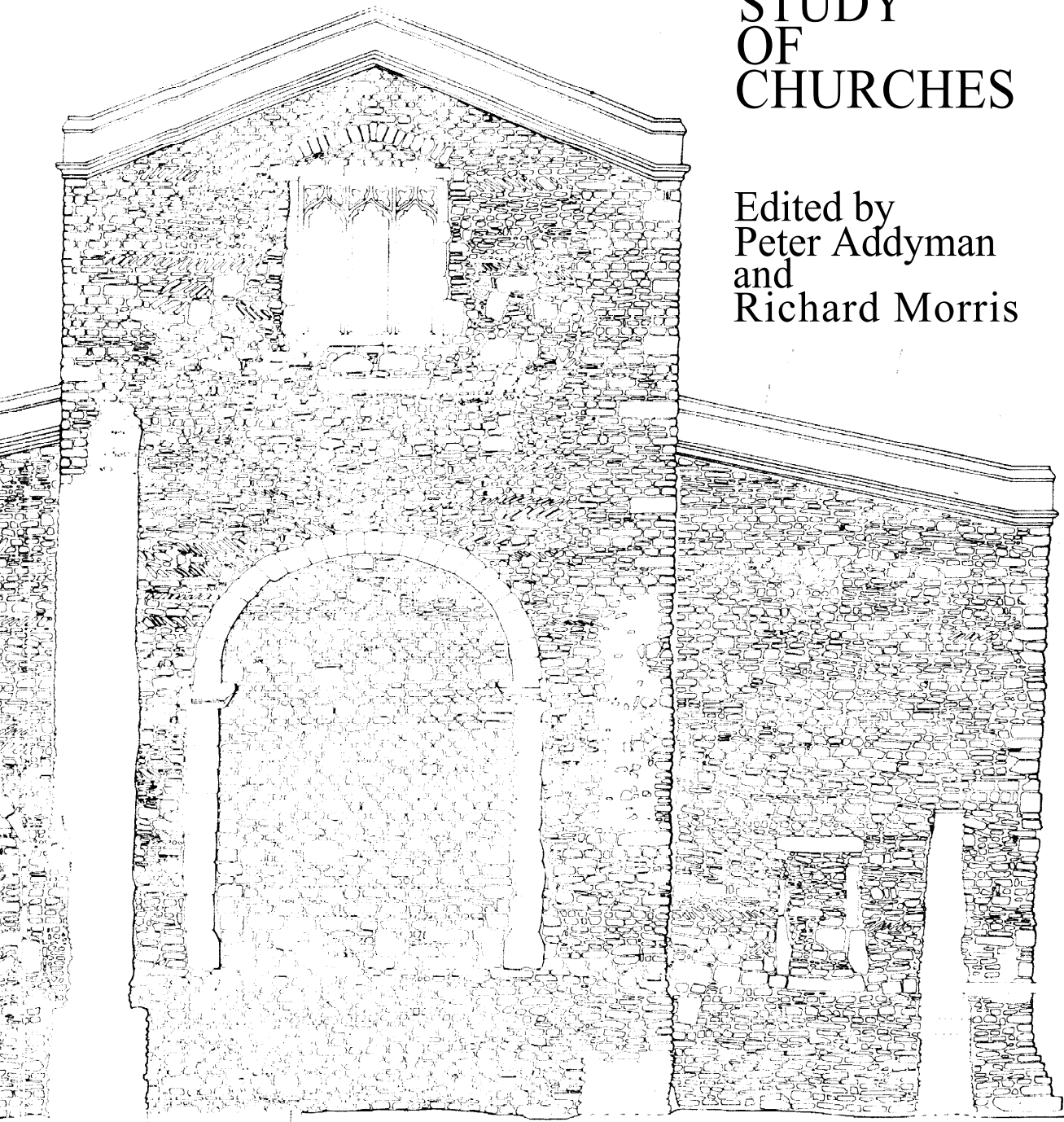# CBA RESEARCH REPORT

No 13
THE ARCHAEOLOGICAL STUDY OF CHURCHES

Edited by
Peter Addyman
and
Richard Morris

1976

The archaeological study of churches

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Richard Morris BA BPhil

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It must be obvious that the 18,000 churches maintained by the Church of England provide a rich source of information for historians and antiquaries, but it has not always been so obvious that they constitute for archaeologists also field sites easily to hand and readily accessible which,   if painstakingly handled, can contribute a wealth of material not only about our religious but also about our cultural and social history. If it is not obvious to you, the reader, why this should be so, then this is just the book for you. I have read it with great interest but not without the occasional shaft of conscience at the cavalier way in which the Church generally, and I personally, have sometimes handled these historical treasures. It is surely an encouraging sign of the times that many Diocesan Advisory Committees now retain the services of a professional archaeologist to help them in their seemingly mundane task of advising clients and architects on church restoration and repair. As a one-time parish priest with responsibilities for an ancient church I like to think that I would have welcomed and profited from the advice of an archaeologist if there had been one available on the Diocesan Advisory Committee.

If our ancient, and not-so-ancient, churches provide rich material of one kind for the archaeologist, it is true though less obvious that they provide a rich source of material of another kind for the believer. To be able to perceive down the ages the persistence of a place of worship on one site and its dynamic reaction to changes in national and local life is a powerful stimulus to faith: faith not only in the unfailing providence of God but in the capacity of the Church to change and adapt to the needs of those it serves. In our wholly praiseworthy concern for conservation it would be easy to overlook the fact that the churches exist to serve the living and not just to yield up the secrets of the dead. I find it encouraging that our ancestors did not shrink from altering hallowed structures and challenging hallowed traditions in the interests of a lively presentation of the Gospel to the then 'modern man'. So perhaps logic requires that we find a place on the Diocesan Advisory Committee not only for the Archaeologist but for the Diocesan Missioner!

I commend this book to you as a weighty but extremely interesting commentary on the interaction over the centuries between worship and buildings, between Church and society, and, of course, between mission and maintenance.

Stuart Ebor: October 1975
Bishopthorpe
York

At the request of the Church of England itself, churches and cathedrals were specifically excluded from the provisions of the Ancient Monuments Act 1913. This ecclesiastical exemption has meant that for most purposes churches lie outside the planning laws. It has therefore also meant that the great advances in archaeological study which have taken place in most fields through the wise deployment of state funds for excavation and investigation have not happened in the field of church archaeology. For other reasons, too— the assumed unavailability of places of worship for research excavations, and the remarkable achievements and seemingly definitive works of the early architectural historians—church archaeology has been out of fashion for the past half-century, and until recently had few, if any, practitioners. The discipline was therefore scarcely formed when the changing pastoral needs of the later 20th century began to provide opportunities for the archaeological study of churches on a scale not experienced since the height of the Victorian church restoration movement. On the one hand churches are being declared redundant in steady numbers,   which often leads to demolition, to conversion to alternative use, or to restoration by the Redundant Churches Fund. On the other hand the operation of the Church of England's own Inspection of Churches Measure has led to more effective structural maintenance of the churches which are to survive, while schemes for re-ordering have led to fundamental changes within churches. Similar factors affect the archaeology of places of worship of other denominations.

This book appears,   therefore, at a critical time in British church archaeology, when the opportunities are great but workers are few and resources scarce. It arises from a conference held at the University of East Anglia at Norwich in April 1973 and another held at the Dorman Museum, Middlesbrough, in January 1975. Both conferences were sponsored by the Churches Committee of the Council for British Archaeology,   the second in association with Middlesbrough Borough Council and the CBA's Group 4. The conferences, and indeed the Churches Committee   itself, were convened to create an awareness of the potential of church archaeology, and to encourage the emergence in Britain of a strong tradition, comparable to those of various continental countries, for the integrated archaeological study of places of worship.

It was evident enough to the Churches Committee at its first meetings in 1972 that one of its prime tasks would be to define.   and more importantly to demonstrate, the principles of ecclesiastical archae- ology, and the standards to be demanded of its practitioners. The principles are still emerging, though the papers by Dr Taylor and Mr Biddle that follow here do much to blow away the mists. In both papers there is the tacit or explicit assumption that modern church archaeology must subsume a variety of allied disciplines which have often tended to flourish in isolation. The age of the archaeological polymath is long since gone, and the specialisms involved are now

beyond the competence of any one scholar. One way ahead may, therefore, be indicated by the programme of research at Deerhurst, Gloucester. There a team of specialists is undertaking a co-ordinated investigation of many aspects of the church and its environs, under the aegis of a joint sub-committee of the Society of Antiquaries and the Council for British Archaeology. The team has enjoyed the mutual stimulus and the flood of enlightenment which comes when common problems are attacked from different directions. It has also established rigorous experimental methods and has sought and in many cases attained a peak of excellence in the recording of evidence revealed. While the results of the work will add crucial new data for the understanding of Anglo-Saxon architecture, it seems likely that the Deerhurst project will be at least as important in demonstrating the benefits which will come from improved experimental standards in church archaeology.

From the earliest days of their lifetime's project of investigation at the classic deserted medieval village of Wharram Percy, in the Yorkshire Wolds, Mr J G Hurst and Professor M W Beresford were aware that the church, happily surviving when all else has passed away, provided in its multiple architectural periods a microcosm of the history of the village it served. What they did not know in 1955, when I at least first became aware of their concept,   was the extent to which evidence still preserved below ground, and at that time not investigated, could modify and, more importantly, extend the story. Mr Hurst has also excavated the first representative rural medieval population from northern England which will supply demographic data, information on physical types, robustness, health, mortality rates, and the like, which should take some of the speculation out of medieval social history. The Wharram project has related the church and the buried population to the village and to the landscape around, in the way being attempted at Deerhurst. Such projects, however, have frightening implications in terms of time, expertise, and money.

Nevertheless the effort is proving worthwhile. Time and time again,   as different churches have been excavated in various parts of the country the archaeological and architectural story has proved to be a sensitive reflection of the fortunes of the settlement around. St Mary-in-Tanner Street, Winchester, and St Pancras nearby, or St Helen-on- the-Walls at York, are eloquent of the history of their urban parishes, and the quite remarkable story unexpectedly recovered from the superficially un- exceptional church at Rivenhall, Essex, provokes a host of new ideas about the history of that village. As more church excavations are undertaken it becomes increasingly evident that churches more than any other structures are   likely to advance the understanding of settlement histories. The pervasive role of the church through the ages has ensured constant modification as the aspirations and fortunes of the community were given material expression. While datable archaeological finds are rare in churches, the amount of structural change has often

resulted in a wealth of stratigraphic data, for those who are skilled enough to read it. Moreover, the sustained efforts of architectural historians have provided a secure sequence for architectural style, at least from the 12th century onwards, which often makes it possible to place alterations in their correct chronological position.

As the critical importance of the church in medieval archaeology becomes clearer, it is also evident that church excavation provides technical problems of a very special sort, Two papers below arise from the very different experiences of two brilliant archaeologists, Mr Rodwell and Mr Phillips. The one is a sensitive reminder that the brash and brisk approach traditional for the archaeological fieldworker simply will not do in churches. The other is a glimpse of the pinnacles of professionalism to be attained—and the almost superhuman effort required—when an archaeologist is privileged to take part in a great but urgent church conservation project. That the two papers contain mutually contradictory views—for instance on the problems of photography within churches—is a healthy indication that difficulties which have daunted many a good archaeologist in the past are now being confronted, circumnavigated, or solved, and that fertile minds are finding a variety of solutions. How often has 'grave earth' been written off as too disturbed to provide information, while most of it must contain the sort of information recently retrieved, by careful observation, inspired improvisation, and the systematic application of basically simple techniques, in the Winchester Cathedral cemetery (Kjølbye-Biddle, 1975). Many of these problems, currently taxing British archaeologists, were faced long ago on the continent, where excavations have been undertaken in churches for many years. Exemplary reports such as that on Unterregenbach (Fehring, 1972) have provided standards at which to aim, while those who attended the Norwich Conference were privileged to learn from the experiences of three distinguished exponents of the art of church archaeology from Denmark, the Netherlands, and West Germany. It has been possible to provide here brief summaries of the various national practices, but there can be no substitute for perusal of the published results of the work made possible by effective systems of archaeological control.

The present volume presents a number of specific studies, to illustrate the variety of techniques and approaches now to be   found in British church archaeology, each valid in the circumstances of the particular excavation. Between them they demonstrate well enough the practical problems involved, the standards of excavation demanded, and the power of the archaeological method to write elements of ecclesiastical and settlement history hitherto considered to be unknowable. It is evident enough, however, that while archaeologists themselves are beginning to realise these truths, others do not. The church at Jarrow, of European importance, was hardly dealt with in a satisfactory way despite the efforts of Professor Cramp,   which must have threatened to jeopardize the academic welfare of her students as well as submit her to intolerable pressures. More recently a similar headlong rescue operation was launched at the Saxon crypt at Ripon, a building considered on very good evidence to be one of the works of St Wilfred himself, built and consecrated between 671 and 678 (Hall, 1975). Here the crypt's

steps, an integral part of the original scheme, survived 1300 years only to be riven out in 1975 to provide access to a new cathedral treasury.

In historic buildings other than a church such happenings, one likes to think, do not now take place. Successive Ancient Monuments Acts have ensured it. For the established church, however, there are entirely separate systems, one for cathedrals and another for diocesan churches. The Churches Committee of the Council for British Archaeology, conscious that the systems are unlikely to be changed, feels, therefore, that so far as archaeology is concerned at least, they must be much improved. There appears to be great need for closer expert control and supervision over the historic fabric of the greater churches, whether above or below ground. For the lesser churches there already exists a central body, the Council for the Care of Places of Worship, which has readily co-operated with the Churches Committee in increasing awareness of the value of, and requirements of, archaeology in churches. The awareness can be converted to action when the Diocesan Advisory Committee for the care of churches works in close relation to the CBA's diocesan archaeological consultant. Indeed, archaeologists in certain efficient dioceses are beginning to find that the system works almost too well, and opportunities threaten to overwhelm them.

When that happens the problem is reduced, as so often in archaeology, to the availability of expertise and money. Under certain circumstances the Department of the Environment can provide funds for rescue excavation, The Churches Committee now provides advice to the Department on national priorities in the expenditure of such money. There may well be ways in which the church itself can contribute, in certain circumstances, to the cost of archaeological work made necessary by church-generated changes. Certainly it is to be hoped that the future will see a change from the hectic *ad hoc* scrambles of the past, which can hardly benefit either the quality of the archaeology or the relations of archaeologists with the church, the architects, or the parishioners.

This book comes, therefore, at a critical time in the development of church archaeology. Its various contributors have by either analysis or example described the character of the child, considered the precepts by which it should be brought up, and probed some of the ills which currently beset it. If the conditions under which it is to develop can be improved,   if more resources can be mustered to nurture it, and if it continues in the care of scholars of the calibre of those whose work lies below, its prospects in the world of historical endeavour cannot but be good.

REFERENCES

Fehring, 1972   G P Fehring *Unterregenbach: Kirchen, Herrensitr, Siedlungshereiche.* (Stuttgart. 1972).
Hall, 1975.   R Hall 'Keyhole Archaeology: Ripon Cathedral Crypt'. *Interim: Bulletin of York Archaeological Trust.* **2,** (4) (1975) 8–10.
Kjølbye-Biddle, 1975 B. Kjølbye-Biddle 'A cathedral cemetery: problems in excavation and interpretation'.   *World Archaeology,* **7,** (1) (1975) 87–108.

PART 1 THE FOUNDATIONS OF ARCHITECTURAL HISTORY

The Foundations of Architectural History	**H M Taylor**

INTRODUCTION

It is a healthy exercise for archaeologists and architectural historians to stand aside occasionally from the exacting demands of the particular site or building that is engaging their attention, and to consider carefully the logical foundations on which their studies should be based. The object of this essay is to make a study of this sort in general terms, but with particular reference to the difficulties which have so far prevented the construction of a satisfactory architectural history of Anglo-Saxon England. The emphasis upon the Anglo-Saxon period arises not only because of my own special interest in that period but also, and principally, because of the pressing need for greater clarity of thought to resolve the disagreements which still beset discussions of the history and interpretation of Anglo-Saxon buildings, by contrast to the comparative agreement which has long been reached for Norman and later buildings. A subsidiary purpose of the essay is to urge a closer co-operation between archaeologists and historians, as well as to suggest criteria which might be used in making the best choice of Anglo-Saxon buildings for their joint investigation.

It cannot be expected that fundamental studies of this sort will provide the same excitement as is given by records of new discoveries, but it is my belief that the obscurities and disagreements which persist in some of the more difficult areas of architectural history are very directly associated with lack of clear appreciation of these logical foundations. Therefore time spent in study of the foundations may be the best way to make progress.

Moreover, in spite of a lifelong hope that careful study of standing fabric would be sufficient to solve the outstanding problems of Anglo-Saxon architectural history, I have been convinced by my careful review of these fundamental principles that this object is not attainable by structural and historical studies alone and that it needs the fullest help which can be given by all the techniques of modern archaeological investigation: these are techniques which have achieved considerable success on the Continent in recent years and for which the name 'medieval archaeology' has become current in the associated literature. [1]

HISTORY

Let us then begin by considering the sources from which we can get evidence for the construction of architectural history. In order to avoid risk of circular reasoning let us divide them into two groups which for convenience may be called *primary* and *secondary,* in order to indicate that the primary sources go back to first principles whereas the secondary ones make appeal to a variety of other considerations. An example will perhaps best serve to make the distinction clear: if we claim that a window was built in the 12th century because its head is semicircular and is decorated with chevron ornament, this is a claim that is based on secondary evidence which depends on a knowledge of architectural styles; but if there had been an inscription incised in the stones of the window recording its erection by a particular person on a named date, that would have given primary evidence. In practice the distinctions are seldom so clear as these, but the differences between the two types of evidence are usually clear and are always important.

It will at once be appreciated that it is almost always on stylistic evidence of the secondary type that we depend when we look at a building and try to read its history from its appearance. Equally it will be appreciated that this kind of knowledge of architectural or artistic styles could never have been built up without thorough investigations which go right back to first principles.

It will now be best to consider the principal sources of primary evidence and to indicate briefly how they serve as a base for constructing architectural history in a firm and objective manner, free from the quirks of personal opinion which have so long beset the discussion of the Anglo-Saxon period. This consideration will also serve to explain why that particular period is still so subject to matters of personal opinion whereas later periods have long been fairly firmly placed on an objective basis.

The three principal sources of primary evidence for architectural history are: first, contemporary written records of the buildings; secondly, the visible standing fabric of the buildings themselves; and thirdly, the immediate surroundings of the fabric, both inside and out, and particularly below ground. It will at once be appreciated that these three sources of evidence would commonly be regarded as falling in three different fields of study, namely those of the historian, the architect, and the archaeologist, and it will now be our purpose to consider each source in more detail, and to show how important it usually is to call on all of them.

A fourth important source of information about the building can arise if it is enriched with sculpture, paintings, or other artistic materials which are in direct

relation to the fabric and for which evidence as to date, origin, or workmanship can be provided by the methods of art history.

Written sources

In many ways, written records are the most important source of architectural history because they alone can give precise details such as dates, or names of builders or patrons, or matters such as cost, or even the purpose which the building was intended to serve. But in considering the value of any written record it is important to know how soon it was written after the events it records, and it is essential to be sure that it relates directly to the building under consideration.

The extent to which an architectural history for any building can be built up from written records will, of course, depend directly on the continuity with which records have been maintained during the life of the building and have survived to the present day. In the main it is true to say that continuity and survival of this sort is rare. But the joint work of historians and architects of the 19th century had as its great achievement in this field the construction of reasonably complete and reliable architectural histories of many of the great abbeys and cathedrals of England, from Norman times until the present. This achievement depended not only on the continuity and survival of written records but also on the ability of architects and historians to associate them reliably with the parts of the buildings concerned.

By comparison with the fairly complete and continuous records which have survived for abbeys and cathedrals from the Norman Conquest onwards, there are very few surviving contemporary records of buildings from pre-Conquest times, and hardly any of these can be reliably associated with specific parts of the buildings concerned. Therefore it has not so far been possible to build up a secure and detailed architectural history for the Anglo-Saxon period in the way in which this has been done for periods from the Conquest onwards.

Study of the standing fabric

The second main source of architectural history is, of course, the detailed study of the buildings themselves, and this subject falls into two main branches, which might perhaps best be called   *typological* and *archaeological.*   The typological study is concerned primarily with noting the details of the features and the ways in which similarities can be seen from building to building. By contrast, the archaeological study is concerned primarily with the way in which the various parts of the fabric proclaim sequences in time by the way in which they are joined together. Both these separate fields of study have made important contributions to architectural history, and we should consider each of them in turn.

Typological study

The architectural historians of last century, both in England and on the Continent, were quick to notice that, when histories of buildings had been compiled from written records as described above, it became clear that over the whole of western Europe there had been a fairly continuous development of styles, and that it was fairly generally true that at any one time builders were as a rule pretty consistent in following the fashions that were then current. Moreover, for the whole period from the 11th to the 16th centuries there

was hardly any repetition in the styles or fashions, whether in general plan or in details. It was therefore possible for architects and architectural historians to compile and publish detailed drawings of plans and architectural features grouped by styles, and to provide beside those drawings the dates that had been fixed for such of the examples as had been dated from written records. The degree of consistency of these dates served to establish the truth of the general principles stated above about a steady development and consistent use of styles, and the commonly accepted nomenclature and dating of the Norman and several Gothic styles of medieval architecture in England became established in this way. As these studies developed, it became clear that particular features appeared in many buildings of one recognizable period and were absent from buildings of other periods. It was therefore legitimately deduced that these features could be claimed as being *characteristic* of that period in the sense that the appearance of such a feature in another building, as yet undated, could be taken as indicating that it belonged to the period concerned. It will be appreciated, however, that such evidence of date cannot be regarded as more than an indication, and it is for this reason that stylistic evidence of this sort has commonly been called secondary evidence.

Archaeological study

It should, however, at once be said that the detailed study of buildings in past centuries has by no means been limited to the typological studies described above. Indeed, much of the accurate association of written records with surviving fabric has depended on the extent to which the sequence of erection of parts of the fabric could be determined from a study of the fabric itself. For example, it could happen that written records described a series of building phases, of which only the first and the last were recorded in sufficient detail to permit a reliable association between the written record and the surviving fabric. It could also happen that it was possible from study of the building itself to assert with assurance that certain other parts of the fabric were intermediate in date between the parts already firmly dated, and thus these other parts of the building could with some degree of reliability be associated with the other parts of the written record. In buildings for which written records provide no information, however, it is of very great importance to be able to use the fabric itself as a source of evidence about the sequence of erection of the building, and this can be done in two different ways. We have already seen how distinctive features of the building can be used to give stylistic (or secondary) evidence about the dates of features, and we should now consider three examples of ways in which the construction of the building can give direct (or primary) evidence about the sequence in which individual parts of the building were erected.

(a)   An early example   One of the most interesting examples of the use of archaeological methods for defining a time-sequence of erection in buildings was the argument advanced by Thomas Rickman in 1817 for claiming that pre-Norman fabric existed in the towers of St Peter's Church at Barton-on-Humber (Fig. 1) and St Thomas's church at Clapham in Bedfordshire. In both towers the style of the upper-most stage is quite at variance with that of the fabric below, and indeed the contrast is so great as to indicate that a considerable time must have elapsed
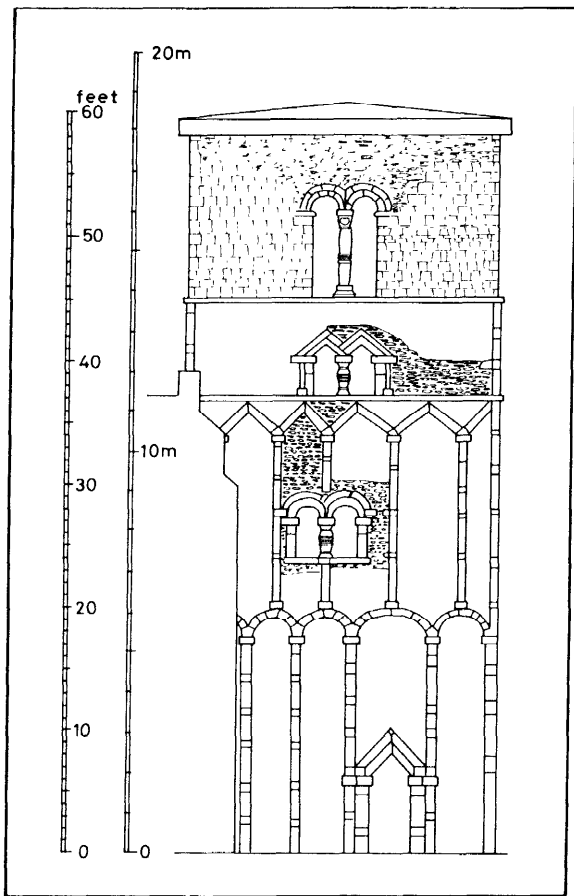
Fig. 1 St Peter's church, Barton-on-Humber: north elevation of the tower. This elevation is based on drawings and photographs made between 1936 and 1945 when some areas of plaster had peeled away to show areas that are now obscured. The sharp contrast should be noted between the uppermost belfry and the lower stages, not only in general fabric but also in quoining and in ornamentation

Fig. 2 St Andrew's church, Brigstock: the blocked Anglo-Saxon window partially cut away by the Norman arch of the north arcade of the nave. These drawings are only approximate, having been built up from photographs. For measured drawings of the almost identical but completely surviving windows in the west tower, see Taylor and Taylor (1965, fig. 45)

the surviving earlier fabric and the later fabric which cut it away. An interesting example of this sort of stratification is to be seen in the nave of St Andrew's church at Brigstock, Northamptonshire (Fig. 2), where the Norman north arcade cuts away the lower part of an Anglo-Saxon window, leaving the blocked upper part in its original position to prove that the wall beside and above the window is earlier than the arch on which it now rests.

(c) Sequence defined by straight joints   In erecting a stone building, considerable care was usually taken by careful bonding of the walls to guard against cracks or other failure, but, when additions were made, there was quite often no bonding, and the straight joints can often give a clear indication that one part is later than another. For example, at Deerhurst, the plan in Fig. 3 shows how the stilted semicircular apse was built against the east wall of the nave with a straight vertical
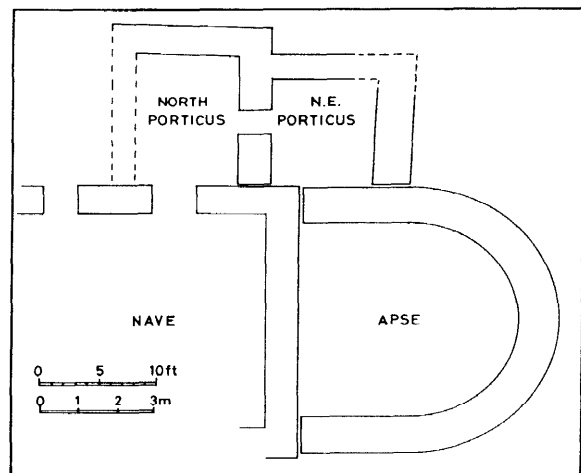
Fig. 3 St. Mary's priory church, Deerhurst. The straight joints show that the porticus were added after the apse, which itself was later than the nave. The two porticus, however, are bonded to each other and were therefore built as a unit

between the building of the two stages. Common sense demands that the lower parts of the towers must have been built before the upper parts, and Rickman therefore claimed that, since the uppermost stage in both cases contained features which he recognized as early Norman, therefore the lower part of each tower was pre-Norman. Moreover, he went further by pointing out that in each tower the lower part contained a number of features which were unknown in the many Norman buildings of England and that these were probably therefore to some extent characteristic of Anglo-Saxon building methods.

(b) Stratification by partial destruction   One of the clearest types of archaeological evidence of a sequence of erection in buildings is provided by features which have been partially cut away by later building works. In spite of repeated reference to features of this sort, it is still too little appreciated that medieval builders were very skilled in incorporating considerable parts of earlier structures into later buildings, and that evidence of operations of this sort can often be clearly seen in the form of a part of a window or doorway or other feature which has been left in place in a way which defines precisely
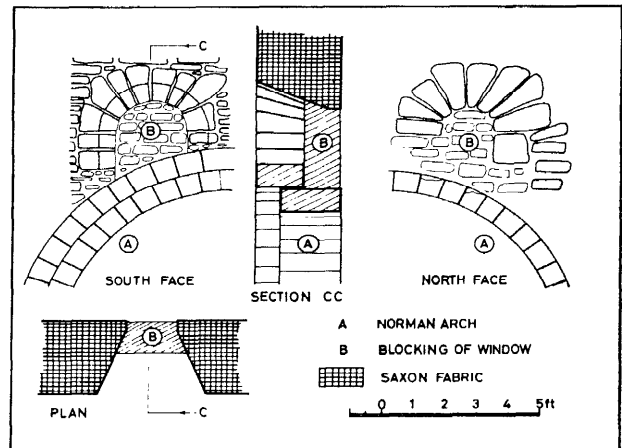
joint and how the north and north-east porticus (although bonded one to the other) were built without bonding either to the nave or to the apse. The absence of bonding as shown by these straight joints gives a clear indication of three separate building phases as marked in Fig. 3. It is, however, important to bear in mind that neither this evidence of sequence by straight joints nor the preceding evidence by partial destruction gives any precise indication of the length of time which elapsed between the two building phases. This is perhaps particularly true of the indication given by straight joints, where the decision to build in this fashion may simply indicate a difference in time from one season to the next, whereas the decision to destroy part of a window or doorway for an addition to the fabric is much less likely to have been made until some years after it was built. We shall, however, see below how archaeological excavation may be able to give much greater precision to the rough indications which are yielded by structural evidence of this type.

Archaeological excavation

Having considered in outline how archaeological methods can be used to deduce sequences of erection from an examination of the standing fabric of a building, it is now appropriate to consider the ways in which archaeological excavation may very considerably extend the range of evidence that can be got even from the most careful examination of the fabric itself. It is appropriate to begin by listing a number of simple reasons for expecting that archaeological examination within and outside a building can greatly add to our knowledge of its history.

In the first place, excavation will expose areas of the surface of the building which have not previously been open to view and will therefore directly increase the amount of simple structural knowledge. Moreover, a skilled excavator will be able to say with certainty at what levels there has been complete absence of disturbance since the building was erected and therefore for what parts of the surface there is complete freedom from subsequent alteration and even from operations such as repointing.

Secondly, if an excavation can be carried throughout the interior of the building as well as outside, it will almost certainly be possible to say whether the building is the first that stood on the site, or whether there have been predecessors of wood or stone. Moreover, in particular cases in which evidence for Romano-British or other earlier occupation is found, this evidence will serve to define the status of the building in relation to those earlier dates. It is obvious that archaeological excavation is the only method which will provide this complete knowledge of the whole history of the building and its site from the beginning of its occupation.

Thirdly, whereas butt joints in the superstructure will give indications of sequences, they are unlikely, as we have seen, to give any indication of the length of time that elapsed between the separate phases. However, archaeological excavation may provide evidence for the extent of time, for example by indicating the changes in stratification that have taken place around the first phase before the cutting of trenches or laying of foundations for the second.

Finally, in favourable conditions, excavation may provide precise limits of date if evidence such as coins should be found in stratified layers, or it may give approximate dating if distinctive objects such as pottery, jewellery, or sculpture are found, or if organic material such as wood or bone is similarly linked to the building and can be dated by methods such as radiocarbon measurement.

Wider aims of architectural history

It should not be thought that architectural history is merely a matter of styles of building or even of the dates when those styles were current. In order to be worthy of the name, an architectural history should tell us something about the uses to which the buildings were put, and how changes in these uses influenced the need for changes in the buildings. As has already been said, it is mainly to written records that we must turn for finer details of this sort, but if records are not available for our own buildings we can sometimes get help from records that have survived about buildings of the same period in other countries, or even about English buildings of other periods. But however helpful indirect evidence of that sort may be, it is always open to risk of errors which arise from the changes of customs with time or place. It is therefore important to note that archaeological excavation can disclose a whole range of evidence, which is otherwise inaccessible, about matters such as changes of interior layout and that these can give indications about the pattern of use at various stages of the development of the building. This potential of archaeological excavation has recently been most strikingly shown in the investigations of St Mary's church in the Lower Brook Street area at Winchester (Biddle, 1972, esp. 104-7). [2]

Art-historical evidence

If sculpture, paintings, metalwork, glass, or other artistic enrichment has survived in direct relationship to the building, the well established methods of art-historians may be able to provide important information not only about the date of the building but even about the centres of influence under which the work was designed or executed and the purposes which any functional accessories associated with it were intended to serve.

OPINIONS OR FACTS

In recent centuries the development of experimental science has seen a change in many fields of study, from a state of affairs where theories were based on personal opinion to a new state in which opinion (however eminent) could no longer be advanced with any conviction against the evidence of facts supported by experiment. These changes took place at different times for different sciences and even for different branches of the same science. I believe it is true to say that similar changes have taken place in the field of architectural history and that, while the change was completed last century for periods from the Norman Conquest onward, it is still only in the process of taking place for the somewhat dark ages between the Roman evacuation of Britain and the Norman Conquest.

In the preface to the first two volumes of our Anglo-Saxon Architecture we said that they were in the main intended as comprehensive records of all the available evidence for surviving Anglo-Saxon fabric so far as it was known to us in some four hundred churches in England. We said that it was our intention

to set out in a third volume the arguments for the dates of these churches, using this much greater mass of evidence than had formerly been available, and thus to build up a much more precise system of dating than had hitherto been possible. In working on this task for the last decade, I have been ashamed to see in our first two volumes that we do not always adhere to the principles enunciated above and that sometimes the histories given for individual churches depend on the opinion of those who first discovered them rather than on solid factual evidence. In recent years it has therefore become my special duty not only to collect this factual evidence by the careful structural investigation which I have trained myself to be able to make,[3] but also to encourage those of my colleagues who are qualified in archaeological excavation to devote an appreciable part of their effort to work beside some of the most important standing Anglo-Saxon churches.[4]

It may serve to emphasize the need for constant attention to these general logical principles if I take this opportunity of correcting in some detail an unfortunate error in our description of Brixworth (Taylor and Taylor, 1965, 103)[5] Having quoted Sir Alfred Clapham's description of the church as "perhaps the most imposing architectural memorial of the seventh century yet surviving north of the Alps", we went on to say that there is "literary as well as architectural evidence for assigning the original church at Brixworth to the seventh century, for Hugo Candidus the twelfth-century chronicler of Peterborough records that monasteries were founded at Brixworth and several other places by Cuthbald who became abbot of Peterborough in 675". It will be clear from what has been said above that this 12th-century record cannot be accepted as valid literary evidence for claiming that any part of the existing fabric was built in the 7th century, first because the record was written some five centuries later, and secondly because it does not mention any details of a church. Moreover, I would not at present claim that there was architectural evidence for asserting that the original church at Brixworth was built in the 7th century because I do not believe that its distinctive features can sufficiently firmly be claimed as belonging to that period.

It will perhaps serve to emphasize the difficulties which confront the study of Brixworth if I refer to recent correspondence with Lord Fletcher in which he told me that he now has considerable reservations about his earlier recorded view that the church was built in the 7th century. He went on to ask me whether I had any evidence to show from first principles that the main fabric is of a period later than the Roman occupation, and I have to admit frankly that I have not.

SECONDARY SOURCES OF ARCHITECTURAL HISTORY

In considering primary evidence from written sources we saw how the fairly detailed and continuous written records of the erection and modification of many major churches in western Europe from about the beginning of the 11th century had allowed the compilation of fairly secure architectural histories for numbers of these buildings and how typological studies of the features of these and other buildings had established

the existence of what have come to be called characteristic features, i.e. architectural features which can with reasonable certainty be said to occur frequently within fairly well defined periods of time and hardly at all outside those periods. So far as England is concerned, these characteristic features have long been well known and are commonly cited in all architectural textbooks for the medieval periods of church architecture which are commonly called Norman, Transitional, Early English, Decorated, and Perpendicular. Since each of these periods represents roughly a century or less, the characteristic features can be used to date an otherwise unknown building to within about a century, always allowing for the uncertainties that may arise from local variations or from deliberate building in archaic styles.

Therefore from the Norman Conquest onwards we may reasonably say that all the medieval buildings form part of an orderly historical pattern even though they fall into two distinct groups. The first group consists of those for which there is adequate primary evidence to settle their history at least in outline from first principles, and the second group consists of the much larger number whose history has to be read from the secondary evidence that is provided from their characteristic architectural features. The fact that the characteristic architectural features have to be determined from the evidence provided by the first group of buildings is the reason why it is so important that the dating of the first group must depend solely on primary evidence.

ANGLO-SAXON ARCHITECTURAL HISTORY

It now seems appropriate to devote a final section to the special problems of Anglo-Saxon architectural history. We have already seen that by comparison with later periods there is a grave lack of contemporary written records that can be associated with surviving buildings. Indeed, there are fewer than a dozen buildings that can be dated from written evidence, and about half of these are ruins with no architectural features other than their plans. The basic problem for the Anglo-Saxon era is, therefore, the shortage of contemporary written evidence for the primary dating of large numbers of buildings and the consequent absence of a secure frame of dated buildings with features which can be used for dating others that have no written history.

If we turn for a moment to the achievements of the past century or so of detailed study of Anglo-Saxon buildings we can record solid progress along two fronts. In the first place clear evidence has been established for the existence of stone buildings from before the Norman Conquest, for their survival to the present day, and for a number of architectural features which are characteristic of the Anglo-Saxon period as a whole, in the sense that they occur often in buildings of that period and seldom or hardly at all in the Norman or later periods. In the second place there have been built up more or less agreed sequences of the buildings of the Anglo-Saxon era, notably those of Professor Baldwin Brown (1925) and Sir Alfred Clapham (1930),[6] which, although not precise architectural histories based on evidence such as is available for post-Conquest buildings, nevertheless represent a great step forward from the almost complete uncertainty which reigned before their work.

