1 ½ ft) is interesting.

The English foot (Table 7)

Table 7 shows that in the construction of the nave a 2, 3, 4, 6, or 9-foot or even 2, 3, 4, or 6-ell unit could have been used. The Base square could have been laid out using either a 2, 3, 6, or 9-foot or a 2, 3, 4, or 6-ell unit. (The Base radius is of course √ 2 x the side of the Base square.) Six is one of the perfect numbers, and the nave would be 6 x 6 feet wide externally. The number 153 (important because

Table 7 The dimensions in English (Staufian) feet (1'= .3048 m)

	ENGLISH FEET													ELL (1½ FEET)										
			Divided by												Divided by									
Dimensions	Figure used	Rounded by	√2	2	3	4	5	6	7	8	9	11	OTHER	Figure used	√2	2	3	4	5	6	7	8	9	Other
A EAST-WEST																								
a. Length of nave external	72	(+$\frac{15}{100}$)		36	24	18	$14\frac{2}{5}$	12		9	8			48		24	16	12	$9\frac{3}{5}$	8			$5\frac{1}{3}$	$\frac{496}{48} = 10\frac{1}{3}$
b. Length of eastern porticus external	24	(+$\frac{5}{100}$)	17	12	8	6	$4\frac{4}{5}$	4		3	$2\frac{3}{4}$			16		8	$5\frac{1}{3}$	4	$3\frac{1}{5}$	$2\frac{2}{3}$				$\frac{532}{16} = 33\frac{1}{4}$
c. Overall length of church external	96	(+$\frac{1}{5}$)		48	32	24	$19\frac{1}{5}$	16		12				64		32	$21\frac{1}{3}$	16	$12\frac{4}{5}$			8		√64 = 8
d. length of north and south porticus external	18	(+$\frac{4}{100}$)	$12\frac{3}{4}$	9	6	$4\frac{1}{2}$	$3\frac{3}{5}$	3			2		$\frac{153}{18} = 8\frac{1}{2}$	12	$8\frac{1}{2}$	6	4	3	$2\frac{2}{5}$	2		$1\frac{1}{2}$	$1\frac{1}{3}$	$\frac{496}{12} = 41\frac{1}{3}, \frac{153}{12} = 12\frac{3}{4}, \frac{532}{12} = 44\frac{1}{3}$
B. NORTH-SOUTH																								
a. Width of nave External	36	(+$\frac{7}{100}$)		18	12	9	$7\frac{1}{5}$	6		$4\frac{1}{2}$	4		√36 = 6	24	17	12	8	6	$4\frac{4}{5}$	4		3	$2\frac{2}{3}$	$\frac{496}{24} = 20\frac{2}{3}$
b. Width of eastern porticus external	24	(+$\frac{5}{100}$)	17	12	8	6	$4\frac{4}{5}$	4		3	$2\frac{3}{4}$			16		8	$5\frac{1}{3}$	4	$3\frac{1}{5}$	$2\frac{2}{3}$				
c. Width of north and south porticus external	18	(+$\frac{4}{100}$)	$12\frac{3}{4}$	9	6	$4\frac{1}{2}$	$3\frac{3}{5}$	3			2			12	$8\frac{1}{2}$	6	4	3	$2\frac{2}{5}$	2		$1\frac{1}{2}$	$1\frac{1}{3}$	$\frac{496}{12} = 41\frac{1}{3}, \frac{153}{12} = 12\frac{3}{4}, \frac{532}{12} = 44\frac{1}{3}$
d. Width of church across north and south porticus	72	(+$\frac{15}{100}$)		36	24	18	$14\frac{2}{5}$	12		9	8			48		24	16	12	$9\frac{3}{5}$	8			$5\frac{1}{3}$	$\frac{496}{48} = 10\frac{1}{3}$
C. OTHER DIMENSIONS																								
Wall thickness	$2\frac{1}{4}$	(-$\frac{5}{100}$)			$\frac{3}{4}$						$\frac{1}{4}$			$1\frac{1}{2}$			$\frac{1}{2}$			$\frac{1}{4}$				
Radius of base-circle (= base-radius)	$25\frac{1}{2}$	(+$\frac{1}{10}$)	18	$12\frac{3}{4}$	$8\frac{1}{2}$		$5\frac{1}{10}$	$4\frac{1}{4}$						17	12	$8\frac{1}{2}$	$5\frac{2}{3}$	$4\frac{1}{4}$	$3\frac{2}{5}$					$\frac{153}{17} = 9{,}10\frac{1}{2}$ x 0 16.989
Half base-radius	$12\frac{3}{4}$	(+$\frac{5}{100}$)	9		$4\frac{1}{4}$									$8\frac{1}{2}$	6	$4\frac{1}{4}$								
Side of base square	18	(+$\frac{4}{100}$)	$12\frac{3}{4}$	9	6	$4\frac{1}{2}$	$3\frac{3}{5}$	3			2		$\frac{153}{18} = 8\frac{1}{2}$	12	$8\frac{1}{2}$	6	4	3	$2\frac{2}{5}$	2		$1\frac{1}{2}$	$1\frac{1}{3}$	$\frac{496}{12} = 41\frac{1}{3}, \frac{153}{12} = 12\frac{3}{4}, \frac{532}{12} = 44\frac{1}{3}$
Circumference of nave	216	(+$\frac{45}{100}$		108	72	54	$43\frac{1}{5}$	36		27	24		12 x 18, 16 x $13\frac{1}{2}$	144		72	48	36	$28\frac{4}{5}$	24		18	16	√144 = 12, 15 x $9\frac{3}{5}$
Circumference of Church Overall	336	(+$\frac{70}{100}$		168	112	84	$67\frac{1}{5}$	56	48	42	$37\frac{1}{3}$		√336 = $18\frac{1}{3}$, 12x28, 14 x 24, 16 x 21	224		112	$74\frac{2}{3}$	56	$44\frac{4}{5}$	$37\frac{1}{3}$	32	28		12 x $18\frac{2}{3}$, 14 x 16, 21 x $10\frac{2}{3}$
D. INTERNAL ARRANGEMENT: a. Distance: F.171 -F.5, focus	42			21	14	$10\frac{1}{2}$	$8\frac{2}{5}$	7	6	$5\frac{1}{4}$	$4\frac{2}{3}$			24	17	12	8	6	$4\frac{4}{5}$	4		3	$2\frac{3}{4}$	
b. Distance F.171 – F.58, F.58-F.40, F.40-F.5	14			7	$4\frac{2}{3}$	$3\frac{1}{2}$	$2\frac{4}{5}$	$2\frac{1}{3}$	2	$1\frac{3}{4}$				$9\frac{1}{3}$		$4\frac{2}{3}$		$2\frac{1}{3}$			$1\frac{1}{3}$			

Table 8 The dimensions in Drusian (Carolingian) feet (1'= 0.33 m)