Future progress in Anglo-Saxon architectural studies

It is my belief that the architectural history of the Anglo-Saxon era will not be placed on a secure foundation until fresh fundamental investigations have been made for a dozen or more of the most important churches of that period, all of which possess substantial standing fabric with architectural features that can be used for discriminating between early, middle, and late periods within the era. By fundamental investigation I mean complete study, from first principles, using the three primary techniques which have been described above, with all the refinements of modern medieval archaeology, as follows :

(a) Investigation of contemporary written accounts of the original erection of the building and of all alterations and additions right down to those of the present day.

(b) Investigation of the standing fabric in all its aspects, cleared where necessary from obscuring material such as ivy or plaster.

(c) Investigation of the ground inside and around the building by total excavation, i.e. not simply such areas as might be thought likely to yield useful results.

Criteria for the choice of buildings

In many cases the decision to investigate a particular building has to be taken simply because of special circumstances such as repairs, alterations, or even the threat of destruction, but there is sometimes an opportunity for the free choice of a building that might most profitably be investigated. In those ideal circumstances there would seem to be good reason to choose a building in accordance with the following principles :

(a) It should have a considerable amount of standing fabric with several distinctive features, so as to give useful information about characteristic features.

(b) Its fabric should show evidence of more than one building phase, so that there is the best possible opportunity of determining features that are characteristic of more than one period.

(c) Other things being equal, there might be advantage in choosing a building on a site for which there are some early building records, in the hope that the archaeological investigation may provide a linkage between the historical records and the surviving fabric, even though none may at present be apparent.

Typological study of existing evidence

There are at present several hundred buildings with structural features and plans that have been reliably established as Anglo-Saxon but as yet there has been no comprehensive study of this evidence. It has been pointed out above that the achievement of Victorian architectural historians depended not only on the secure dating of a large number of buildings from primary (mainly written) evidence but also on the detailed typological study of the features of those and other buildings. It is my belief that a long time will necessarily elapse before the fundamental investigation of a number of important Anglo-Saxon churches can be completed, but that even while this work is in

progress a considerable step can be taken towards a proper understanding of the architecture of the period if only a comprehensive typology can be drawn up of all the existing evidence. With all these facts in mind I came reluctantly to the conclusion some years ago that the third volume of our Anglo-Saxon Architecture must no longer be designed to achieve a secure system of dating for the churches of the period but must instead provide a comprehensive typology of architectural features, including plans wherever these are adequately defined by the surviving fabric.

Evidence from sculpture and allied arts

In the art-historical field as also in the purely architectural field, the Anglo-Saxon buildings have a rather different status from those of later periods. In the first place there are comparatively few of the major buildings of this period with architectural sculpture   in situ,[8] and in the second place there are almost as many differences of opinion about the dating of the sculpture as there are about the dating of the buildings. Therefore it has seemed to me that for the present the most hopeful lines of attack are along the two fronts described above.

Characteristic features in Anglo-Saxon architecture

From what has been said at the beginning of this section it will be appreciated that the architectural features which are at present spoken of as being characteristic of Anglo-Saxon architecture have, in the main, only the property of indicating Anglo-Saxon workmanship rather than workmanship of any particular part of that era. It is true that double-splayed windows would generally be accepted as being characteristic of a late part of the era, but to claim any other feature as being securely indicative of a particular part of the era would at present be open to question. It will be appreciated that the programme of action described in this section has two separate parts and that they have two separate but inter-related objects. The fundamental investigation of a dozen or so major churches with substantial amounts of standing fabric is the first part of the programme, and it has as its object to determine from first principles the history and dating of these buildings. The second part of the programme is the comprehensive typological study, which is proceeding independently and which has as its object to facilitate the interpretation of evidence from the fundamental investigations in the first part of the programme. Until the whole programme has been completed it will not be possible to say to what extent even this ambitious project has been able to solve the basic problem of Anglo-Saxon architectural history by providing clear criteria for distinguishing between features of the early, middle, and late parts of the era. The existence of criteria of this sort for distinguishing the features of the various centuries of medieval architecture from about the year 1000 depends upon the fact that there seems to have been in those centuries a fairly continuous development of styles, with very little repetition. It will be appreciated that we do not at present know whether or not anything of the sort was true for the period from about AD 600 to 1000. If it was, then there is every reason to hope that the two-tier programme envisaged will indeed lead to the recognition of features, some of which will be characteristic of each of the separate (early, middle, and late) parts of the Anglo-Saxon era. But if there was no such continuous development of styles or if

there was a conservative retention of old practices in some districts, hand in hand with progressive development in other quarters, it may well be that the typological part of the programme will show that there is no possibility of securing sets of features that will be characteristic of individual parts of the era. Even if that apparently negative result should be the outcome of the whole programme, it is my belief that each part of the programme will still represent a valuable step forward in Anglo-Saxon architectural studies, because the first part will have achieved a set of individual architectural histories, while the second part will not only have established a tool which will facilitate proper interpretation of the evidence from individual buildings, 7 but will also have put on record accurate drawings and descriptions of many parts of buildings, some of which even now are in danger of passing for ever from our sight.

SUMMARY
An examination is made of the logical foundations for constructing the architectural history of any period. The principal sources available for such a project are described, and it is explained why so much importance must be attached to contemporary written records of construction and modification of buildings. The comparative shortage of contemporary written records for Anglo-Saxon buildings thus explains the difficulties which have so far been encountered in reaching general agreement about the architectural history of this period. Total investigation of a number of important standing buildings of the Anglo-Saxon period by the methods now commonly known on the Continent as those of medieval archaeology is suggested as the only way that is likely to yield satisfactory architectural histories for these buildings and thus to provide the missing foundation for a securely based general architectural history of the period. Certain studies of this sort are already in progress, and in the meantime preliminary steps are also nearing completion in the construction of a complete typological study of the features of Anglo-Saxon buildings at present known.

NOTES—PART 1

[1] See, for example, Fehring (1971, 44 ff), and Borger (1968, 251 ff).

[2] Biddle (1972, 92–131, esp. 104–7). See also the earlier accounts: Biddle (1969, 305–6; 1970, 300–5).

[3] The results of some of these investigations have already been published: for Barrow (Taylor, 1970); for Bradford-on-Avon (Taylor, 1972a, 1973a); and for Repton (Taylor, 1971).

[4] For an appeal for further excavation beside standing buildings, see Taylor (1972b, esp. 264-5); and for an account of work of this sort now in progress as a research project of the Society of Antiquaries of London see *Antiq. J.* 53 (1973), 4-5, 13-15).

[5] A brief correction has already been published: Taylor (1966, 44–5).

[6] That these sequences represented a major achievement has long been recognized in spite of the fact that neither the sequences as a whole nor the absolute dates of the elements within them were capable of direct proof. To use Mr Mercer's words (1966, 62), the best that could be hoped for from such a sequence "is that it should be consistent within itself and not in opposition to any extraneous facts".

[7] These general principles were discussed and lists of buildings were published in my essay 'Structural Criticism' (Taylor, 1972b).

[8] For a convenient summary of Anglo-Saxon architectural sculpture see Taylor and Taylor (1965, 3–51).

[9] In the absence of conveniently accessible published typological studies of the sort here envisaged, there is always a grave risk of misinterpreting evidence from any building under review by considering analogues which indicate one period, while overlooking even the existence of equally convincing analogues which would indicate quite the reverse. For an example of the rather tedious steps that are at present necessary to avoid such errors, see Taylor, 1973a, esp. 153–60.

REFERENCES—PART 1

Biddle, 1969   M Biddle 'Excavations at Winchester, 1968'. *Antiq. J.* **49**, (1969), 295 329.
——— 1970   M Biddle 'Excavations at Winchester, 1969'. *ibid.* **50**, (1970), 277–326.
——— 1972   M Biddle 'Excavations at Winchester, 1970'. *ibid.* **52**, (1972), 93–131.
Borger, 1968   H Borger 'Möglichkeiten und Grenzen der Archäologie des Mittelalters'. *Frühmittelalterliche Studien*, **2**, (1968), 251 ff.
Brown, 1925   G Baldwin Brown *The arts in early England*, II: *Anglo-Saxon Architecture*. 2nd ed. (London, 1925).
Clapham, 1930   A W Clapham *English Romanesque Architecture before the Conquest.* (Oxford, 1930).
Fehring, 1971   G P Fehring 'Zur Arbeitsweise von Bauforschung und Archäologie des Mittelalters in Deutschland'. *Deutsche Kunst und Denkmalpflege* **29**, (1971), 44 ff.
Mercer, 1966   E Mercer 'The alleged early date of the Saxon church at Bradford-on-Avon'. *J. Brit. Archaeol. Ass.* (Ser. 3) **29**, (1966), 61–70.
Taylor, 1966   H M Taylor *Why should we study the Anglo-Saxons?* (Cambridge, 1966).
———, 1970   H M Taylor 'St Giles' Church, Barrow, Shropshire', *Archaeol. J.* **127**, (1970), 211–21.
———, 1971   H M Taylor 'Repton Reconsidered'. *England Before the Conquest.* Ed. P Clemoes and K Hughes (Cambridge, 1971), 351–90.
——— 1972a   H M Taylor 'J T Irvine's work at Bradford-on-Avon'. *Archaeol. J.* **129**, (1972), 89–118.
———, 1972b   H M Taylor 'Structural Criticism'. *Anglo-Saxon England* **1**. (1972), 259–72.
———, 1973a   H M Taylor 'The Anglo-Saxon Chapel at Bradford-on-Avon'. *Archaeol. J.* **130** (1973), 141–71.
———, 1973b   H M Taylor 'The Archaeological Investigation of Churches in Great Britain'. *Antiq. J.* **53**, (1973), 13–15.
Taylor and Taylor, 1965   H M Taylor and J Taylor *Anglo-Saxon Architecture* I (Cambridge, 1965).
——— and ———, 1966   H M Taylor and J Taylor 'Architectural Sculpture in Pre-Norman England'. *J. Brit. Archaeol. Ass.* (Ser. 3) **29** (1966), 3–51.

Diocesan Archaeological Consultants: steps towards a plan for church archaeology in England	**P Wade-Martins and R K Morris**

At the inaugural meeting of the Churches Committee of the Council for British Archaeology in January 1972 it was felt that three subjects required immediate attention: the archaeological potential of graveyards, the archaeological implications of church redundancy, and the factors which can affect the archaeology of churches in use.

The archaeology of graveyards forms the subject of another essay in this volume (p. 41) so although it is relevant to much of the discussion that follows here it will not be necessary to dwell on the subject. Reundancy remains a problem, but the form of the threat has changed. In 1972 the Committee was alarmed by predictions from certain quarters that declarations would soon occur in overwhelming numbers. In fact the annual rate of declarations under the *Pastoral Measure* 1968 appears to have settled to near 100. This figure is not unduly high; furthermore, it is believed to be near to the maximum number of cases which could be processed during the course of a year under the existing system. Yet the archaeology of a significant proportion of these buildings will be endangered by conversion or demolition (Plate I), and even churches vested in the Redundant Churches Fund have not in the past been totally immune from restoration techniques which have eradicated part of the archaeological record. Nor can we be certain that the threat of a landslide has passed, since there is no satisfactory way of forecasting future redundancy trends. The Churches Committee remains watchful, therefore, in case the statutory bodies involved in the redundancy process should eventually be forced to adopt a policy of increasingly ruthless selectivity as the standing commitments of the Redundant Churches Fund continue to rise in a period of unabated inflation. The Committee is making use of the breathing space to press for improved legislation on the subject of redundancy (General Synod, 1975, 46) which will acknowledge a wider and more comprehensive definition of the term 'historic interest' than at present applies to places of worship discarded by the Church of England.

This brings us to the third area of concern: the damage that is being caused to the archaeology of living churches. Evidence exists to suggest that this is the most serious threat of all (Rodwell, 1975). In terms of quantity alone the problem is colossal: there are some 18,000 Anglican churches in use, of which nearly two-thirds have been listed by the Department of the Environment. With so many buildings and incumbents involved the task of safeguarding the archaeological record is formidable. For example, there is a belief, which appears to be quite widely held by parish clergy and architects alike, that only major restorations in abbeys and cathedrals are likely to have archaeological consequences. Operations in buildings of this kind

have certainly led to spectacular discoveries (Phillips, 1975) which have received much publicity, and possibly this has done something to distract attention from the fact that the archaeological record of *any living church* is of potential value. It is also vulnerable to all kinds of commonplace disturbance. The installation of heating pipes, a new fuel tank, rewiring, a new lavatory in the vestry, ritual re-arrangement, schemes of drainage and damp-proofing, and even repointing are all examples of operations which have in the past destroyed archaeological evidence. The fact that works of this kind usually involve only minor change is part of the threat, since it rarely appears worthwhile to those who undertake them to trouble an archaeologist with news of their plans, with the result that over a period of time the evidence can be removed little by little and may eventually disappear altogether, unnoticed and unrecorded. It thus happens far too often that the very steps that are taken to conserve the visible fabric of an historic building will destroy evidence upon which part of that historic interest may depend. The purpose of this paper is to explore this paradox further, to provide the reader with an outline of the circumstances in which these threats can occur, and to review the remedies which have so far been put forward by the CBA in an effort to meet them.

First of all it is essential to know something of the way in which changes and repairs to church buildings come to be sanctioned. Anglican churches in use are exempt from the controls of Ancient Monuments legislation, but before there can be any legal alteration to the fabric or fittings of a living church the parish concerned must obtain either an Archdeacon's Certificate or a Faculty. An Archdeacon's Certificate applies only to repairs or modifications which do not involve substantial change to the appearance of the building. In practice, however, even an Archdeacon's Certificate may not be required; one of the writers recently encountered a case in which part of the floorbase of a medieval church had been remade with concrete without any Faculty or Certificate, on the grounds that the work did not involve any change in the appearance of the building. For repairs or modifications which are likely to be more far-reaching a Faculty will be needed. A Faculty is issued by the Chancellor of a Diocese, who is a barrister-at-law and who derives his authority from the Bishop. The Chancellor reaches his decisions after taking advice from a Diocesan Advisory Committee (DAC), which will normally meet once a month to consider architects' specifications and petitions for Faculties. The Chancellor is not obliged to follow the advice of the DAC, although generally speaking he will do so. The parties likely to have a direct interest in any given set of proposals will thus include the parish (with its incumbent and officers), the architect (and probably a contractor), and the diocesan

authorities (including the Archdeacons, the DAC, and the Chancellor). It will next be convenient to examine the role of each of these parties from an archaeological point of view.

THE DIOCESE

From the outset the Churches Committee has understood the advantages of working within the framework of existing procedures. A DAC monitors all legitimate proposals for work in churches and so it naturally follows that a DAC member with the necessary experience will be in a good position to identify in advance those schemes which could prove to be archaeologically harmful. It was with this point in mind that in September 1972 members of the Churches Committee attended the annual Conference of DAC members. At that Conference some of the issues of church archaeology were explained, with the result that the Churches Committee was invited to compile a list of archaeologists who would be willing to serve as consultants in all the 42 English dioceses. The network also extends to Sodor and Man, where there is a consultant, but not yet to Wales or Scotland. The preparation of this list was a difficult task, especially for areas where medieval archaeologists who would be prepared to give their time to this work were few and far between. Nevertheless, the list was completed by the following spring, when it was circulated to the dioceses by the officers of the Council for Places of Worship (CPW), who urged that bishops should either appoint the CBA nominees as full DAC members or acknowledge them as consultants to whom they could turn for help if the need arose.

This initiative has had a mixed reception. In 20 dioceses the archaeologist is now a full member of the DAC. In 9 dioceses the archaeologist has been recognized as an official consultant, while in one or two others the consultant has begun to establish an informal working relationship with the diocesan authorities (usually the DAC secretary and the Archdeacons). In some cases the failure to appoint or recognize the CBA-CPW nominee appears to be connected with the fact that an antiquary (but not necessarily an archaeologist) is already a DAC member. Elsewhere it seems to be diocesan policy to treat DAC proceedings with maximum confidentiality. It should perhaps be pointed out that a DAC has no formal powers of co-option: appointments are a matter for the bishop.

The 20 consultants who are full DAC members are in a position to detect projects which could have archaeological implications and to probe proposals which on the surface may seem to be innocent of archaeological significance. This is important in view of the frequent and sometimes necessary vagueness of DAC minutes, in which proposals for church repairs involving lengthy and detailed architectural specifications can be described simply as 'restorations', an abbreviation which is especially likely where the restorations are being handled by a very reputable architect whose schemes are usually accepted without much debate. DAC minutes are nearly always inadequate for presenting schemes in sufficient detail to enable an archaeological consultant to form a useful judgement. In the 9 dioceses where the consultant does not actually sit on the DAC he must remain passive unless called upon to act. In these cases the first diagnosis as to what may or may not be of archaeological importance is often in the hands of someone who is not an archaeologist.

It would be wrong, however, to give the impression that obstacles to co-operation are only being created by the dioceses. The general pattern of events during the last two years has shown beyond question that full DAC membership is an essential step in the direction of a more comprehensive policy which will safeguard the archaeology of our churches; yet it must be admitted that a number of consultants are reluctant to concern themselves with the many apparently 'non-archaeological' topics with which a DAC has to deal. In a few cases the remedy lies with the CBA. More often, however, the difficulty stems from the fact that church archaeology is a new discipline of uncertain scope, or, rather, it is an old term which is undergoing redefinition. To take but one aspect of this: at what point do the fields of the archaeologist, the architectural historian, and the liturgical historian merge? It might be answered that the church archaeologist embraces them all; certainly the archaeologist would regard the old division between what exists above and below the pavement as both arbitrary and spurious. A wall cannot be considered apart from the foundation upon which it stands, nor can the plan of a church be discussed except in connection with its function. In buildings which have been extensively modified, the oldest work will sometimes occur at a high point within the structure, supported by later fabric and parted from its original foundation; an archaeologist will be able to make the connection, but only if the principles of stratification are applied to the entire building, and not merely to the ground in which it has been planted. Likewise, the archaeologist who is investigating a church cannot afford to ignore anything that could bear on the history and development of the building. His *potential* field of interest will thus be very wide indeed, and will take in not only the entire fabric but also the contents of a church. It may be some time yet, however, before this comprehensive and controversial definition of the term 'church archaeology' comes to be accepted by all concerned or the appropriate training is provided.

A more immediate threat to co-operation rises from the fact that in a number of dioceses which have appointed archaeologists as full DAC members the volume of archaeological work that is now being generated is approaching the level at which the consultant will have to call for outside funds and help. The consultants' network was conceived essentially as an advisory service, and now that the service is beginning to function it follows that facilities for action should be provided. In order to preserve its own credibility the Churches Committee must now ensure that important schemes which have been identified by the DAC consultants do not pass uninvestigated for want of support.

THE ARCHITECT

Archaeological work which takes place in a church will nearly always be brought about as the result of a decision that has been taken for purely architectural reasons. It is thus important that the archaeologist should remember that his role in any given project is likely to be subordinate to the main purpose of the operation, and it is equally desirable for the architect to have a clear idea of the probable archaeological consequences of his scheme.

Suspicion of archaeology on the part of some architects appears to be based on a desire to protect clients against anything which could lead to unnecessary expenditure. This is understandable, but while it is true that an archaeologist who succeeds in holding up a contractor in order to investigate an unforeseen discovery that has emerged after work has begun can add greatly to the cost of a project, it should be pointed out that this is precisely the kind of expensive delay that the consultants' network was devised in order to avoid. Extra costs can be kept to a minimum, or in many cases eliminated altogether, if the archaeologist is involved in the scheme from the start, Only in this way can the work of the archaeologist and the contractor be co-ordinated.

If he is to be effective the diocesan archaeological consultant must be sure to make contact with all the architects who supervise restoration work in his diocese. Each diocese has a list of approved architects, and copies of this list can usually be obtained from the DAC secretary. The actual approach must always be thoughtfully prepared and tactful, since cases have occurred in which the architect has mistaken an attempt to explain archaeological principles for an attack on his professional judgement. Making contact is only the first step towards practical co-operation, however, for where a standing building is the issue architectural and archaeological considerations will inevitably blur, and dispute can be hard to avoid. One possible solution to this difficulty has already been put forward by Mr Peter Marshall, the Architect to Wakefield Cathedral: a Code of Practice for archaeological work in churches, into which is being drafted a comprehensive checklist of items which might require agreement between the various parties. The implementation of such a Code would make definite the archaeologist's role in a scheme of church restoration or alteration, and it would have the additional advantage of drawing the archaeologist into formal relation with the contractor. The last is of great importance, since the contractor will often be unaware of the implications of archaeological involvement in a scheme, and situations of confrontation can easily arise. Ultimate success, however, depends upon the capability of the archaeologist to carry out his part of a scheme efficiently and to an agreed timetable. As things stand it must be stressed that few archaeologists have either the time or the resources to organize investigations on occasions or in places not of their choosing. As more archaeological units become established, this may become more feasible, although a further problem here lies in the fact that the boundaries of counties and dioceses do not always coincide.

THE PARISH

The subject of church archaeology in the parish setting has been extensively covered by Mr and Mrs Rodwell elsewhere in this volume (pp. 45–54); here we will restrict discussion to three points only.

The Church of England owns the largest single group of historic buildings in the country, of which many are in the hands of persons who have received no training in the care of ancient structures and who may have little understanding of the historic significance of the buildings that have been entrusted to them. Of course it is recognized that the Anglican Church does not exist to see to the upkeep of historic buildings. This does not ease the problem, however: the buildings exist nevertheless, and the fact that the Church of England continues to exercise near-absolute control over the 11,000 listed buildings it uses for worship remains acceptable only because there are safeguards; the *Faculty Jurisdiction Measure* 1964, which was introduced to sieve all proposals for work in churches so that whatever is done is "appropriate and of lasting quality", and the *Inspection of Churches Measure* 1955, which requires among other things that all churches in use shall be examined by an architect at regular intervals. In several respects these Measures are in advance of existing secular Ancient Monuments legislation. But it must be remembered that where ancient monuments are concerned no safeguard can be of permanent value. Constant revision is necessary in order to keep pace with progress in the development of techniques of investigation and consequent advances in scholarship. The formation of the CBA Churches Committee in 1972 illustrates just such a change in perception, since the realization that there was a need for the Committee sprang from a fresh and wider vision of the subject of church archaeology, which was informed by improvements in archaeological method that had taken place during the 1960s, and activated by the spirit of the 'rescue' movement. The Churches Committee found it necessary to set up the network of diocesan archaeological consultants in spite of the fact that DACs originally came into being as a result of the recommendations of the Dibdin Committee, published in 1914, for the purpose of providing "skilled and independent advice upon archaeological and artistic questions arising on applications for faculties". Our map (Fig. 4) shows the extent to which archaeologists who have been suggested by the CBA are now represented on DACs. Some other dioceses have their own advisers, but there are still areas where the archaeological record of a church can be jeopardized for want of authoritative advice. For example, two operations that are commonly prescribed to cure rising damp in old churches—trenching alongside the exterior walls and the reconstitution of the floorbase in the interior—can totally destroy the latent history of a church if carried out in the absence of an archaeologist.

A DAC consultant cannot prevent or influence work that is carried out without permission. Some incumbents exceed the limits of a faculty that has been granted, while others have been known to circumvent the Faculty system, either through ignorance or out of poverty. It is hard to be certain about the extent of faculty evasion, since the diocesan authorities are understandably reticent on the subject. There is always the danger that an archaeological discovery made during the course of an illegal alteration or repair will not be reported, since in order to do so the incumbent would run the risk of drawing attention to the improper circumstances in which the work was being carried out, although where cases have been detected the usual course appears to be for the Consistory Court to rationalize the situation by issuing a 'retrospective' Faculty.

Efforts to publicize and block the threats which menace the archaeology of our churches have to some extent diverted attention from the ways in which archaeology can contribute to the heritage of a parish.

At the simplest level archaeological investigation can

Fig. 4   Dioceses in England, showing location of Diocesan Archaeological Consultants. An archaeological consultant has been nominated for every diocese. In the dioceses with slanted hatching the consultant is a full member of the Diocesan Advisory Committee. In the dioceses with horizontal hatching the consultant serves as an advisor. (Details correct to March 1976.)

Key to Dioceses:

1	*Bath and Wells*	*16*	*Exeter*	*30*	*Portsmouth*
2	*Birmingham*	*17*	*Gloucester*	*31*	*Ripon*
3	*Blackburn*	*18*	*Guildford*	*32*	*Rochester*
4	*Bradford*	*19*	*Hereford*	*33*	*St Albans*
5	*Bristol*	*20*	*Leicester*	*34*	*Salisbury*
6	*Bury and Ipswich*	*21*	*Lichfield*	*35*	*Sheffield*
7	*Canterbury*	*22*	*Lincoln*	*36*	*Sodor and Man*
8	*Carlisle*	*23*	*Liverpool*	*37*	*Southwark*
9	*Chelmsford*	*24*	*London*	*38*	*Southwell*
10	*Chester*	*25*	*Manchester*	*39*	*Truro*
11	*Chichester*	*26*	*Newcastle*	*40*	*Wakefield*
12	*Coventry*	*27*	*Norwich*	*41*	*Winchester*
13	*Derby*	*28*	*Oxford*	*42*	*Worcester*
14	*Durham*	*29*	*Peterborough*	*43*	*York*
15	*Ely*				

[Map: David Evans]

demonstrate that there has been continuity of worship over a certain period. In an age of shifting values the revelation that generations of Christians have gathered at a particular site since the Anglo-Saxon period, or before, can strengthen the faith of the congregation that worships there today. In many cases archaeological investigation will show that the church has had a more intricate architectural history than would be allowed merely from an inspection of the upstanding fabric. Moreover, the form of a church is an expression of its function, and any study of the building will be interlinked with the liturgical dramas for which it formed the theatre. But archaeology can do more: it is the chief means by which we can hope to throw light on the origins of Christianity in England, and to track the development of the Faith through a period to which few trustworthy documents refer and from which few buildings have survived. The sum of evidence from any single church will probably not be great, although important discoveries are as likely to be made in churches of little outward interest as in buildings of more obvious distinction; the real potential of church archaeology will be realized when the evidence is pooled and synthesized.

CATHEDRALS

So far we have dealt with archaeological matters only as they affect buildings within faculty jurisdiction: parish churches and chapels. Cathedrals are outside faculty jurisdiction, and they present the archaeologist with different problems. This renders the consultants' network of limited use where cathedrals are concerned. A national body known as the Cathedrals Advisory

Committee does exist to offer advice on schemes of alteration or restoration, but no dean and chapter is obliged to follow the recommendations of the Committee.

The potential dangers of this arrangement can be illustrated by an unfortunate incident which took place in July 1974, when considerable damage was done to undisturbed archaeological levels in the 7th century crypt at Ripon Cathedral. The damage was caused by the insertion of a new treasury without any preparation for archaeological participation in the operation. Fortunately, since that time there has been a welcome advance in the establishment of links between the CBA Churches Committee, the standing Conference of Cathedral Architects, and the Ecclesiastical Architects' and Surveyors' Association. It is hoped that these links will come to be strengthened by the creation of a second advisory service designed to safeguard the archaeology of cathedrals.

CONCLUSION

Now that the makings of an efficient archaeological advisory system exist, the CBA and the CPW have the opportunity to go on to plan and shape a consistent strategy for archaeological action in churches. It is important that they should do so, for as the advisory system comes into operation throughout the dioceses it is bound to create work for which adequate resources are not yet available. The perfection of the advisory system should thus be seen not as an end in itself but as the first step in the direction of a larger, more comprehensive programme.

Church archaeology in Europe today

O Olsen

THE LEGAL SITUATION IN DENMARK

More or less all historic church buildings in Denmark belong to the *Folkekirke,* a Lutheran state church to which the great majority (c. 95%) of the population belongs. The churches are governed by elected *menighedsrad* (parochial church councils), which derive their income from a compulsory church tax of 1–2% on personal income from all members of th   e Folkekirke. Voluntary contributions occur, but play a minor role.

The parochial church councils are responsible for the care and upkeep of their churches, but are not allowed to alter any detail of the building or the furnishing without the consent of the diocese and, in the case of major restorations, of the Ministry of Church Affairs. The dioceses and the Ministry are legally obliged to ask a number of consultants for advice before they formally approve restoration plans : the Royal building inspectors deal with architectural and aesthetic

problems, the National Museum deals with the protection of historical and archaeological values, and there are special consultants dealing with church heating, bells, organs, etc.

Although not in a position of formal power, the National Museum holds a very strong position as a compulsory consultant, and only in a few cases, generally of minor importance, does the Ministry approve of projects that have been opposed by the National Museum. In consequence of this, parochial church councils often ask the National Museum for advice before they make final restoration plans.

The restoration work itself is carried out by private architects, usually people who have specialized in this kind of work. However, the maintenance of old works of art, the care of mural paintings (which are extremely common in Danish churches), and the restoration of old wooden furnishings are always carried out by conservators employed by the National Museum.

The National Museum is also entitled to carry out archaeological investigation in churches during restoration work. If, however, the Museum wishes to use the opportunity to carry out major excavations, which will considerably delay the work in the church, the consent of the parochial church council is needed. Owing to the widespread interest in history and archaeology and to the strong position of the National Museum, this seldom causes problems, and during the last twenty years archaeological excavations in numerous Danish churches have revealed traces of wooden predecessors of the present church buildings. In addition, much information concerning the history of the standing churches, which are usually Romanesque, is obtained in this way, and interesting stray finds are made, particularly of coins from the middle ages, which always appear in great numbers under the church floors.

G P Fehring

THE LEGAL SITUATION IN GERMANY

The legal situation in the Federal Republic of Germany is extremely diverse and impossible to generalize about. This is because in the past the legislation on cultural, artistic, and scientific matters has been the concern not of the Federal Government but of the individual states *(Länder),* and this is still the case. The situation in the German Democratic Republic is different. However, there is one comprehensive publication in which the various laws are collated (Hingst, 1964).

The laws relating to the protection of monuments date largely from the 19th and 20th centuries. When they were drawn up they were concerned on the one hand with historic church buildings as monuments and on the other with the archaeological monuments of prehistory, but they took no account of archaeological monuments of the middle ages, particularly those quite literally "under the floor or ground of churches".

Thus there is no legal right to compel prior notification of an intention to disturb the floors of churches or to carry out archaeological rescue work. In some *Länder* there is an obligation to advertise intended interference with floors or foundations if the person responsible for the restoration realizes that there is a possibility that archaeological deposits will be disturbed (Hingst, 1964). In other *Länder* official authorization must be obtained in such cases. Individual finds must for the most part be advertised; in special cases they may be expropriated against reimbursement. These stipulations are, however, relatively ineffective, since those who intend to carry out this work can easily claim that they did not have any knowledge of the archaeological potentialities of the site.

More effective protection is given, however, by a few more recent laws (for example in Schleswig-Holstein and Baden-Württemberg, as well as in the GDR); additional protection is afforded to particularly important archaeological sites by having them registered as cultural monuments, or by designating an area as being protected against excavation. The areas beneath churches are not exempted, although those churches in which services are still held often enjoy special status, for example in Baden-Württemberg (Heckel, 1968; Dörge, 1971).

Practically all excavations are now possible only with the agreement of the current owner. It is, however, fair to say that the laws of the GDR and some of the *Länder* do in special cases permit the expropriation of land with appropriate compensation. However, I do not know of any excavations in churches in Western Germany which have taken place against the wishes of the church authorities. There is no doubt that, as far as possible, conflict will also be avoided in the future, particularly as the special legal position of the churches in the State Law for the protection of monuments in Baden-Württemberg has been made quite clear.

H Halbertsma

ARCHAEOLOGY IN HISTORIC CHURCHES IN THE NETHERLANDS

The current situation

Today the majority of the ancient churches in the Netherlands are still owned by the church authorities. Many small villages are in great financial difficulty, however, and find it hard to maintain their churches. As a result, for some years now two outside foundations have also played a part: the Stichting Oude Groninher Kerken and the Stichting Oude Friese Kerken. The first body works in the province of Groningen, the second in the province of Friesland. Both provinces lie in the extreme north of the Netherlands, and both are *probleemgebieden:* areas with much unemployment and declining populations in the old villages. The two provinces are also extremely rich in fine medieval churches, which are far too big for modern needs and in many cases are no longer used for worship. Even where they have been restored there is often no further need for them. The two foundations try to take these unwanted monuments into their possession simply to keep them in good order. The Church authorities are usually willing to part with their churches, selling them for a nominal sum of 1 guilder, together with any further parish possessions—the churchyard, the former vicarage, one or two farms

with all their land, and so on—if these have not already been sold. In the past five years the two foundations have acquired about 60 Frisian churches, and the process continues. As far as possible the churches are being restored and kept in order as places of worship, but in many cases the only practical solution is to convert a church into a museum, which of course creates new problems.

The background

Antiquarian interest in buildings or ruins in the Netherlands may be traced far back in the past. One might even consider Bede as the first known author on this theme because of his information about *"Uiltaburg, id est Oppidum Uiltorum, lingua autem Gallica Traiectum vocatur"* (HE, 5, XI). It is not certain whether the name Uiltaburg was attached to Roman Utrecht, or to the ruins of the Roman *castellum* of the neighbouring Fectio (Vechten), founded by Drusus as a base for the Roman navy, from which several extremely audacious expeditions were organized to conquer all the German territories west of the river Elbe. Whatever the case, the place-name 'Wiltenburg' occurs often in the Netherlands and reflects some lingering awareness of the original builders or function of those fortresses.

Bede mentioned Utrecht because it was chosen as the entirely new archbishopric of the Frisians, first ruled by Willibrord. Coming from Northumbria, Willibrord arrived in Antwerp in the year 690 and had no means of knowing that the kingdom of the Netherlands would develop out of his Frisian realm. Certain circumstances were, of course, favourable to this development: Pepin, and later his son Charles Martel, guaranteed the safety of Willibrord and his British companions in the Frisian coastlands, and in two bitter wars conquered the Frisian king Redbad. During later centuries ecclesiastical and secular processes disturbed the geographical unity. The Dutch medieval archaeologist thus has to deal not only with the medieval bishopric of Utrecht but also with those of Cologne, Münster, Osnabrück, Tongeren, and Doornick, in order to place the results of his fieldwork in the right historical light.

The first recorded excavation of a church in the Netherlands dates from 1613 and was concerned with the ruins of the 12th century abbey of Rijnsburg near Leyden. The excavated ruins were, however, considered to be Roman, but we must be grateful nevertheless for the publication with plans which was printed for the first time in 1664 (Oudaans, 1664, esp. p. 23). Some of the characteristics of the church in the Netherlands during the autumn-time of the middle ages are observed in a Frisian proverb, printed in a collection of old sayings dating from 1614: *Aaede Tiercken habbe tiostere glesfinsteren* ("Old churches have dark windows").

The influence of archaeological findings on publications about historic churches in the Netherlands has remained slight. New generations of scholars in the history of art are only belatedly becoming acquainted with the publications, and, more important, with the daily routine and methods of the medieval archaeologist. The education of students equipped for both disciplines has hardly begun in the Netherlands. It has only been with hesitation that archaeologists have tried to co-operate in the restoration of medieval buildings in the Netherlands, which for so long have been the monopoly of experts in medieval art history and a very small group of architects.

The great pioneer in this field was A E van Giffen, who started with some small successful investigations on the sites of long-disappeared medieval churches but obtained really sensational results on the Domplein at Utrecht during the 1930s. Many other important excavations of churches and abbeys followed, favoured by the fact that so many monuments in the Netherlands were damaged or even ruined during World War II.

Organization

In 1941 the Rijksdienst voor de Monumentenzorg was proposing to establish a self-supporting department for archaeological survey in churches and castles, but these plans were subsequently cancelled because of the foundation of the Rijksdienst voor het Oudheidkundig Bodemonderzoek in 1947. This service (ROB) deals with every kind of archaeological research in the Netherlands (BROB, 1972), and could be considered, more or less, as the archaeological sister of the Rijksdienst voor de Monumentenzorg. However, it was not the intention that this service should possess a monopoly of archaeological research in the Netherlands, and there exists a close contact with the Rijksmuseum van Oudheden at Leyden, together with the archaeological institutes of the universities at Leyden, Groningen, and Amsterdam, all very well equipped for fieldwork in the Netherlands. While most church excavations since 1947 have been conducted by the Rijksdienst (ROB), several investigations in Dutch churches have been undertaken by universities. The ROB has engaged in considerable activity on church restorations since 1947 (on average between eight and ten church excavations each year), and it is regrettable that excavation in every case of restoration has been prevented by lack of finance, since no provision is made for archaeology within church restoration budgets even when a large scheme is involved. Since 9 August 1961 the *Monumentenwet* (Monuments Act) has forbidden any unauthorized archaeological work in the Netherlands, monuments of art and history included. But it is quite impossible for the ROB to be everywhere at the right time and to undertake excavations: if there is no help forthcoming from one of the institutes of the universities, arrangements with the Rijksdienst voor de Monumentenzorg may be made for minor research work, carried out by members of the inventory staff of that service, a solution which has proved to be very effective. As a matter of course these smaller works are observed by members of ROB. In similar cases close contacts with the technical services of the municipalities have proved to be very useful, and in some of the greater medieval towns, such as Utrecht, Deventer, Haarlem, and Rotterdam, specialists have been engaged solely to oversee archaeological finds and to conduct minor excavations.

Of great importance is the assistance of amateur archaeologists, most of them organized in the Archaeologische Werkemeenschap Nederland and split up in many local units or clubs. Most of these units have reached a remarkably high standard of scientific knowledge and technical skill so they now hardly need constant daily supervision, although their activities are permitted only on condition that they maintain close contact with the ROB at Amersfoort.

Boys and girls with archaeological interests have their own organization in the Jeugbond voor Geschiedenis. They carry out a certain amount of fieldwork, supervised by the ROB and in many cases concerned with medieval objectives. Both organizations not only work on free Saturdays but also in special summer camps, once a suitable site is chosen and approved by the ROB.

The help of students is mostly limited to the major excavations of the ROB itself or the institutes of the universities; students from abroad also participate. To conclude this brief survey, we have seen that the average annual number of minor and major church excavations in the Netherlands is about eight. Some are finished within one or two weeks; others take some months, or continue through two or more campaigns spread over several years. For financial reasons machinery is now much used, but for fine detailed work the old hand tools still cannot be neglected.

Publication
Results of the minor and the larger church excavations are published in a somewhat scattered range of publications. Interim results are dealt with in the *Archaeologisch Nieuws* of the Koninklijke Nederlandse Bond, a monthly newsletter. These results eventually find their home in the very detailed and systematically edited volumes issued by the Rijksdienst voor de Monumentenzorg. Articles on particular church excavations have been printed in the *Berichten* of the ROB, or in the *Bulletin* of the Koninklijk e Oudheidkundige Bond. Monographs on single churches, in which archaeology takes an important part, have so far been rare in the Netherlands, and have occasionally served to get a doctor's degree, such as the magnificent study of the church of Elst, beneath which were found two Gallo-Roman temples (Bogaers, 1955). Some more studies of this calibre may, however, be expected in the near future. The richness, abundance, and importance of the available material, collected during so many years, deserves close attention, since it spans a wide range of time and space, art and history.

NOTES—PART 2

[1] It should, however, be pointed out that the members of the Fund have now declared that they regard "the protection and investigation of archaeological evidence as falling within their statutory duty of care and maintenance" (RCF, 1973, 15).
[2] For minor works a Faculty fee of about £10.50 is normally charged; if the works are more substantial a fee of about £l6.80 is now customary.

REFERENCES—PART 2

Bogaers, 1955   J E Bogaers. *Dr Gallo-Romeinse tempels te Elst in de Over-Betuwe,* 'S-Gravenhage 1955.
BROB, 1972   *Berichten van de Rijksdienst voor het Oudheid- kundig Bodemonderzoek.* (1972).
Dörge, 1971   H Dörge *Das Recht der Denkmalpflege in Baden-Wurttemberg.* (Stuttgart, 1971).
General Synod, 1975   *Report of the Working Party on the Pastoral Measure 1968.* (London, 1975).
Heckel, 1968   M Heckel *Staat, Kirche. Kmst: Rechtsfragen kirchlicher Kulturdenkmäler.* Tübinger rechtswiss. Abhand- lungen 22. (Tübingen, 1968).
Hingst, 1964   H Hingst *Denkmalschutz und Denkmalpflege in Deutschland.* Bad, Fundber. Sonderheft 7. (Freiburg, 1964).
Oudaans, 1664   I Oudaans, *Roomsche Mogenthird* (Amster- dam, 1664).
Phillips, 1975   A D Phillips 'Excavations at York Minster 1967-73'. *Friends of York Minster Annual Report* **46.** (1975). 19-27.
RCF, 1973   Redundant Churches Fund: *Fifth Annual Report* (1973).
Rodwell, 1975   W J Rodwell 'Archaeology and the Church'. *Antiquity* **49** (1975), 33-42.

Documentary evidence and the church fabric   **L A S Butler**

The documentary sources available in England and Wales to augment the information provided by the church fabric are very limited in the period before 1250 and are still sparse until 1560. However, these two dates provide convenient points of division in the study of parish churches and their dependent chapels. The greater churches, whether cathedrals or religious houses, have a relatively full documentary record and will not be considered in this survey.

PERIOD 1: 600–1250

In England before the Norman Conquest literary evidence is slight. It may be contained in a narrative history, such as the description by Eddius of the foundation of the church at Ripon (Webb, 1965, 149), in a hagiological episode such as Bede's description of the first church at *Hefenfelth* or the miracles wrought by John of Beverley (Colgrave, 1969, 216, 462, 464), or in the granting of a charter in which a church is given to a monastery such as St Michael at Cuxton or St Mary at Huntingdon (Campbell, 1973, 32, no. 27; Hart, 1966a, 168, 171, 181; Hart, 1966b). Rarely is there a coincidence of literary evidence and the visible evidence of the structure. Only eight cases exist where the records permit a precise date or period to be assigned to the erection of a surviving Anglo-Saxon fabric. At a further sixteen churches there is sufficient documentary evidence to permit a precise date to be given to the erection of the church but there is, however, insufficient detailed evidence to allow this to be associated certainly with the surviving fabric (Taylor, 1972, 270). By far the most satisfactory and unequivocal evidence is that contained in th e dedicatory tablets at Kirkdale and at Odda's chapel at Deerhurst, though the indirect evidence from crosses and sundials often suggests a church structure (Okasha, 1971, 63–4, 87–8). [1] The situation in Wales before the 12th century is even more disappointing. Narrative histories and annals, such as the *Brut y Twysogion* or the *History of Gruffydd ap Cynan,* either confine their attentions to the major churches or speak in only the most general terms of parish church building. [2] The *Lives of the Saints* must be used with caution, and it would be exceeding the available evidence to claim that the church dedications are the direct result of missionary activity by the saint whose name they bear or by his contemporaries, Similarly, such charters as have survived, often with colourful episodes in order to give greater credence, cannot always be taken at face value: one example of this is the account of the granting of land of St Kynemarks (Llancinmarch) given in the *Book of Llan Dâv* (Evans, 1893, 165). [3]

After the Norman Conquest the Domesday Book provides the first national record of churches and priests. The correlation between all the churches mentioned in Domesday and all churches possessing masonry and sculpture of the 11th century or earlier date has not been widely attempted, and so far only limited use has been made of this source as the accompaniment of architectural study. It is just as important to understand the circumstances when an existing church would not be recorded in Domesday: the evidence from Kent in the *Domesday Monachorum of Christchurch, Canterbury* and in the *Textus Roffensis* provides the names of a further 150 villages with baptismal churches (Darby and Campbell, 1962, 494–9). The gift of churches to monasteries, both those newly established in Britain and those of greater antiquity on the Continent, is well documented in charters. Some of these parish churches are clearly newly founded; the evidence comes from the wording of the charter, or from the dedication, such as St Bavo in Lincoln, or from the church settlement name, such as Belvoir. The Augustinian canons (and to a lesser extent the Premonstratensians) often received gifts of churches in thinly settled terrain and to these churches they provided either canons or clerks (Darlington, 1945, I, vi–viii, II, 594–613; Ross, 1964, I, xxv–xxxiii). [4] Yet even among this relative abundance of documentary record the evidence contained in the church fabric is often preferable, especially where charters are only known from late copies or defective texts. In other cases the inscriptions carved upon the fabric, as at Castor (Northants.), Weaverthorpe (Yorks.), or Hawksworth (Notts.), give information not otherwise obtainable; the brass plaque at Ashbourne (Derbys.) commemorates the rededication in 1241 which is not otherwise recorded.

The fabric can show artistic influences and links of trade which do not appear with precision in documents. The pilgrimage from Paris to Compostela in the fourth decade of the 12th century by Oliver de Merlimond, chief steward of Hugh de Mortimer, Lord of Wigmore, would be indistinguishable from other contemporary pilgrimages, except for the probability that Oliver was accompanied by a mason who then reproduced in sculpture at Shobdon, Kilpeck, and Brinsop some of the designs that he had seen on his journey (Zarnecki, 1953, 9–15). It is rare that such influences can be given so precise a context. The links between Climping and New Shoreham across the Channel to Caen and the quarries of the Orne estuary are much less distinct. More distant trade influenced by episcopal and seigneurial patronage is shown during the late 12th century in the introduction of Tournai marble for capitals, fonts, and memorials in southern and eastern England, possibly encouraged by the artistic tastes of Henry of Blois (Dunning, 1944, 66; Zarnecki, 1953, 16). The links between a specific piece of work and the actual mason or craftsman can only be traced accurately when a chronicle entry or an Exchequer enrollment provides the precise information, as in the work of the Cosmati on Edward the Confessor's shrine in Westminster Abbey or the grate of Queen Eleanor

of Castile's tomb erected by Thomas de Leghton (Brown *et al,* 1963, I, 147–50, 481). By contrast signed pieces of work, such as the font at Bridekirk (Cumb.) or the door ironwork at St George's Chapel, Windsor, are isolated because they lack other points of reference.

PERIOD 2: 1250–1560

Before the end of the 13th century all the bishops in England, and presumably the four in Wales, had begun to keep registers of their actions. Their chanceries kept either a miscellaneous register in which all acts were recorded chronologically or a sectionalised register in which particular categories of episcopal business were listed together. These categories include ordination, institutions to benefices, appropriation of revenues, consecration of churches, and injunctions following visitations. All these actions provide evidence that a church actually existed when the institution or visitation was made; the consecration may give the precise date when the building was completed, as in the primary visitation of Bishop Maidstone of Worcester in 1315, though it could equally refer to an enlargement, or to a reconcilement after spilling of blood or violation in the church or churchyard (Haines, 1965, 154). Only occasionally are the circumstances surrounding the erection of a church given in what are predominantly legal rather than narrative documents (Owen, 1970, 19, n. 25). The issuing of pardons to assist the collection of funds for a building project is limited to the major building projects at cathedrals and collegiate churches (Fowler, 1882, 98 [c. 1180], 113 [1258]; Parry, 1910, 143 [Vowchurch 1348]). From 1250 onwards there is increasing evidence for the erection of chapels in outlying hamlets or attached to isolated manor houses: licences for the celebration of some services at them occur in the bishops' registers and, if disputed, in papal letters: a typical example is the licensing in 1315 of the newly constructed chapel at Tiln (Notts.), which was more than 3 miles from the mother church of Hayton and which because of the poor roads and the flooding of the river Idle was difficult of access to Hayton for baptisms and funerals, especially in the winter months (Brown and Thompson, 1937, 181–3, no. 2052: also Owen, 1971, 112–21). Evidence for the decay of villages comes in the granting of permission to take down and re-use the stones of a deserted church, Little Stapleford (Lincs.), in 1342 (Owen, 1970, 22–3, n. 29; Beresford, 1954, 307–14).

Although institutions provide the major source of information concerning the existence of a living, and by implication a church, the information is inter-mittent and must often be traced through a series of registers. There are occasions when clerical taxation made necessary the compilation of a fuller list either within a single diocese, such as for the levying of synodals or of Pentecostal dues, or for taxation in all dioceses, as in the Valuation of Norwich in 1254 (Lunt, 1926) or in the Taxation of Pope Nicholas IV in 1291. Later revision of the national figures occurred in 1318 and 1340. Poorer livings could claim exemption and the dependent chapelries are seldom individually named. The usefulness of these figures in enabling some correlation to be made between the wealth of a living and the grandeur of its church has only recently been attempted. The example of Coychurch (Glam.) illustrates the correlation between a high tax assessment and an ambitious church (Pugh, 1971, 391, Map 5). The importance of the 1291 figures in giving

an insight into which rectors were well placed to undertake the ambitious rebuilding of their chancels while the nave lay unrestored can sometimes be appreciated from the visitation surveys or from the surviving fabric. More often it is a religious community that builds more spaciously, as at Lowthorpe (Yorks). or Sandiacre (Derbys,). Another form of survey covering the whole diocese is the *matricula* o r *scrutinium,* which may have provided the bishop and his officials with an aide-memoire to the ecclesiastical resources and the patronage of livings; Cheney (1950, 110–9) reviews the limited evidence for this class of record. Licences for non-residence, often while the clerk was on study leave, and licences to hold in plurality show a concern for spiritual welfare, while cases occur where a decayed parish is united with a flourishing one, such as Shotesham St Botolph being linked to Shotesham St Mary in 1312 or Framingham Pigot united with Framingham Earl in 1512 (Allison, 1955, 157; Stone and Cozens-Hardy, 1938, no. 57). Litigation might arise concerning the formation of a new parish or where there was a renewed anxiety about an ambiguous tenure; it could also develop in respect of the church structure and responsibility for repairs, again accentuating the possibility of a different architectural history between the priest's portion and the parishioners' portion. This is dramatically illustrated at Ridlington (Norf.), where it was stated in 1522 that the chancel had fallen almost to the ground by the fault of the rector, who had burnt the roof timbers (Stone and Cozens-Hardy, 1938, no. 289).[6]

In the period from the Black Death to the Reformation there is no substantial increase in the range of information but a far greater quantity of material survives. The bishops' registers are augmented in three directions: the first is the occasional survival of the registers belonging to the lesser officials (archdeacons, vicars-general, and commissaries) as well as the chapter records of the colleges of secular canons. The second is the gradually increasing number of wills, usually recorded in a probate register, and the third is the steady trickle of churchwardens' accounts and similar parish deeds.

Although the archdeaconry records are principally concerned with the moral fibre of the clergy and their parishioners, there are often statements on the fabric of the church: the visitations record what was found to be amiss, while the Consistory Court books that survive show how the ecclesiastical authorities corrected the faults. [7] The wills provide an increased amount of information upon gilds, altars, lights, places of burial, and bequests to specific building projects. Their clauses can provide answers to which the visible evidence of the now permanent piscinae and aumbries suggest the questions; the squints and low-side windows are the visible reminders of the ritual at the main altar whose lights and fittings are endowed and maintained by the generosity of the richer and the lesser villagers. The churchwardens' accounts, as at St Lawrence, Ludlow, and St James, Louth, provide detailed evidence for building work: it may be a record of an ambitious addition or it may be the steady renewal of roof timbers, window lead, floor paving, and bell ropes (Cox, 1913, 15-43). [8] Sometimes this class of record will enable the actual masons and craftsmen to be identified, such as William Hort, the mason working at Yatton (Som.) in 1509–10 and 1524–26 (Harvey, 1954, 139). Fuller details are often

provided by the contracts for a particular piece of work, such as the new chancel at Sandon (Herts.) in 1348, the new nave at Fotheringay (Northants.) in 1434, and the tomb of Ralph Green at Lowick (Northants.) in 1419 (Salzman, 1967, 437-8, no. 18; Knoop and Jones, 1949, 245–8; Crossley, 1921, 30). It is seldom that the 'plat' or working drawing survives, as for the projected tower at King's College Chapel, Cambridge (Colvin *et al,* 1963, I, 271, pl. 20).

The fabric may often be as informative as the documents. The building of a new aisle or porch, the completion of a new tower, or the glazing of a set of windows can be attributed to a particular patron either by an explicit inscription or by detective work from the heraldic devices; examples are frequent, such as the inscriptions on the west face of the tower at Barwick-in-Elmet (Yorks.) of *Orate pro Henrico Vavasour AD MCCCCLV and Orate pro anima Rici Burnham qui dedit X Marc ad edifican huius campanilis,* indicating the participation of the manorial lord and the rector in this work. The roof bosses at Orwell (Cambs.), together with the evidence of inscriptions in (now destroyed) window glass, enable the chancel to be dated to within a few years of 1398 (RCHM, *West Cambridgeshire,* 1968, 190). Sometimes it is the nouveau riche family displaying its wealth, as did Anthony Ellis on the tower at Great Ponton (Lincs.) in 1519; sometimes it is the native son enriched by applying his skills within the church, such as William Skirlaugh (Yorks.) in 1401. Generosity on this scale assisted the parishioners in their duty of maintaining the nave and belfry, but they seldom had any outside help towards their other ancient duty which was the communal responsibility for maintaining the church-yard fence and of preventing cattle and horses from cropping the grass. Arrangements for the repair of the fence, wall, or 'mounds' do occur with some regularity before 1600, and presentments for stray animals are also made at visitation or in the Consistory Court.[9] The visitations and the Court depositions give a fuller understanding of the fabric when the church building still survives to the present day, but when the building has been destroyed it is much more difficult to comprehend the structure. Only the major buildings attracted the attention of poets and travellers, and poetry, such as that of Lewis Morgannwg, is prone to exaggeration. A more reliable witness is William Worcestre; in the last quarter of the 15th century he was pacing out the dimensions of churches, recording inscriptions, and sifting, as critically as he could, the local traditions (Harvey, 1969). He was the first in a long line of antiquarian recorders, closely followed by John Leland and succeeded by William Camden and William Lambarde.

PERIOD 3: 1560–1900

After the Reformation, which suppressed both monasteries and chantries, the various categories of ecclesiastical record become more frequently found and more standardized in their arrangement. It is no longer a question of whether or not a church existed, but much more a question of what did it look like and how was it furnished. The main classes of diocesan document which can answer these questions are the records of visitation and those of faculty licensing. Much more is now known of the articles of visitation whereby the Protestant forms of worship were enforced upon the Elizabethan church (Frere and Kennedy, 1910), but it is seldom that a researcher can

trace for a single church an unbroken succession of visitation responses from 1559 (Peyton, 1928, 10–26 for a good case study: Toot Baldon 1623–1834). The bishops' and archdeacons' visitations only record what was found to be amiss, but seldom say when the repair was made and by whom it was undertaken.[10] Similarly uneven are the records of petitions for Faculty or licence to demolish, alter, or rebuild churches; only in the 19th century are the Faculties kept with any degree of completeness in most dioceses (Cole, 1909, 19–46 with 20 cases referring to churches); Palmer (1935, 54–86) discusses the period 1724–1875 and he argues that the system of record starts in the Diocese of Ely only in 1724.

The compensating element is the greatly increased store of parochial records, fully explored by Tate (1969, 43–156), and the steady flow of antiquarian literature from local historians, topographical artists, diarists, and tourists. One example where a combination of local records can throw light upon a church rebuilding is at Brooke (Rutland) in 1579. While the parishioners there complained that the curate did not catechize and that he "will be overcome with drink marvellously" so that "they have some time a drunken evening prayer", the rebuilding of the chancel, north aisle, and porch was proceeding at a steady pace (Simmons, 1959, 36–55, esp. 37–9). In the same year the Privy Council was trying to accelerate the collection of funds for an entirely new church, started by Robert Dudley, Earl of Leicester, at Denbigh in north Wales (Butler, 1974, 60). The increased use of such collections or 'church briefs' between 1560 and 1828 enables some repairs and rebuildings, often after a natural disaster, to be traced with a fair degree of accuracy.[11] Most county histories of the 17th and 18th centuries produced their imitators at a lower, more local level, and many libraries of the gentry contained copies of these histories annotated and enlivened by pen or water-colour sketches. Professor Barley's *Guide to British Topographical Collections* (1974) has revealed the extent of these additional sources,[12] and this catalogue excludes printed sources like Thomas Dineley's tour through Wales and the Marches in 1684 (1888). Similarly, the chance survival of items of ecclesiastical interest in family papers may involve a search disproportionate in the time involved to the results obtained; yet it may help to throw light on church fabric and fittings, such as the commendation of Walter Hancock, free mason, in a letter from Sir Francis Newport of High Ercall to the bailiffs of Shrewsbury in 1595, or in the payment to Hugh ap Robert of Ruthin for setting up the pulpit and seating at St Asaph Cathedral in 1631 (Lloyd, 1965, 138; National Library of Wales, Aberystwyth, Carreglwyd MSS, no. 680).

The keeping of parish registers en-joined in 1538 only became widespread practice after 1600, but it served to stimulate a greater awareness of the need to keep other records, whether of churchwardens' accounts or the clerk's notebooks and the miscellaneous papers relating to church rates, tithes, visitation, Faculty, and Consistory Court jurisdiction (Farmiloe and Nixseaman, 1953, xvi–xxix).[13] The fly-leaves of registers and the empty spaces on parchment sheets became filled with all manner of memoranda, both ecclesiastical and secular. The registers provide a cross-check on the information contained on monuments in the church and churchyard; they supplement

the heraldic and genealogical manuscript notes and they enable a statistical approach to be essayed into the content of the burial ground and the social groupings within it. The actual limits of the church-yard may be known from the glebe terrier, from agreements with the parishioners for the repair of the churchyard wall, or from an actual burial-ground plan prepared by the clerk or sexton when plots had been reserved and sold. [14] Sometimes the construction of a vault or mausoleum would mean that the correspondence relating to a petition for a Faculty is retained in the parish. [15]

In this great increase of information two gaps often emerge. The first is that when a new church is erected, particularly in the late 17th or 18th century, there is often no satisfactory record of the appearance of its medieval predecessor. Topographical artists are seldom present and local writers are usually eager to describe the new church in glowing terms and to dismiss the old church as mean, dilapidated, or inconvenient (in its location or in its suitability for a preaching house). This neglect is only later remedied by conscientious artists like the Bucklers, S H Grimm, John Carter, and Samuel Lysons, but it is essential to examine the original drawings wherever possible rather than engravings based on them. The second problem is that with the new churches from 1660 to 1820, particularly on rural sites, there is either no record at all of the designer, or else a name is given which may be that of the architect or may equally be the building contractor who erected the church to a local Burlingtonian's designs. These two problems can seldom be solved by recourse to Faculty papers. A good example of the variety of sources that need to be searched comes from the account of the rebuilding of Wimpole church (Cambs.) in 1748 (RCHM, *West Cambridgeshire* 212). [16] Elsewhere the chance find among family papers or a stray design among architectural or landscape drawings provides a valuable clue. [17]

The architects for the lesser churches of the great Victorian ecclesiastical expansion are also shadowy figures, who may find no mention in Pevsner's monumental survey *The Buildings of England,* who may elude Goodhart-Rendel's index, and who may only be tracked down from local newspapers, trade directories, and ecclesiological societies' journals. The work of one such architect is at Greenhow Hill, a new church for the lead-mining boom centre on the moors west of Nidderdale in Yorkshire. The architect, W R Corson, designed only one other church structure, the tower at Pendlebury (Lancs.), and the remainder of his practice was domestic buildings. Yet his church design of 1858 effectively uses the slope of the hillside by placing a vestry crypt beneath the sanctuary; the whole church has a sombre dignity matching the grey mine-scarred hills and the bleak nonconformist chapels already well established at this outpost. In a period of church redundancy it is these poorly recorded minor churches that are often the earliest candidates for demolition or for a conversion that strips their furnishings away and obliterates their ritual arrangements. In the 19th century the church and vicarage are often built as a unified composition, and both need to be recorded when there is no architect's drawing surviving in an archive office.

Over the centuries the records enable a different range of questions to be asked and answered. Initially it is a question of whether a church exists and when it was founded. After the Black Death it is possible to ask what was its appearance and what were its fittings. After the Reformation it is pertinent to enquire who designed the building, in what style, and to what plan.

To all these questions the written record may give an answer, but the survival of the episcopal and the parochial records is as much subject to the hazards of careless guardianship as is the survival of the church structure.

Documentary sources for the building history of churches in the middle ages

Dorothy Owen

This paper is concerned not with the greater churches, even when, as has happened with many monastic and collegiate churches, these are now used as parish churches, but with ordinary medieval parish churches and parochial chapels. It may be useful to recall that at least since the 10th century the whole of England has been divided among a number of dioceses, arranged in the two provinces of Canterbury and York, and that within each diocese parish churches, each with its parish and dependent or 'field' chapels, were well established by the time written records survive in any quantity. The obvious sources of information about these churches and chapels will seem to be the records of the Church itself. This, for the medieval period, means almost exclusively the metropolitan and diocesan records, and to a much lesser extent those of

the Papacy. Actual records compiled in the parish are relatively rare before 1500. Since the English Church has been, to a large extent, like the churches of western Europe, proprietary in nature, the records of laymen and lay estates provide much information about parishes. So also do the records of the Crown, since conveyances and disputes about ownership might all reach the Royal courts. Many parish churches were given as additional endowment by their lay owners, or by the Crown, to religious foundations such as cathedrals and monasteries and, since such institutions preserved their title deeds, either as originals or as copies in registers or cartularies, it is possible to learn more about such parishes than about the rest. There are very few sources from which one may be sure, or almost sure, that a church building of some sort was

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in existence at any given time. The best of these is the valuation made for a papal taxation of benefices in 1291, and available in a Record Commission edition (Astle *et al,* 1802).

The nature of the sources mentioned above have been described by the author in a paper in *The Amateur Historian* (7(l), 196 ff.) 'How to study your parish church from documents', and printed sources have been quoted for ecclesiastical records, with fuller discussions of their nature, in *The Records of the Established Church in England* (1970), and in a 'Short Guide' to visitation books, in *History* (1964). The best general source for information about printed texts of records of all types is E L C Mullins's *Texts and Calendars* (1958). For monastic records the appropriate volumes of the *Victoria County History,* where they exist, and G R C Davis's handlist of cartularies (1958) are the best sources.

This paper will attempt to suggest ways of answering questions which archaeologists may be expected to ask. At the outset the types of question which can almost never be answered from documentary sources should be defined. It is very rare indeed to discover a precise, or even an approximate, date, for the foundation of any parish church or chapel known to have been in existence before 1100. If it was in the hands of a monastery at a very early date there may be a pre-Conquest charter mentioning it, or it may be mentioned in a chronicle. A group of Cambridgeshire churches is mentioned in the *Liber Eliensis* (Blake, 1962) as being in the possession of the abbey of Ely soon after its re-foundation in c. 970, but this is a 12th century source and not necessarily to be trusted about the detail of early dates. There are a number of chronicles from the abbeys which are already in existence before 1066, and it is always worth looking at them in case the monastic churches are mentioned. It is improbable that they will reveal the monks as founders of these churches, although there is often evidence for their setting up of chapels in lands they had themselves reclaimed in the waste lands, marshes, fens, and woodlands (Peterborough, Reg. Swaffham, f. viii). Parish churches, however, may perhaps have already been in existence when the monks acquired them, and almost always the founder's name is unknown. By the time of the making of the Domesday Survey in 1087 it seems likely that most parish churches in central and southern England, and in all lowland zones, were already in existence, and the absence of mention of a parish church in the survey cannot be regarded as evidence for a later foundation. The more critically scholars look at Domesday, the more dangerous it seems to rely implicitly on the material it contains, or to assume that omissions from it are proof of non-existence, It is just as unlikely that the name of the builder or architect, the way in which the building was financed, and the plans to which it was built are ever likely to be found in a documentary source, whatever may be inferred on stylistic evidence.

With these caveats in mind let us turn to the questions which *can* be answered from documentary sources. It may certainly be possible to say whether a church, and even more certainly a secondary chapel, is in being on a given site from the early 12th century onwards. If the building is a chapel (that is, a secondary place of worship in a parish) and particularly if it is in, or passes to, monastic ownership, there is some chance that it is mentioned in a charter, or a survey. The parish church of Tilney St Laurence (Norfolk) was in origin a chapel founded by the canons of Dereham in the mid-12th century to serve the inhabitants of their newly drained marsh (Dereham Cartulary, f. 147). The church of North Stoke (Lincs.) was a chapel founded by a Domesday tenant among his assarts, and subsequently given to Stixwold Priory (Stixwold Cartulary, f. 89v).

A memorandum of the dedication of the church, which sometimes occurs as a means of dating some other event or in connection with a gift of glebe land, will, if it can be assigned to a year or even a reign, establish the existence of the church at that point. Unless the term used is 'consecration', however, it is not likely that the building was newly erected at this point. Records of this type seem almost always to relate to monastic churches, and the general form is a certificate that it had taken place issued by the bishop who performed the ceremony. When the British Academy's project for the collection and publication of episcopal *acta* is complete there should be a considerable body of evidence relating to dedications and consecrations. A few are already available for Canterbury (Theobald and Stephen Langton; Major, 1950), Chichester (Mayr-Harting, 1964), and Durham (Offler, 1968). The Chichester charters include a number of examples of dedications from the mid-12th century, and many are to be seen in cartularies. The Peterborough cartulary known as Register Swaffham includes an excellent example narrating the consecration of the church of Thurlby by Bourne c. 1112. Later memoranda of dedications are registered in the diocesan registers and are often a clue to the date of building of chapels or of rebuilding parish churches. The saint to whom the church is dedicated may occasionally help in dating the original building or foundation, although there are pitfalls in using this method, and most dedications are non-committal. Hibaldstow, dedicated to St Higbald, the companion of Paulinus, seems likely to be early, but dedications to St Thomas of Canterbury do not always imply a foundation of the late 12th century, since changes of dedication seem to occur throughout the medieval period and, indeed, later,

Episcopal *acta,* and even more the later registers, sometimes include a licence to hold services in a church or chapel before it has been consecrated. Seffrid II of Chichester granted a licence of this type to a chapel at Itchenor (Sussex) in the mid-12th century, and the *Cirencester Cartulary* (Ross, 1964) includes the text of a licence granted to the parishioners of Avebury living at Kennett (Wilts.) in 1239 to hold services in the chapel they had built in the hamlet, despite the fact that it was still unconsecrated. Monastic records are indeed often very informative about the foundation of chapels on lands they acquired subsequent to the building of the chapel. The *Missenden Cartulary* (Jenkins, 1938, Nos. 634–40) records the convent's title to a hermitage chapel of Holy Cross at Muswell in Piddington (Northants.) which had been built by Ralf the hermit and passed to Missenden in 1152. Such chapels are almost always in outlying hamlets, and it was always necessary to establish the status of their parishioners in case attempts were made to defraud the owners of the parish church of their dues. The licences to celebrate usually state clearly what is due to the mother church of the parish, and on what conditions the licence is granted.

Monastic owners, in acquiring parish churches and

their chapels, naturally took over any existing title deeds to the glebe land, and these are copied into the cartularies. The *Newnham Cartulary* (Godber, 1963, I, 16) contains a confirmation of c. 1190 of the title of the house to ten acres of land given to the church of Willington (Beds.) "many years ago at its dedication". Such title deeds are always worth a careful scrutiny, for they may produce something as good as the Castleacre cartulary (f. 70) for the church of Long Sutton; here are copied two grants by William son of Ernis, who gave the church to Castleacre. In the first he gave to the house an acre near the marsh *"ad ponendum unam capellam sancti Thome martyris";* by the second they received three acres in Heoldefen to erect a new parish church on them, in exchange for the previous wooden church and its site.

Deeds of appropriation and ordinations of vicarages, by which monastic houses were permitted by the bishop to take all the fruits of a church after setting aside provision for a vicar who would have the cure of souls, are often helpful about the existence of chapels, since regular service of them two or three days per week is usually specified. Documents of this sort, though copied into cartularies, are best sought in the episcopal registers. The 13th century bishops of Lincoln were particularly active about the ordination of vicarages in monastic churches, and a special register known as the *Liber Antiquus* (Gibbons, 1888) was devoted to such acts by Bishop Hugh of Wells (Davis, 1908); this is a very useful source for the entire diocese and includes much suggestive information. The vicarage ordained in Hundleby (Lincs.), for example, includes offerings from the hamlet of Spilsby. but there is no mention of a chapel at Spilsby. By the end of the 13th century there was a parish church, soon to be collegiate, in Spilsby, and no sign of the link with Hundleby.

One other very useful source for the foundation either of secondary chapels in hamlets, or of parochial chapels in new towns, is found in deeds of agreement, sometimes executed as a final concord in the Royal court, by which rectors, patrons, or owners of parish churches consent to their establishment. The importance of this lies again in the fact that if a secondary chapel is established the parish church might well lose important income from the offerings of those attending it in preference to their mother church. There are a number of examples of this in monastic cartularies— for example, those of Bridlington and Selby (Lancaster, 1912; Fowler, 1891)—and even among lay muniments, where the lord of the hamlet is benefited by the gift of a chapel. For example, in 1140 Spalding Priory, impropriator of the rectory of Alkborough (Lincs.) licensed Peterborough Abbey to found a chapel in the manor of Walcot, which lay within the parish (Reg. Swaffham, f. viii). In the *Tutbury Cartulary,* (Saltman, 1962, 75) is a licence from the priory consenting to the establishment of a parish church in the new town of Newborough (Northants.) in 1141. A slightly different case is the licence granted by the bishop of Carlisle to the abbey and convent of Holm Cultram to build a parish church in their new town of Skinburness (Thompson, 1913, 12).

Permissions to make burial grounds at outlying hamlets or to set up a font for baptism would undoubtedly be opposed by the owners or incumbent of the parish church, in case the income from fees declined. Nevertheless some such licences were granted, generally

by the bishop, although sometimes the consent of the rector or appropriator has survived. The consent of Cirencester to the establishment of the Kennett chapel in 1239 permitted burials there. In various Hereford registers there are ordinations by the bishops in disputes about the parochial status and burial rights of chapels, and the Lincoln registers include numerous licences for burials at chapels, including one to Stragglethorp in the parish of Beckingham, which seems to have been precipitated by the Black Death (Lincoln Episcopal Reg. 9, f. 36).

Anxiety about the retention of offerings, fees, and tithes could lead rectors and monastic proprietors into disputes with the inhabitants of hamlets where there were chapels, and into attempts to force them into making all payments to the mother church . Compositions about tithes and offerings occur frequently in monastic cartularies and in the records of cathedrals, and there are records of law suits in church courts. Many of these were heard by the bishops in their audience courts, for example, a dispute of c. 1320 between the incumbents of Cookham and Bray about the offerings of the bridge chapel at Maidenhead (Berks.) *(Reg. Martival* V, 1975), and such causes are recorded in the episcopal registers. At York, however, there are numerous cause papers of the 14th and 15th centuries, and these ar e particularly rewarding for information of this type (Owen, 1975). The full transcripts of evidence often found in the cause papers are particularly informative about chapels and their burial grounds. Conversely, suits might be brought by the inhabitants of the hamlet to force the incumbent of the mother church to serve their chapel and recognize its rights; evidence produced in such a suit often indicates how and when the chapel was founded. Several such suits are quoted in *Church and Society in Medieval Lincolnshire* (Owen, 1971).

There were many occasions when a monastery sited in a village or small town and perhaps endowed with the rectory of the parish church, absorbed the original fabric of the church into its own monastic chapel, and permitted the lay folk to use an aisle or side chapel for parochial purposes. Such arrangements were often inconvenient for both parties and were always much criticized by episcopal visitors, who were sometimes able to require that a new separate parish church should be provided by the monastery. References to such provisions usually occur in episcopal registers in the shape of licences or mandates, like that of Archbishop Pecham to the prior and convent of Leominster to build a suitable chapel, dedicated to St Thomas the Martyr, for the parish (Martin, 1884, 506). Even more precise is the order of 1434 to the abbot and convent of Bardney to build a new parish church, on a carefully described site some distance from the monastic church on which the old parish church abutted (Lincoln Episcopal Reg. 17, f. 172).

If a church was rebuilt on its original site at any date after 1250, a good many traces are usually left in records. An episcopal licence (what would now be called a Faculty) would be required, such as Bishop Charlton granted to Queen Isabella in 1330 for the rebuilding of Churcham (Heref.) (Capes, 1912, 73). When the building was complete it would require consecration and this, too, would be entered in the episcopal register: for example, the mandate for the consecration of the church at Colmorton, newly rebuilt

by Sir Gerald Braybroke knight (Lincoln Episcopal Reg. 12, f. 434). The expenses of consecration would be met by the parish, and might be accounted for in the churchwardens' accounts ("Paid for the hallowyng of the church" at Sutterton in 1490) or, if the parish church defaulted, presentments and subsequent action would appear in visitation entries in the register. If the bishop could not soon go to the parish or send a substitute for consecration he might issue a licence for the use of the church for service before consecration. In 1433 Croft (Lincs.) *"de novo fundita et constructa"* received such a licence (Lincoln Episcopal Reg. 17, f. 163v). Even if nothing but the chancel was rebuilt a licence of this sort might be thought necessary. At Covenham St Mary (Lincs.) this happened in 1359 (Lincoln Episcopal Reg. 8, f. 141).

When rebuilding was necessary as a result of the collapse of the building or of some sort of natural disaster, it was customary to seek help with the aid of an indulgence, granted either by the Pope or by a diocesan bishop, which would be recorded either in the papal registers or in an episcopal register. In the latter case the record might be of the actual form of a grant of indulgence or of a licence to the sellers of the indulgence to preach it in the diocese. This last is more common with foreign collections, but there are a few examples for English objects, and plenty of cases in which a bishop authorizes collections or issues an actual indulgence for a church in his own diocese or in another in England. Thus Archbishop Walter de Gray in 1232/3 granted an indulgence for those contributing to the building of the church at Boston (Lincs.) (Raine, 1872, 73). Most frequently, however, the beneficiaries are local churches within the diocese. Mablethorpe St Peter was rebuilt after flooding, in 1290 (Hill, 1954, 2), North Scarle consumed by fire and reconstructed in 1342 (Lincoln Episcopal Reg. 7, f. 8) and Yarborough in 1404 (Archer, 1963, 14).

Other financial arrangements made to assist re-building can often be traced and provide very good evidence. They fall, in accordance with the customary law of the church, into two parts. The rector, whether an individual clerk or a corporation, such as a cathedral, collegiate church,   or a college in a university, was held responsible for the maintenance of the fabric of the chancel and often rebuilt it, while the parish was charged with the repair of nave and belfry. Visitation records, usually found in episcopal registers until the late 15th century, include present-ments of rectors for defects and faults in the chancel: for example, *Reg. Pontissara* (Deedes, 1915, 166), where the chancel roof at Hayley St Peter was defective in 1304. The separate visitation records of the dioceses of Lincoln have been printed by Thompson (1940; 1944; 1947) and reveal an alarming number of ruinous and dilapidated chancels.

The accounts kept by various corporate owners of churches show something of the other side, for they often include payments for repairs to chancels or contributions to complete rebuilding. The chancel at Adderbury (Oxon.), for example, was rebuilt in 1408–18 by New College, Oxford according to the rectorial accounts (Hobson, 1926). Mrs Bond (1971) recently published similar material from the records of St George's, Windsor, for Buckinghamshire churches appropriated to the canons there. At Great Wilbraham (Cambs.) agreements for the restoration of the chancel

in 1425 are entered in a register of the Hospitallers (British Library, MS. Cotton Nero IX, f. 25v.) and the chamberlains of Ely contributed half a mark to the making of the chancel arch at Witcham (Cambs.), the owner of which was the sacrist of Ely (Ely Chapter Records, 5/3/27). Grants of materials to aid the rebuilding of chancels are sometimes found on the patent and close rolls and in the records of cathedrals and colleges which had associations with the church. In 1431, for example, the Dean and Chapter of Lincoln granted a great beam from their store towards the rebuilding of Louth parish church, the rector of which was one of their prebendaries.