	DRUSIAN FEET													ELL ($1\frac{1}{2}$ FEET)										
Dimensions	Figure used	Rounded by	Divided by √2	2	3	4	5	6	7	8	9	11	OTHER	Figure used	Divided by √2	2	3	4	5	6	7	8	9	Other
A. EAST-WEST																								
a. Length of nave external	66	(+$\frac{28}{100}$)	$46\frac{2}{3}$	33	22	$16\frac{1}{2}$	$13\frac{1}{5}$	11		$8\frac{1}{4}$	$7\frac{1}{3}$	6	$\frac{100}{66} = 1\frac{4}{6} = 1\frac{2}{3}$	44	$31\frac{1}{9}$	22	$14\frac{2}{3}$	11	$8\frac{4}{5}$	$7\frac{1}{3}$		$5\frac{1}{2}$		11 x 4
b. Length of eastern porticus external	22	(+$\frac{9}{100}$)	$15\frac{5}{9}$	11	$7\frac{1}{3}$	$5\frac{1}{2}$	$4\frac{2}{5}$	$3\frac{2}{3}$		$2\frac{3}{4}$		2	$\frac{110}{22} = 5$	$14\frac{2}{3}$		$7\frac{1}{3}$		$3\frac{2}{3}$						$\frac{100}{14\frac{2}{3}} = 7\frac{1}{2}$
c. Overall length of church external	88	(+$\frac{37}{100}$)		44	$29\frac{1}{3}$	22	$17\frac{3}{5}$	$14\frac{2}{3}$		11		8		$58\frac{2}{3}$		$29\frac{1}{3}$		$14\frac{2}{3}$				$7\frac{1}{3}$		
d. length of north and south porticus external	$16\frac{1}{2}$	(+$\frac{7}{100}$)	$11\frac{2}{3}$	$8\frac{1}{4}$	$5\frac{1}{2}$	$4\frac{1}{8}$		$2\frac{3}{4}$					$\frac{100}{16\frac{1}{2}} = 6\frac{2}{3}$	11	$7\frac{7}{9}$	$5\frac{1}{2}$	$3\frac{2}{3}$	$2\frac{3}{4}$	$2\frac{1}{5}$					$\frac{100}{11}$=10, 1x 11
B. NORTH-SOUTH																								
a. Width of nave External	33	(+$\frac{14}{100}$)	$23\frac{1}{3}$	$16\frac{1}{2}$	11	$8\frac{1}{4}$	$6\frac{3}{5}$	$5\frac{1}{2}$			$3\frac{2}{3}$	3	$\frac{110}{33} = 3\frac{1}{3}$	22	$15\frac{5}{9}$	11	$7\frac{1}{3}$	$5\frac{1}{2}$	$4\frac{2}{5}$	$3\frac{2}{3}$		$2\frac{3}{4}$		2 x 11
b. Width of eastern porticus external	22	(+$\frac{9}{100}$)	$15\frac{5}{9}$	11	$7\frac{1}{3}$	$5\frac{1}{2}$	$4\frac{2}{5}$	$3\frac{2}{3}$		$2\frac{3}{4}$		2	$\frac{110}{22} = 5$	$14\frac{2}{3}$		$7\frac{1}{3}$		$3\frac{2}{3}$						$\frac{100}{14\frac{2}{3}} = 7\frac{1}{2}$
c, Width of north and south porticus external	$16\frac{1}{2}$	(+$\frac{7}{100}$)	$11\frac{2}{3}$	$8\frac{1}{4}$	$5\frac{1}{2}$	$4\frac{1}{8}$		$2\frac{3}{4}$					$\frac{100}{16\frac{1}{2}} = 6\frac{2}{3}$	11	$7\frac{7}{9}$	$5\frac{1}{2}$	$3\frac{2}{3}$	$2\frac{3}{4}$	$2\frac{1}{5}$					$\frac{100}{11}$=10, 1x 11
d. Width of church across north and south porticus	66	(+$\frac{28}{100}$)	$46\frac{2}{3}$	33	22	$16\frac{1}{2}$	$13\frac{1}{5}$	11		$8\frac{1}{4}$	$7\frac{1}{3}$	6	$\frac{100}{66} = 1\frac{4}{6} = 1\frac{2}{3}$	44	$31\frac{1}{9}$	22	$14\frac{2}{3}$	11	$8\frac{4}{5}$	$7\frac{1}{3}$		$5\frac{1}{2}$		11x4
C. OTHER DIMENSIONS																								
Wall thickness	2	(-$\frac{1}{10}$)		1	$\frac{2}{3}$	$\frac{1}{2}$	$\frac{2}{5}$			$\frac{1}{4}$			$2 = \sqrt{2} \times \sqrt{2}$	$1\frac{1}{3}$		$\frac{2}{3}$								
Radius of base-circle (= base-radius)	$23\frac{1}{3}$	(+$\frac{8}{100}$)	$16\frac{1}{2}$	$11\frac{2}{3}$			$4\frac{2}{3}$		$3\frac{1}{3}$				$\sqrt{23\frac{1}{3}} = 4\frac{5}{6}$	$15\frac{5}{9}$	11									
Half base-radius	$11\frac{2}{3}$	(+$\frac{4}{100}$)					$2\frac{1}{3}$		$1\frac{2}{3}$					$7\frac{7}{9}$	$5\frac{1}{2}$									
Side of base square	$16\frac{1}{2}$	(+$\frac{7}{100}$)	$11\frac{2}{3}$	$8\frac{1}{4}$	$5\frac{1}{2}$	$4\frac{1}{8}$		$2\frac{3}{4}$					$\frac{100}{16\frac{1}{2}} = 6\frac{2}{3}$	11		$5\frac{1}{2}$	$3\frac{2}{3}$	$2\frac{3}{4}$	$2\frac{1}{5}$					$\frac{100}{11}$=10, 1x 11
Circumference of nave	198	(+$\frac{70}{100}$)	140	99	66	$49\frac{1}{2}$	$39\frac{3}{5}$	33		$24\frac{3}{4}$	22	18	$\frac{198}{12} = 16\frac{1}{2}$, $\frac{198}{15} = 13\frac{1}{5}$	132		66	44	33	$26\frac{2}{5}$	22		$16\frac{1}{2}$	$14\frac{2}{3}$	$\frac{132}{11} = 12$
Circumference of Church Overall	308	(+$1\frac{9}{100}$)		154	$102\frac{2}{3}$	77	$61\frac{3}{5}$	$51\frac{1}{3}$	44	$38\frac{1}{2}$		28	$\frac{308}{12} = 25\frac{3}{4}$, $\frac{308}{14} = 22$	$205\frac{1}{3}$		$102\frac{2}{3}$		$51\frac{1}{3}$			$29\frac{1}{3}$	$25\frac{2}{3}$		
D. INTERNAL ARRANGEMENT: a. Distance: F.171 -F.5, focus	39			$18\frac{1}{2}$	13	$9\frac{3}{4}$	$7\frac{4}{5}$	$6\frac{1}{2}$			$4\frac{1}{3}$			26		13	$8\frac{2}{3}$	$6\frac{1}{2}$	$5\frac{1}{5}$	$4\frac{1}{3}$		$3\frac{1}{4}$		
b. Distance F.171 – F.58, F.58-F.40, F.40-F.5	13			$6\frac{1}{2}$	$4\frac{1}{3}$	$3\frac{1}{4}$	$2\frac{3}{5}$							$8\frac{2}{3}$		$4\frac{1}{3}$								

Table 9 The dimensions in long Carolingian (*pied de Lyon)* feet (1'=0. 34 m)

	LONG CAROLINGIAN FEET														ELL ($1\frac{1}{2}$ FEET)										
Dimensions	Figure used	Rounded by	Divided by √2	2	3	4	5	6	7	8	9	11	OTHER		Figure used	Divided by √2	2	3	4	5	6	7	8	9	Other
A. EAST–WEST																									
a. Length of nave external	$64\frac{1}{2}$	$(+\frac{9}{100})$		$32\frac{1}{4}$	$21\frac{1}{2}$			$10\frac{3}{4}$							43		$21\frac{1}{2}$	$14\frac{1}{3}$	$10\frac{3}{4}$						
b. Length of eastern porticus external	$21\frac{1}{2}$	$(+\frac{3}{100})$		$10\frac{3}{4}$											$14\frac{1}{3}$										
c. Overall length of church external	86	$(+\frac{12}{100})$		43	$28\frac{2}{3}$	$21\frac{1}{2}$	$17\frac{1}{5}$	$14\frac{1}{3}$		$10\frac{3}{4}$					$57\frac{1}{3}$		$28\frac{2}{3}$		$14\frac{1}{3}$						
d. length of north and south porticus external	$16\frac{1}{8}$	$(+\frac{2}{100})$	$11\frac{3}{8}$												$10\frac{3}{4}$	$7\frac{7}{12}$									
B. NORTH-SOUTH																									
a. Width of nave External	$32\frac{1}{4}$	$(+\frac{5}{100})$	$15\frac{1}{5}$		$10\frac{3}{4}$										$21\frac{1}{2}$		$10\frac{3}{4}$								
b. Width of eastern porticus external	$21\frac{1}{2}$	$(+\frac{3}{100})$		$10\frac{3}{4}$											$14\frac{1}{3}$										
c, Width of north and south porticus external	$16\frac{1}{8}$	$(+\frac{2}{100})$	$11\frac{3}{8}$												$10\frac{3}{4}$	$7\frac{7}{12}$									
d. Width of church across north and south porticus	$64\frac{1}{2}$	$(+\frac{9}{100})$		$32\frac{1}{4}$	$21\frac{1}{2}$			$10\frac{3}{4}$							43		$21\frac{1}{2}$	$14\frac{1}{3}$	$10\frac{3}{4}$						
C. OTHER DIMENSIONS																									
Wall thickness	$2\frac{1}{8}$	$(+\frac{7}{100})$													$1\frac{5}{12}$										
Radius of base-circle (= base-radius)	$22\frac{3}{4}$	$(-\frac{3}{100})$	$16\frac{1}{8}$						$3\frac{1}{4}$						$15\frac{1}{6}$	$10\frac{3}{4}$									
Half base-radius	$11\frac{3}{8}$	$(-\frac{1}{100})$													$7\frac{7}{12}$										
Side of base square	$16\frac{1}{8}$	$(+\frac{2}{100})$													$10\frac{3}{4}$	$7\frac{7}{12}$									
Circumference of nave	$193\frac{1}{2}$	$(+\frac{26}{100})$		$96\frac{3}{4}$	$64\frac{1}{2}$			$32\frac{1}{4}$			$21\frac{1}{2}$				129		$64\frac{1}{2}$	43	$32\frac{1}{4}$	$25\frac{4}{5}$	$21\frac{1}{2}$			$14\frac{1}{5}$	
Circumference of Church Overall	301	$(+\frac{41}{100})$		$150\frac{1}{2}$	$100\frac{1}{3}$	$7\frac{1}{4}$ 5	$60\frac{1}{5}$		43						$200\frac{2}{3}$		$100\frac{1}{3}$					$28\frac{2}{3}$			$14x14\frac{1}{3}$
D. INTERNAL ARRANGEMENT: a. Distance: F.171 -F.5, focus	38			19	$12\frac{2}{3}$	$9\frac{1}{2}$	$7\frac{3}{5}$	$6\frac{1}{3}$		$4\frac{3}{4}$					$25\frac{1}{3}$		$12\frac{2}{3}$		$6\frac{1}{3}$						
b. Distance: F.171 – F.58, F.58-F.40, F.40-F5	$12\frac{2}{3}$			$6\frac{1}{3}$											$8\frac{4}{9}$										

it represents the number of fishes caught in the Miraculous Draught and is used in a significant way six times in the layout of Old St Peter's; Bannister 1968, 21-2) divided by the length of the side of the Base square, 18 feet, is 8½, or 1/3 the Base radius. 153 divided by the length of the Base radius is 6, or 1/3 the side of a Base square. In feet, 153 is l/3 Base radius x the side of the Base square. In ell, 153 is ¾ Base radius x the side of the Base square; 153 divided by the length of the Base radius equals 9. It would be possible to construct the church using a 9-foot or 6-ell unit, or a 6-foot or 4-ell unit, with 153 as an important number.

Table 10 shows how divisions of 153 can be set against the Pythagorean series of musical numbers. The resulting figures account for all the important dimensions of the church in English feet as can be seen by comparing Table 7 with Table 10. For the internal arrangement of the axial circular foundations the magical number seven might have been of importance. However the 'steps' in the east porticus floor cannot be accommodated in the English foot. Table 11 shows a 9 or 6-system set against the Pythagorean series of musical numbers. Here again important dimensions of the church in English feet occur. More of the important dimensions occur however in the 153 table (Table 10) than in Table 11.

This short discussion shows that there is no single unit in any one system which stands out as being 'right'. The 153-system is interesting, particularly if combined with a 6-foot unit, but no definite result emerges from the English foot possibility.

The Drusian (Carolingian) foot (Table 8)

Table 8 shows that a 2, 3, 4, 6, 9, or 11-foot unit is possible, also a l-e11 unit. The number 110 might be important here (the sum of the dimensions of the Temple in Jerusalem (Conant 1963, 12; Bannister 1968, 16-20)).

If Table 8 is compared with Table 10 (the 153-system), it can be seen that no Drusian dimensions occur there. The same is the case if Tables 11, 12, and 13 are compared with Table 8. However, if one multiplies the Pythagorean series of musical numbers by 11 (Table 14), most of the important dimensions can be accounted for. If the unit used was 1 ell, v2 x 11 would equal the Base radius and the length of the side of the Base square would be 11 ell (cf Tables 8 and 14).[4] As has been pointed out, the Drusian foot is the only unit which matches the 'steps' on the 7th century floor in the east porticus, and which may indeed give us the unit of measurement in the 1 foot division (C-D), as well as suggesting a 3-foot module.

As for the much more hypothetical dimensions of the circular foundations in the nave, the Drusian foot works best, but the English foot as well as others also fit. These distances cannot be a decisive factor in the discussion of the unit of measurement.

The most crucial dimension of all, namely the side of a Base square, is 16½ Drusian feet long. This module of 16½ feet is a rod, an Anglo-Saxon unit of measurement used for instance in the charter of Edward the Elder *c* 904, granting land to New Minster (Quirk 1961; Sawyer 1968, no 1443). Table 15 shows how all principal dimensions of the 7th century church, laid out in the Drusian foot, appear using a 16½-foot unit system against the Pythaeorean musical ratio 3:4:5.

The long carolingian (pied de Lyon) *foot (Table 9)*

Table 9 shows that this foot provides no obvious unit in the 7th century church.[5]

Controlling dimensions

The basic proportions'

The basic proportions of the 7th century church were suggested above and may be repeated here, and then further explored in terms of the various feet:

Nave 1ength:nave width	2:1
Nave 1ength:east porticus	3:1
Nave east-west: porticus north-south	1:1

The English foot (Table 7)

The modules could be 31, 7, and 3 ell, following the 'Isidorian' system (Table 12); the ratios are the musical ratios 1:2, 1:3, 1:4, 1:6, 1:8, 1: 10, 1:12, and 1: 16. The wall width is ½ a module of 3 ell; the side of the base square is 2 modules of 3 ell; the width of the nave is 8 modules of 3 ell, and the length is 16 modules of 3 ell. For the east porticus the dimension is an unsatisfactory 5l/3 modules of 3 ell.

Important distances not included in Table 12 depend on the square root of two. The 1: v2 ratio of Vitruvius seems to have been important in the early Middle Ages (Conant 1968, 33-8) and perhaps also in Winchester. It is after all only the coefficient of the diagonal of a square, here a square with sides equal to 12 ell. The circumference of the nave is 144 ell (equal to 12^2) or 216 feet (equal to 6x6x6).

If one believes that the English foot was used as a basis for constructing the 7th century church in Winchester, then the Base square stands out as being the primary element, as indeed it is, for different reasons, when using the Drusian foot. The dimensions in the English foot could have been Pythagorean and the system used (if any) may have been Isidorian, in which both the perfect number six and the magical number seven played an important role. The number seven could have been important if the hypothetical distance between the circular foundations is correct.

The Drusian (Carolingian) foot (Table 8)

The module could be either 1 foot as marked in the east porticus or 1 ell. The number 110 may have been important and the basis for calculations would have been the side of the Base square, 16½ feet (one rod) or 11 ell long. Table 15 shows how all the important dimensions with modules 1, 2, and 3 work with the Pythagorean musical ratio 3:4:5. Table 14 uses 110 as the vital number, set against 2, 3, and 4. In this small table all the dimensions again occur.

Discussion

The preceding pages have shown that the classical Roman foot and the long Carolingian foot *(pied de Lyon)* are unlikely to have been used in laying out the 7th century church. This leaves the English (Staufian) foot and the Drusian (Carolingian) foot. Of these only the Drusian foot fits the 'steps' in the east porticus floor and, perhaps less important, only the Drusian foot would make the distance between the inner face of the west wall of the nave and the

Tables 10-15 Possible controlling dimensions in the 7th century church

Table 10
153 Module

	⅓	17	8½	5⅔	3*	2⅔
	½	25½	12¾	8½	4½	4¼
Modules	*1**	51	25½	17	9*	8½
		(+153÷3)	(+153÷6)	(+153÷9)	(+153÷17)	(+153÷18)
	2*	102	51	34	18	17
	3*	+153	76½	51	27	25½
	4*	204	102	68	36	34
	**6*	306	+153	102	54	51
	8*	408	204	136	72	68
	9*	459	229½	+153	81	76½
	12*	612	306	204	108	102
(by extension)	16*	816	408	272	144	136

Table 11
9 or 6 system

3*	2*	*1*	⅔
4½	3*	1½	*1*
9*	**6*	3*	2*
		(9÷3)	(6÷3)
18	12*	**6*	4*
27	18	9*	**6*
36	24	12*	8*
54	36	18	12*
72	48	24	16*
81	54	27	18
108	72	36	24
144	96	48	32

Table 12
Isidorian system

	⅓	10⅓	2⅓	*1*
	½	15½	3½	1½
Modules	*1**	+31	+7	3*
	2*	62	14	**6*
	3*	93	21	9*
	4*	124	**28	12*
	**6*	186	42	18
	8*	248	56	24
	12*	372	84	36
(by extension)	16*	**496	112	48