Activity by individual rectors, as distinct from corporate bodies, is harder to trace. The will of a rector, often found in the episcopal register because the probate of his clerical subjects belonged to the bishop himself, rather than to his official, or in a chapter register, if the rector was a prebendary in a cathedral or collegiate church, might contain a clue. Henry Snaith, rector of Haddenham (Cambs.) in 1382 ordered the repair of his chancel, namely to make a large window in front of the chancel, of five lights like those in the body of the church (Ely Episcopal Reg. 2, f. 40). Sometimes also a surviving inscription or a later record of it is helpful. Antiquarian notes, especially those specifically collected from churches, like those of Gervase Holles (Cole, 1911), are particularly valuable and preserve the names of a number of donors, many of them rectors. A few chance references also occur, in narratives or local chronicles, like the note which occurs in a fragmentary Thornton chronicle (British Library Campbell Charter xxi.4) that a rector of South Ormsby (Lincs.), who died before 1384, had rebuilt his chancel. A dispute in King's Bench in 1420 between a mason hired to rebuild the chancel of Surfleet (Lincs.) and the employer suggests that the records of the royal courts might well be fruitful sources (Salzman, 1952, 496).

Arrangements for the parishioners to discharge their obligations in connection with the rest of the fabric are harder to trace. It was customary by the early 14th century to have a permanent fabric fund, replenished by bequests and sometimes by the sale of candles, or ale or other comestibles, and administered by officials known as proctors, guardians, wardens, or kirk reeves, who might be clerks in minor orders employed by the church or, especially later, laymen chosen annually by a variety of methods.   When unusual sums were required the money was raised by a levy or church rate, supplemented by gifts and special legacies. This general situation is reflected in a number of different ways in   record material.   The bishop's general responsibility for the church fabric and property, which was fulfilled by himself or through his archdeacons, produced many mandates ordering the payment of rates for repairs or rebuilding. There is a whole group of such mandates for tower building in Lincolnshire parishes between 1290 and 1303 (Hill, 1954, 25; Lincoln Episcopal Reg. 3 ff. 24v., 53v.). The parishioners of St Dunstan-by-the-Tower, London, where later Yevele was employed in the work, had to be compelled by archbishop Simon Langham to pay their rates for the rebuilding in 1366 (Wood, 1966, 141; Salzman, 1967, 462–3). Inhabitants of hamlets might decline to contribute to the parish church: the men of Boxted living in the hamlet of Uckfield were accused of this before the Archbishop in a visitation of 1303,

when the belfry was being built at Boxted (Lambeth MS. 244, f. 24). Such a situation might even cause the churchwardens, as the parishioners' representatives, to bring an action in the ecclesiastical court against the defectors. The York cause papers have several examples of this.

Failures to pay rates might also be punished elsewhere, especially in towns or in large and active manorial courts, where the secular authority might be used to reinforce that of the church. Miss Doreen Slatter has drawn the author's attention to an example of this type in Bray (Berks.) in 1347 (Berks., Record Office, B/EG m.l), and there are several Lincolnshire cases, some of which are quoted in *Church and Society in Medieval Lincolnshire* (Owen, 1971). In any parish where the manorial records survive in some quantity for the 14th century it would clearly be worth searching them for references of this type. Similarly, a borough court might be called on to assist collection of church rates: at King's Lynn in 1435/6 four members of the corporation were chosen to help the churchwardens collect the rate levied for constructing the steeple of St Margaret's church (Lynn Hall, Bk. I, f. 60).

Some clues to rebuilding and alteration of churches are to be found in wills, where a bequest to support a project such as the making of a rood-loft or the erection of a steeple would be explicitly made. In addition smaller projects, such as the re-roofing of an aisle, the building of a porch, or the glazing of a window, might be ordered at the entire expense of the testator. Many local antiquaries have collected references of this type from the probate records, especially those of the local courts. There are excellent series of church extracts from the Bury wills in the *Proceedings of the Suffolk Institute of Archaeology,* and a less full but still useful set in *Norfolk Archaeology.* Any of the local *Notes and Queries* series or any local archaeological periodical is likely to include similar material.

It was naturally only the wealthiest individuals, and very frequently local men, who prospered in trade or in law or the church and whose wills were proved in the Prerogative Court of Canterbury or the London Commissary's court, who could afford to make individual bequests of any size to their parish churches. Other poorer men could and did participate in the work of church repair and maintenance as members of religious gilds and fraternities. In such bodies they helped to add new windows, to rebuild chapels, or simply to raise funds for the maintenance of an aisle or an arcade. Our knowledge of gild activities comes chiefly from the gild certificates returned to the Crown in Richard II's reign, in which the purposes of the groups are clearly described. The certificates themselves are in the Public Record Office (C 47/38–46); some have been printed in the Early English Text Society

(Smith, 1870), there are good summaries in Westlake (1919), and many local historians have published selections for their own areas. Accounts have survived for some large town gilds, often in association with churchwardens' or corporation accounts, and these throw further light on the ways in which they were involved in the upkeep of the fabric. Holles and other antiquaries frequently note inscriptions recording the gilds' gifts of windows, pillars etc., and there are occasional entries in corporation hall books, etc., which mention such things.

The rebuilding of chapels, aisles, porches, and other separate portions of a church, relatively common in the 14th and 15th centuries, is sometimes fairly easy to trace in record sources. It was perhaps carried out as part of the arrangements for a chantry foundation, and may therefore be described in the foundation deed or the will of the founder. The chantry certificates returned to the Exchequer under the statute of 37 Henry VIII, c.4 (E 301) also have a few details about the objects and expenditure of the chantry, but the best source is undoubtedly the foundation deeds, which survive sometimes in the original, among the archives of a successor body (a school or college, for example), but more reliably as copies in the episcopal registers. Many have been printed by local historians and a number have been discussed and quoted by Wood-Legh (1965).

It is difficult to discover details of the actual building process, and even of the purchase of materials. Salzman (1967) gives in an appendix all the building contracts he was able to find, only twenty of which relate to churches and most of which are chance survivals in collegiate or cathedral muniments, or exhibits in lawsuits. There are a few actual building accounts, like those for the steeple at Louth (Dudding, 1940), and the chancel accounts are illuminating too, but survival is haphazard and one cannot expect that there will be anything for any given building. Indeed, this is true at almost every stage of the medieval history of church buildings. One may be fortunate enough to come across references like these two in *Reg. Sutton* (Hill, 1954, 93, 181), both for the year 1292:

"a wooden chapel at Sydenham depending on the church of Thame, Oxon."

"mandate to uphold the right of sanctuary in the chapel of Salen in Leighton Bromswold, Hunts., the most ancient religious building in the district"

An antiquary may have drawn or described a building as Stukeley or Cole did, or copied its inscriptions, but here again there is no certainty that the archaeologist will find such an aid. All he can do is comb every conceivable source relating to his district and never neglect what earlier antiquarians have noted and copied. Indeed, the search should start with the *Gentleman's Magazine* (in Gomme's extracts) and the local archaeological and historical periodicals.

NOTES—PART 3

[1] For indirect evidence, see Okasha (1971), 47 (Aldbrough), 83 (Ipswich II), 85–6 (Jarrow I), 92–3 (Lincoln, St Mary-le-Wigford), 131 (York I, St Mary Castlegate).

[2] Jones (1910, 154–5): "Then he increased all manner of good in Gwynedd and the inhabitants began to build churches in every direction therein . . . . he also made Gwynedd glitter then with lime-washed churches like the firmament with stars".

[3] For the context of this passage, see James (1959) and Brooke (1958).

[4] For more general discussion, see Dickinson (1950, 224–41) and Colvin (1951, 272–88).

[5] This only covers the dioceses of Durham, Ely, Lincoln, London, Norwich, Bangor, Llandaff, and St Asaph. Mrs Owen has kindly drawn to my attention that Lunt's edition is not always very reliable as a dating medium.

[6] For similar cases concerning Norfolk, see Allison (1955, 141–61), especially the deliberate ruination of Egmere. The importance of the divide between nave and chancel as a property division which has scarcely changed through eight or more centuries has been shown in the excavations at Wharram Percy, and for a shorter period of use at Cuddington (*Med. Arch.* **4** (1960), 143–5).

[7] Palmer (1940), especially Elm and Wisbech; Thompson (1940; 1944; 1947) and Bowker (1967) contain a number of cases concerning repairs to chancels; less usual is the over-turning of the churchyard cross at Tickencote (Rutland) in search of treasure (Bowker, 111–2).

[8] *Shrops. Arch. Soc.*, **1** (NS) (1889); Dudding (1941); for steady maintenance of fabrics: e.g. Hanham (1970).

[9] At Shillington (Beds.) there is an early 16th century list of the 68 inhabitants responsible for "reparynge of Shitlyngton church pale": Farmiloe and Nixseaman (1953, xvii); for a similar provision in agrarian bye-laws and for the support of repairs to the church fabric: Ault (1972. 634); Palmer (1940, 69–75) (presentment of 1468 that stray horses have destroyed the churchyard turf at Tydd St Giles).

[10] In the archdeaconry of Essex in 1683-86 it was normal practice for the archdeacon or his registrar to note when satisfactory repairs had been made, and occasionally a certificate to this effect was submitted by the incumbent and churchwardens (e.g. *Essex Arch. Soc.*, **20** (NS) (1933), 231–2) (Hawkwell, 1684).

[11] Bewes (1896): between 1660 and 1680 there are recorded 32 collections for church fabric. Another way of raising money is recorded at Budbrooke, where a terrier includes lands given for the repair of the steeple in 1667: Barratt (1955, 65–7).

[12] The value of these illustrations for restored and rebuilt churches can be appreciated from the use made of the Burrell collection (*c.* 1780) and the Sharpe collection (1800–10) in Victoria County History, *Sussex*, **7** (1940).

[13] One example of the combination of episcopal and parochial records which can be used to elucidate church excavations: *Trans. Radnorshire Soc.*, **30** (1962), 25–41.

[14] The evidence of the repair of the churchyard wall occurs frequently: e.g. Huth (1912, 201–3. 'A note of the Church mounds and to whom they belong 1638'); Peyton (1928, 1vii–1viii). A similar system was in operation in the Isle of Man until 1660, when a parish levy replaced the obligation placed upon the owners of each treen.

[15] As at Deerhurst: correspondence between the Strickland family and the Bishop of Gloucester over the construction of a brick-built vault in the churchyard, together with the actual bill for the vault's construction (1815–24), Gloucester CRO. D 1245/E4.

[16] Another contrasting example of the sources for both new and old churches is in Kermode (1954, 42–53) for the church replaced in 1830.

[17] An abortive design for a new church at Faxton (Northants.) in 1796 occurs in the Isham family papers, Northants. CRO, I. L. 3079/BB.

REFERENCES—PART 3

Allison, 1955   K J Allison 'The Lost Villages of Norfolk'. *Norfolk Archaeol.* **31** (1955), 116–62.

Archer, 1963   M Archer (ed.) *The Register of Bishop Philip Repingdon 1405–1419* I. Lincoln Record Soc. **57** (1963).

Astle *et al*, 1802   T Astle *et al* (ed.) *Taxatio Ecclesiastica*. Record Commission (1802).

Ault, 1972   W O Ault *Open-field farming in medieval England: A study of village by-laws*. (London, 1972).

Barley, 1974   M W Barley *A Guide to British Topographical Collections*. CBA (London, 1974).

Barratt, 1955   D M Barratt *(ed.) Ecclesiastical Terriers of Warwickshire Parishes* I. Dugdale Soc. **22** (Oxford, 1955).

Beresford, 1954   M W Beresford   *The Lost Villages of England*. Sixth impression (London, 1969).

Bewes, 1896   W A Bewes *Church Briefs*. (1896).

Blake, 1962   E O Blake *(ed.) Liber Eliensis.* Camden Soc. (Ser. 3), **92.**

Bowker, 1967   M Bowker *(ed.) An Episcopal Court Book for the Diocese of Lincoln 1514–1520*. Lincoln Record Soc. **61** (1967).

Brooke, 1958   C N L Brooke   *in* N. K. Chadwick   *(ed.) Studies in the Early English Church*. (Cambridge, 1958), 204-220.

Brown and Thompson, 1937   W Brown and A H Thompson *(eds.) The Register of Archbishop Greenfield.* Surtees Soc. **152.**

Butler, 1974   L A S Butler 'Leicester's Church, Denbigh: an experiment in Puritan worship'. *J. Brit. Archaeol. Ass:* (Ser. 3) **38** (1974). 40–62.

Campbell, 1973   A Campbell   *Charters of Rochester*. (London, 1973).

Capes, 1912   W M Capes *(ed.) The Register of Thomas de Charlton.* Cantilupe Soc. (Hereford, 1912).

Cheney, 1950   C R Cheney   *English Bishops' Chanceries 1100-1250*. (Manchester, 1950).

Cole, 1909   R E G Cole 'Some Lincolnshire Faculties, 1663-1693'. *Assoc. Archit. Soc. Reports* **30.**

—, 1911   R E G Cole *Lincolnshire Church Notes made by Gervase Holles, A.D. 1634–42*. Lincoln Record **1** Soc. (1911).

Colgrave and Mynors, 1969   B Colgrave and R A B Mynors *(eds. & trans.) Bede's Ecclesiastical History of the English People*. (Oxford, 1969).

Colvin, 1951   H M *Colvin The White Canons in England*. (Oxford, 1951).

Colvin *et al*, 1963   H M Colvin, R A Brown and A J Taylor *The History of the King's Works* I. HMSO (London, 1963).

Cox, 1913   J C Cox *Churchwardens' Accounts from the fourteenth century to the close of the seventeenth century*. (London, 1913).

Crossley, 1921   F H *Crossley English Church Monuments AD 1150–1550*. (London, 1921).

Darby and Campbell, 1962   H C Darby and E M J Campbell *(eds.) The Domesday Geography of South-East England*. (Cambridge, 1962).

Darlington. 1945   R R Darlington *The Cartulary, of Darley Abbey*. (Kendal, 1945).

Davis, 1908   F N Davis *Rotuli Hugonis de Welles* III. Canterbury and York Soc. **4.**

Davis, 1958   G R C Davis *Medieval Cartularies of Great Britain: a short catalogue*. (London, 1958).

Deedes. 1915   C Deedes *Registrum Johannis de Pontissara* I. Canterbury and York Soc. **29.**

Dickinson, 1950   J C Dickinson *The Origins of the Austin Canons in England*. (London, 1950).

Dineley, 1888   T Dineley *The Official Progress of the First Duke of Beaufort through Wales*. (London, 1888).

Dudding. 1941   R C Dudding *The First Churchwardens' Book of Loath 1500–1522*. (Oxford. 1941).

Dunning, 1944   G C Dunning 'The distribution of black Tournai fonts'. *Antiq. J.* **24** (1944), 66-8.

Evans, 1893   J G Evans (with J Rhys)   *Book of Llan Dâv*. (1893).

Farmiloe and Nixseaman, 1953   J E Farmiloe and R Nixseaman *Elizabethan Churchwardens' Accounts*. Bedfords. Hist. Record Soc. **33.**

Frere and Kennedy, 1910   W H Frere and W R H Kennedy *Visitation Articles and Injunctions, 1536–1575*. Alcuin Club **14–16.**

Fowler, 1882   J T Fowler *Memorials of Ripon*. Surtees Soc. **74.**

—, 1891   J T Fowler *Coucher Book of Selby* I. Yorks. Archaeol. Ass. Record Ser. **10.**

—. 1893   J T Fowler *Coucher Book of Selby* II. Yorks. Archaeol. Ass. Record Ser. **13.**

Gibbons, 1888   A Gibbons *Liber Antiquus Hugonis de Welies*. (Lincoln, 1888).

Godber, 1963   J Godber *The Cartulary of Newnham Abbey*. Beds. Hist. Record. Soc. **43.**

Haines, 1965   R M Haines *The administration of the diocese of Worcester in the first half of the fourteenth century*. SPCK, (London, 1965).

Hanham, 1970   A Hanham *Churchwardens' Accounts of Ashburton 1479–1580*. Devon and Cornwall Record Soc. NS. **15.**

Hart, 1966a   C R Hart *The Early Charters of Eastern England*. (Leicester, 1966).

—. 1966b   C Hart 'The Church of St Mary of Huntingdon'. *Proc. Camb. Antiq.* Soc. **59** (1966), 105–11.

Harvey, 1954   J H Harvey *English Medieval Architects*. (London, 1954).

—, 1969   J H Harvey *William Worcestre, Itineraries*. (Oxford, 1969).

Hill, 1954   R M T Hill *The Rolls and Registers of Bishop Oliver Sutton 1280-1299.* Lincoln Record Soc. **48** (1954).

Hobson, 1926   T F Hobson *Adderbury "Rectoria".* Oxfords. Record Soc. **8.**

Huth, 1912   E Huth *(ed.) The Parish Registers of Bolney, Sussex 1541–1812.* Sussex Record Soc **15.**

James, 1959   J W James *'The Book of Llandav.* The Church and See of Llandav and their cities'. *Journ. Hist. Soc. Church in Wales,* **9** (1959), 5–22.

Jenkins, 1938 and 1946   J G Jenkins *The Cartulary of Missenden Abbey.* 2 vols. Bucks. Archaeol. Soc. Records Branch, **2** (1938); Bucks. Record Soc. **10** (1955 for 1946).

Jones, 1910   A Jones *History of Gruffydd ap Cynan.* (Manchester, 1910).

Kermode, 1954   R D Kermode *The Annals of Kirk Christ, Lezayre.* (Douglas, 1954).

Knoop and Jones, 1949   D Knoop and G P Jones *The Medieval Mason.* (Manchester, 1949).

Lancaster, 1912   W T Lancaster *Abstracts of the charters and other documents contained in the Cartulary of the Priory of Bridlington in the East Riding of the County of York.* (Leeds, 1912).

Lloyd, 1965   J D K Lloyd 'The architect of the Herbert tomb at Montgomery'. *Montgom. Colt.* **59,** (1965–6).

Lunt, 1926   W E Lunt *The Valuation of Norwich.* (Oxford, 1926).

Major, 1950   K Major *Acta Stephen Langton.* Canterbury and York Soc. **50.**

Martin, 1884   C T Martin *(ed.) Registrum Epistolarum Johannis Peckham* II. Rolls Ser. (1884).

Mayr-Harting, 1964   H Mayr-Harting *The Acta of the Bishops of Chichester 1075–1207.* Canterbury and York Soc. **56.**

Mullins, 1958   E L C Mullins *Texts and Calendars.* Royal Hist. Soc. (1958).

Offler, 1968   H S Offler *Durham Episcopal Charters 1071–1152.* Surtees Soc. **179.**

Okasha. 1971   E Okasha *Hand-list of Anglo-Saxon Non-Runic Inscriptions.* (Cambridge, 1971).

Owen, 1964   D M Owen 'Episcopal Visitation Books'. *History* **49:** *Short Guide* No. 8.

—, 1966   D M Owen 'How to study your parish church from documents'. *Amateur Historian,* **7,** No. I.

—, 1970   D M Owen *The Records of the Established Church in England.* British Records Assoc: Archives and the User No. 1 (Cambridge. 1970).

—, 1971   D M Owen *Church and Society in Medieval Lincolnshire.* Lincolnshire Local Hist. Soc. (1971).

—, 1975   D M Owen 'Ecclesiastical Jurisdiction in England 1300–1550: The Records and their Interpretation' *Studies in Church History XI,* Ecclesiastical History Soc. (Oxford, 1975).

Palmer, 1935   W M Palmer 'Faculty Books of the Diocese of Ely 1724-l875'. *Proc. Camb. Antiq. Soc.* **35** (1935),

—, 1940   W M Palmer 'Fifteenth-century visitation records of the Deanery of Wisbech'. *ibid.* **39** (1940), 69–75.

Parry, 1910   J M Parry (ed.) *The Register of John de Trillek.* (Hereford, 1910).

Peyton, 1928   S A Peyton *(ed.) The Churchwardens' Presentments in the Oxfordshire Peculiars of Dorchester, Thame and Banbury.* Oxfords. Record Soc. X.

Pugh, 1971   T B Pugh *(ed.) Glamorgan County History* III. (Cardiff, 1971).

Raine. 1872   J Raine *(ed.) The Register of Archbishop Walter Gray.* Surtees Soc. **56.**

Redstone, 1915   V B Redstone 'Early Suffolk Wills'. *Proc. Suff. Inst. Archaeol.* **15** (1915), 291-304.

Ross, 1964   C D Ross *The Cartulary of Cirencester Abbey.* (Oxford, 1964).

RCHM, 1968   Royal Commission on Historical Monuments *West Cambridgeshire.* (1968).

Saltman, 1962   *A Saltman The Cartulary of Tutbury Priory.* Staffs. Hist. Collections, Staffs. Record Soc. HMSO (1962).

Salzman, 1952, 1967   L F Salzman *Building in England down to 1540.* (Oxford, 1952; rev. ed. 1967).

Simmons, 1959   J. Simmons 'Brooke Church, Rutland, with notes on Elizabethan church-building'. *Trans. Leics. Archaeol. Hist. Soc.* **35** (1959).

Smith, 1870   T Smith *English Gilds.* Early English Text Soc. O.S. **40** (1870).

Stone and Cozens-Hardy, 1938   E D Stone and B Cozens-Hardy *(eds.) Norfolk Consistory Court Depositions 1499–1512, 1518–1530.* Norfolk Record Soc. **10.**

Tate, 1969   W E Tate *The Parish Chest.* Third Ed. (Cambridge, 1969).

Taylor, 1972   H M Taylor 'Structural Criticism'. *Anglo-Saxon England* I. (1972), 259–272.

Thompson, 1940 *etc.*   A H Thompson *Visitations in the Diocese of Lincoln 1517–1531.* Lincoln Record Soc. **33** (1940); **35** (1944); **37** (1947).

Thompson, 1913   W N Thompson *The Register of John de Halton.* Canterbury and York Soc. **12.**

Webb, 1965   J E Webb *(trans.)* Lives of the Saints. (Harmondsworth, 1965).

Westlake, 1919   H F Westlake *Parish Gilds of Medieval England.* (London, 1919).

Wood, 1956   A C Wood *Registrum Simonis Langham.* Canterbury and York Soc. **53.**

Wood-Legh, 1965   K L Wood-Legh *Perpetual Chantries in England.* (Cambridge, 1965).

Zarnecki, 1953   G Zarnecki *Later English Romanesque Sculpture 1140–1210.* (London, 1953).

St Paul's Church, Jarrow   Rosemary Cramp

Church archaeology is a comparatively new term, although the excavation of churches together with the monastic settlements associated with some of them is not a new activity. The early volumes of our national and regional archaeological journals are full of the records of the combined historical, art-historical, and archaeological investigations of ecclesiastical architects and learned vicars. However, with one or two notable exceptions, from the mid-1920s to the 1960s the subject suffered something of an archaeological eclipse. Now the techniques of investigation and the scope of the enquiry have changed, as in other areas of archaeology. Today the total excavation of the church interior, associated with a detailed analysis of the standing fabric and the surrounding cemetery, has been substituted for the historical speculations backed up by small trenches sited to provide evidence to support a historical theory. However, for a church such as St Paul's, Jarrow, documented by Bede and made famous by his life and death there, one has reason to be grateful for the many partisan rectors who described and interpreted their church, and the travellers who, visiting the site out of piety, sketched the buildings.

Investigation of the church (earlier, churches) at Jarrow has been only a small part of the excavation of an area 200 ft by 150 ft of the ground to the south of the church, which housed part of the Saxon monastery, the Norman and later medieval monasteries, and later domestic structures (Cramp, 1969; 1973, 114). The changing relationship of the church to the area immediately surrounding it provides a fascinating case history of a flourishing and large monastic settlement, succeeded by a ruined site in which only the church and burial ground were intermittently used by a community from elsewhere; then again to a monastery planned as a largish establishment, but completed as a small domestic cell; and finally a parish church in whose fabric is reflected the ebb and flow of the prosperity of its parish, a parish which has now moved away from the church.

The two most fundamental changes to the churches on the site must have been   *(a)* when the two churches that existed on the same line only just 15 ft apart were joined into one,   and *(b)* when the larger western church was pulled down and rebuilt first in 1783 and then in 1852 into what is now the present nave and north aisle. [1] That the eastern church which is now the chancel is Anglo-Saxon is deduced from the stylistic features such as the form of the openings (three windows and two blocked doors) and the quoining. However, this building seems very small to have housed the liturgical life of the early monastic community, and it seemed reasonable to suppose that the larger western structure had also belonged to this period. This theory had support because a multiplicity of churches are known from comparable early

Christian sites such as Canterbury an d Monkwearmouth and because the famous dedication stone, originally set in its north wall, describes the dedication of a *basilica* in AD 685, a term which would better fit the western structure than the small eastern block. The western church had been well recorded before its destruction, by antiquarian description, a scale plan and elevation dated 1769, and various drawings and watercolours. However, there were discrepancies in details, and the checking of the 1769 plan was of fundamental importance.

Permission to examine a small area of the church yard to the west of the Victorian church was obtained in 1970, and excavations there in 1970–71 established clay and cobble foundations which, although much cut through by graves, were on the same line as the plan (Fig. 5). There were no stratified deposits over these foundations and their pre-Conquest character was deduced by comparison with the foundations of the Saxon building   *A* which underlies the Norman foundations of the west wall. The Norman builders robbed the Saxon structures, and, save for the openings, the technique of construction of the superstructure is identical at both periods. At foundation level, however, the walls of each period are totally distinct. It has been of considerable value on this site to be able to compare constructional characteristics and even types of repair and wall finish in the churches and the domestic buildings of various periods.

Before the investigation of the interior of the church became possible, the following sequences had been established by a combined use of documentary, graphic, and excavated evidence.

1   Despite a scatter of Roman pottery from the site together with Roman inscribed stones which had been built into the fabric of the early churches, no Roman structures had been discovered. However, there remains the possibility of a Roman site in the near vicinity. *(Archaeological evidence only)* [2]

2   From the complex superimposition of burials, an early group of graves emerged to the south and east of the eastern church which were not orientated on the line of the churches, and where three graves contained single beads. This cemetery seems to precede the Saxon monastery and may account for the siting of the eastern church. *(Excavated evidence only)*

3   (Fig. 6) In the Saxon period (late 7th to late 9th century) a cemetery, with burials aligned on the churches, separated the churches from a range of two major stone buildings,   *A* and *B,* which have been interpreted as a refectory and assembly hall combined with private suite. [3] These buildings stood on a slightly lower ridge to the south, and to the south of them towards the river the land was terraced to provide platforms for flimsy wattle huts and areas of
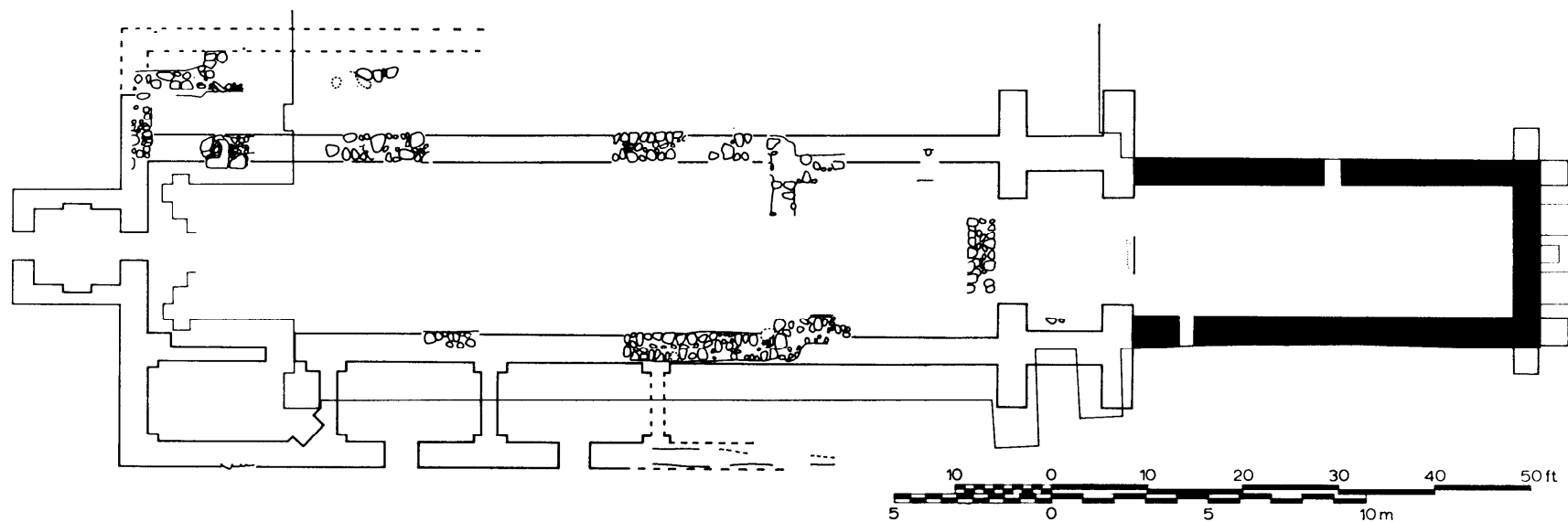
Fig. 5 Jarrow Church: excavated features. Excavated foundations shown in relation to the I769 British Museum plan and the outline of the 18th century church

Fig. 6 Jarrow 1973: Saxon
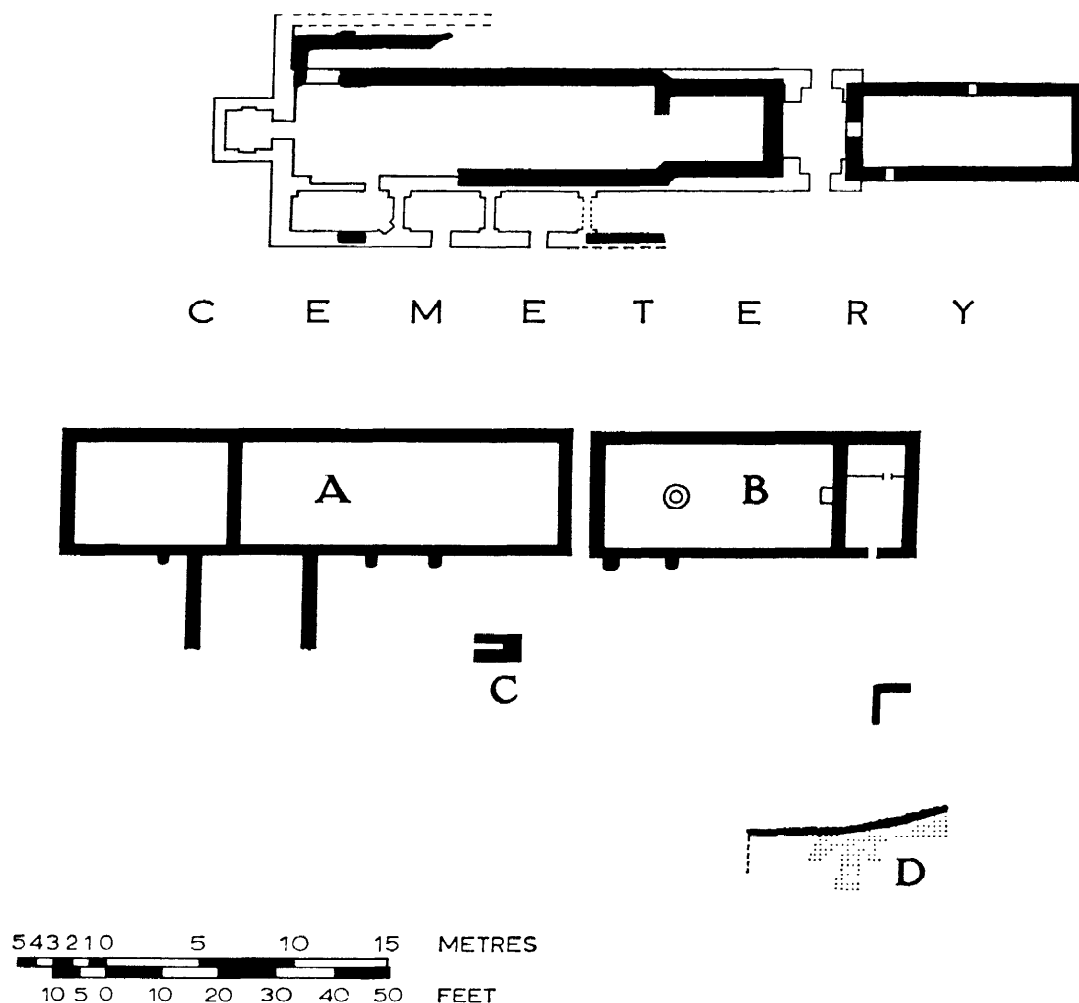
cultivation. In the south-east corner of the site a stone building *D,* which is as yet not fully excavated, has yielded occupation debris from the 8th to mid-9th century. *(One standing structure: the present eastern church; excavated evidence; contemporary inscription dating the foundation of the church; contemporary documentation)*

4 In the late Saxon period (late-9th to late-11th century) the domestic buildings of the monastery appeared to go out of use, with the possible exception of the west end of building   *A,* but the sanctity of the site possibly continued to attract burials, and the

church seems to have been used intermittently at least in the 11th century. What lay community this served is not known. *(Archaeological evidence for the burial ground and domestic buildings; near-contemporary documentary sources for the use of the church)*

5 *Early medieval* (Fig. 7) Projected replacement of the ruined Saxon monastic buildings by a monastery on the Benedictine plan, spanning the south side of the two churches, which by or at this time were joined into one. The projected plan was not completed. Possibly at this time the western church, if Saxon, was decreased in size, since the Norman monastic buildings