Table 13
Fibonaccian system

1⅔	2⅔	4⅓	+7	11⅓	18⅓
2½	4*	6½	10½	17	27½
+5	8*	13	21	34	55
+10	16	26	42	68	+110
15	24	39	63	102	165
+20	32	52	84	136	220
+30	48	78	126	204	330

Table 14
110 Module

Modules	*1**	22	11	5½
		(+110÷5)	(+110÷10)	(+110÷20)
	2*	44	22	11
	3*	66	33	16½
	4*	88	44	66

Table 15
16½ Module

	¼	4⅛	8¼	16½
	⅓	5½	11	22
Modules	*1**	16½	33	66
		(16½×1)	(16½×2)	(16½×4)
	3*	49½	99	198
	4*	66	132	264
	+5*	82½	165	330

* Pythagorean musical number
1 Isidorian 'monad'
** Perfect number (symbol precedes number)
\+ 'Symbolic' number

In these tables the numbers in each column are derived by multiplying the number in the module line by *the division or multiples shown* in *the left hand column of each table.*

focus of F.171 equal to the distances between F. 171, F.58, F.40, and F.5. It cannot be ignored that the controlling dimension in the Drusian foot is the rod of 16½ feet.

On balance it seems that the Drusian (Carolingian) foot is the one which was used. Had we not found the 'steps' in the east porticus floor, the English foot might at first have seemed almost as likely as the Drusian foot, but the further analysis presented here demonstrates that the Drusian (Carolingian) foot and the rod module were in use in the first church at Winchester. In a wider context, it is perhaps significant that the Continental evidence suggests that the Staufian (here English) foot tends to be late rather than early (ie 10th rather than 7th century) (Binding 1971, 64; Sunderland 1959), while the Drusian foot seems to emerge early, to become the standard foot of the Carolingian empire, or at any rate the standard from which builders deviated (Horn & Born 1966, esp 290-l).

Had there been remains of the standing walls of this church, it might have been possible to work from these to the unit of measurement supposedly used. A foot could have been derived which would, say, make the total length equal to 100 feet, or whatever other rounded number was wanted. But it would not be easy to find a foot which fitted with 'better' numbers than either the English or the Drusian foot. Were we to make the nave 0.0456m longer than the theoretical 21.90m, the side of the Base square would then be 0.0114m longer and the English foot would fit exactly. If the nave were to be made 0.10m longer than 21.90m, the side of the Base square would then be 0.025m longer and the Drusian foot would fit exactly.

Because of the 'steps' in the east porticus (which may have been barely noticeable on the floor, since they were covered in mortar), and because of the emergence of the 16½ feet rod which will not work in English feet, the Drusian foot has been chosen as the one used in the 7th century. In drawing the plan (Fig 136) the walls of the 7th century church have been moved on the plan from the theoretical positions so that all measurements work in the Drusian foot (Fig 136, Table 8). The centre-line is placed on 500.20N, the west face of the nave is placed along 758.40E, and the north and south faces along 505.70N (instead of 505.75N) and 494.70N (instead of 494.80N).

This church was added to and changed during the next four centuries. All these additions, as well as the placing of vital graves on the centre-line, work exactly with a 7th century church built in the Drusian foot, with a Base square of 16½ Drusian feet to the side (5.50m). These additions include apses constructed with Base radii of v2 x 16½ = 23½ Drusian feet (7.78m). In other words, the system proposed here works.

From the apparently hopelessly destroyed remains of Cenwalh's church it has been possible to suggest that in Wessex in the mid 7th century a church was constructed using:

1 the Drusian foot (0.333m);
2 a rod of 16½ Drusian feet (5.50m);
3 with planned proportions of 1: 1, 1:2, 1:3.
4 Most speculatively, the dimensions of the Winchester church were perhaps based upon the sum of the dimensions of the Temple of Jerusalem: 110.

Notes

1 Interim reports by Martin Biddle on the excavations of 1962–9 are in *Antiq J*, **44** (1964) to **50** (1970).

2 A full discussion will appear in Martin Biddle and Birthe Kjølbye-Biddle, *The Anglo-Saxon minsters of Winchester*, Winchester Studies, **4**.i, Oxford (forthcoming).

3 This foot may simply be a deviant of the Drusian foot, but it was used at Cluny II: see Conant 1961. See also Sunderland 1957, 2–5.

4 The number 11 is certainly likely to have been important: cf Augustine, *The City of God*, Book XVIII.1ii '. . . no further persecution remains except the eleventh, which is held to be in the very time of Antichrist'; or, indeed, *Byrhtferth's Manual* (Early Engl Text Soc, original ser, **177** (1929; repr 1966), 221).

5 It is rather satisfactory that the long Carolingian foot does not make especially good sense in a 7th century church, since it seems to be a late unit, found for instance in Cluny II and Charlieu (Burgundy) in the second half of the 10th century; see above, n3.

6 Most continental churches of relevant date are smaller than the 7th century Winchester minster. These small churches tend to be 'fatter' than the 1:2 nave ratio in Winchester. Amongst the churches published by Binding only three larger churches have a ratio higher than 5:8, and several are wider north–south than east–west. The largest church has a nave *c* 33 Staufian feet long east–west internally (Binding 1971, 1–87). Reichenau-Niederzell is a church dedicated in 779, with a nave 64 Carolingian feet (of 0.3329m) long, and a nave ratio of 1:2 (Erdman 1973, 91–103). Most surviving Anglo-Saxon churches are large in comparison with Binding's examples. For a discussion of nave ratios, see Taylor 1978, 1031–4, and a review article by Martin Biddle, Rosemary Cramp, Milton McC Gatch, Simon Keynes, and Birthe Kjølbye-Biddle of *Anglo-Saxon architecture* in *Anglo-Saxon England*, **14** (forthcoming).

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Ground-based Remote Sensing for the archaeological study of churches

Christopher J Brooke

Visual and conventional 'destructive' methods of examining historic buildings normally provide the archaeologist or architect with most of the information which is being sought in the investigation. The architect will most often be searching for faults or problems with the structure of the building whilst the archaeologist is seeking information which relates to the development, chronology, and use of the site. The need for thorough survey and investigation within church buildings has been highlighted many times (eg Rodwell & Rodwell 1977, 88-93; Rodwell 1981, 45-56; Morris 1983, 3) but it is well known that, in the United Kingdom, the time and money for such thorough investigations is rarely available (Morris 1978, 16; Rodwell & Rodwell 1977, 89). In any survey, therefore, and particularly where the context is one of a 'rescue' operation, there is clearly a need for a series of rapid-use, cheap, *non-destructive* methods of information recovery which may be employed within churches in use where conventional destructive survey techniques (for example, plaster-stripping) are not acceptable.

Remote Sensing is defined as 'the acquisition of information about an object (or phenomenon) which is not in intimate contact with the information-gathering device' (Parker & Wolff 1965). One example of this technique, well known to archaeologists, is aerial photography, where the object is the earth's surface and the information-gathering device is a camera. However, in other scientific disciplines, aerial photography has merely provided the springboard for the development of sophisticated, advanced-technology Remote Sensing devices and systems of data acquisition, handling, and interpretation (Beaudet 1981). In general, archaeology has been slow to draw upon the vast potential offered by recent technological advances in the Remote Sensing field and, although some of the simpler techniques such as aerial infra-red photography have been long established (Strandberg 1967; Gummerman & Lyons 1971), the usefulness of advanced systems has only recently been revealed (eg Wells *et al* 1981).

The application of ground-based Remote Sensors to archaeological problems has received scant attention, with few results published to date, and the main application of these techniques to buildings has been in the field of conservation and energy consolidation (Fidler 1980; Paljak & Pettersson 1972). The author is currently engaged in a programme of research which is aiming to develop and implement non-destructive Remote Sensing techniques for use in ground-based systems to aid the recovery of archaeological and historical information from buildings.