Fig 7 *Jarrow 1973: Medieval I*

CEMETERY

```
10    0    10   20   30   40   50   60   70   80   90  100 ft
5     0    5         10        15        20        25       30 m
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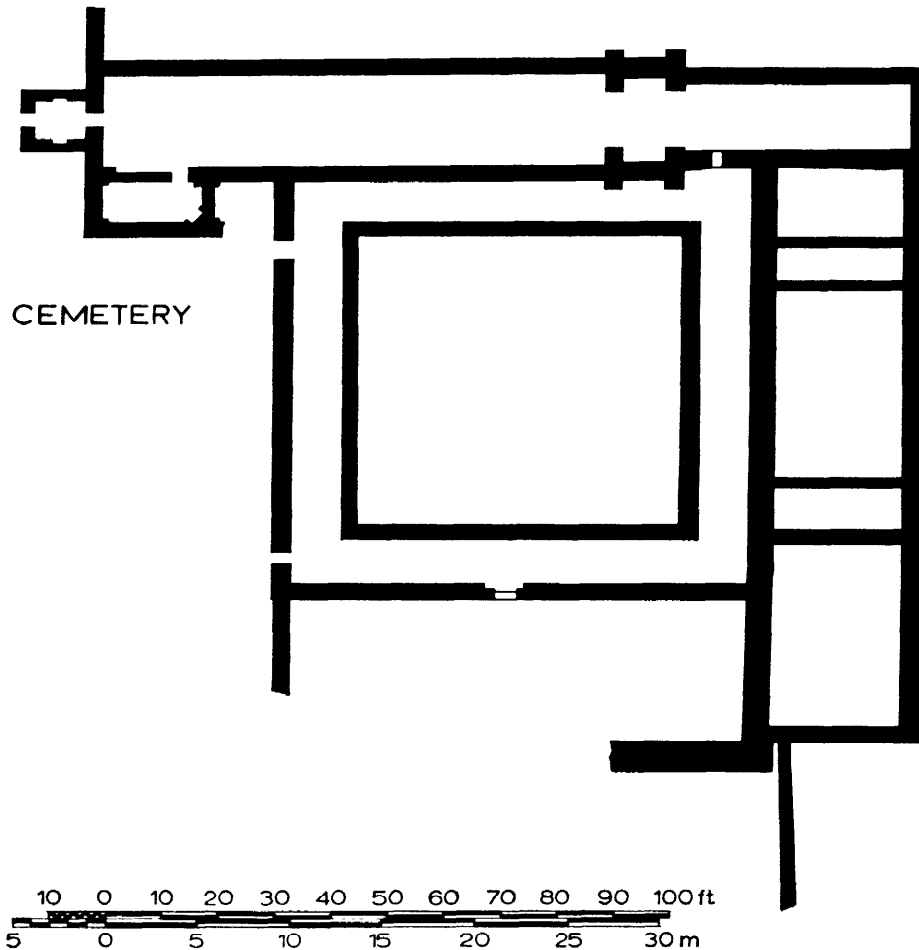
cut into its southern line of porticus.   *(Standing structures: eastern church and some medieval walls; graphic evidence for western church and other medieval buildings; excavated evidence; contemporary and later documentation)*

6 *Late medieval* (Fig. 8) By the early 13th century the monastery has shrunk to a small cell with associated grange;   the domestic buildings were confined to the original east range and to the southern part of the cloister. The cemetery spread to the west and north of the churches. Improvements in the shape of new doors and windows were made to the church,

(Contemporary documentation; excavated evidence; graphic evidence)

7 *Post-dissolution to 18th century* (Fig. 9) Small-scale domestic occupation of the site by the development of the monastic south range and an additional building to the north, the east range existing as a ruin. In 1783 destruction of the west church. *(Graphic and documentary evidence)*

8 *19th century* Addition of a rectory to the site followed by a school in 1840 on the site of the original east range and the rebuilding of the western church

N

Fig. 8 Jarrow 1973: Medieval II

C E M E T E R Y

CEMETERY

10 0 10 20 30 40 50 60 70 80 90 100 ft

5   0   5   10   15   20   25   30 m
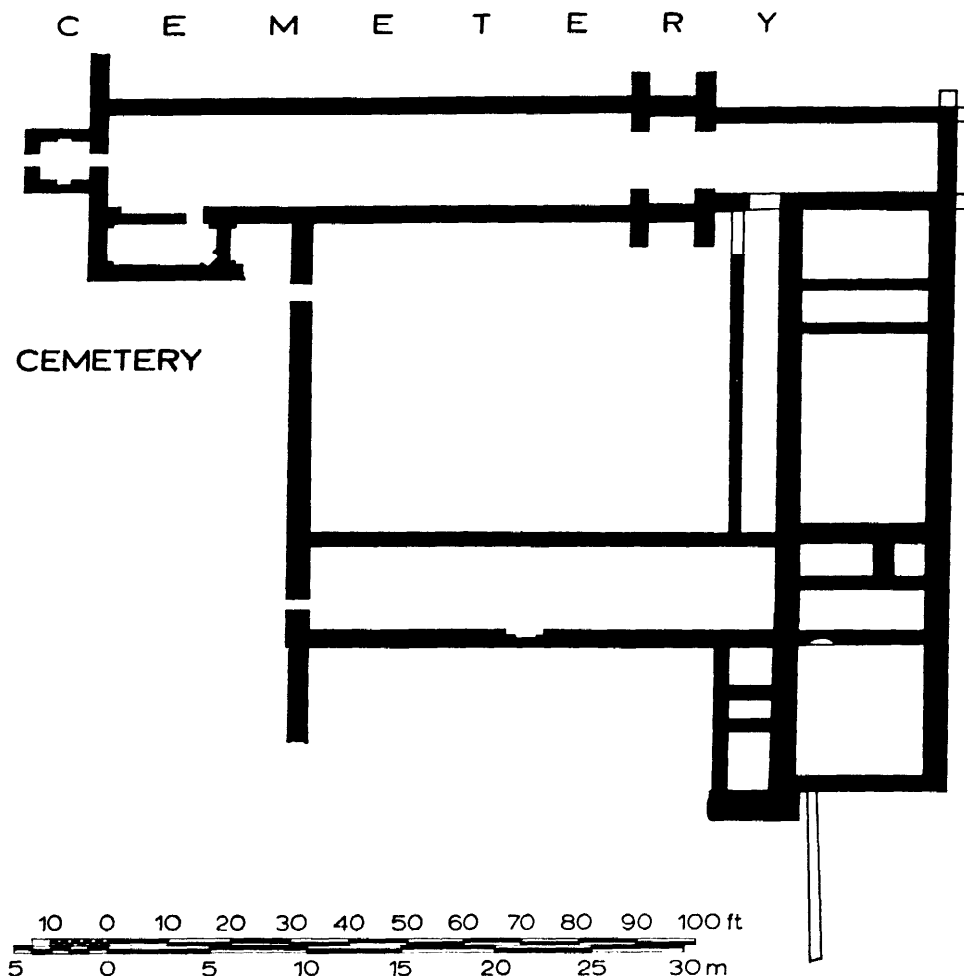
with extensive and destructive repairs to the eastern church. In 1880 the churchyard was closed.   *(Graphic and documentary evidence)*

9 In the 20th century the area around the church was cleared between 1927 and 1936. The ruins were taken into Guardianship and the village which had grown up to the east of the church was evacuated and cleared. Between 1971 and 1972 a major redevelopment to improve the derelict areas surrounding the church and to provide a museum and information centre in an adjacent site was undertaken. The appeal also included

a sum for the refurbishing of the church by the addition of a new floor and new heating system.

In the preliminary discussions of this scheme, it was recognized that excavation should be allowed in the nave at the time of the refurbishing. However, such was the uncertainty of the monetary situation that it was not known almost until work began what the timing would be. It was agreed with the architect that the floor would be at the same level as the existing Victorian floor, and that it should be of such a nature that it would be capable of removal for future

N

Fig. 9 Jarrow 1973: 18th century

C E M E T E R Y

CEMETERY

10   0   10   20   30   40   50   60   70   80   90   100 ft

5   0   5   10   15   20   25   30 m
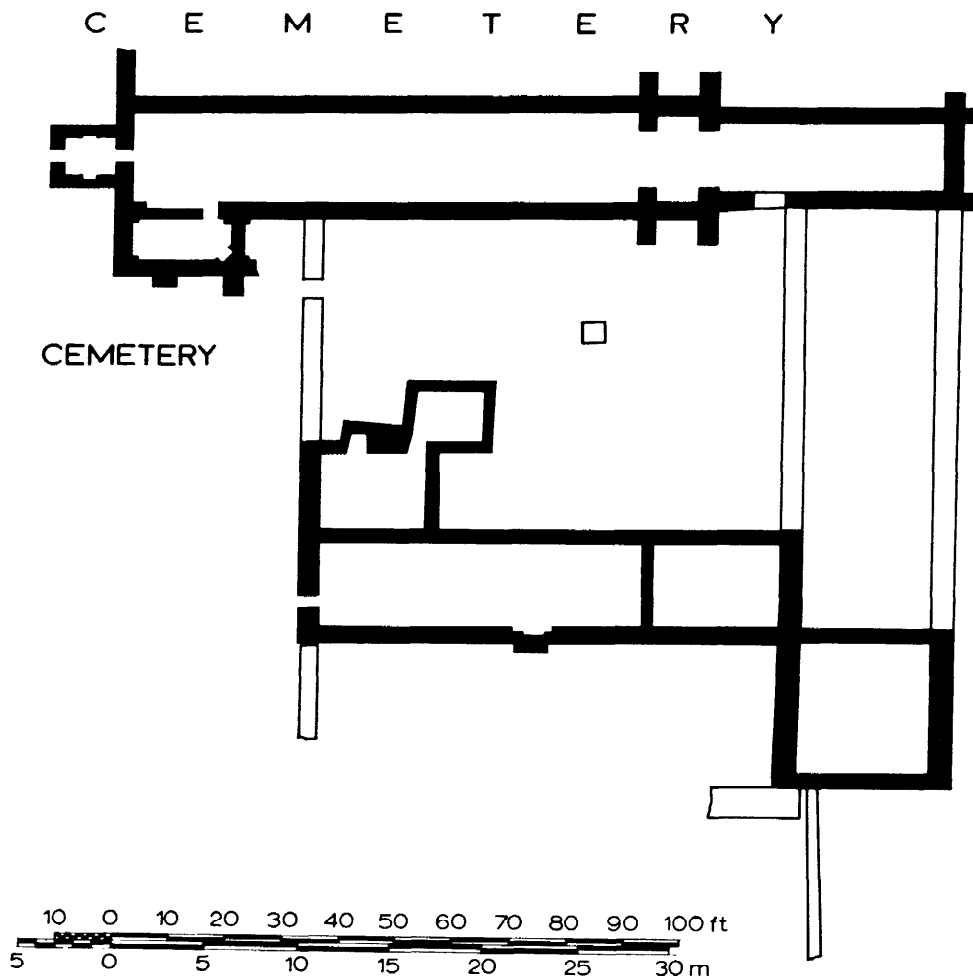
excavation. An area excavation was planned for 1972. Since this is a church with a very active congregation and is also a tourist centre, there was never any doubt in the minds of the Rector and PCC that the church must continue to function as a church during the course of the renovations.

The work was carried out by direct labour, which was also working on other parts of the site renovation project. In theory this should have made it easier for archaeological work to take place, but in practice it made it more difficult. The men had to be kept in continuous employment, and this meant that when

earmarked grants ran out on one area of the site the labour force was switched with no warning to begin the heating system for the church. In October 1971 it was discovered that this work had begun and a small area of foundations of what subsequently proved to be part of the Saxon nave south wall was cut through. The workmen had not considered that this was a wall, since it only consisted of clay and cobble foundations. As this was the first week of the University term I am extremely grateful to colleagues and students who came at a moment's notice to help strip off an area of the south wall and nave of the underlying church. Under
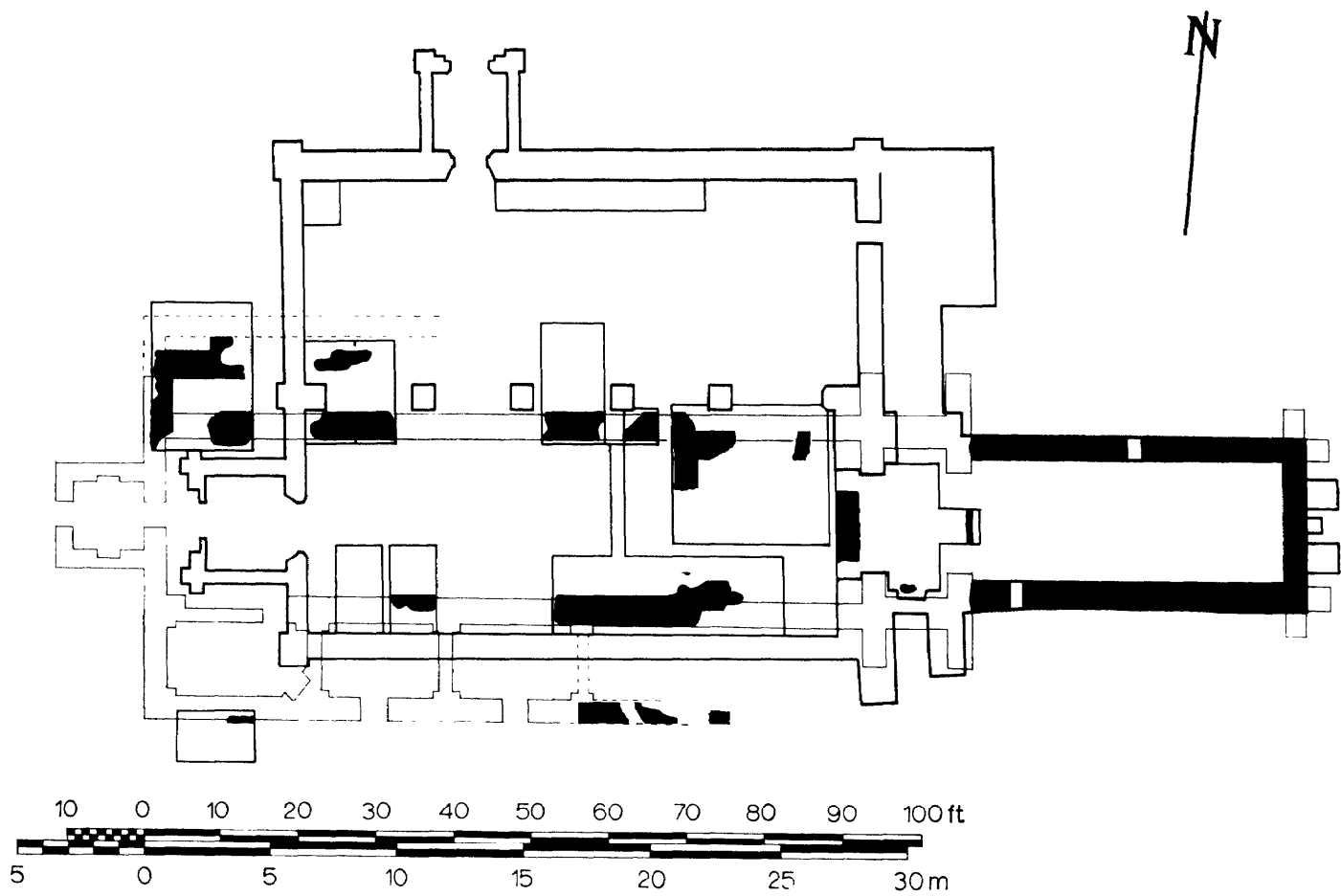
Fig. 10 Jarrow 1973: Trench plan

N

Fig. 11 the basilican church
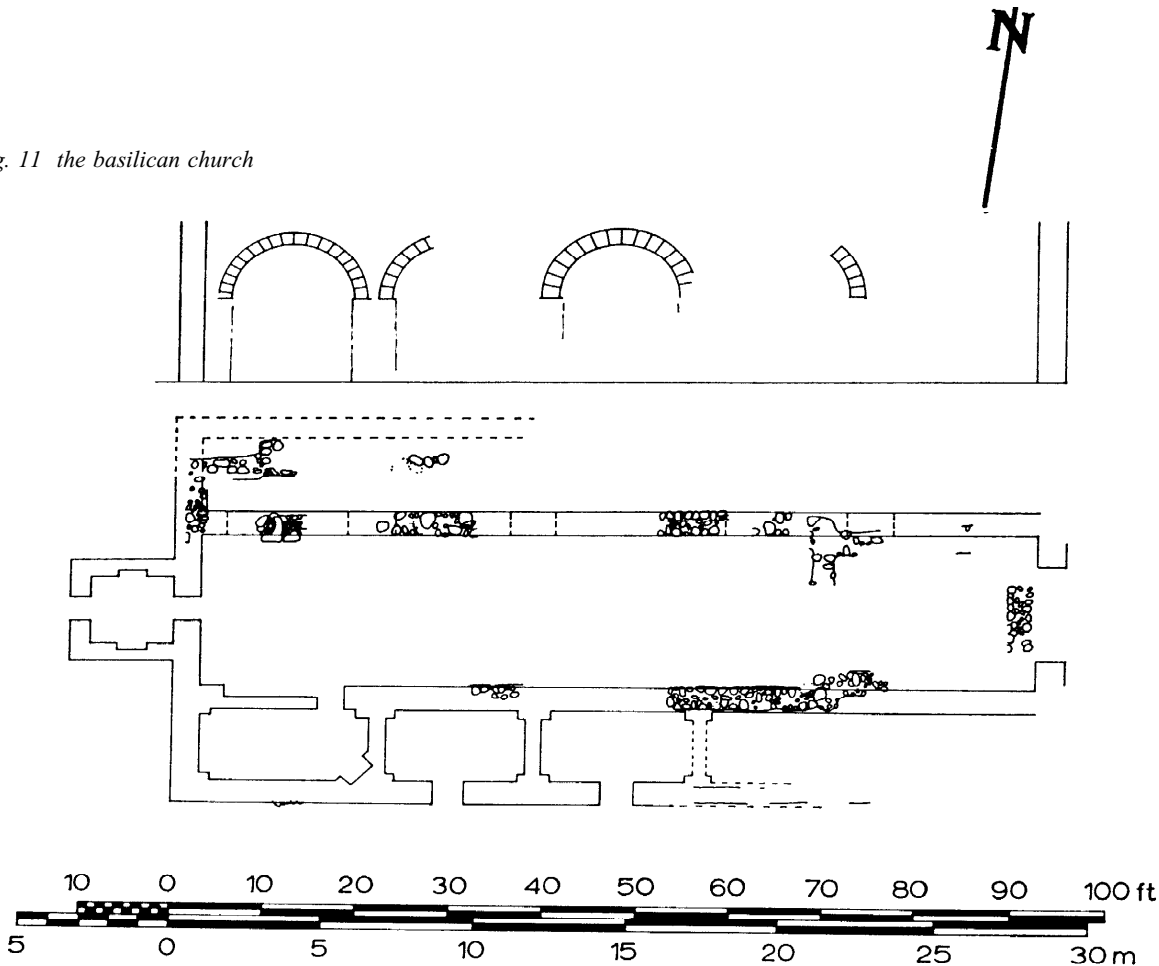
the supervision of Mr John Hunter work continued until February 1973, and it was possible to uncover most of the east end of the church and to establish the width of the nave (Fig. 10). The church outline matched very closely the 1769 plan and the foundations were clearly shown to be pre-Conquest, since they were cut by the foundations for the building which supports the tower, itself at least Norman.

The Department of the Environment responded to an urgent appeal for aid by a grant of £500, but of this one-fifth had to be spent buying time from the workforce in the church. There was a deadline for the relaying of the floor, because of a Tourist Board grant. The clerk of works was not unco-operative, but he, together with the PCC, were not convinced that the earlier history of their church was more important than the timetable for its contemporary renovation. However, given time and a more forceful initiative on my part in planning a campaign earlier, they might have been persuaded.

SUMMARY OF THE CREDIT AND DEBIT ASPECTS OF THIS CASE

What was lost in 1971–72 was an ideal opportunity for the total excavation of the Victorian nave, which could have provided evidence for adjuncts to the north wall

of the Saxon church and a proper assessment of the burial evidence. However, the Victorian reconstruction had destroyed all evidence to the lowest level of Saxon foundations, and if there had been an earlier timber phase there was no hint of it here. On present evidence, if there were a timber church earlier than 685 it would most reasonably lie under the eastern church, which is associated with the early cemetery. Here our excavations under the tower show that stratified levels do survive. In areas of total destruction under the brick heating ducts the evidence was recorded first. Elsewhere the new floor has been laid at the same level as its predecessor. The plan of much of the underlying church has been recovered, its Saxon date has been confirmed, and a small section of the foundations of the north wall has been displayed. The confirmation of the 1769 plan is important since it leads one to trust the elevation which accompanies it (Fig. 11), and this is helpful in relating the church complex to other buildings which once existed on the site. It is a mixed record of success and failure. However, in my opinion the study of a monastic church divorced from its associated domestic buildings makes nonsense of its liturgical history, and the study of a parish church divorced from its cemetery, even ideally the settlement it serves, makes nonsense of its social history.

Wharram Percy is situated on the chalk wolds of the old East Riding, now North Yorkshire, 8 miles south of Malton and about half-way between York and Scarborough. For the past 25 years this has been the main research project of the Medieval Village Research Group, with an excavation for three weeks each July. During the 1950s and 1960s two peasant tofts and the 12th century Percy manor house (areas 10 and 6) were excavated (annual interim reports in DMVRG and *Medieval Britain*). For the first 21 years this was a voluntary excavation relying mainly on private funds, but since 1971 the work has been carried out jointly with, and with the financial support of, the Department of the Environment following the generosity of Lord Middleton in offering the site for Guardianship. This has enabled more projects to be undertaken and work is now in progress on the medieval south mill, the vicarage, and a programme of investigation of boundaries which suggests that the basic layout of the medieval village is determined by the Romano-British field system (Hurst, 1976). The Group's aim therefore has been over a long period to study a single village in all its aspects while others elsewhere have dealt with more specific topics and problems (Hurst, 1971). As the site covers some 30 acres, however, the surface has barely been scratched and it is remarkable how each year quite new topics and aspects come to light. For the future it is hoped to expand out into the common fields to investigate the whole parish as a setting to the village.

The parish church of St Martin served Wharram Percy and four other townships in the parish (Burdale, Raisthorpe, Towthorpe, and Thixendale), of which only the last-named survives. Its investigation has always been recognized as a fundamental part of the study of the village and it is the only survival above ground of the medieval structure of the village. In 1962 it was decided to attempt a total excavation of the church, which was completed in 1974.

The church was still in intermittent use until just after World War II, but during the 1950s and 1960s there was rapid decay. The roof has now been taken off and the walls consolidated as a ruin by the Department of the Environment. Now the excavations are complete the site will be marked out with its various periods for display to the general public. Plate II shows the church in the 1950s when the fabric was still largely intact. It can be seen that the church is a complex structure which was once larger, with blocked-up arcades and the scar of a once-larger chancel. The plan prepared by the Royal Commission on Historical Monuments in the 1950s showed six basic phases. After excavation both below ground and above ground (by the removal of plaster), the main periods have been doubled to twelve and there are many more sub-phases (Fig. 12).

In contrast to many other parts of Europe, where the excavation of surviving churches has been in progress on a large scale for the past 30 years, there has been hardly any work in England. Not only have funds not been available but there have also been problems in getting agreement for even limited excavations, let alone complete closure for a period to carry out full

excavations as was recently done at Hadstock (see pp. 45–54). In addition, work has been difficult in graveyards, not only because of recent burials but also because graves during the last 100 years have been dug to a depth of 6 ft. This has completely destroyed earlier archaeological levels in most churchyards. A deserted village is ideal for studying peasant houses without later encumbrances; a deserted church has the same advantages. Although Wharram Percy was deserted about 1500 the church was still in use till recently, so there has been disturbance, especially by 18th and 19th century burials inside the nave and to the south of the church. A further advantage in the church being a ruin was the opportunity it gave not only to excavate the buried foundations but also to take all the plaster off the walls and unpick them in places where structural problems could be solved during the consolidation. The study of the church has therefore comprised an investigation of the fabric and surroundings both above and below ground with a thoroughness that would not be possible in any living church.

Excavations on the north side showed that the late 15th century destruction level of the north aisle sealed all earlier levels, and especially burials, so this was chosen as the first sample area for excavating some 200 burials for examination. To the south burials continued till the early 20th century, so even the unravelling of the south aisle was made very difficult. It was lucky that the 19th century vestry covered and preserved intact the nucleus of the late Saxon graveyard.

Inside, late burials had almost entirely destroyed archaeological evidence of the early periods in the western part of the nave and all up the centre (Plate III). Complete destruction was, however, prevented by the pews on either side, which not only sealed large areas of superimposed medieval floor levels but also preserved the north and south foundations of the early timber and stone churches. Had there been graves in these areas, though the stone foundations would have survived in part there would have been no chance of finding the slight traces of the earlier postholes which remarkably survive on small ridges of natural chalk on either side of the centrally destroyed area. Because of these central graves there are many problems in determining the exact nature and position of the west end of the timber church. There were, however, sufficient areas of medieval floor surviving to show the position of altars and benches, and the main areas of wear.

The excavation was further complicated by the fact that the annual Wharram season is only three weeks each year and that the church was only one of several projects in progress. It was therefore not possible to excavate the nave in one season but it was stripped over three years. This not only enabled the complex stratification to be examined in detail but also solved the practical problem of how to dispose of spoil. In the event, in view of the complex structures found, it was decided in the final season to re-excavate all the nave in one operation to look at the area as a whole (Plate III) and try to solve various problems of

KEY

ANGLO-SAXON

1st NORMAN

2nd NORMAN

RAFT 2nd NORMAN c.1150

3rd NORMAN c.1180

TRANSITIONAL c.1200

14th CENTURY

15th CENTURY

16th CENTURY

17th CENTURY

19th CENTURY

PISCINA

BELL PIT
OF 1617

N

0   10   20   30 FEET

0   5   10 METRES
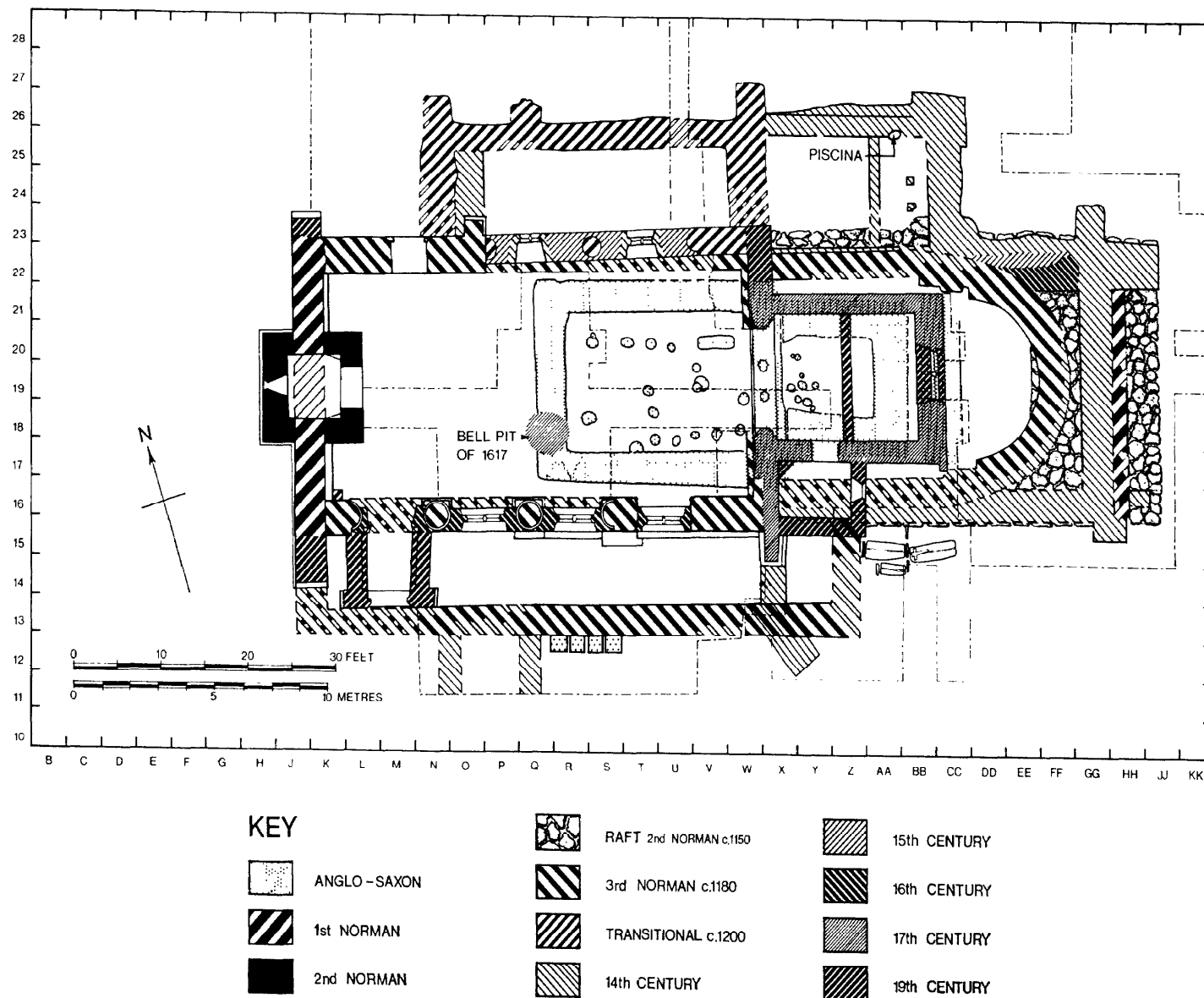
Fig. 12   What-ram Percy, St Martin's Church: Plan showing the complex changes to the fabric over a period of over 1000 years
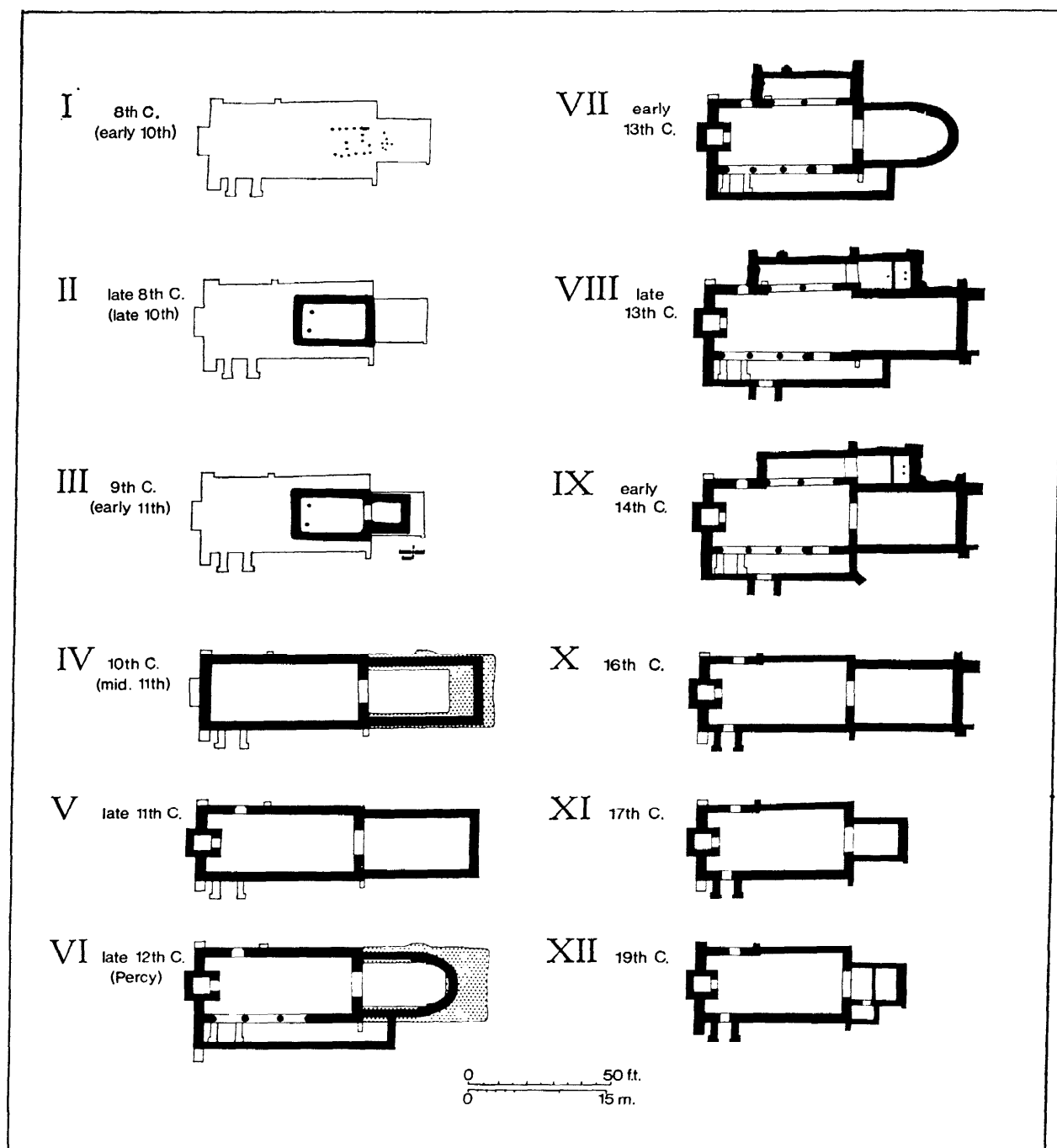
Fig. 13 Wharram Percy, St martin's Church: series of interpretations plans showing the development from Anglo-Saxon times to the present day

interpretation which had arisen. The features had been covered with Polythene at the end of each season, so the soil could be removed quickly. It was necessary to remove it all by barrow through three doors, as a machine could not get in. This was done over the area 50 x 25 ft in one week, which gave ten

days to look at the overall picture and replan in detail with three days for backfilling at the end.

Other parts of the excavation were easier, as they could be treated in annual units, i.e. one season for the north aisle, one for the south, one for the west end, and two

(in view of its complexity and depth) for the east end. As with the nave, the east end was excavated in parts: one half one year and the other, with the first part reopened, in the second. There was a further problem here : the complex sequence of walls, on a massive raft, had to be retained in the research excavation; consequently it was only possible to section the deep deposits, which extended 15 ft down to the natural. There are therefore still problems outstanding in this area.

There are also acute problems, which have not yet been resolved, in dating the Anglo-Saxon and early Norman structures, since only the foundations remain with no distinguishing architectural detail. There is tooling on the stones but the dating of this is controversial. It is hard enough to date standing early churches, but with foundations alone it is almost impossible. This is made more difficult by the constant re-use of stone from earlier buildings in the later periods, so that it is often hard to tell if the foundations are original or re-built. Mortar samples have been taken and it is hoped that analysis will clarify some of the building periods. The only real hope to provide a date for the first stone church is radiocarbon determination of samples of charcoal from the foundations. It is feared, however, that the charcoal may be residual from the Romano-British layers underneath the church. The earliest skeletons, presumed to be contemporary with the early timber and stone churches, are also to be the subject of radiocarbon determinations, and this may be the best hope of dating. The problems of dating the 11th century phases cannot be resolved while argument continues as to whether sloping or level foundations and chisel or axe dressing change at the Conquest or continue during the Saxo-Norman overlap. While excavation can quickly demonstrate the complexity of a parish church, it cannot always enable precise dates to be allocated to the various periods, especially those from which foundations alone survive.

Figure 12 shows the complexity of the development of the church. This has been interpreted into twelve main periods in Fig. 13 (DMVRG; *Medieval Britain;* Hurst, 1976). There was first a small timber church, perhaps preceded by a free-standing cross. This was replaced by a small stone single-cell church, to which was added a chancel, followed by a major rebuild on a larger scale. Aisles and chapels were added, and then demolished, and the church was much reduced in size. It was surprising to find such complexity in this seemingly insignificant and isolated village church on the Yorkshire Wolds. It is not, however, thought that there is necessarily anything special about the result. Every church that goes back into the Anglo-Saxon period is likely to have as complex a history if the plaster could be taken off the walls to expose straight joints, blocked openings, and the like, and the ground excavated to uncover earlier foundations. Recent excavations at Wharram Percy and other churches thus have important implications. It is clearly dangerous to assess the importance of a church on the evidence of the standing remains alone. The complex development of the church epitomizes the whole story of the village and of medieval settlement in the area in general (Hurst, 1972). The first five periods reflect the gradual expansion of the small Anglo-Saxon village on the lower terrace of the valley, together with an expanding population at the four other townships in the parish.

In the 12th century prosperity came with the arrival of the Percys and expansion on to the southern part of the western hillside. The further 13th century expansion of the village to the north necessitated the addition of another aisle and chapel. Then in late- and post-medieval times, with the desertion of four of the five settlements, the aisles were pulled down and the chancel was shortened, as there were only the parishioners from Thixendale who had to walk some three miles to services. With the building of their own church at Thixendale in 1879 there was no longer use for the mother church, but it survived another 75 years before finally falling into disuse.

The study of the church has included an investigation of the associated graveyard. Inside the church there were no identifiable Anglo-Saxon burials and very few medieval ones, as these had been disturbed by some 50 post-medieval interments. The earliest evidence from the graveyard came from the south-east angle between the naves and chancels of the first stone churches, where the nucleus of the important part of the Anglo-Saxon cemetery was found. In an attempt to obtain a sample rural population, two areas of the graveyard have been excavated. In 1965 Mr D R Brothwell excavated 200 burials from the area to the north of the nave, while in 1971 a further 168 burials were excavated to the west. The layout of these was of considerable interest, since they were regularly laid out at an average depth of 2 ft at four different levels. It seems that over the time of the use of the graveyard burials were made over the whole area four times round. There was no sign of clearance out to a charnel house. The west side of the churchyard extended right up to the hillside. To the north the medieval boundary wall has been found a few feet north of the present boundary but, remarkably, almost underneath the present fence, is a 2nd century Romano-British ditch. Two other early ditches have been found in the graveyard, and it is hoped to follow these up in a future programme of excavation to locate the east and south boundaries of the graveyard, which it is estimated should include some 10,000 burials.

An examination of the skeletons excavated, which now total some 500, will take some time to complete but interim reports on the first samples have already appeared (Brothwell, 1972; Hurst, 1971, 134–5). These throw most interesting light on the problems of medieval populations, their diet, habits, and illnesses. This will be a very valuable addition to the large urban and monastic groups that are already known, as it is so hard to get rural medieval series because of recent burials and other disturbances in graveyards still in use.

The thirteen-year survey and excavation of the church and its associated graveyard, which is still in progress, has therefore produced important evidence for the history, development, and decline of the Anglo-Saxon and medieval village. This, taken in conjunction with the parallel excavations of peasant houses, manor house, vicarage, mill, and the tofts and fields, enables us to move some way towards understanding the total archaeology of a medieval settlement. The original decision of the Medieval Village Research Group, taken 25 years ago, to concentrate on one village has been amply justified, but it is only when one attempts to reconstruct what the village actually looked like in medieval times (Hurst, 1975) that it is realized how much more there is still to be learnt about the village and its setting in the landscape.

The old church of St Andrew, Upleatham, stands half a mile to the east of the present village, just off the B1268 Saltburn to Guisborough road. It has the reputation of being the smallest church in England, and although this is not in fact the case the church has been a puzzle to historians for many years. Documentary and structural evidence point to a building which was once much larger.

The earliest known record of a church at Upleatham dates from the 12th century when land, together with a church,   was granted to Guisborough Priory; however, the discovery in the churchyard last century of a stone cross fragment of 9th century date suggests that people may have worshipped at this place long before the Conquest.

The church is rectangular in plan and measures 6 m by 4 m within. At its western end stands a square tower dated 1684. This tower, which replaced an earlier bell-cote, butts on to the west wall. The south wall shows signs of much reconstruction. The former existence of a south aisle is suggested at the exterior by voussoirs which form two arches above later infilling. The north wall seems to be the best preserved since it includes ten Norman corbels in its upper course. This wall continues for 0.92 m beyond the face of the present east end. The east wall dates entirely from the 19th century, when it was erected across part of the original nave in order to form a mortuary chapel. In 1836 a new church was built in the village and the old church was allowed to fall into decay, although in recent years some effort has been made to preserve it.

In an attempt to determine the original plan of the church a petition was made for a Faculty to carry out archaeological investigations. So far three campaigns of excavation have taken place between 1970 and 1974 under the auspices of the Extra-Mural Department of the University of Leeds. From the outset work was hindered by graves. Faculties for the excavations were granted on the condition that no known graves were to be disturbed, and since several grave-stones marked burials of the last 50 years within the area selected for excavation, this was a limitation which compelled an inconvenient and irregular trench plan (Fig. 14).

The excavations have shown that the north wall of the church originally extended beyond the present eastern gable for at least 3 m, and that the south wall once continued east as far as the 18th century Lowther vault and possibly beyond, although without demolishing the vault this cannot be proved. The investigations produced no evidence for a south aisle wall other than a trace of masonry below and at right-angles to the south-west buttress. Additional trenches revealed random mortared stonework, but the relationship of this material to the main structure of the church was not clear. The excavation also yielded potsherds ranging in date from the 13th to the 20th centuries, large quantities of glass,   both plain and decorated, and fragments of painted plaster. None of this material
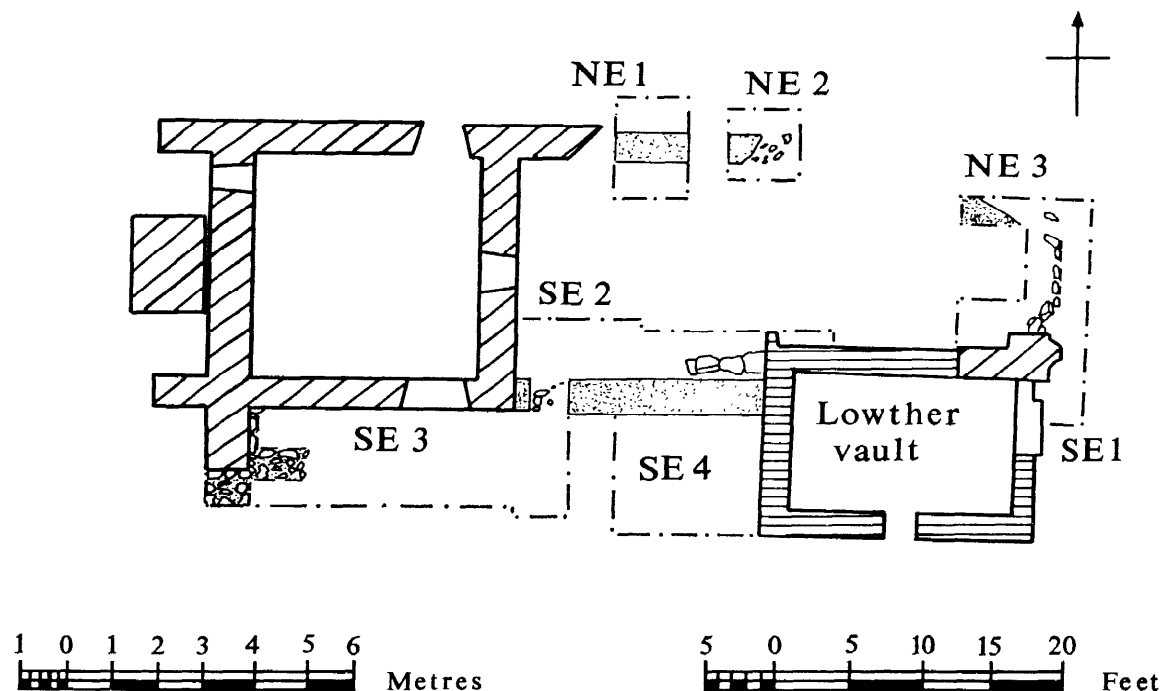
Fig. 14   Plan of St Andrew's church, Upleatham, Clevland, showing layout of trenches cut in successive campaigns, and principal discoveries. 1970: trenches NE 1, 2, 3; SE 1, 2; 1971: trench SE 3; 1974: trench SE 4
[Drawing: David Evans]

could be attributed to specific layers because of the disturbed nature of the ground. Among the larger finds has been the stone effigy of a 14th century knight in an excellent state of preservation, although the legs have been broken off below the knees. Other finds have included a child's gable-ended grave slab, probably of the mid-11th century,   two pre-Conquest cross fragments, and a tapered grave-slab showing an incised cross and two unidentified emblems.

The churchyard at Upleatham is still in use, and this excavation has produced information concerning the earlier history of the church which could well have been destroyed in future years. An excavation of the entire area would have been preferred, but as this is not possible under present circumstances at least some record is being kept before more of the site is disturbed by grave-digging.

The archaeology of the churchyard   P A Rahtz

The churchyard, like the church, is an archaeological site. It is, though not so obviously, an 'ancient monument'. In addition to the visible features of boundary walls,   churchyard buildings, and the gravestones themselves, there is much archaeological evidence which lies beneath the present surface. Many incumbents resent the attitude of those visitors whose interest seems to be more in the church and its yard as an ancient monument and the burial place of its parishioners than as the House of God. Yet such study of the historical features does not end with the building, its architecture, and memorials: it is to do with the history of the Church as an institution, the antiquity and the basis of Christian witness in the parish. As such it should be of equal interest to laymen and incumbent alike. The vicar of a well known church in Northamptonshire expressed it well recently when he said that the more that was known of the history of his church and parish, the better it was for the spiritual well-being of his parishioners.

The churchyard is normally as old as the church it serves, and sometimes older. It may have its origins as a sacred site in prehistoric times: Knowlton (Dorset) is set within a great religious earthwork of the 3rd or 4th millennium BC, while at Rudston (Yorks.) a prehistoric standing stone 19 ft high is one of the most conspicuous features of the churchyard. Continuity of religious observance may be assumed in these cases, the Christian church representing the 'takeover' of the pagan sanctuary, the adaptation of its site, and the weaning of its people from the old religion to the new. A more specific continuity in many churchyards is that of burial. Pagan Roman or Anglo-Saxon burials and finds are known from a number of churchyards, and later on the incoming Vikings were buried with their weapons in existing Christian churchyards. This may indicate their quick conversion to Christianity, albeit with a reluctance to abandon their custom of burying objects with the dead.

Within the Christian use of the yard, the earliest burials may go back to Roman times, witness to the earliest Christian worship in these islands. Such cases may be comparatively rare,   although there is insufficient knowledge of how frequent they are, but the use of the yard for burial commonly extends back to the middle ages or even into the Anglo-Saxon period. One may expect an average parish of about 200 people and a history of 1000 years to have had some 6000 burials.

These are of considerable interest to archaeologists, not only because they contain information about man himself—his health, expectation of life and much else—but also because they tell us about burial practices in the past, which are, of course, part of the history of the Christian faith. The number of Christian burials in our churchyards may exceed 100 million, potentially a massive body of evidence. Obviously, most of these have been disturbed or destroyed by successive burial in the same area—skulls and other bones are well known as the attributes of the gravedigger in art and literature—and in many soils bones are not well preserved after more than a century or so. Nevertheless, much remains, as has been shown where there have been excavations of long-abandoned church-yards, such as those of deserted medieval villages. In two cases—Clopton (Cambs.) and Wharram Percy (N. Yorks.)—it was found that the ground had been deliberately made up over the centuries (Alexander, 1968: see also p. 36). There were four layers of burials, so that later disturbance of earlier burials was minimal.

The burials, however, are not the only archaeological evidence in the churchyard. The yard has not in most cases always been the same size, and there may have been previous uses of the area. At Wootton Wawen, near Stratford-upon-Avon (Warks.), modern burials are being dug through medieval priory buildings; below these are late Saxon graves, and under these in the lowest level there are earlier Saxon buildings, which may be of the monastery or part of the village (Barnie *et al,* 1975). This evidence was only discovered in 1974 when archaeologists excavated a small area in advance of modern grave digging. Apart from graves, buildings, and many other possible ancient features, the churchyard has often been used as a rubbish dump for unwanted objects from the church, such as pieces of old clocks, bells, and even fragments of sculpture. These were discarded by earlier generations but now have historical value; they have gradually been covered by soil and have become part of the archaeology of the churchyard.

This demonstration of the yard as an archaeological site does not mean that archaeologists intend, or would even like, to descend on every churchyard and excavate it, unless it is in danger of being destroyed. What are the threats? Major destruction does occur when the church or its yard is in the path of progress, such as a new motorway, a reservoir, or urban development.

could be attributed to specific layers because of the disturbed nature of the ground. Among the larger finds has been the stone effigy of a 14th century knight in an excellent state of preservation, although the legs have been broken off below the knees. Other finds have included a child's gable-ended grave slab, probably of the mid-11th century, two pre-Conquest cross fragments, and a tapered grave-slab showing an incised cross and two unidentified emblems.

The churchyard at Upleatham is still in use, and this excavation has produced information concerning the earlier history of the church which could well have been destroyed in future years. An excavation of the entire area would have been preferred, but as this is not possible under present circumstances at least some record is being kept before more of the site is disturbed by grave-digging.

The archaeology of the churchyard   P A Rahtz

The churchyard, like the church, is an archaeological site. It is, though not so obviously, an 'ancient monument'. In addition to the visible features of boundary walls, churchyard buildings, and the gravestones themselves, there is much archaeological evidence which lies beneath the present surface. Many incumbents resent the attitude of those visitors whose interest seems to be more in the church and its yard as an ancient monument and the burial place of its parishioners than as the House of God. Yet such study of the historical features does not end with the building, its architecture, and memorials: it is to do with the history of the Church as an institution, the antiquity and the basis of Christian witness in the parish. As such it should be of equal interest to laymen and incumbent alike. The vicar of a well known church in Northamptonshire expressed it well recently when he said that the more that was known of the history of his church and parish, the better it was for the spiritual well-being of his parishioners.

The churchyard is normally as old as the church it serves, and sometimes older. It may have its origins as a sacred site in prehistoric times: Knowlton (Dorset) is set within a great religious earthwork of the 3rd or 4th millennium BC, while at Rudston (Yorks.) a prehistoric standing stone 19 ft high is one of the most conspicuous features of the churchyard. Continuity of religious observance may be assumed in these cases, the Christian church representing the 'takeover' of the pagan sanctuary, the adaptation of its site, and the weaning of its people from the old religion to the new. A more specific continuity in many churchyards is that of burial. Pagan Roman or Anglo-Saxon burials and finds are known from a number of churchyards, and later on the incoming Vikings were buried with their weapons in existing Christian churchyards. This may indicate their quick conversion to Christianity, albeit with a reluctance to abandon their custom of burying objects with the dead.

Within the Christian use of the yard, the earliest burials may go back to Roman times, witness to the earliest Christian worship in these islands. Such cases may be comparatively rare, although there is insufficient knowledge of how frequent they are, but the use of the yard for burial commonly extends back to the middle ages or even into the Anglo-Saxon period. One may expect an average parish of about 200 people and a history of 1000 years to have had some 6000 burials.

These are of considerable interest to archaeologists, not only because they contain information about man himself—his health, expectation of life and much else—but also because they tell us about burial practices in the past, which are, of course, part of the history of the Christian faith. The number of Christian burials in our churchyards may exceed 100 million, potentially a massive body of evidence. Obviously, most of these have been disturbed or destroyed by successive burial in the same area—skulls and other bones are well known as the attributes of the gravedigger in art and literature—and in many soils bones are not well preserved after more than a century or so. Nevertheless, much remains, as has been shown where there have been excavations of long-abandoned church-yards, such as those of deserted medieval villages. In two cases—Clopton (Cambs.) and Wharram Percy (N. Yorks.)—it was found that the ground had been deliberately made up over the centuries (Alexander, 1968: see also p. 36). There were four layers of burials, so that later disturbance of earlier burials was minimal.

The burials, however, are not the only archaeological evidence in the churchyard. The yard has not in most cases always been the same size, and there may have been previous uses of the area. At Wootton Wawen, near Stratford-upon-Avon (Warks.), modern burials are being dug through medieval priory buildings; below these are late Saxon graves, and under these in the lowest level there are earlier Saxon buildings, which may be of the monastery or part of the village (Barnie *et al,* 1975). This evidence was only discovered in 1974 when archaeologists excavated a small area in advance of modern grave digging. Apart from graves, buildings, and many other possible ancient features, the churchyard has often been used as a rubbish dump for unwanted objects from the church, such as pieces of old clocks, bells, and even fragments of sculpture. These were discarded by earlier generations but now have historical value; they have gradually been covered by soil and have become part of the archaeology of the churchyard.

This demonstration of the yard as an archaeological site does not mean that archaeologists intend, or would even like, to descend on every churchyard and excavate it, unless it is in danger of being destroyed. What are the threats? Major destruction does occur when the church or its yard is in the path of progress, such as a new motorway, a reservoir, or urban development.

Such cases are comparatively rare at present. Minor or partial threats, however, are much more common and are increasing. Redundancy procedures include safeguards against the destruction of the churchyard, even if the church itself is demolished, but conversion of a redundant church can lead to serious disturbance by the construction of access roads, mains services, or building operations. Even in churchyards in use, destruction is all too common, though usually it is done in ignorance of the historical loss. The commonest threat is, of course, continued burial. The increasing practice of cremation is reducing this threat, but it is unlikely to replace burial altogether in the foreseeable future. The tradition of continuous burial in the same piece of ground is so well established that it would be unrealistic to propose a moratorium on new burial in old churchyards. Yet in many cases this has been precisely what has happened, since new areas of land have been taken in. This is preferable from an archaeological point of view, although it may be necessary to examine the new ground archaeologically first if there is any likelihood that it may contain ancient features. It may also be thought desirable by a family that the grave of a relative should not be among a mass of earlier burials, but in a new area where it may stand a better chance of remaining undisturbed. As an archaeologist I am appalled, not only by the way modern Christians disregard the burial places of earlier generations, but more seriously by the failure of the Church to take steps to respect the rights of its members to remain undisturbed. The worst examples of this occur in our cities, where redundant churchyards are cleared by secular authorities after only the most perfunctory of advertisements in the local press. In the past only the rich could ensure lack of later disturbance by burial in coffins of stone or lead, but today we do not bury the dead in the expectation that they will be removed in the interests of expediency. This often happens, however, sometimes with no regard for elementary propriety, as I have observed in the case of graves in several Bristol churchyards.

The threat of continued burial may be insurmountable; so, too, may other threats of destruction, such as holes dug for the fuel tank of a new heating system, drains, or channels around a church to prevent damp. If any of these are necessary, the least the incumbent can do is to arrange for the excavations to be made by an archaeologist who will record the historical evidence being destroyed. If the archaeologist is unable to carry out the work himself, he should be given the opportunity of watching the job as it is done and recording what he can. In the case of gravedigging this is usually impracticable unless there happens to be an archaeologist living or working nearby, who can keep in close touch with the incumbent. There have been several recent cases where an archaeologist has actually dug the grave, while at Congresbury (Som.) all that is known of the ancient origins of the site was recovered by observing gravedigging and examining the spoil. Where drains or other excavations are needed, a Faculty will normally be required to do the work. If there is an archaeologist on the Diocesan Advisory Committee he will be aware of the implications of the proposed operation, and where possible he will arrange excavation or observation. Archaeologists are now officially recognized in most dioceses (see p. 13, Fig.   4) and may be contacted through the DAC Secretary. If the incumbent is uncertain, however, he is asked to inform the local

museum or archaeological unit of the work that is to be done. No delay or inconvenience need be caused if plenty of notice can be given.

The total destruction of churchyards is thus at present rare, while the minor threats to historical evidence can be avoided with goodwill and co-operation. The same is not true, however, of gravestones and churchyard memorials. These are being destroyed at an alarming rate, usually with no understanding of their historical value and without archaeological supervision. The archaeologist is not, as is commonly believed, interested only in   buried remains. All material surviving from the past is his subject, whether it is a buried city,   standing buildings, ditches,   hedges, boundary walls, gravestones, or items of any date earlier than the present. Today's rubbish is tomorrow's archaeology.   To the archaeologist the gravestones constitute the uppermost layer of an archaeological site; they are of particular importance because they carry so much more information than the archaeologist could ever hope to glean from the ground itself. The stones are directly related to the graves below them. It is the duty of the present generation to try to preserve as many stones as possible in the same way as we make an effort to preserve documents in our parish chests and record offices.

The gravestones are indeed documents in stone, and we do not need to excavate them, except perhaps to uncover parts of the inscription that have become overgrown or buried by leaf-mould or worm-cast soil. They are documents which can be read now, and contain information of several kinds:

1   Their location in the churchyard can show us the pattern of at least the more recent burials; the way in which the churchyard has expanded or contracted through   recent centuries;   the extent of family grouping;   and the way in which their layout and orientation is related to the church, paths, boundaries, trees, and other features.

2 The inscriptions are of interest to genealogists, students of human population statistics (demographers), and local historians. They also contain much information on aspects of social and economic history, such as occupations, family relationships, social mobility, and attitudes to death and the after-life.

3   The design, decoration, and symbols are the basic material for the study of grave memorial art and its relationship to religious belief and social custom. The change in dominant motifs from death's heads and cherubs to such symbols as weeping willows, veiled urns, or clasped hands can be seen in hundreds of churchyards. The work of individual craftsmen or workshops of monumental masons can be traced over localities, often with the help of the initials or name of the maker. This can tell us about the organization and marketing practices of the gravestone industry. Regional differences can be traced in the whole body of material.

There are probably over 2 million gravestones in this country. Oddly enough, they have not received the scholastic attention that they deserve. There are many collections of 'curious' epitaphs; there are picture-books of the most 'interesting' designs, especially those which may be called folk-art; genealogists have always been assiduous in copying inscriptions; and local historians have made records of individual yards.

However, there has been little attempt to record churchyards totally in the systematic way that is necessary for them to be useful as historical evidence. The best, indeed the only, book which deals with the subject adequately in this country is   English Church-yard Memorials (Burgess, 1963), a loving and very readable work by a man who devoted his life to the study of gravestones. The only academic studies are those carried out on some Scottish stones as doctoral theses, on graveyards in Northern Ireland, and in the USA. Very sophisticated studies have been undertaken by American archaeologists on some 30,000 stones of the 17th to 19th centuries using modern computer-aided techniques of statistical analysis. The results of their surveys are of great interest in tracing the way in which gravestone style 'travelled' from urban to rural societies, and how these in turn are related to changing religious   beliefs and economic factors (bibliography in Jones, 1976).

It is deplorable, therefore, that many graveyards are being cleared of their stones in a wholesale manner. At worst this involves total clearance and destruction of the stones. Only slightly better is selective clearance of most of the stones, leaving only a few 'interesting' ones, or the stacking of stones in a meaningless array around the perimeter of the churchyard.   It is unfortunate when any gravestone is divorced from the grave below it, and particularly regrettable when this is done without any record being made of the exact location of the stone or of its character.

Such destruction of this part of our cultural heritage is usually done for no better reason than that of expediency. It is becoming increasingly difficult to find anyone to cut the grass and to weed areas between graves, while in some districts relatives are paying less attention to individual graves. The solution is adopted of clearing the stones and making the yard into a lawn which can be kept in order by a motor mower.

In most cases this destruction is not irresponsible vandalism either on the part of incumbents or the diocesan   or secular authorities who initiate the destruction, but rather the result of ignorance of the historical value of the stones, especially in their original positions. The threat can often be avoided if this is made known, particularly if it is done by members of the parish community.   It is sometimes claimed that clearance is justifiable because the practice is not new; after all, most graveyards have few stones dating from before 1800 and a large number from the later 19th century, since the Victorians were particularly active in the removal of earlier stones. But subsequent generations have been less disrespectful, and we are now more than ever before aware of the historical value of gravestones.

Can clearances be avoided? Where a church becomes redundant or where services are rarely held, the incumbent may find it impossible to find among his few parishioners anyone to undertake or pay for the work of keeping the yard reasonably clear. In more populous or wealthy parishes it should be possible to enlist the help of local organizations, such as the Scouts or the youth club, or to share out the work among members of the congregation. It may also be possible to raise money in order to pay for the work to be done. Help will be more easily forthcoming if the incumbent or local historian sets out to explain to the community why the stones are valuable as part of the local cultural heritage.

Another method which was once widely used is the keeping of sheep, goats, or geese within the churchyard. This may be arranged without cost to the parish, since the owner of the animals will provide fencing and other control in return for grass feed. This was, after all, the way in which the medieval churchyard was kept clear. It seems to have gradually waned because of increased sensitivity about droppings fouling graves and paths. It would be interesting to find out how this has been overcome in those yards where animals have been adopted once again; the difficulties are evidently not insurmountable if there is goodwill on all sides.

Finally, where after due consideration clearance seems the only answer, or where any stones are to be selectively removed, the historical evidence can be salvaged by recording. In some dioceses (e.g. Lincoln) requests for clearance Faculties are granted only after a plan of the graves and a record of the inscriptions have been made. The standards normally acceptable to a DAC or by other bodies requiring a record are, however, deplorably low, usually demanding no more than a sketch plan and a list of names and dates. This is quite useless as an historical record.

Proper recording involves a fully surveyed plan of the churchyard showing boundaries, paths, and graves at a scale large enough for the location of any stone to be related to the grave beneath it (a maximum error, says, of 30 cm or 1 ft each way) and a   total written and photographic record of every stone, including any part below the ground. The record may be made by the incumbent if he has time and some knowledge of survey and photography—or he may ask some other person or body if they will undertake the work. The skills involved are not very great, and it may well be that there will be a surveyor in the parish; there will certainly be someone with a good camera.

A full description of the process of recording has been published elsewhere (Jones, 1976); what follows here is a brief summary of the work that is involved. The usual procedure is to number each stone with a temporary label affixed to an inconspicuous part of the stone, and to make a plan at a scale of 1 : 200. The outline of the churchyard can be based on that in the 25 in OS map. The stones are then photographed individually with a scale. Larger numbers should be put on the stone while the photograph is being taken so that the stone number and the photograph can be easily correlated. A good photographer using a good 35-mm single-lens reflex camera can use natural or artificial light to show as much detail as possible, preferably with the light source being directed from the top left. The photographic prints are made to a particular size to fit a space on recording forms. Specimen forms are shown appended (Fig. 15). If necessary these can be typed on to A4 paper and duplicated, but ready-printed forms are available for purchase from the CBA.

The photograph is the primary record and should be made before the form is filled in. It will be found that if the photograph is good, much of the written description (of the shape and decoration of the stone, for example) can be omitted. The photograph will act as a check on the transcription of the lettering.

The time taken to record a churchyard depends on many factors,   such as the number of stones, the amount of clearance that has to be done before the

GRAVE MEMORIAL RECORDING FORM

	CEMETERY or GRAVEYARD
	DEDICATION or DENOMINATION
1	NAT. GRID REF.
2	DATE of RECORD
3	NAME of RECORDER or GROUP
4	MEMORIAL No. and LETTER
5	No. of COMPONENTS
6	ASSOCIATED FORM LETTERS
7	Memorial type: 1. flat 2. head 3. tomb 4. foot 5. other
8	MATERIAL and GEOLOGY
9	STONE MASON or UNDERTAKER
10	Which faces are inscribed? — compass points
11	No. of people commemorated
12	TECHNIQUE of INSCRIPTION
13	Condition of monument: 1. sound, in situ 2. sound, displaced 3 leaning or falling apart 4. collapsed 5. overgrown
14	Condition of inscription: 1. mint 2. clear but worn 3. mainly decipherable 4. traces 5. illegible or destroyed
15	DIMENSIONS Height
16	(in mms.) Width
17	Thickness
18	PHOTOGRAPH NEGATIVE No.
19	ORIENTATION which way stone faces

PHOTOGRAPH	INSCRIPTION

REMARKS	

Fig. 15   Grave recording form (reduced: actual size A5). Copies obtainable from CBA price £2·00 per 100 copies

survey can be made, the extent to which individual stones may be obscured, and the legibility of the inscription. Where there is no urgency the work may continue systematically, a little at a time, for some months. If time is short an abbreviated record can be made more rapidly. As an experiment, ten students on a Birmingham University residential course recorded 200 stones at Wroxeter churchyard in three days; this included a fairly accurate plan, photographs, and completed forms. Needless to say, the quality of the work was poor, but if the churchyard had been cleared the following week the record would have been better than nothing (Rahtz, 1975).

The cost of a survey will include that of duplication or purchase of record forms, photography, and final typing of the data sheets, perhaps working out at 30p per stone. This is a small price to pay for the recording of a unique memorial.

The record is, of course, the important thing. Once this is completed anyone can analyse the data at any time. It may be the recorder who will do this as part of a study of the parish history, or the data may be used in regional or national studies by a professional researcher in the subject.   When the survey is completed, the forms, plan, and photographs will constitute the record. The safest place to deposit this

is the local Record Office, with a document in the parish records to say that this has been done. If resources allow, several copies can be made together with copies of the photographs and plan: one for the Record Office, one for the parish, and a third for the local museum or archaeological archive, or to anyone interested.

Many graveyard surveys have been made in the past, but few are adequate.   The usual deficiencies are inaccuracy of the plan,   the lack of a photographic record, and the selective approach of the recorder who will often take no more than names and dates. If an incumbent is approached by anyone who wishes to record his graveyard, he should if possible stipulate that the job is done properly.

The need to record fully has been stressed in cases where clearance is inevitable. Clearance is not the only threat, however; in many churchyards the gravestones are deteriorating rapidly for natural reasons, either because the stone is poor or because of the effects of a polluted atmosphere. Recording of at least the older stones will then become necessary. But even if there is no threat at all, the recording of a yard is a useful contribution to the history of the church and parish, and a very rewarding pursuit.

The investigation of churches in use: a problem in rescue archaeology

K A Rodwell and W J Rodwell

INTRODUCTION

Until quite recently churches have generally been considered 'safe',   archaeologically speaking, unless threatened with redundancy and consequent alteration or demolition. Furthermore, their excavation has often been considered and stated to be an impossibility, simply because they   are churches (Richmond, 1963, 22), and some archaeologists have taken the view that graveyards are too 'disturbed' to be of any interest to the excavator. These false assumptions have been challenged elsewhere (Rodwell, 1975a, 33–42). The feeling of archaeological security which has been wished upon churches   results from the lack of publicity given to the building works to which they are subjected from time to time, and from the lack of understanding of these by excavators and the failure to appreciate that church archaeology exists as much above ground as it does below. The archaeological investigation of a church is taken to imply the study of its entire fabric and the history of the site, from the earliest levels below ground to the roofs and parapets. A planning application to the local authority is only necessary when major external alterations to the fabric or the surroundings are proposed (for example, the adding of a vestry or boiler-house, the building of a hall in the churchyard, or the laying out of a car park), or when a change of use is intended (normally consequent upon redundancy). Otherwise, all works of decoration, restoration, and alteration are subject only to the necessary permission being granted by the

Chancellor of the Diocese, who issues a Faculty, or an Archdeacon's Certificate (see p. 10). These documents do not have the status of Public Notices, and the only way for an archaeologist to acquaint himself of any proposals well in advance is to have close contact with the Diocesan Advisory Committee (DAC) and the individual Archdeacons.

A high proportion of the applications for the granting of Faculties or Archdeacons' Certificates are pointers to potential archaeological destruction, or at least to opportunities to study and record some detail which will be temporarily uncovered to view. There may be as many as a score or more of applications per diocese per month. This takes no account of the 'illegal' works, the number of which is certainly high in some dioceses, but difficult to estimate.

Although the substance of this paper is concerned with 'living' churches, as implied by the foregoing remarks, it may be as well first of all to put this into perspective, since the problems and techniques applicable to this branch of church archaeology may differ greatly from those associated with other branches of the subject. Church archaeology as a whole may conveniently be divided into the following five categories:

1   The rediscovery and excavation of demolished churches: e.g. the Old Minster, St Pancras, and St Mary in Tanner Street, at Winchester (Biddle, 1964–70; 1972); or the church in the deserted medieval village at Broadfield, Hertfordshire

(Klingelhöfer, 1974). These are essentially 'open' sites and are primarily the concern of the field excavator.

2   *The excavation of ruined or bombed churches:* the church of St Martin in the deserted medieval village of Wharram Percy, Yorkshire *(Medieval Britain;* see pp. 36–39), is an example of the former, and St Bride's in Fleet Street, London (unpublished, but see Grimes, 1968, 182–97), of the latter. Here, also, one is normally excavating on deconsecrated ground, and the amount of archaeology which requires attention above ground will depend upon the extent of the surviving ruins. In any case, the element of necessary architectural study is likely to be greater than that for **1.**

3   *The investigation of redundant churches of medieval or earlier date:* normally, these too will have been deconsecrated[4] if they are to pass into secular use, in which case permission for the archaeological investigation is a matter of routine application to the owner. If a disused church remains ecclesiastical property the situation may be more complicated and delicate to handle. In either case, the archaeologist is confronted with new problems, since he is dealing with a standing roofed structure and his work may be hampered by recent burials and monuments which have to be respected and to which the public has right of access. The situation will vary from church to church, according to the legal stage which the redundancy procedure has reached and the new intended use for the building and graveyard. The procedure is complicated and is laid down in the *Pastoral Measure* 1968. With a standing building there is not only likely to be as much archaeology above ground as there is below, but there is also the matter of structural safety to consider more carefully than may be necessary in category **2,** and finally there are the problems of undertaking an indoor investigation.

4   *The investigation of redundant churches of post-medieval date*: provided that the church in question was built upon a new site and was not a rebuild of an earlier structure, its archaeology is likely to be confined mainly to above-ground architectural study and the investigation of the graveyard and its monuments, not forgetting coffins and their fittings. The legal and structural problems will be similar to those of category **3,** although the latter will be of less concern if no excavation is taking place in or around the building.

5   *The archaeological investigation of living churches:* this is broadly divisible into two sections:
(i) Investigation as part of a properly planned, adequately staffed, and competently executed programme of pure research (see p. 60), such as that currently in progress at Deerhurst (Glos.) (Butler *et al,* 1975), or Repton (Derbys.), begun in 1974 under the direction of Mr and Mrs Martin Biddle.
(ii) Investigation undertaken in response to destructive threats to the fabric or the below-ground archaeology of a church. This may have to be undertaken on a massive scale in a building where engineering complications are great and of necessity over-ride all other considerations; an

outstanding example of this is York Minster (Hope-Taylor, 1971; Phillips, 1975).

Alternatively, investigation may be coupled with restoration in the average parish church, where fewer difficulties of structural engineering permit greater flexibility and allow the archaeologist more latitude. This might be described as the 'average' need and rescue situation in church archaeology at present. Upon this we will elaborate, largely with reference to experience gained in recent years in the Diocese of Chelmsford, and in drawing particularly on the results of investigations undertaken at Rivenhall (Rodwell and Rodwell, 1973a; 1973b) and Hadstock (Rodwell, 1975b; 1976) in Essex.

THE CAUSES OF ARCHAEOLOGICAL DESTRUCTION IN CHURCHES

The factors which threaten or actually bring about the destruction of historical and archaeological information in non-redundant churches are both great in number and varied in nature; basically they are of three orders:

1   *Major threats* These include the lowering of ground levels and the digging of drains and gullies around the bases of the wall[5] (Fig. 16); additions or subtractions to the church building; the lowering and relaying of internal floors and the digging of heating ducts therein; the rebuilding or refacing of collapsing walls or wall-faces; the removal and replacement of wall-plaster and rendering; the wholesale replacement of decayed timber and stonework; and churchyard clearance.

2   *Minor threats* These include plaster repairs and redecoration; repointing; the replacement of small areas of decayed masonry, timbering, or flooring.

3   *Hidden threats* These include repairs to furnishings and fittings; the replacement of rotten floor-boards; internal re-ordering; the erection of plaques and memorials: organ installation; rewiring; and churchyard 'tidying'.

At face value, the activities included on the third list may seem quite irrelevant to the concerns of the archaeologist, and in practice they often are; but not invariably so, for an apparently simple job frequently turns into a more major one if complications arise. To take just one aspect, rewiring: this may, and often does, involve the chiselling of conduit channels into the wall plaster or into the face of the wall, with consequent damage to stone mouldings and to any hidden paintings. In this particular respect re-decoration can be disastrous, and we have witnessed several examples recently where wholesale destruction of medieval and later wall-paintings has taken place as a result of enthusiastic parishioners being allowed to tamper with buildings which required expert attention and supervision. It is not our purpose here to provide a catalogue of disasters under the various headings: this is available elsewhere (Rodwell, forthcoming).

THE ARCHAEOLOGIST AND HIS APPROACH TO THE PROBLEM

Church restoration and rebuilding has been going on for over a thousand years and clearly it must continue: it is self-defeating for the archaeologist to try to stop
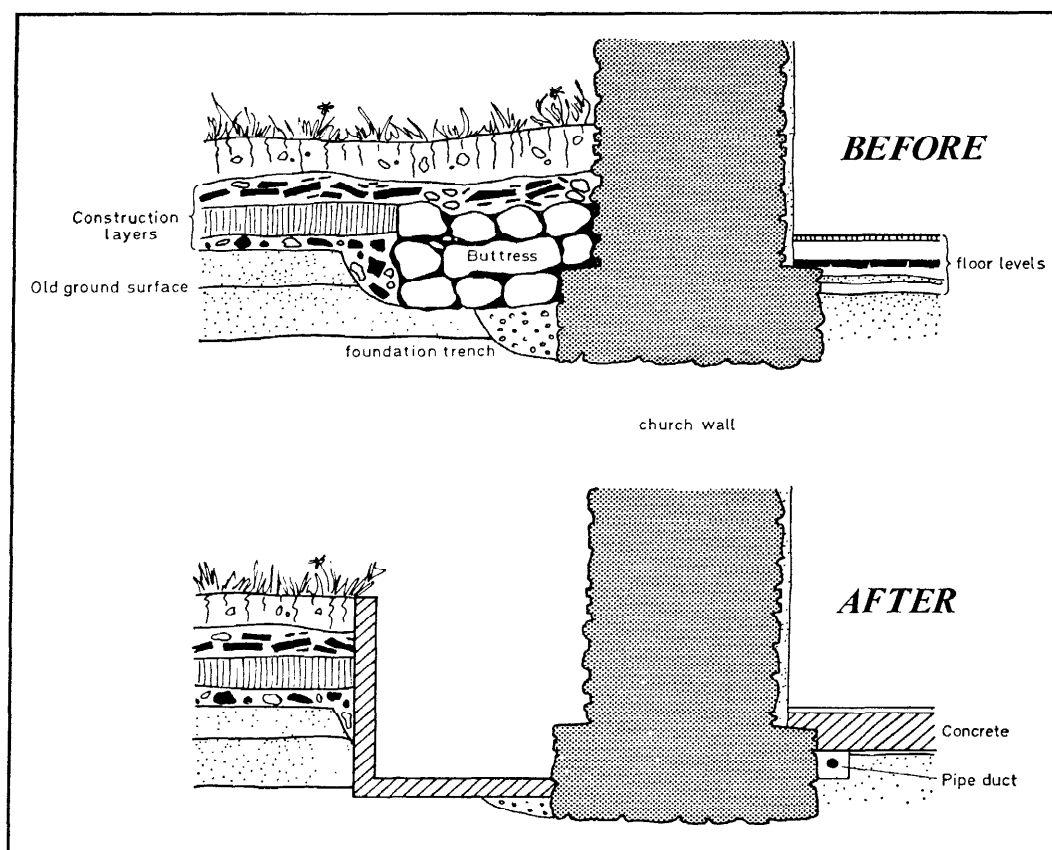
Fig. 16   Diagrams illustrating the kind of destruction which takes place when a church floor is concreted and an external drain dug around the base of the walls. The before *diagram is based upon evidence recovered from the excavations at Rivenhall and Hadstock churches*
[Drawing: Kirsty Rodwell]

it. At the same time there is no real need for anything like the current level of destruction of archaeological and historical evidence in parish churches. Much damage could be averted or lessened if there were a closer liaison between archaeologists and the various bodies and persons connected with church repair and maintenance. The need for a programme of 'education' and public relations has been discussed elsewhere (Rodwell, 1975a). There is also a need for a greater understanding on the part of the archaeologist in matters concerning the architect, and on the part of the architect in matters concerning archaeology.

When an archaeological investigation proves necessary, involving excavation , as opposed simply to photography or drawing, and/or interference with the fabric of the church, the organizer of the proposed project must embark on the processes of obtaining the requisite permission and good-will. These processes are utterly different from those pertaining to the initiation of excavations on secular sites, where negotiations with owners, tenants, contractors, and architects can be undertaken in a straightforward way. For these secular sites a few telephone calls and letters may secure the relevant permissions and enable the archaeologist to move in within a matter of hours or days, but this is rarely so with churches. The following remarks are intended as background information for archaeologists who find themselves faced with the

organization and execution of archaeological investigations in standing churches.

The first point to make is that nothing can be done in a hurry: this applies as much to the processes of restoration as it does to those of excavation. At best, it will take two months to secure permission for an investigation, while four months is perhaps a more realistic estimate. One cannot merely write to an incumbent, or   anyone   else,   baldly asking for permission to dig up his church floor, hack the plaster from his church walls, or excavate in his graveyard. The incumbent does not own his church and neither he nor any other individual can give absolute permission for excavation. Certainly the incumbent is the first person to approach, and not by a forthright letter or telephone call. An appointment must be made to meet him and tactfully explain how and why archaeologists are interested in his church and, in good time, what they would like to do to it. Assuming the request is heard sympathetically, the incumbent will next turn to his churchwardens, and on another occasion the archaeologist will probably have to meet them and explain himself again. If all is well so far, the archaeological request will probably appear at the bottom of the agenda at the next quarterly (or possibly monthly) meeting of the Parochial Church Council (PCC). It is not very likely that an outright decision will be made at the first meeting and it may be of great

assistance if the archaeologist can persuade the incumbent to invite him along to the next PCC meeting, or to a special meeting which may be convened for the purpose, so that he may expound his interests and proposals for a third time. There may be up to 15 persons on the PCC, of whom the majority will have to be convinced of the desirability of the proposed investigation.   One normally encounters a great diversity of opinion among parishioners: some will be only too keen for excavation to take place if it will throw more light on the history of their church; some appreciate the value of the proposed investigation once it has been explained to them; others will be apathetic and perhaps withdraw any objections which they may have voiced after gentle lobbying; and finally, there will always be those who object violently for one reason or another. They have to be handled with the utmost diplomacy; the task may be likened to the game of politics: one has to obtain a clear majority before a start can be made, and maintain that majority throughout the duration of the exercise.

Having squared the situation with the parish, the legalities have to be embarked upon: a   *Faculty Application Form* is obtained and completed by the incumbent or the secretary of the PCC, in consultation with the archaeologist. On it must appear brief details of the proposed area of excavation, extent of plaster stripping, etc.,   and the completed form is then submitted by the incumbent to the Diocesan Advisory Committee, which meets monthly. If the DAC is satisfied (and there are now enough precedents for the granting of Faculties for archaeological work to make it difficult for the application to be rejected out of hand), it will recommend to the Chancellor of the Diocese that a Faculty be issued. When th   e archaeologist has paid the Faculty fee he may begin work. It may be possible to save the Faculty fee, or share it with the PCC, if the application to investigate is combined with an application to undertake restoration work. Clearly it is a great advantage at this stage of the operation if an archaeologist is a member of the DAC and can speak on behalf of the academic or 'rescue' validity of the investigation. A number of archaeologists are now members of DACs (see p. 13), and can fulfil both this and the less pleasant task of countering any unsound proposals to tamper with churches in the name of research. In the past there have been too many small, unnecessary, and unpublished excavations   in churches and churchyards.

THE ARCHAEOLOGIST AND THE CHURCH ARCHITECT

On an 'ordinary' archaeological site the contractor or his architect may impose limits on the area and depth of excavation and insist that, if these are exceeded, the requisite backfilling be done with rubble or concrete at the expense of the archaeologist. The restraints on excavation in or around a church are by no means simple. Interference with the ground upon which an ancient and possibly unstable building rests is potentially dangerous and unpredictable in its outcome. Before any work is undertaken on a church, the architect must be met on site, to discuss fully the archaeological proposals and their implications for the structure. Furthermore, it is essential that the proposals be confirmed in writing and that once thus confirmed they are adhered to.

Many ancient churches contain structural cracks in their walls, and these often run from eaves to foundation level, embracing structurally 'weak' features such as windows and doorways. The outward thrust imposed by the roof-load often causes cracked walls to splay or bulge,   and if the ground under or immediately adjacent to the foundations of such walls is disturbed, structural movement can easily be accelerated even if relatively stable conditions had previously been reached. Thus, if it is proposed to excavate an extensive area adjacent to a wall, to a depth which exceeds foundation level, a baulk must be left against the wall; the width of this baulk must not be less than the maximum depth of intended excavation. The theoretical resolution of the thrust exerted by the standing wall upon the ground—45° to the horizontal—will then be contained within the baulk. This only applies to ideal conditions where the ground is stable and undisturbed. If, for example, the subsoil is riddled with graves, a wider baulk is necessary, perhaps corresponding to an angle of 30° to the horizontal. This does not mean that a small and crucial area adjacent to a wall may not be excavated in excess of these limits; with the approval of the architect it may, but   *he* must specify in writing the nature of the shoring and reinstatement and any underpinning which he may feel to be necessary. Liability then rests with the architect rather than with the archaeologist.

Archaeological excavation frequently reveals structural faults that were previously unknown or unstable areas of ground—particularly vaults and graves—which may cause trouble in the future. It is the first duty of the archaeologist to point these out to the architect in writing; it is then the responsibility of the architect to deal with them. The subsoil under and around a church is normally in a much weakened condition on account of the scores of graves and vaults which pepper it, and thus the removal of grave-fills which have consolidated with time should not be undertaken close to walls. Two further problems occur as a result of exposing previously buried foundations and subsoil: in hot weather these will dry out and crack,   [7] while in wet weather they will waterlog. Either condition can upset the structural equilibrium of an old building, as may the felling of a nearby tree.

PRACTICAL PROBLEMS

In addition to the normal logistics of excavation, there are a multitude of special problems and considerations which arise in connection with the investigation of living churches: some are related specifically to excavation inside a building, some to excavation in a churchyard, and others to working on the fabric. Not a few are of general application. It is worth listing them briefly, since solutions to all, or most, have to be found before work can begin efficiently. Obviously the significance of the problems will be proportional to the nature and extent of the proposed work but, if one is excavating both inside and outside a church and working on the fabric at the same time, all are likely to arise.

Staffing the investigation

In addition to the normal range of specialist staff and backing required for a modern excavation, the skills of an architectural historian will certainly be needed. Unfortunately, architectural history does not often rank within the repertoire of an archaeologist's skills. [8]

Architectural draughtsmen who can produce accurate drawings of wall elevations, stone by stone, are also necessary members of the team. For internal work the services of a specialist in the cleaning and conservation of wall-paintings may have to be called upon at short notice. The selection of 'volunteers' to undertake wall-stripping, excavation, etc., is a matter which requires the greatest thought: one simply cannot recruit a large number of assorted volunteers, skilled or unskilled, and import them into a village church or graveyard. For internal work a handful of skilled persons is adequate; more simply get in one another's way. The interior of Hadstock church was excavated fully with six to eight skilled staff. When a substantial area is being excavated in a churchyard, however, a greater number of carefully picked volunteers can be accommodated. At Rivenhall, which has a large graveyard, twenty was found to be the maximum number of persons which could be employed on an excavation covering 250 m ^{2}, together with some work on the fabric, without appearing offensively conspicuous. Even a mere half-dozen archaeologists represent a substantial intrusion upon a village community, and in particular upon their church, and within hours of arrival they become the centre of interest; the ways in which local offence may be caused are innumerable. This can ill be afforded and can terminate a church excavation in a fraction of the time it took to organize. Examples of the kind of action or negligence which arouse instant hostility include the churchyard becoming noisy or over-populated, picnicking, sitting on gravestones or laying clothing or equipment on them, archaeologists of unduly scruffy appearance or insufficiently clothed, general mess and dirt in the church or on paths and grass, smoking, hats worn in church, or too much activity on a Sunday. Some parishes will tolerate a little work on Sundays, when services are not in progress, but it is diplomatically advisable to designate Sunday as the site day-off.

Public interest

Morbid curiosity and the novelty of church excavation are sufficient to attract a constant flow of visitors, even when no deliberate publicity has been given to the excavation. Some of the more interested inhabitants of the locality will probably visit every day and expect to be given a personal account of the day's progress. This applies especially to the members of the PCC, who may regard it as their duty to keep a close watch on the excavation they have sanctioned. This need must be catered for from the outset; in quite a small village this public-relations task can occupy one person virtually full-time. It is simplest to have a person designated for that task, but nevertheless the more prominent parishioners, even if they call daily, will expect to be shown round by the director and may wish to entertain him. Here the advantages of the multi-director excavation become obvious, so that when the nominal director is called away or has his attention distracted from the site, work proceeds smoothly. It is most inadvisable to try to bar access to the church or churchyard at any time; this will cause instant offence, arouse suspicions, and give rise to rumours of desecration and the like. Even, as at Hadstock, with the church closed for services and the entire interior under excavation, it was essential to allow at least restricted access to the building. In this case a timber viewing-platform was constructed just inside the main entrance; from this most parts of the church could be seen with ease (see also p. 54).

Human remains