The hidden evidence

The nature of the evidence which may be obscured from the human eye in buildings can be divided into three general categories:

1. That which is completely hidden, eg wall-paintings which have been limewashed or plastered over; doorways, windows, gallery supports, stairways, niches, and construction features which have been sealed into the fabric
2. That which is not discernible to the naked human eye, eg wall-paintings which have faded leaving no apparent trace; illegible inscriptions; window-glass type differentiation; simplification and discrete area isolation of complex, multiphase building work
3. That which is termed 'structural', eg type and state of wall infill; damage sites; damp detection

Much of this evidence would be revealed during a full-scale investigation with proper allocation of time and resources. However, there are some features which even a major research investigation would inevitably fail to find for the simple reason that the eye cannot see them (eg faded-out wall paintings or faded paint decoration on timberwork or glass). Remote Sensing can quickly map relatively large areas of buildings and has the ability to detect features in all three categories listed above. It is this versatile, multi-feature detection ability which gives these remote survey techniques such vast potential in both a research and a 'rescue' context. The usefulness of the system does not stop at the detection of features alone as further information may be detected which relates to the extent, nature, or use of the feature or features in question, a good example being the high galleries or floors often suspected from the existence of upper doorways in pre-conquest and later medieval churches (Taylor 1978, 826-9, 887-9, 1018-19; Fernie 1983, 106).

Techniques

Man depends on sight more than upon any other sense to supply information about his environment, yet the human eye is remarkably restricted in its range of detection within the electromagnetic spectrum. Not only our sight but also our other senses are very limited in their detection range when compared to the extent of the natural radiation around us. Over the years we have developed specialized instruments to enable us to extend the range of our senses, some familiar such as radios and cameras, some less so, for example spectrometers and multispectral scanners.

The rapid advances in high-altitude and space surveillance techniques made in projects such as ERTS and LANDSAT have provided the basis for the development of ground-based systems of remote survey. Broadly, these techniques may be classified into two categories: direct photographic and electronic, and indirect electronic, in each case used either alone or computer-aided. Whilst some ideas have been borrowed directly from applications in other disciplines, others have been developed specifically to meet archaeological requirements in the survey of buildings. Work in the photographic imagery field has

employed specialized materials and processing techniques for both routine Remote Sensing survey and for detailed analysis and image enhancement. The basic principle of remote feature detection is clear. Everything in nature has its own unique distribution of reflected, emitted, and absorbed radiation (Parker & Wolff 1965) and, by imaging a target in several different areas of the electromagnetic spectrum under specific conditions, it proves possible to distinguish features which, to the unaided eye, appear uniform (and hence do not appear as individual features or phenomena). Similarly, by changing the characteristics of signal reception, broad-band areas may reveal discrete anomalies. As with any object which is not familiar to us, remotely sensed imagery can sometimes appear confusing (particularly if one is trying to envisage a familiar scene in a now totally unfamiliar form) and requires some skill at photointerpretation to extract the necessary information. The intention is to produce techniques which will provide as informative an image as possible while avoiding possible confusion and misinterpretation; this is where image enhancement techniques in various forms may be utilized (Campbell *et al* 1981). Indirect electronic sensing methods require some degree of computer interpretation in any case to extract the maximum amount of information, and so lend themselves naturally to digital enhancement (Bodechtel & Kritikos 1971).

Remote Sensing for use in pre-conquest churches

It is well recognized that churches, as a class of building, are highly complex sites for investigation. As Rodwell (1981, 42) points out, 'In practice . . . the logistical problems of investigating churches can be considerable. . .' and the 19th century restorations in many buildings have often served to add to these problems. 'In an examination of a building it is as well to take nothing upon trust' (Crossley 1945, 7). Partly because of the wealth of potential information available from church buildings, and partly for reasons of administrative ease, it has been decided to use a group of 120 churches (all the pre-20th century churches falling within a 900 sq km area of Nottinghamshire and Lincolnshire) as a field research base for the testing of ground-based Remote Sensing techniques. The area includes three pre-conquest churches: East Bridgford (Taylor & Taylor 1965, 1, 98-100), Hough-on-the-Hill *(ibid,* 1, 320-4), and Straggletborpe *(ibid,* 2, 596), and indications of pre-conquest fabric have been found in other churches within the area, notably in the tower at Averham and the north doorway at Farndon, both in Nottinghamshire. A visual inspection has been made of each of the 120 churches in the area in order to assess, over a wide range of differing conditions, the problem of 'hidden features' and obscured information. The most important problems are currently being investigated using Remote Sensing survey; and in the pre-conquest sites this includes examination of the upper doorway in the tower/nave junction at Hough-on-the-Hill, mapping of the likely extent of surviving pre-conquest fabric at Farndon and East Bridgford, and a thorough investigation of the tower and nave at Averham. Outside the main research area, the pre-conquest churches at Stow, Lincolnshire (Brooke 1984) and Wooton Wawen, Warwickshire (Brooke 1983) have also received preliminary Remote Sensing survey. It is also proposed to carry out some work at Coleby, Lincolnshire (Taylor & Taylor 1965, 1, 165-6).

It is intended that these techniques will eventually be widely available, and they are, of course, applicable to all types and classes of building.

Experimentation

As such a wide range of objectives and sites has been chosen, research is still in progress at most sites. Four experimental survey results are presented here in order to show the versatility and potential of some of the techniques currently being used.

Averham church, Nottinghamshire (Figs 137-140)

This is a simple building consisting of a nave with south porch and a chancel with north chapel and western tower, with no evidence of former aisles and having no chancel arch. The fabric of the building is, however, far from simple with a great deal of random, coursed, and counterpitched rubble work throughout, the south elevation of the tower being particularly complex. A detailed visual survey of the tower has revealed a number of important anomalies on the interior which indicate that the tower may once have been much lower, ending below the present termination of rubble fabric. The tower was further heightened in the early 16th century by the addition of a new belfry stage. Fig 137 shows the south elevation of Averham church tower as far up as the extent of the rubble fabric and as it appears to the naked eye. The heavy 16th century buttresses completely obscure the quoins and serve to make interpretation more difficult. The complexity of the fabric can be immediately appreciated, for Fig 137 indicates at least five major phases of construction. In the central area of the elevation, a considerable zone of white lime plaster still survives from a former exterior coating, but in places this is very difficult to distinguish from mortar, which is also light in colour in this area. Considerable experimentation has been carried out using a wide variety of direct imagery techniques, to attempt to differentiate the phases of construction within the complex fabric. The images need to be studied as a complete set, as each reveals different facets of the area. Computer enhancement helps to amalgamate the information given by these results. One image is presented here as an example of the type of differentiation and result which is possible. Fig 138 shows the same area as presented in Fig 137 but it imaged in a monochromatic notch of the actinic near-visible spectrum on a high-resolution base, and then electronically and photo-chemically enhanced by a procedure termed SEED enhancement. The effect is to produce an edge-enhanced, first-order pseudo-equidensity image which reduces a series of complex grey tones to a pre-set level of 'centre-wedge' grey values. Signals which would normally produce very slight changes in *grey* tone in the image now appear to have the same value and thus a highly complex surface can be reduced to its major constituent response zones. It is in turn possible to vary the pre-set level of grey values to enhance features displaying greater or lesser return from the target. In Fig 138 the entire area of white lime surface plaster is easily visible as a region of dark grey (F-M, 2-9) with isolated patches below (P3 & R5). Two

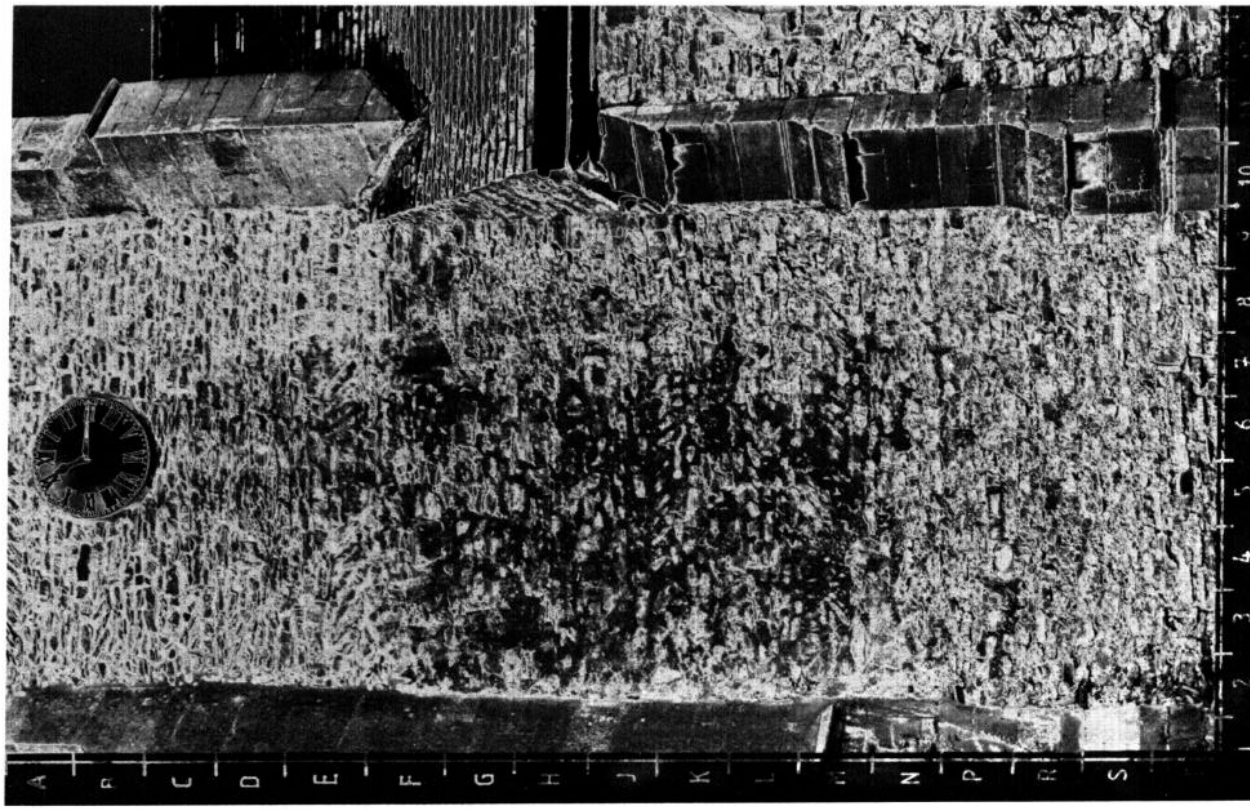

Fig 138 Averham church, Notts: south exterior elevation of tower using TYPE 5.TB imagery with SEED enhancement (photo: Christopher J Brooke)

Fig 137 Averham church, Notts: south exterior elevation of tower as it appears to the eye (photo: Christopher J Brooke)

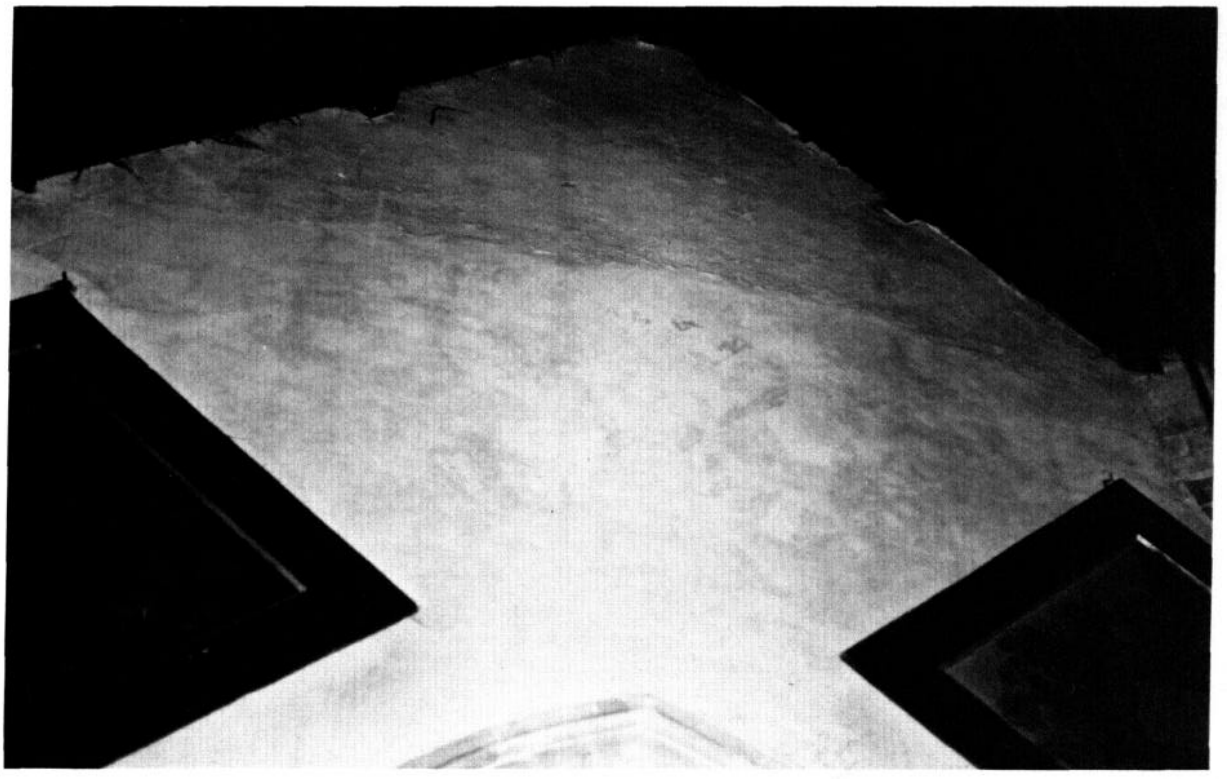

Fig I39 Averham church, Notts: west wall of nave as it appears to the eye (photo: Christopher J Brooke)

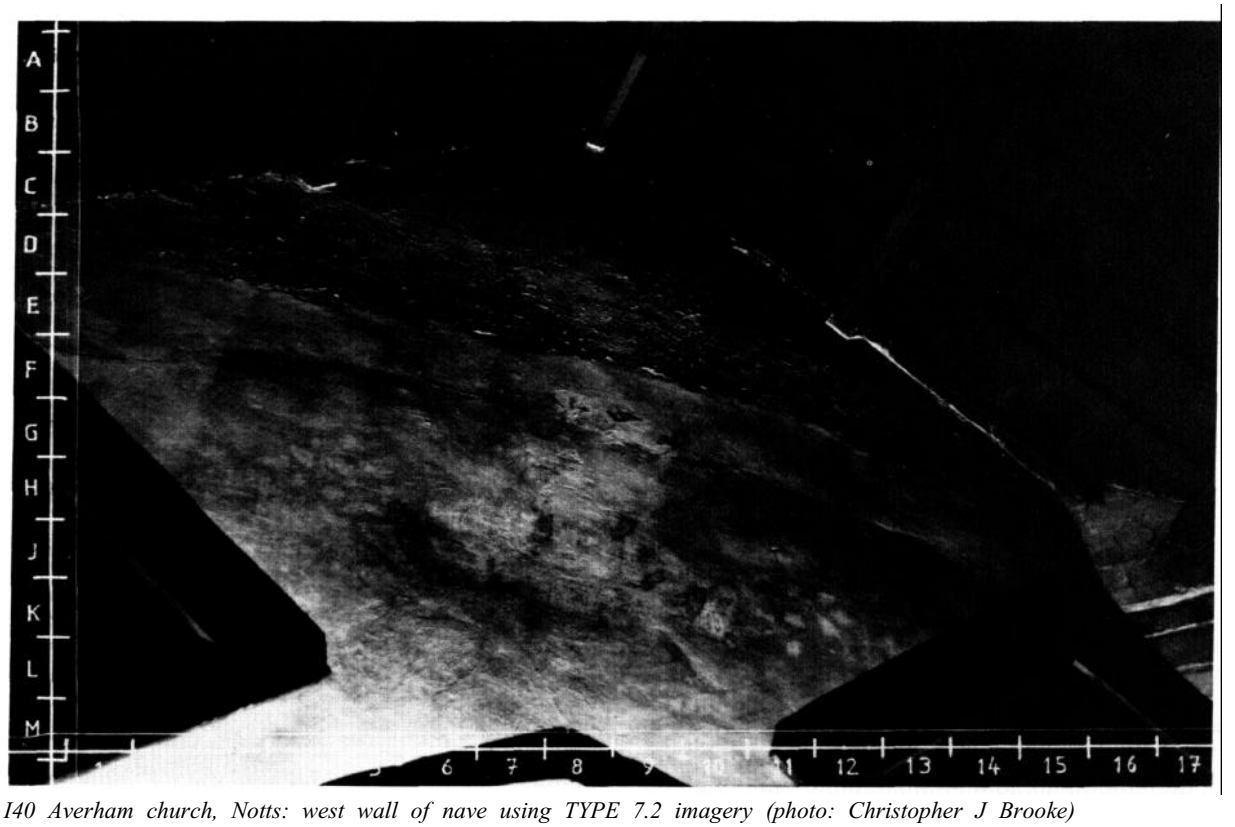

Fig I40 Averham church, Notts: west wall of nave using TYPE 7.2 imagery (photo: Christopher J Brooke)