These provide the greatest problem on any church excavation; one has only to roll back the turf and stray bones begin to appear. It is important to come to an agreement, at least with the incumbent, as to the procedure for the removal and disposal of human remains. If the archaeologist meets an adamant insistence that none must be disturbed and persuasion is of no avail, there is little point in starting the excavation. Sometimes there will be no objection to the removal of skeletal remains from the churchyard for examination, or the incumbent may insist that any examination is carried out on the spot. In any case he will normally require the reinterment of bones in the graveyard. The innumerable stray and useless bones which are found can most easily be placed in opaque Polythene bags as they are excavated from the soil. Bones in finds-trays quickly attract attention and if they are discarded on to the spoil tip local children will waste no time in discovering and removing them. Almost nothing can do more damage to a church excavation than for children to be observed in the streets with bones in their possession, no matter how they managed to acquire them. The uncovering and lifting of *in situ* skeletal remains is a problem which will vary with individual circumstances. In general, it is courting disaster to uncover numbers of skeletons simultaneously, as one would normally do in a disused or non-Christian cemetery. In a remote and de-populated village where one is troubled by few visitors, or in a large town where people are too busy to take much notice of archaeological activity, one may be able to expose, clean, photograph, and lift skeletons without causing significant offence. But in a village churchyard a very different situation obtains, since the local people regard the cemetery as 'theirs' because it has been used for the burial of their families. Even if the archaeologist insists that the skeletons he is excavating are a thousand years old, the villagers will quickly become heated over the disturbance of their ancestors.

There are several solutions. It is possible to clean up a skeleton with sacking or opaque Polythene covering the exposed parts ; then, when the area is free from visitors it may be briefly uncovered for photography, planning, and lifting. Alternatively, it may only be possible to uncover the bones one at a time, lifting each in turn and removing it from public view. In this way it is only feasible to plan the principal bones and record the posture of the burial; photography is, of course, impossible. The actual loss of information need only be minimal and need not in any way affect the recording of finds, furnishings, or coffin stains in the grave. As each bone is lifted it can be recorded on a 'bone survival chart' which is kept beside the grave (Fig. 17). The chart consists of an outline skeleton drawn on A4 paper, and a coloured pencil is used to record the presence of each bone. Ancient graves vary greatly in depth, from immediately below the ground surface to about 2 m. In the case of deep graves, if these are well below the level to which rescue excavation is necessary, or are close to standing walls, it is often best to leave them undisturbed. The depth of the grave may be 'felt' and recorded with the aid of a thin steel probe.

BONE SURVIVAL CHART

SITE

Grave No. ◯

NB   /p.

cranium ⎫ skull
mandible ⎭

clavicle

scapula

sternum

rib

humerus

vertebra

pelvis

ulna

radius

carpals

metacarpals

phalanges

femur

patella

tibia

fibula

RIGHT   LEFT

tarsals

metatarsals

phalanges

total height   / m

Posture: Excav. by   /   19
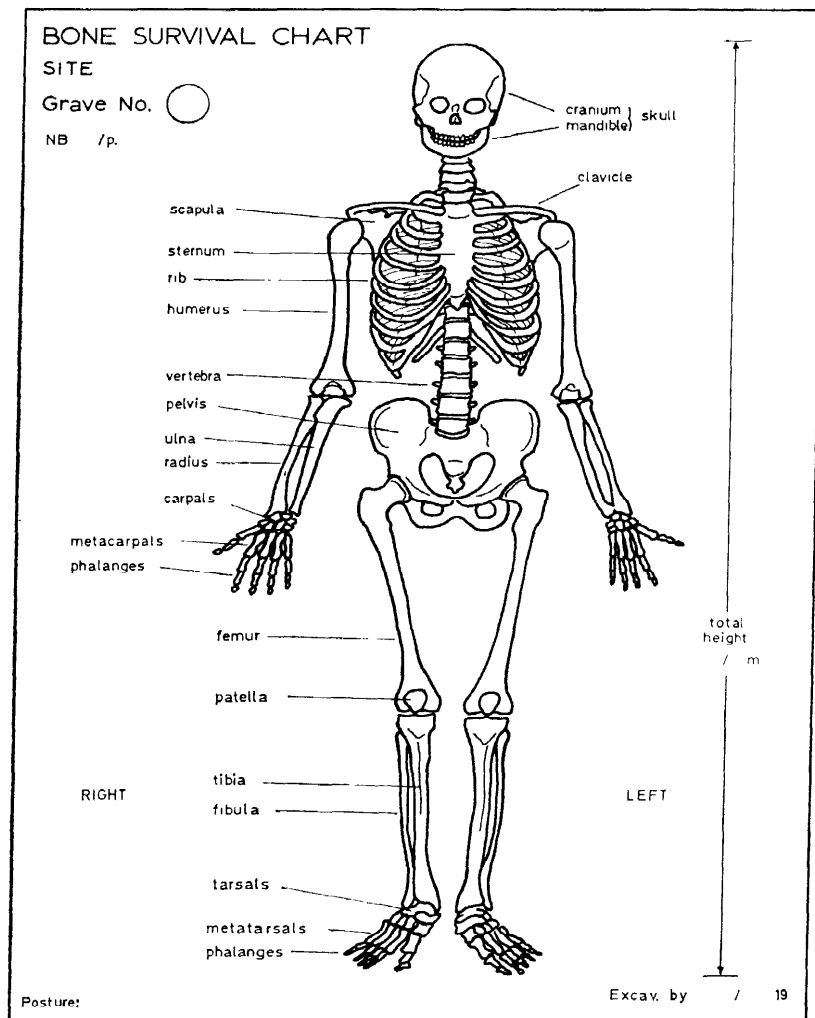
Fig. 17   Chart for the rapid recording of skeletal remains
[Drawing: Fiona Fowler and Kirsty Rodwell]

The use of machinery

As with many excavations, the use of mechanical plant in church archaeology can be of great assistance in the clearance of scrub, tree stumps, and topsoil, in the removal of unfortunately sited spoil heaps, and in back-filling. On the whole, a tracked vehicle (such as a Drott) is difficult to employ safely and effectively in a churchyard, and a more versatile machine on pneumatic tyres (such as a JCB 3) is preferable. Even then, the difficulties of getting the machine into the churchyard and negotiating it between gravestones can be considerable. It is usually necessary to spend some time in 'measuring up'   to ascertain which type of machine can be negotiated between gravestones or which has a high enough axle clearance to drive astride graves with low kerbs. It may even be necessary to lay headstones flat, temporarily, while machinery is brought in, having first ascertained that there are no living relatives of the commemorated person who are likely to object. Once installed, excavating machinery can save much time and effort, as can the use of small dumper-trucks, especially if the spoil has to be removed from the excavation or the interior of the church and deposited in a remote corner of the churchyard. The care which has to be exercised in the use of all machinery, and even wheelbarrows, cannot be over-emphasized;   wet grass can easily cause a barrow or truck to skid and collide with a tombstone. A chip knocked off a tombstone of recent date will almost certainly cause irreparable offence. If a dumper truck can be got inside a church, or at least into the porch, a good deal of barrowing effort can be saved, but again damage is easily done and only one experienced driver of such a vehicle should be allowed to manipulate it. The slightest knock to a moulded stone door-jamb in tender condition may be enough to cause it to crumble. If a single cut stone has to be replaced, the cost is unlikely to be much less than £100, while if the arch moves or falls and has to be rebuilt the damage may well be accountable in thousands of pounds.

The stripping of walls

If the external rendering has to be stripped from a church it may be advantageous for the archaeologist to volunteer to do this, rather than leave it to a contractor. Whichever is agreed, it is often possible to arrange with the contractor for the scaffolding to be
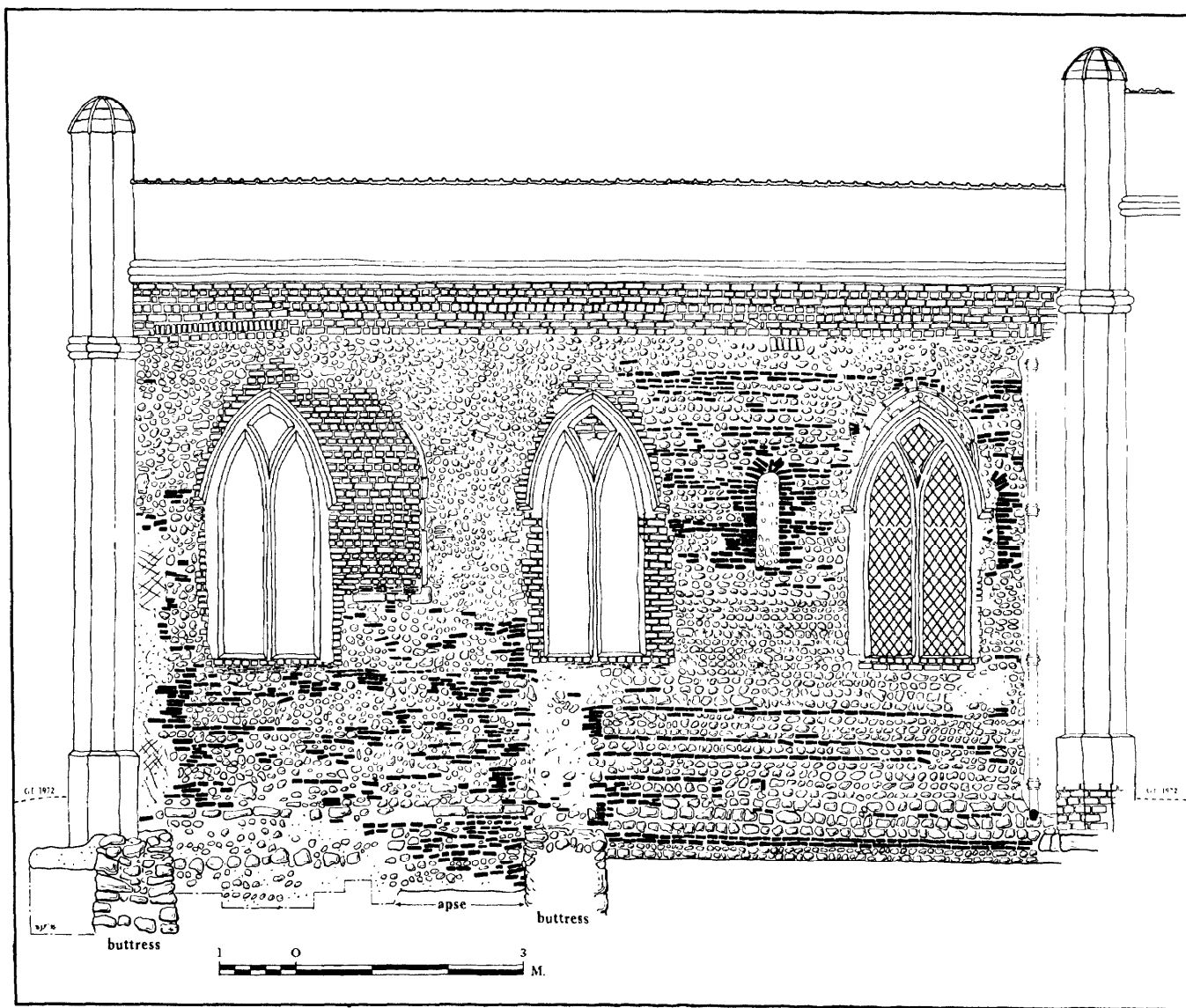
Fig. 18   Rivenhall church: the north wall of the chancel
            [Drawing: Mary Haynes and Daryl Fowler]

erected and left in position for a few days or weeks (according to the need) while the archaeological investigation of the wall fabric takes place. A co-operative contractor will arrange for his men to be transferred to another job for the duration of the recording, provided that this is agreed from the outset so that the contractor can plan and cost his work. The archaeologist may have to pay for the protracted hire of scaffolding, but this is not unreasonable. The preparation, study, and recording of a rubble wall is no rapid task and cannot be discussed in detail here. Basically, a 3 in (7.5 cm) bolster is the most effective tool for stripping rendering and a ¼ in (6 mm) raking-out chisel for cleaning between individual stones. For rapid stripping an electric or pneumatic hammer fitted with a bolster attachment is a useful aid but must be used with knowledgeable caution, since the vibration which it sets up in a wall can have serious consequences. [9] For all stripping work goggles are essential to protect the eyes from blowing mortar dust, and for indoor work, at least, commercial nose-and-mouth masks are to be strongly advocated. Once the surface has been prepared, the wall is vertically gridded, usually on a 0.5 m module, and recording can begin. As a rough guide, the drawing of the north wall of the chancel at Rivenhall (Fig. 18) took more than a fortnight. Furthermore,   this is not a particularly complicated structure.

The stripping of internal wall-plaster should always be undertaken as an archaeological task, even when it is *believed* that the plaster   is largely Victorian and undecorated. It is clear from experience that many more churches than those which have been accredited with ancient wall-plaster and wall-paintings do in fact contain them. Before wholesale stripping begins it is important to test the surface of the wall thoroughly, by marking out a grid on the wall face (0.5 m or 1.0 m module) and carefully chiselling away a patch of plaster at one corner of each square. If several layers of plaster or limewash appear,   their surfaces need testing for paintings by delicate flaking with a scalpel.

Falling plaster causes the most appalling mess and, even when a working area has been carefully screened off with sheet Polythene, a thick film of white dust will appear on every surface throughout the building. Arrangements for the removal of carpets and soft furnishings and for the cleaning-up task need to be made beforehand. Furthermore, if the organ is within 15–20 m of the action area it should be completely encased with Polythene and sealed. The cost of cleaning an organ mechanism is considerable.

Photography

Archaeological photography inside a building such as a church is no easy task.   The taking of vertical photographs is not unduly difficult if the church roof is of open construction with regularly spaced tie-beams spanning the areas of interest; in this case temporary scaffolding can be slung between the tie-beams. At All Saints', Oxford, such an arrangement was not possible and Mr Brian Durham developed an ingenious device which allowed the camera to be hauled up to a fixture mounted on the ceiling and the shutter to be released by a cable operated from ground level. Alternatively, where photography is required from a number of different locations, as at Hadstock, scaffold towers can be used. These are relatively easy to assemble, dismantle, and transport around a building. They are

also useful when it is desired to study the superstructure of a church while excavation continues below, since they do not cause the large-scale obstruction of permanent scaffolding.

Lighting is the major photographic problem: first, because most churches are dark and gloomy inside; secondly, because the sun streams through the windows causing brilliant splashes of light, interspersed by the shadows of tracery; and thirdly, stained-glass windows cause an insurmountable colour problem. Even plain-glass windows are often a very pale yellow or green colour. Opaque Polythene 'blackouts' can be used to cure the problem if the windows are not of unmanageable size, or photography must be restricted to times when strong sunlight is not pouring through the windows. Under such conditions long exposures yield acceptable results. Alternatively, powerful photoflood units may be mounted on scaffolding or in the roof, to provide controlled lighting. First, however, consideration must be given to the state of the electrical wiring in the church and the likely effect of the additional loading which is to be imposed. Floodlighting is particularly successful for night photography, when the church is free from extraneous shafts of sunlight and shadows. Direct-flash photography does not generally yield such satisfactory results, unless undertaken by a skilled practitioner (see also p. 54f.).

ARCHAEOLOGICAL PROBLEMS

While a considerable number of church excavations have been undertaken in the last century or so, it is a matter of regret that very few have been on an adequate scale, with the use of modern techniques, and the number of properly published excavations is shamefully small. The best work has been undertaken on deserted sites where there is often little or nothing in the way of upstanding architecture surviving. Thus church archaeology in Britain (but not, for example, in Germany and Scandinavia) is almost totally lacking in this additional, structural, dimension.

The number of problems that await attention is great and their multi-disciplinary nature makes their tackling no simple task. The need for long-term research on several major Anglo-Saxon churches which display work of more than one period in their construction has been recognized by the Society of Antiquaries in selecting Deerhurst as part of its project on the Archaeology of the English Church (Taylor, 1973, 13), and is further emphasized in this volume by Dr Taylor (p.8).   Alongside the investigations, both above and below ground, at Deerhurst and Repton, and perhaps Brixworth, too (Fletcher, 1974, 88),   is the urgent need firmly to grasp the rescue problems at a great many other churches of different types and periods all over Britain. Our knowledge of the development of churches, both individually and regionally, is minimal (other than in the sense of the study of medieval and later architectural detail, and even this is limited), and we are many years short of the day when it will (or might) be possible to assess objectively the likely archaeological importance of an 'ordinary' medieval church and to make a decision as to whether or not it should be given priority as a piece of 'rescue' archaeology.   For the time being each opportunity to undertake a rescue investigation should be considered as potentially worthwhile and likely to contribute to archaeological research.

Repeated experience has shown that the observation of builders' excavations in and around churches and the observation of grave-digging yields but a very poor return in archaeological information and not infrequently proves unworthy of the effort expended. All too often one merely observes between 0·5 m and 2.0 m of 'mixed black soil' which contains little or no intelligible stratigraphy and no finds. Again, however, experience has shown that this 'negative return' is meaningless and dangerously misleading and must never, in itself, be taken as evidence, or even an indication, that worthwhile archaeological deposits do not exist. When these unintelligible deposits of black earth are subjected to area-excavation on a reasonable scale, stratigraphy becomes apparent and features assume definition. Clearly, horizontal layers will be badly cut about by graves in some cases and may well seal graves in others. The total accumulation of stratified layers will probably survive best in the 1 m or so nearest the walls of the church, and in particular on the north side, where burial has never been popular. This does not, of course, imply that the only area in a churchyard that is worthy of excavation is around the base of the walls. It is, however, the critical area for determining the relationships between the various elements of the standing structure and old ground surfaces, construction and demolition layers, scaffold-post settings, and, of course, graves.

As it has already been stressed, the total stratigraphical sequence in a church excavation does not stop at ground level, but continues unbroken up through the fabric of the building to the roof. Furthermore, the establishment of a relationship between the stratigraphy below ground and that above is not merely an unattainable ideal or an amusing exercise: it is a practical essential. In addition to the determination of such fundamental relationships as those between scaffold-post settings in the ground and putlog-holes in the walls, there may be other less obvious relationships which do not become readily appreciable until structural details at the highest level in the building are superimposed on the plans of features recorded in the ground. At Hadstock, for example, it was detected that changes in the framing of the roof of the nave bore a meaningful relationship to post-settings in the floor of the nave and seem to indicate the former existence of a medieval timber bell-turret. It is unlikely that a bell-turret would have been suspected on the sole evidence provided by the roof *or* the floor.

In such a multi-dimensional work as that of recording the relationships between internal and external or above-ground and below-ground features, it is essential to develop a simple system whereby objective relationships can be demonstrated diagrammatically and published in the final report, so that scholars in the future may see precisely how strong or weak the links are in the stratigraphic chain, and whether the interpretation and phase-diagrams produced by the excavator will stand up to the test. For this purpose a simple matrix diagram was developed at Rivenhall in 1971–73: it demonstrates the stratigraphical relationships between the component parts of the upstanding structure and the buried features around the church.

Finally, the number of academic questions which at present can only be asked and not answered is indeed great, and it is here that the information gleaned from numerous rescue-triggered investigations will in time provide the corpus of evidence upon which generalizations may be made. One is constantly asking such questions as: Which came first, the village or the church? When was the first church built upon this particular site ? Is the present building the only one? Why is its orientation not true east–west? What is its relationship to the Roman building in the churchyard and to the pagan Saxon cemetery in the next field? With almost every ancient church in Britain one can ask, but receive no more than a speculative answer to, questions of this sort, yet every time a new grave is dug or a work of restoration is undertaken, a little more of the primary evidence may be eradicated from the unread record.

Archaeologists who are concerned with the structural recording of vernacular buildings, especially those of the half-timbered variety, frequently find that the fullest understanding of a particular building can only be attained during its demolition. The same is undoubtedly true of churches. While we may make strenuous efforts to resist the demolition of ancient churches, these are not always successful, and some buildings meet the ultimate doom. Very little worthwhile recording can be undertaken once a demolition contractor begins work: he will wrap a steel hawser around each wall in turn, and after a few jerks from a bulldozer the structure will be reduced to a pile of rubble and a cloud of dust, In cases such as this there is a need for planned 'rescue demolition'. This, of course, is not a matter to embark upon light heartedly, but the demolition of buildings is not entirely outside the repertoire of some archaeologists, and future opportunities should be seized. Two examples of church demolitions with which we are familiar may serve to illustrate this need. Shopland church, near Southend-on-Sea, was an isolated redundant building which displayed Norman and later work. It could have been demolished archaeologically and studied in careful detail over an unlimited period of time. St Nicholas's, Colchester, was a small, outwardly medieval, church with a large Victorian extension. Here, the archaeological loss was particularly great, since it seems likely that the 'medieval' church was an Anglo-Saxon conversion of part of one of the Roman public buildings in the centre of the *colonia*.

DISPLAY, PUBLICITY, AND PUBLICATION

The successful archaeological investigation of a church should not merely benefit the academic world by rescuing historical information which might otherwise have been lost or remained undetected; it should also be seen as benefiting the church and parish at large.

Once the parishioners appreciate that there is 'something in it for them' they will be more ready to tolerate the disruption, mess, and delay which are unavoidable, even in the most carefully planned and thoughtfully executed investigation. The benefits which the archaeologist can bestow upon the parish, without necessarily incurring any extra cost, may include the following: first, the provision of a fuller and more accurate history of the church building and any previous occupation of the site than was hitherto known; secondly, the revelation of historic features which it may be possible to consolidate *in situ* and leave exposed to view, or to mark out in some way (e.g. the positions of buried walls) if they cannot be uncovered permanently; thirdly, mutual co-operation can save cost, both to the parish and the archaeologist.

Proper publicity at the right time will bring visitors, and with them public interest in churches and archaeology, goodwill, and funds. Carefully worded notices, to inform visitors of what is being done and why, are of the first importance: the villager who has not been told what is going on, or the person who visits to tend a grave, or the casual passer-by who calls to see the church can hardly be blamed for an unsympathetic reaction to finding the church or graveyard in, what is to him, a state of uproar. It might only take a few irate letters, especially with justifiable grievances, to the local press or to the diocesan bishop to start a reaction of sufficient strength to call a halt to church archaeology in a particular diocese for a number of years. [10]

Churches, of course, are not museums or public ancient monuments and normally PCCs will be anxious that they should not be seen as such, although they will almost certainly wish to display some visible evidence of their newly acquired history. This may take the form of revealing or marking out architectural features, as mentioned above, or the PCC may feel a desire to retain and display any objects of particular interest which are found (they are legally church property and, although one would obviously attempt to secure their deposit in an appropriate museum, it may on occasion be more advisable to compromise). Probably the best way to provide the PCC with a tangible result from the investigation is by publication. If the investigation is to be a protracted one the production of duplicated information sheets will be appreciated, and at the end of each season's work the preparation of a non-technical interim report (preferably with an illustration or two) should be regarded as a matter of urgency. It takes but a few hours to produce and is worth far more in terms of goodwill and local understanding than its meagre cost. This will satisfy the short-term need, but something more permanent is required if the parishioners are not to be left with the feeling when it is all over of 'so what'. [11] Dr Taylor

has already stressed the need for prompt publication of church investigations (Taylor, 1974). These, of course, take a considerable time to prepare and to publish and are unlikely to be easily accessible to villagers or to be couched in terms which they can readily appreciate. A well illustrated non-technical guide book which can be sold in the church is possibly the solution to the long-term local need. This admittedly takes time to produce, but it is little short of a necessity; it needs to contain photographs, uncluttered plans, and imaginative reconstruction drawings, as well as a lucid jargon-free text, if it is to serve a useful function. A valuable guide of this nature was produced for York Minster (Hope-Taylor, 1971), now regrettably out of print, and others have been published for Rivenhall and Hadstock (Rodwell and Rodwell, 1973c; 1974).

In this short paper we have been unable to do more than point to some of the basic needs and problems of rescue archaeology in relation to living churches of Anglo-Saxon or medieval date. Much of what has been said is equally applicable outside these terms of reference. It is hoped that it will be evident from the foregoing pages that the logistics and public relations exercises of this branch of church archaeology are utterly different from those attending the excavation of secular sites or deconsecrated religious complexes. The final conclusion is self-evident but so important to the future success and public acceptability of church archaeology that it is perhaps worth stating: however tedious, time-consuming, and frustrating the organization and execution of an ecclesio-archaeological investigation may be, it is of paramount importance to show a respect for and sympathetic understanding of the particular pastoral situation in the parish concerned, and of the beliefs, misgivings, and local superstitions of the parishioners, whatever the personal views of the archaeologist and the members of his team may be.

Excavation techniques in church archaeology   A D Phillips

This paper briefly describes some problems which have been encountered during an excavation within a 'living' church and considers, in outline, two practical aspects of recording: photography and the making of plans. The following discussion draws upon the experience gained during six years of continuous excavation at York Minster. Many of the problems which face church excavators were encountered there during the restoration programme, either for the first time or on a scale unknown before. It is hoped that these notes will be helpful to those who are about to work in this field of archaeology.

EXCAVATION WITHIN A 'LIVING' CHURCH: SOME PROBLEMS

Excavation was the first stage in an engineering programme drawn up in 1967 and designed to save the Minster from collapse (Phillips, 1975). Since weakness

of the foundations was considered to be one of the prime reasons for the differential settlement of the building, removal of soil on a large scale was necessary in order to create working space at a depth which would allow the strengthening and enlargement of the substructure. York Minster remained open to the public throughout the restoration programme: services continued daily, the busy life of the Minster went on as usual, and, especially during the summer months, the building was filled with visitors, many of whom were attracted by the publicity that surrounded the work. The provision of public access to the work was desirable, for it was to the public that an appeal for money to save the Minster had been made.

While the people filed through the Minster and watched the work, however, they had to be protected. Temporary roofed walkways over the excavations were therefore constantly being built and modified as the

Proper publicity at the right time will bring visitors, and with them public interest in churches and archaeology, goodwill, and funds. Carefully worded notices, to inform visitors of what is being done and why, are of the first importance: the villager who has not been told what is going on, or the person who visits to tend a grave, or the casual passer-by who calls to see the church can hardly be blamed for an unsympathetic reaction to finding the church or graveyard in, what is to him, a state of uproar. It might only take a few irate letters, especially with justifiable grievances, to the local press or to the diocesan bishop to start a reaction of sufficient strength to call a halt to church archaeology in a particular diocese for a number of years.[10]

Churches, of course, are not museums or public ancient monuments and normally PCCs will be anxious that they should not be seen as such, although they will almost certainly wish to display some visible evidence of their newly acquired history. This may take the form of revealing or marking out architectural features, as mentioned above, or the PCC may feel a desire to retain and display any objects of particular interest which are found (they are legally church property and, although one would obviously attempt to secure their deposit in an appropriate museum, it may on occasion be more advisable to compromise). Probably the best way to provide the PCC with a tangible result from the investigation is by publication. If the investigation is to be a protracted one the production of duplicated information sheets will be appreciated, and at the end of each season's work the preparation of a non-technical interim report (preferably with an illustration or two) should be regarded as a matter of urgency. It takes but a few hours to produce and is worth far more in terms of goodwill and local understanding than its meagre cost. This will satisfy the short-term need, but something more permanent is required if the parishioners are not to be left with the feeling when it is all over of 'so what'.   [11]Dr Taylor

has already stressed the need for prompt publication of church investigations (Taylor, 1974). These, of course, take a considerable time to prepare and to publish and are unlikely to be easily accessible to villagers or to be couched in terms which they can readily appreciate.   A well illustrated non-technical guide book which can be sold in the church is possibly the solution to the long-term local need. This admittedly takes time to produce, but it is little short of a necessity;   it needs to contain photographs, uncluttered plans,   and imaginative reconstruction drawings, as well as a lucid jargon-free text, if it is to serve a useful function. A valuable guide of this nature was produced for York Minster (Hope-Taylor, 1971), now regrettably out of print, and others have been published for Rivenhall and Hadstock (Rodwell and Rodwell, 1973c; 1974).

In this short paper we have been unable to do more than point to some of the basic needs and problems of rescue archaeology in relation to living churches of Anglo-Saxon or medieval date. Much of what has been said is equally applicable outside these terms of reference. It is hoped that it will be evident from the foregoing pages that the logistics and public relations exercises of this branch of church archaeology are utterly different from those attending the excavation of secular sites or deconsecrated religious complexes. The final conclusion is self-evident but so important to the future success and public acceptability of church archaeology that it is perhaps worth stating: however tedious, time-consuming, and frustrating the organization and execution of an ecclesio-archaeological investigation may be, it is of paramount importance to show a respect for and sympathetic understanding of the particular pastoral situation in the parish concerned, and of the beliefs, misgivings, and local superstitions of the parishioners, whatever the personal views of the archaeologist and the members of his team may be.

Excavation techniques in church archaeology   **A D Phillips**

This paper briefly describes some problems which have been encountered during an excavation within a 'living' church and considers, in outline, two practical aspects of recording: photography and the making of plans. The following discussion draws upon the experience gained during six years of continuous excavation at York Minster. Many of the problems which face church excavators were encountered there during the restoration programme, either for the first time or on a scale unknown before. It is hoped that these notes will be helpful to those who are about to work in this field of archaeology.

EXCAVATION WITHIN A 'LIVING' CHURCH: SOME PROBLEMS

Excavation was the first stage in an engineering programme drawn up in 1967 and designed to save the Minster from collapse (Phillips, 1975). Since weakness

of the foundations was considered to be one of the prime reasons for the differential settlement of the building, removal of soil on a large scale was necessary in order to create working space at a depth which would allow the strengthening and enlargement of the substructure. York Minster remained open to the public throughout the restoration programme: services continued daily, the busy life of the Minster went on as usual, and, especially during the summer months, the building was filled with visitors, many of whom were attracted by the publicity that surrounded the work. The provision of public access to the work was desirable, for it was to the public that an appeal for money to save the Minster had been made.

While the people filed through the Minster and watched the work, however,   they had to be protected. Temporary roofed walkways over the excavations were therefore constantly being built and modified as the

work moved from one area to another. These walk-ways were carried upon a box-system of I-section steel beams, columns, stanchions, and rolled steel joists. This structural steelwork within the excavations made both photography and surveying difficult, whilst the number of visitors on the walkways above slowed spoil disposal (normally by light railway) and hindered access to the working areas.

Anxious to avoid the controversy which might have been caused by the exposure of human remains, the Dean and Chapter required some parts of the excavations to be concealed from the public by screens and dust sheets. This, again, isolated each working area, causing difficulties similar to those brought by the temporary flooring.

The engineering scheme itself brought problems for archaeology. Out of consideration for the stability of the building, work was confined to small areas (Fig. 19). Since each excavation (and there were over seventy) was deep enough—c. 14 ft (4.3 m) below the pavement—to expose the lowest courses of the Minster's foundations, a ballast of sandbags was often returned to fill the void when excavation was complete (Plate IV). This precaution against bearing capacity failure (Dowrick and Beckmann, 1971, 146) meant that few excavations remained open for subsequent reference. In effect, therefore, the excavation of the Minster was carried out rather in the manner of an irregular grid layout,   but without the benefit of long-standing soil-sections. The digging sequence, adopted for reasons of engineering, often meant that adjacent excavations were not carried out successively. In some cases, features remained only partially uncovered for up to four years until the engineering sequence of work permitted further excavation.

The cuttings,   designed to allow work upon the foundations, were laid out so that their sides ran parallel with the walls of the Minster. At a depth of about 7 ft (2.1 m) below the pavement, however, the axis of the site changed from the 'ecclesiastical' east–west to the 'Roman' south-west-north-east, an abrupt change of about 43°. For the remaining (and archaeologically crucial) 7 ft or so of excavation, the major sections, no longer orthogonal to the features encountered, had their effective length thereby halved.

To the end, the conditions in which the work had to be done remained a most trying difficulty. The gloom within the excavations meant that the recognition of soil changes, especially in plan, was especially difficult. The temporary lighting, provided by the contractor for labour gangs using picks and shovels, was inadequate for archaeological research, since even a large number of lights tended to produce pools of brightness. [12] The shattering noise of rotary-percussive vole-hammer drills, which continued around the clock, was great enough to require those working in the excavations to wear ear protectors. The dust raised by the drilling occasionally required fume-masks to be worn as well. Humidity was high: a soil-section could be completely obscured by white fungus within 12 hours of being cut. Such conditions severely tested the teams whose job it was to   reveal and record archaeological evidence.

PHOTOGRAPHY
The case for a larger negative
There is one film size which is especially suited to archaeological photography—4 in × 5 in, or its metric cousin 9 cm x 12 cm—yet rarely are cameras using this size of film to be found on excavations. The equipment usually employed uses smaller film sizes, commonly 120-size rollfilm and 35 mm cine film.

The archaeological photographer who uses 4 in x 5 in for the first time, however, will soon appreciate the useful shape and size of the negative but, even more, the facility of being able to use cut film. Since 4 in x 5 in cameras normally use separate sheets of film rather than a continuous roll, each exposure may be processed individually, and, it follows, immediately.

A darkroom, simply equipped for the processing of negatives, can, in its own way, be as useful on an archaeological site as the drawing office. With a darkroom available to him and cut film in his camera, the site photographer can offer more than a mere 'objective 'record of the work. For, with only a little persuasion, even medium-speed panchromatic film can bring to our attention evidence which eyes alone may miss. By deliberately exaggerating the contrast of a negative during development, soil changes and tip-lines, too subtle for the eye, may be detected by the camera. When cut film is used, this aid is available at the time of excavation. To an excavator working within a dimly lit church interior, perhaps, this 'extra pair of eyes' could save many a blunder.

The photographer with 'professional' equipment, i.e. 4 in × 5 in or larger, has available to him a wide range of specialized films with which he may experiment, in order that the excavator may see his site in different ways. At York Minster, the thought that some layers might be more easily differentiated through observa-tion of their relative charcoal contents led to experiments with black-and-white high-speed infra-red film in the photography of soil sections. The theory that little of the longer-wave radiation from the light source would be reflected by the charcoal and thus the charcoal content of each layer would be emphasized was proved correct. Distinctions which were obscure on visual inspection showed clearly on the negatives (Plate V). Furthermore, a useful increase in contrast was achieved with infra-red material, yet virtually full detail was retained in the highlights: this film proved to be a most useful aid to observation. There are indications that experiments with infra-red colour film would, under certain conditions, also be worthwhile.

A film size of 4 in x 5 in allows the use of a 'technical' camera. Currently, the most versatile is the type known as a monorail, which allows a wide range of movements, often in excess of the covering power of its own lenses. Equipped with a monorail camera and perhaps three lenses, the photographer can command a useful repertoire of optical 'tricks' by which he may overcome the problems which normally trouble those who must work in confined spaces and from unfavourable camera positions. With versatile equipment, the photographer can, even with conditions against him, adopt a positive attitude to his subjects.

The monorail camera and its tripod, stand, or fixing clamp (for it is not designed to be hand-held) will inevitably be heavier and more cumbersome than rollfilm or 'miniature' equipment. As circumstances make the taking of photographs more difficult, however, so the large-format technical camera comes into its own and can actually prove quicker to use than less sophisticated cameras. Some accessories may be

0   100   200   300 Feet

0   25   50   75 Metres

Dick Raines 1975
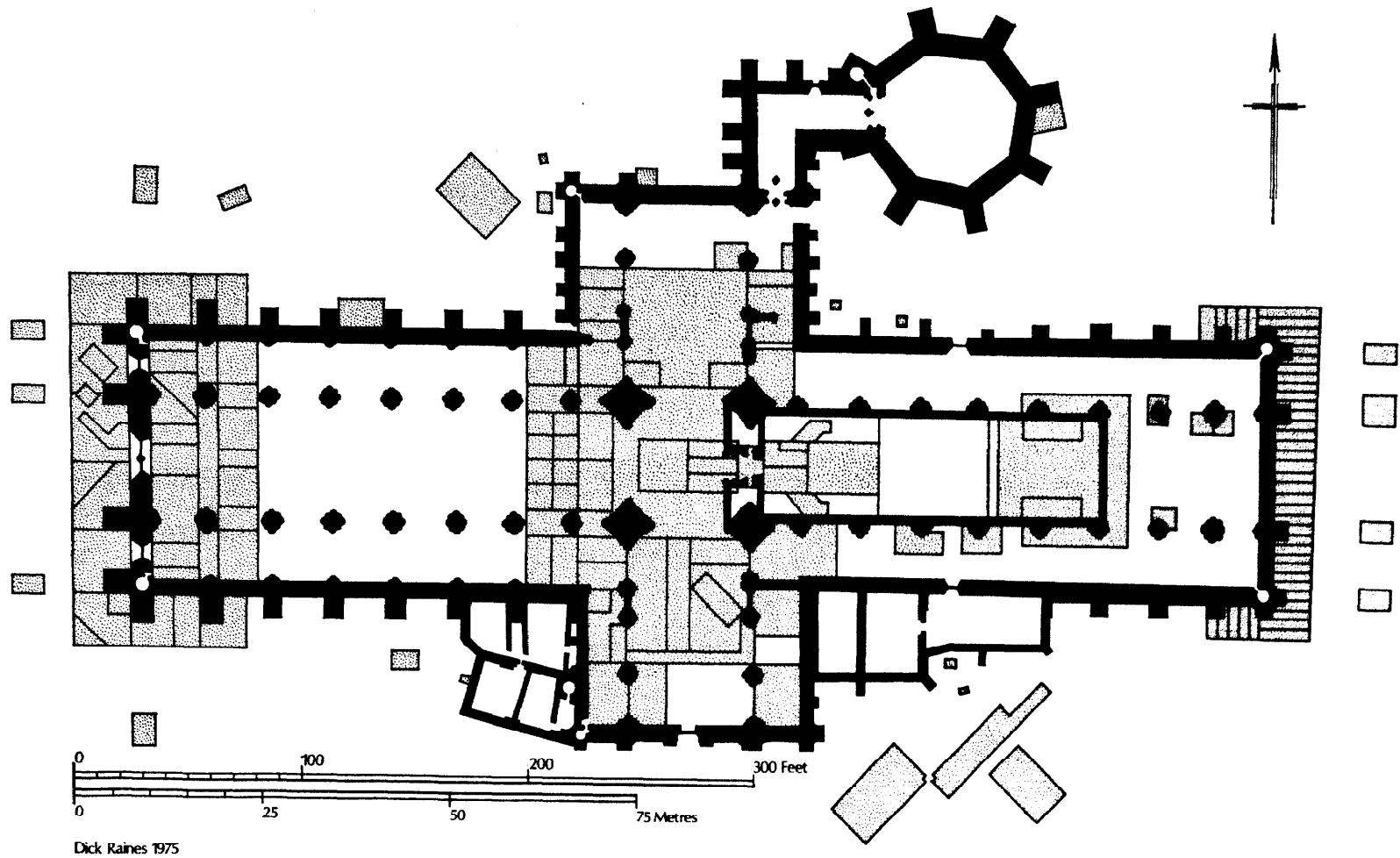
Fig. 19   The extent of excavation in York Minster. 1967-73 (in tone), with simplified outlines of separate excavations for the period 1st-11th centuries