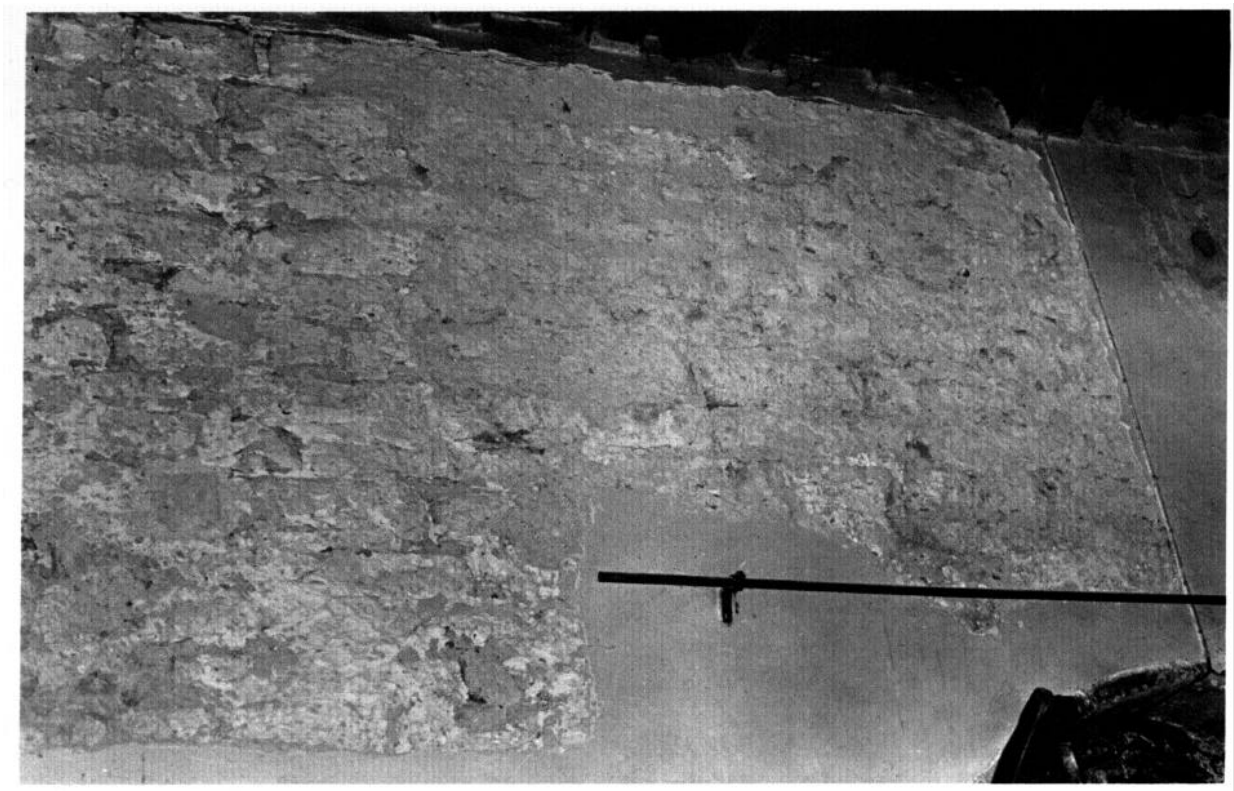

Fig 141 North Muskham church, Notts: south wall of south aisle during plaster stripping, as it appeared to the eye (photo: Christopher J Brooke)

Fig 142 North Muskham church, Notts: south wall of south aisle during plaster stripping using TYPE 4.1 imagery (photo: Christopher J Brooke)

major fabric boundaries show well (F2-F9 and M/N2-M/N9) although differentiation in the upper area of the elevation is now reduced. A section of the fabric which was not clearly defined in the control image (Fig 137) now shows as being apparently separate from the main area and even cuts across one of the boundaries noted above; this is at G/H9-M9. The differing stone types employed in the buttresses can be seen in the variations in reflected radiation in the image. One final point to note is that the left-hand side of the clock-face shows as a lighter grey area than the right-hand side, whereas to the eye and in the control image it appears uniform. A false-colour interference technique has brought this feature out particularly well. The cause is the repainting of part of the clock-face at some stage, using a type of paint different from the original, although of the same apparent colour.

The interior walls of Averham church are all covered with plasterwork. In the nave the plaster has an early appearance. The west tower arch is apparently a 14th century insertion and the area above it appears as an off-white plaster surface up to the roof. Fig 139 is a view from the nave which appears much the same as can be seen with the naked eye in the field, although in reality the upper areas are in considerable shadow. It is known from examination inside the tower that there is a blocked doorway-opening through this wall, well above the apex of the present tower arch. Fig 140 shows the use of TYPE 7.2 imagery which examines the same area as Fig 139 but now reveals: (a) a former gallery or floor support for the doorway noted formerly leading from the upper levels of the tower, now filled in with plaster (D/E1-J15); (b) a series of wall-paintings - branches and leaves - possibly of 13th century style (D Park, pers comm) lying under the present surface (K11/12 & G/H4/5); (c) a double roundel which appears to cut the wall-paintings just noted and which may have formerly contained the Royal Coat of Arms (F-K, 5-10).

North Muskham church, Nottinghamshire (Figs 141,142)

The church consists of a nave with south porch, north and south aisles, chancel, and west tower. The core of the nave appears to be of 13th century date, the south aisle having been added in the 15th century and the north rebuilt early in the 16th. All of the internal walls are covered by a white plaster of 12mm average thickness containing fibre, hair, and small stones as binding material. This plaster is covered with a minimum of two and a maximum of three layers of limewash. During May 1982, repair works were suddenly started on the plasterwork and large areas of defective material were stripped from the wall. On examination while repairs were in progress, no traces of wall-painting could be found; it was noted, however, that even after the plaster had been removed, the composition and nature of the wall surface beneath was still unclear owing to a thin obscuring layer of base plaster. Fig 141 shows an area of the wall where the plaster had been removed, over the south doorway in the south aisle, which shows the surface as it appeared to the naked eye. The black rail in the lower section of the scene is an iron curtain-rail for the doorway beneath and it may be noted that the wall surface above this is particularly obscured by the base plaster still adhering to the fabric. The appearance of the original plasterwork can still be seen in the area immediately adjacent to the curtain-rail. Fig 142 shows the same area as in Fig 141 but uses a technique termed TYPE 4.1 imagery, which is essentially a notched band of the near-visible spectrum using special illumination conditions. The resulting image now reveals the nature of the wall fabric in much clearer detail, particularly in the formerly obscure region over the black curtain-rail (Fig 142, A-J, 7-14). The discrete boundaries between individual stones show up well and courses may easily be distinguished. One further feature of this Remote Sensing technique is that if wall-paintings had existed either directly on the stonework or in the basal layers of the plaster which had not been removed, they would have been revealed in this image.

Winkburn church, Nottinghamshire (Figs 143,144)

The church at Winkburn is a very simple building with nave, 18th century south porch, chancel, and west tower. The building lies away from the village, adjacent to the hall, and contains considerable amounts of original Norman fabric which includes the whole of the tower except the embattled parapet, and probably the whole of the nave walls. The site has been little affected by any 19th century restoration and so appears largely as a Norman building with 18th century fittings. The nave walls are somewhat wider than the tower and there exist short return walls in the nave/tower junctions, that on the south-west side having a small, blocked, round-headed window clearly visible on the exterior but difficult to see internally because the walls have been heavily plastered. The former purpose of the window is uncertain but an existing small window high up in the north wall near to the return section seems to suggest that there was once a western gallery, lit by both the existing and blocked windows. Fig 143 shows the south-west return section of wall with the tower on the right-hand (west) side. The control photograph does in fact reveal slightly more information than can be seen by the eye in the field owing to lighting conditions employed and film response; however, the general area of the window does appear very similar to the surrounding plasterwork and its nature cannot easily be discerned. Fig 144 shows the same area using TYPE 7.1 (inert) imagery which now serves to show the whole area of the blocked window and reveals the rough nature of the filling material in relation to the fabric surround. This technique can be used for surveying large areas of walling initially to locate features which can then be further examined in detail using electronic sensing methods.

Conclusion

The four examples presented here give an illustration of the potential of ground-based Remote Sensing for use as a tool in the survey of historic buildings, and perhaps particularly in the investigation of churches, where threats to evidence are commonplace, and where so much has been lost and still is being lost simply because it is not known to exist. Quite apart from the destructive aspect, as Rodwell has stated (1981, 130): 'No matter how thoroughly the visible fabric is studied, a full understanding of the structure, methods of building, modifications, and liturgical use cannot be approached without the

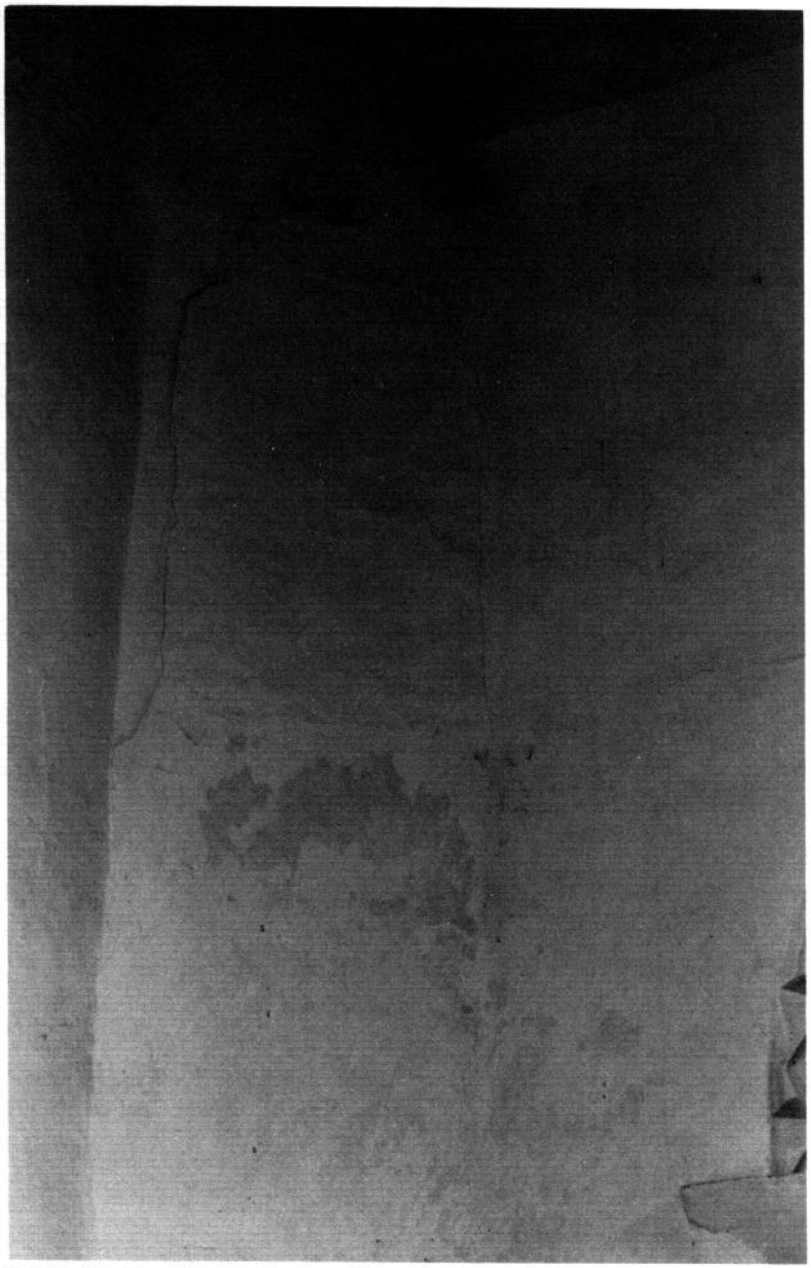

Fig 143 Winkburn church, Notts: south-west interior angle of nave as it appears to the eye (photo: Christopher J Brooke)

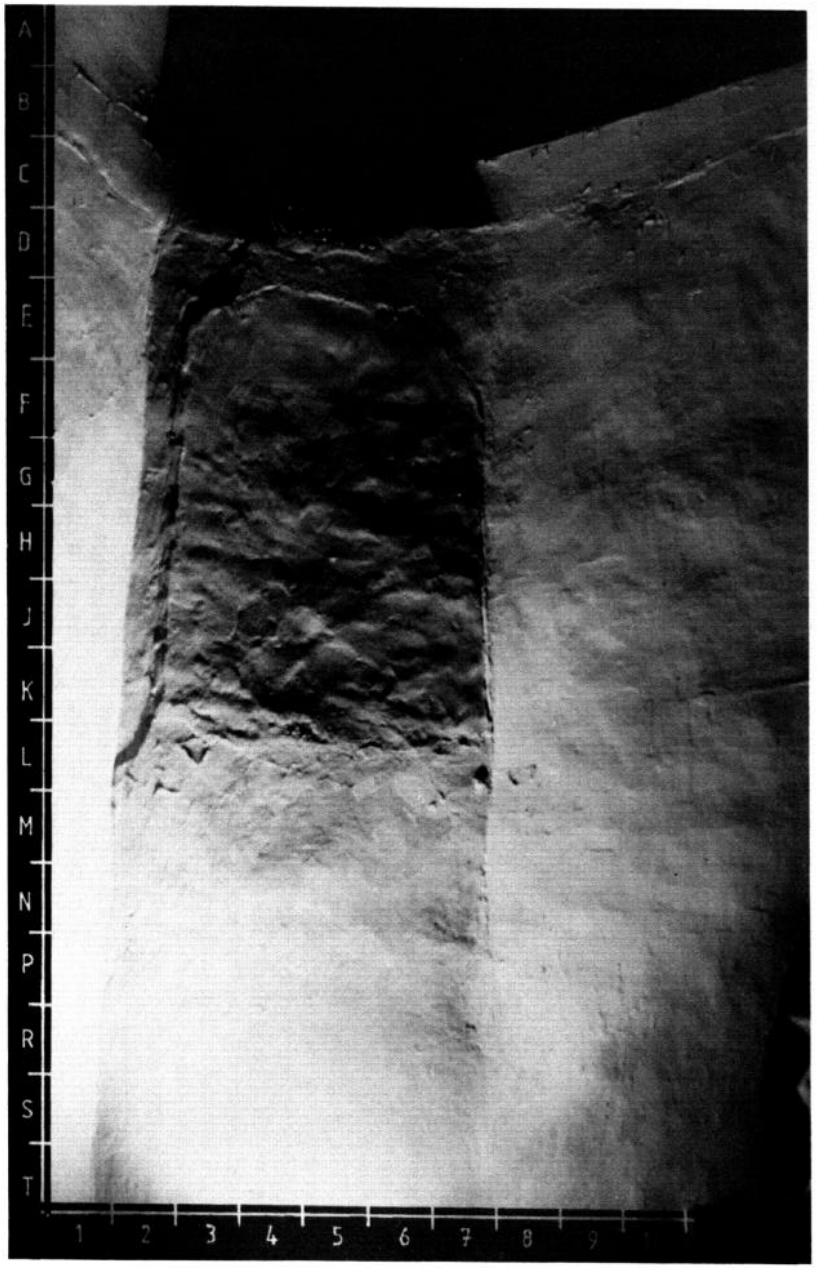

Fig 144 Winkburn church, Notts: south-west interior angle of nave enhanced by TYPE 7.1 imagery and showing detail of blocked window (photo: Christopher J Brooke)

hidden evidence from below the floors and in the walls.' Remote Sensing offers the versatility of multi-feature detection under a wide variety of conditions, the convenience of one-person operation, and low running-costs. Essentially it can provide general or detailed *non-destructive* survey from a remote vantage, which can mean any distance from a few millimetres to several hundred metres. Archaeology must now learn to take full advantage of technological advances which are being made in other fields of study; in some respects, Remote Sensing techniques are among those that are advancing most rapidly. As Stone (1974) states: 'Description is basic, but it is doubtful that it has much lasting appeal. Fundamentally, our task remains to explain why selected physical or cultural elements. . . are where they are and are not where they are not. Therein lies our contribution and the necessity (and pleasure) of interdisciplinary work.'

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The following symbols and abbreviations have been used: * = dedication; abb = abbot, abbess; archbp = archbishop; bp = bishop; ch = church; emp = emperor, empress; k = king; q = queen; R = River; St = Saint. Countries and counties have been abbreviated wherever possible to a recognizable form. Saints are entered under their individual names, not under Saint. Figures in italics refer to pages on which illustrations occur.