found to be helpful. The choice of viewpoint and lens, for example, can be made easier by the use of a pocketable Universal Optical Viewfinder. This shows the field of view of a range of lenses and, with masks, a number of film sizes. A similar device is carried by film directors.

Photographic lighting

No matter how sophisticated it may be, a camera is merely an instrument for catching light. It can only record its subject by the light the subject reflects. In making pictures, therefore, lighting is crucial: a photographic subject must be creatively lit rather than merely illuminated. Archaeological subjects are no exception to this.

Because a church building is usually pierced by small and multi-coloured windows, natural lighting conditions for photography are often poor. In church excavation, therefore, it is particularly important to provide photographic lighting. Straightway we may anticipate difficulties: it may not be possible to arrange a power supply for photographic lighting and almost certainly it will be inadvisable, on the grounds of safety, to provide full mains voltage. [13] Even if a power supply can be arranged, delicate photographic lights can be awkward to handle and when in use will give out considerable heat, which may be undesirable. Photographic lighting that is suitable for the studio can actually be a hindrance on an excavation. What is needed is a light-source which is capable of being hand-held and is powerful, compact, and robust. The answer, of course, is flash.

Flash lighting may be delivered in two ways: from an electronic unit or from a battery-capacitor gun. Since its introduction, electronic flash has been much refined, and the units now available are both compact and extremely simple to use. There are drawbacks, however, for the initial cost of a professional-size unit is high (and an excavation will need several), while the amount of light such equipment can provide is relatively small. Nor are electronic units notably robust.

Our requirements are best filled by the battery-capacitor gun which uses large (PF 60 and PF 100) flashbulbs. The basic equipment is relatively cheap to buy and expensive to run, so costs are more or less directly in proportion to the use the equipment gets. No external power supply is required, yet the light output is high. Multiple light sources of this type are easy to arrange, by the 'open flash' technique (Plate VI), by control units, or by 'slave' guns: battery-capacitor flashguns are easily hand-held or clipped to convenient objects. Specialized equipment using large flashbulbs may be built in answer to particular circumstances: at York Minster, one of the most-used light sources was a gun specially made to hold five PF 100 bulbs. Occasionally, a special stand-mounted unit was used which could fire twenty large bulbs simultaneously. The broadside which this monster delivered could penetrate the gloom in the deepest excavation.

There are certain technical advantages to be gained when large flashbulbs rather than other light sources are used. The 'long' duration of the flash of a PF bulb avoids the possibility of reciprocity failure, which can occur when electronic flash is used in certain circumstances. Unlike 'Photoflood' lights, which grow 'cooler' with age, the colour temperature of flashbulbs, within reasonable limits, may be relied upon. So, with large PF bulbs as his light source, the photographer can make constant use of one of the most versatile colour films available to the archaeologist: long-exposure colour negative film, designed for exposures between $^1/_{10}$ and 60 seconds. Kodak's *Ektacolor L,* a film of this type, delivered consistently excellent results during the excavations at the Minster, and it allows both corrected prints and transparencies to be made. Being 'professional' material, *Ektacolor L* is not offered in sizes smaller than 4 in X 5 in.

Predictable and consistent results are obtained when lighting is entirely under the control of the photographer (Plates VII and VIII). In a church, where shafts of variegated light from stained-glass windows shine in dust-laden air, control over lighting can often only be achieved in total or near-total darkness. Certain photographs should therefore be taken at night. Colour photography is thereby simplified; the photographer, also free from considerations of flare on his lens, has greater freedom to choose a position for the camera and arrange his lighting for the best results, and, since the excavation team is not standing idle while the photographs are being taken, labour is generally used more efficiently.

Flash lighting was found to be so successful at York Minster that even during the relatively unhurried research excavations of 1972 and 1973, which took place outside the building, the policy of night photography for certain subjects, notably soil sections, was retained. Since these excavations were open to the sky, many photographs were taken during the day, of course, but even then powerful flash lighting was found to be indispensable for providing 'filling' or for emphasizing certain aspects of the subjects photographed

ASPECTS OF PLAN-MAKING

The foot and the metre

When, during the mid-1960s, the instability of York Minster began to be monitored accurately, the Imperial system of measurement was still in general use, and so it was when engineering work began. Although, by the early 1970s when the project had been completed, the use of the metric system was becoming widespread, for the sake of consistency at York Minster the Imperial system of measurements was, in the main, retained. As an integral part of the project, the York Minster Archaeology Office conformed with the general policy and for the archaeological record used Imperial measurements throughout.

Many archaeologists have been using the metric mensural system for some years now and have been enjoying the benefits of the simplicity which decimal relationships between multiple and sub-units allows, as well as the convenience of using a language of measurement which is international. But before we finally turn our backs upon the Imperial system, let us consider for a moment the statute foot, for the York Minster experience alone would seem to show that our old friend still has something to offer us as excavators.

Although the foot has varied in length both from region to region and with the passing of the years, it has more or less stayed within the limits of 11–13 in or 0·280–0·330 m (Dilke, 1971,82). [14] Like the pace, the foot is a natural and convenient unit by which a

man may refer to length, especially along the ground, for with his own foot he may mark off multiples directly. For shorter measurements, his hands or reach provide convenient scales. [15] Compared with the new internationally recognized and precise metre, this use of the human body as the basis for a mensural system may seem imprecise and essentially unscientific. But different circumstances call for different standards. The inch, foot, and yard, once natural and easily understood aids to everyday living, have no place in our world in which standards of precision, hitherto thought unattainable, are commonplace.

Since the beginning of the historical period, however, men have been planning and building using units which may have been peculiar to the builder himself, but which conformed more or less to the convention of the region. Now, in every wall, arch, post-hole spacing, nave width, and apse radius, the archaeologist encounters the application of a mensural system which, as often as not, includes an approximation to the length which we now know as the statute foot. In discarding the foot, which we have used for so long, archaeologists stand to lose a valuable ally. Excavators and field workers who use the foot rather than the metre during the compilation of their records have, even subconsciously, begun the process of searching for significant multiples of the unit of measurement used on the sites they examine. [16]

A decimal measuring system makes it easy to be precise. Most of the time, however, excavators can live without the need for precision. Measurements taken on a site rarely need to be expressed with greater accuracy than $\pm \frac{1}{8}$ in (± 3 mm). One of the advantages offered by the metric system, the convenience with which precision may be expressed, is, therefore, rather lost on us. But, if in recording our discoveries it matters little what unit of measurement is used, the unit which we use in communication is important, and the metre is truly international.

The indirect application of a Cartesian co-ordinate system

For some time now it has been fashionable, and with good reason, to excavate using the technique of area stripping (Barker, 1969, 221).

With this technique, the placing and maintenance of reliable reference points, which allow plans of the work to be made, is vital (Biddle and Biddle, 1969, 208 ff.). By the end of an excavation, however, it may be found that this activity has absorbed a considerable percentage of the total cost of the work. The reason may be found in the desire to provide permanent points on the ground in the form of a grid. This imposition of points where divisions along the x and y axes intersect is the most direct way of attempting to fix in two dimensions the position of further points.

That the Cartesian co-ordinate system, with its $x, y,$ and z (vertical) axes should be a basic tool of the excavator is self-evident. [17] The point at which it should be applied on an excavation bears consideration, however, for an attempt to apply an inflexible measuring grid to a site, especially if the site undulates, slopes or, as in the case of an excavation within a church, is restricted and interrupted by standing structures or immovable features, can waste time and interfere with progress.

The problems associated   with attempting to impose grid intersection points on   a site may be summarized:

1   It takes longer to *place* a point accurately than it does to *locate* it once it has been placed.

2   Unless the conditions for laying out a grid are ideal, the intersection points will not correspond with their theoretical positions on the site master plan. Although the inaccuracies may combine to cancel each other out to some degree, the precision which the grid appears to offer on the ground is an illusion.

3   A grid system covering an open-area excavation requires that its intersection points be constantly renewed as work progresses and the material in which the points had first been fixed is removed.

4   Rarely can a peg or pin be driven into the ground any distance and remain vertical. To ensure accuracy, every peg or pin must be marked with the actual position of the grid intersection point. Some markers will be more solidly fixed in the ground than others and hence some will be more reliable than others.

5   To sow the site with markers, especially metal pins, is dangerous.

Within a church it may be impossible to mark out a complete series of grid intersection points, especially if only parts of the building are available for excavation (Plate IX). Furthermore, there must be few churches for which plans exist that are of sufficient accuracy to be of use to the intending excavator. In all buildings, but particularly in the case of churches, no assumptions should be made about the regularity of the plan. In church excavation, the archaeologist may be forced to adopt a flexible approach to the making of plans of his work.

One such approach is suggested in outline here. The details of the procedure will, of course, vary according to the site:

1   Mark planning points on the site which may be used in or near each area where excavation is to take place. Consideration should be given to intervisibility   and the accessibility   for th e excavators. These requirements aside, the points may be placed at random.

2   Locate these points by direct measurement and/or theodolite to a base-line which can relate them to the National Grid.

3   When planning points and the base-line have been inter-related, provided that further planning points which may be required can be properly fixed by reference to the points which remain, the base-line may be removed.

4   Plot all these points, and from the imposition on the plan of a 'theoretical' grid with its origin related to the base-line, assign co-ordinates to the planning points.

5   Mark spot-heights (temporary bench marks) where they will be convenient for levelling. The spot-heights may, of course, following fixing double as planning points. It may be found convenient to measure along the z (vertical) axis directly from Ordnance Datum. This has the psychological advantage for the excavators of giving 'depths' as 'heights', and so the earlier

(i.e. generally lower) the feature encountered, the lower the number of feet or metres it will have for its value of *z*. Naturally, in an excavation which takes place below OD this will not apply.

The simple conditions for the application of a Cartesian co-ordinate system have thus been created. Such co-ordinates allow a concise reference to any point on the site in three dimensions.[18] This may be done either by plotting and scaling off the plan or by calculation,[19] *which will convert measurements directly to co-ordinates.*

This direct conversion can speed the draughtsman's work of plotting points. A further advantage offered by a co-ordinate system is that the relationship of points in three dimensions may be described and, indeed, calculated, if subsequent measurement on the site is not possible. On a large site this can be useful.

This indirect method of providing the facility of a Cartesian co-ordinate system is less time-consuming, more flexible, more convenient to use, and less prone to error than the direct method in which grid intersection points are marked and remain on the area of the excavation itself. The indirect method will still allow the use of planning or drawing frames, if they should be needed, for the intersection points on the 'theoretical' grid may be indicated on the ground without difficulty. The theoretical rather than physical nature of the grid means that no problems arise if the axis of the site should be found to change as excavation proceeds. If it is desired to change the axis of the grid, co-ordinates on one grid may be converted quite simply to apply to another. At York Minster four grids, of differing alignments, were used (Plates X, XI).

Skeletons

For the archaeologist working within a church, the recording of human remains can be an embarrassment in several ways. The sheer quantity of graves and skeletons—and each grave may contain several burials—often brings simple logistic problems, but it is more likely that the main difficulty will lie in the understandable sensitivity of the church authorities over the matter of the exposure of human bones. It may, indeed, be a condition of the excavation that bones are to be concealed from the view of casual visitors.

If the excavation remains open to view and the excavator is required to conceal bones during the process of uncovering them, he has a real problem, not only of excavation, but also of recording. In these circumstances, the excavator can merely summarily record each bone as it is exposed and attempt to record its position with reference to his planning points. If it is decided that a record of the position of each bone is unnecessary, a check against a bone-list and anatomical diagram may suffice.

On the other hand, if an arrangement of screens which can temporarily hide the work is acceptable, few difficulties should arise. The excavator might then adopt the method suggested below for planning skeletons, which, since it does not require the taking of a tedious multiplicity of measurements, is both speedy and keeps error to a minimum:

1 The grave and contents are cleaned for a vertical photograph.

2 Markers are placed at convenient points within the grave in approximately the same horizontal plane as the bones. The markers are given reference numbers and a simple annotated outline sketch is prepared of the grave, contents, and markers.

3 The markers are related by measurement to the planning points which are most convenient for that grave.

4 A vertical photograph is taken of the grave and the points with, if necessary, special lighting to emphasize points which need to be included on the final plan. A scale should be included in the same horizontal plane as the skeleton (Plate XII).

The work of excavation may now continue, but at least two of the points should be retained for as long as possible if further recording within the grave is anticipated, in which case step 4 is repeated.

The remainder of the work of adding the grave to the plan takes place in the darkroom and drawing office. First, the draughtsman plots the marker positions from the information gathered during step 3. Then, a print, enlarged to the scale of the plan, is made (using the scale included in the photograph as a guide) which shows the subject in high contrast. The print, slipped under the transparent film of the plan, is placed in register by use of the markers on both plan and print, and the grave and its contents are traced off.

Should the negative fail to produce a sufficiently well defined representation of the subject to allow direct tracing, the outline of the skeleton may be drawn directly on to the print itself with indian ink. To avoid confusion between the drawn outline and the tones of the print, the photographic image may then be bleached out, leaving a clear ink outline for tracing.

The slight inaccuracies which this method of recording limited areas is bound to produce are so small that they may be ignored. Provided that the greatest subject-to-film distance possible is used with the longest focal-length lens which is practical, inaccuracy will be minimized.

This method of recording graves is the work of a team, rather than the responsibility of an individual. The work of skeleton planning, which often interferes with the general progress of an excavation, can thus be 'labour-loaded' to ensure that, through the efficient use of manpower, the momentum of the work is maintained.

This paper indicates the principal classes of evidence which are being explored at St Mary's Church, Deerhurst. The research project there is on a small scale; it is being pursued under the joint auspices of the CBA Churches Committee and the Society of Antiquaries, and is funded by grants from the Society of Antiquaries,   the British Academy, and th   e Universities of Leeds and Birmingham. With the exception of one professional surveyor and one paid labourer, the work is done entirely by voluntary manpower under the supervision of three directors. Dr L A S Butler co-ordinates the work and is especially concerned with historical and art-historical matters: Dr H M Taylor supervises structural analysis, including the work of plaster-stripping; and the writer is in charge of below-ground excavation. Mr M A Aston has undertaken the field survey and Mr J Jones the survey of the graveyard. Because of the voluntary help, the cost of the work is mostly restricted to expenses of living on the site and those of items such as scaffolding and photography. The total amount spent in the four seasons 1971–74 is in the region of £2000. The results to the end of 1974 are summarized in Butler *et al.* (1975), and details of the excavation to the end of 1973 in Rahtz (1976). Further reports will be published at appropriate intervals. No attempt is

therefore made here to indicate the historical results of the work, but only the ways in which it is being done, with some examples.

It should be said that the research project was not planned from the start in its present comprehensive form. The 1971 season was undertaken in an attempt to answer a question posed by Taylor (1968, 47), who suggested that Deerhurst might have had a corridor crypt; the work was also planned to give Birmingham students some experience in church archaeology. The question was soon answered in the negative, but the excavation was very productive in other ways, mainly in providing many more questions to answer. These stimulated Dr Taylor and Dr Butler to join the project, which subsequently became the principal subject of enquiry of the joint research sub-committee of the Society of Antiquaries and the CBA on the History of the English Church. The extension of the work in the directions indicated (Fig. 20) has followed naturally from the 1971 excavation in the ruined eastern apse, dependant partly on the posing of academic problems, and also on personal interests and the availability of particular skills. The graveyard recording, for instance, arose out of Mr Jeremy Jones's BA dissertation, and the mortar and geological analysis has only been
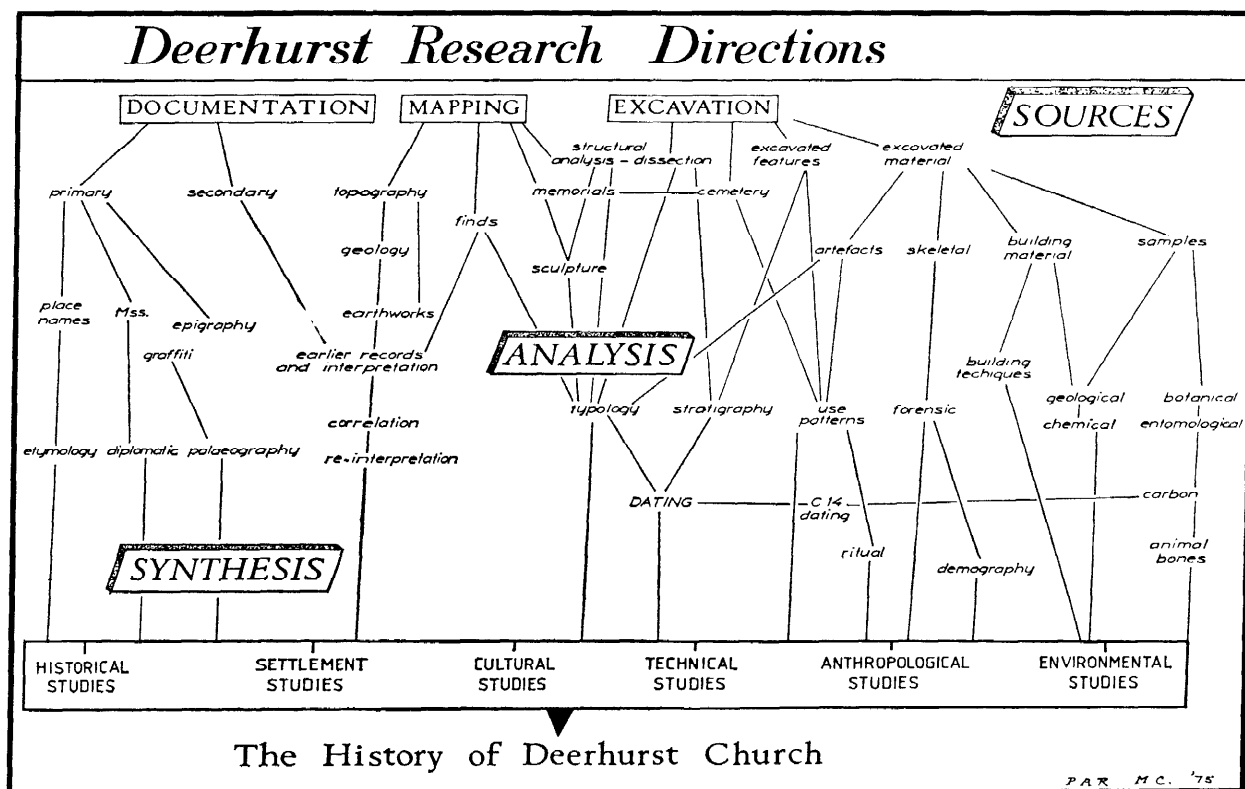
Fig. 20

possible because of the involvement of Miss V Worthington, an MA student trained jointly in archaeology and geology who has access to sophisticated equipment in the Department of Geology at Birmingham. Other approaches, such as through environmental studies, have not yet been brought into Play.

The sources currently in use to determine the history of St Mary's Church can be discussed under five main headings. Resources do not enable any of these to be fully explored, at least by the present generation, and definitive results cannot therefore be expected in the foreseeable future. We do, nevertheless, know much more about Deerhurst in 1975 than we did in 1971, and we shall know more in 1980 than we do now.

THE BUILDING

The building complex under especial study comprises the Church and Priory Farm, which are structurally integrated. The main work is of structural analysis, which is also served by many of the other topics indicated. This is, of course, not new, especially at Deerhurst, which has had its due share of attention by all earlier students of Anglo-Saxon churches. The present study is, we hope, more systematic and objective, following principles laid down by the Taylors (1965; 1972). Emphasis is placed on precise recording in plan, section, and profile, and especially the drawing of all elevations, stone by stone, at a scale of 1 : 20, partly by hand and partly (in high areas) by photogrammetry, checked by visual observation. The tolerance aimed at in this and other recording is ± 2 cm. The master elevations are used as a basis for plotting:

a   *The geological types of building stones, and the location of ceramic material and wood*   The occurrence or proportion of different stones is not only an indication of possible links between different periods, but also an indication of stone resources available at different periods.

b   *The results of mortar analysis*   This should not only indicate areas of contemporary work but also changing mortar   technology and sources of included material: charcoal in mortars derived from lime burning may be useful for radiocarbon dating. The analysis will be based partly on conventional methods of physical analysis of constituent proportions and particle sizes, and also on new methods of chemical analysis, in particular the plotting of trace elements by the use of the X-ray fluorescence spectrometer.

c   *Building techniques*   These include the size and arrangement of stones, tooling, scaffolding (a wooden scaffold pole was found   *in situ* in 1974), and, where possible, wall construction; there are also wider problems to be considered under this heading,   such as total loads, stresses, and techniques of bonding.

d   *Sculpture or other decorative or symbolic features in situ*   Research on these may indicate function or date for the wall or building component of which they form a part. The function and date of the Deerhurst Angel is clearly of direct relevance to the study of the polygonal apse of which it appears to be an integral part. The evidence of other sculpture, such as the font, is also of relevance to the building study, although

it is not physically connected with the church building or even   *in situ.*

Most of the exterior elevations are exposed, and need only cleaning or extension by excavation (below, p. 62). The interior walls, however, are heavily plastered,   mostly as the result of 19th century restoration. The removal of this is a costly, difficult, and dirty job. It has to be tackled systematically to ensure that no earlier plaster or mural painting is destroyed. The procedure adopted in 1974 was to project a metre grid on to the wall and probe into the corners of each 1 m square, which could then be removed. The wall, as finally stripped and cleaned, could then be photographed and drawn and mortar and other samples could be taken (Plate XIII). A problem arises here about replacement: should the wall be re-plastered, or should the evidence exposed be left for people to see, protected only by a transparent coat such as polyurethane, or by a thin lime wash? Opinion is at present divided on this point. The walls may well have been plastered originally, but some small areas of early plaster are very thin, and most surviving Anglo-Saxon plaster is thin (as, for example, in the Anglo-Saxon ring crypt at Brixworth).

WRITTEN SOURCES

These extend from Anglo-Saxon charters and other early manuscript material to modern church documents in the parish records, and to a wide range of secondary and tertiary printed sources. The primary material includes some of general historical significance, such as the evidence of major land grants in a charter of AD 804, and some of more direct relevance to the building or churchyard, as for example churchwardens' or builders' accounts, the latter mainly of recent date. Other material, such as the parish registers, is of relevance to the study of local population and settlement (below, p. 62). Finally, no study of Deerhurst can afford to ignore the secondary sources, especially those of earlier observers and scholars: they include late 18th century drawings by Lysons, and 19th and 20th century papers on the estates, parish church, and art-history. Of especial value are those of the later 19th century incumbent, the Rev G Butterworth, who observed features not visible today and whose precise and objective assessment of the structure forms the basis of all later studies. Some of the latter are sadly subjective and speculative by comparison with the work of this first great student of Deerhurst, who is now appropriately commemorated by a fine Celtic cross on his grave to the north of the church.

EPIGRAPHY AND MEMORIALS

This major source of evidence is here the 500 or so gravestones in the churchyard, ranging in date from the late 17th century to the present day. There are also memorials in the church of medieval date, including the famous brass of Sir John and Alice Cassey (c. AD 1400); at Alice's feet is one of the rare examples of a named medieval dog, Terri. Other memorials are built into the structure: medieval gravestones are used for some of the jambs of the belfry windows, an 18th century gravestone forms the lintel of the window between the organ   loft and south aisle, and a remarkable Romanesque carved slab is built into the roof of the tower (Rahtz, 1976). Further stones have been located in the village, where one is re-used as part of a fireplace. There are also a number of   *graffiti,*

incised and in pencil, especially in the bell-ringing chamber.

The whole body of material of this kind is relevant to the wider issues of settlement history discussed below, and in particular to the study of the more recent parishioners, their names, occupations, life patterns, and attitudes to death and burial. This is not the place to discuss the value of such studies in local or national history (for this see Jones, 1976). The material at Deerhurst is of high quality, and is being studied not only in terms of the individual memorials, but also in terms of the location and pattern of the memorials in relation to the church and other buildings. They are seen as the documentation of the upper layers of the cemetery, and as such are part of the whole study of burial at Deerhurst, which probably extends back to Roman times and is of direct relevance to the problems of dating and function of the church itself.

EXCAVATION

At its simplest level,   excavation extends the wall elevations down to the undisturbed subsoil, on which the walls are mainly bedded without trenches. This increases the volume of structural data; moreover, the buried parts, some of which have been covered by soil since they were built,   are in mint condition and incorporate original mortars without later repointing. Bonds can be clearly seen and evaluated, and structural relationships can be made explicit.

Excavation can also show structural relationships by means of stratigraphy.   This is the study of the stratification of layers of soil and other material which exist between and around the walls. Dissection of these in the apse area, for instance, showed evidence of a sequence of events between the building of the first stone church and that of the semicircular apse. This indicated a considerable time lapse between the operations, and gave information on the ground and floor levels associated with each.

Many other features and layers are defined which, although not of direct relevance to the standing structures, are crucial to the understanding of the site as a whole. They include postholes and other indications of timber buildings of the church or its monastery, layers of builders' debris containing constructional and dating evidence, and banks of soil piled round the church at various times. The evidence of this kind is not all of early date. Medieval features include builders' and destruction levels. The plan of the 19th century cider house which stood in the apse ruins was recovered by the location of the postholes and pad-stones.

Graves are important. They may indicate structural relationships, as when, for example, a grave may cut one wall but be itself cut by another. They can also be evidence for changes of building function and land use. Skeletons of varying orientation may indicate the existence of earlier churches, perhaps of wood, which were aligned differently to the present building. The skeletons themselves give evidence of changing burial ritual, and of the physical characteristics and life patterns of earlier Deerhurst populations (above, p. 41). The bones can provide radiocarbon dates, not only for the burials but also for any structures or features to which they can be related. Some skeletons are earlier

than the first stone church and may give a   *terminus post quem* for this.

The finds are of value, both as evidence for dating and also of function. They include Roman material indicating the presence of buildings on or near the site; a fragment of glass ?cinerary urn may indicate Roman burial, already attested by observations in the last century. Later material includes Anglo-Saxon architectural fragments and sculpture, medieval roofing material, flooring, and window-glass, all of which are of obvious relevance to the understanding of the church. Soils may help in the understanding of the natural and humanly altered local environment. Iron and cuprous slags and crucible fragments suggest metal-working in Roman or Anglo-Saxon times. Metal finds include nails and a silver penny of c. AD 1300; the latter was associated with window-lead and glass scraps in a layer of builders' waste close to a window of similar date. Charcoal and wood indicate timber resources and can give radiocarbon dates. An area of charcoal in one of the Deerhurst features gave a date centring on AD 690, earlier than any date available from written or structural sources. It cannot, unfortunately, be related to any part of the church. Finally, animal bone is the only source of evidence at present available for former food supplies.

Excavation so far has been on a small scale, mainly among the ruined structures at the east end, in levels heavily disturbed by secular activity and earlier archaeologists; the results have, nevertheless, been informative.

More recent cuttings have been made beside the north exterior walls, where there is no disturbance other than by medieval graves. Even these have not destroyed the earlier evidence, as the ground has been made up to a depth of nearly 2 m, largely in Anglo-Saxon times. It is evident that the original ground surface, in which the earliest features will be found, is deep enough to be below the level of both graves and of any heating systems or drains.   There is thus every chance that further excavation, both inside and outside the church, will recover most or all of the plan of the earliest structures on the site, which may extend back to the Roman period.

SETTLEMENT STUDIES

Most of the work so far described has been in or near the church. In modern archaeology, however, no site or period can be studied in isolation, but must be related to the settlement history of at least the adjacent area and, in this case, also to the economic history of the monastic estates. Field survey has, therefore, been extended by Michael Aston to include the monastic earthworks, the village buildings and earthworks of earlier houses and gardens, and field systems and other features in the area, some known only from aerial photographs. The geological, pedological (soil), topographical, and environmental background of the area will eventually be considered, together with the evidence of prehistoric, Roman, medieval, and more recent occupation.

Examination of houses and gardens has explored not only architectural aspects of the former, but has resulted in the recovery of architectural fragments in the latter. These include Romanesque and transitional

mouldings from some structure (possibly the church), the base of the medieval village cross, and even gravestones.

There has also been a little rescue excavation. Drainage and levelling operations by Odda's Chapel (Deerhurst's other Saxon church) located probable Roman tile kilns and indicated the depth and character of soil deposits in this area.

The range of historical, topographical, and archaeological enquiry is thus potentially very wide. With the present resources only a small part can be realized. Progress is, however, steadily maintained even at the present rate of work. The results are of interest, not only for students of Deerhurst or of Anglo-Saxon architecture, but of all related studies. They show not only what is preserved beneath one of England's most famous churches, but what may be lost whenever any church or its environs is damaged or destroyed without archaeological examination.

NOTES—PART 4

[1] For useful compilations of the earlier documentary and graphic evidence, see Boyle (1885, 195–219), Savage (1900, 30–60), and Hodgson (1911, 132–162). For a full modern analysis of the evidence, see Taylor and Taylor (1965, 338-349).

[2] The various types of evidence are given in order of their importance for each period. Plans were redrawn by Brian Gill.

[3] The parallel structure of the two churches and building *B* interestingly reflect one another, but a gap in the burials, which is in line with the gap between the churches, would seem to indicate that there was once a path between the churches to building *B*. No superstructure of the north wall of *B* survived and so one does not know if there was a door to connect with the church there

[4] The term is used here for convenience; for a discussion of the theological considerations, see Cope (1972, 6).

[5] These measures constitute the standard 'cures' for rising damp and were formerly recommended by the Council for Places of Worship (CPW, 1970) and in other publications. The resultant damage has been stressed by the CPW (1974) in a supplement.

[6] Obviously insurance is of prime importance, and nothing less than an 'all risks' indemnity for a quarter of a million pounds is of any use should an accident occur; this sum could well prove hopelessly inadequate in the event of a fatality or structural collapse. The need for a written agreement cannot be overstressed. If this is not adhered to, or standard industrial regulations are not complied with, the insurer would probably disclaim liability, leaving the excavator or his committee with full responsibility.

[7] When the old floors of Hadstock were uplifted in 1974 they were sodden with ground-water, but during the excavation the subsoil dried out rapidly (helped by through-drafts which were created by having the church doors open) and extensive cracks began to appear, so that hosing-down became a daily necessity.

[8] It was largely for this reason that training schools in archaeology and architecture were organized at Rivenhall in 1972 and 1973.

[9] Old rubble-built walls can be very difficult to strip, especially when covered with a hard cement or even concrete rendering. This usually adheres to the facing stones with greater tenacity than they adhere to the core of the wall, which will be bound with a soft lime-mortar. Facing stones pull away easily, exposing a loose, dry, rubble core in many instances. Constant hammering and vibration causes the powdery mortar to flow out from between the stones in a slow trickle; this in turn allows more stones to become loose. It is often the strength of the facings which holds poor-quality rubble walls together; if these fall away the core may begin to 'pour', and there are a number of interesting eye-witness accounts of the 19th century of churches collapsing as a consequence of a burst wall-facing allowing the rubble core to pour out. Chichester Cathedral is perhaps one of the best known examples. In 1861 the crossing piers 'poured' for three days before the central tower and spire finally crashed to the ground.

[10] An excavation at an important church in 1960 aroused substantial local opposition, which at present blocks any further work there.

[11] Such is the case with the church referred to above (n. 10): fifteen years later there is still nothing in print.

[12] Towards the end of the excavations in 1972, this problem was eased by the introduction of portable fluorescent strip lights to illuminate archaeological work.

[13] See the Electricity Regulations 1908, No. 1312, amended S R & O 1944, No. 739. Regulation 1 is especially relevant.

[14] This is the case with the foot used by the builders of the Norman church *(c.* 1080–1100) found in excavation below York Minster. Since errors in setting-out, building, and taking measurements must be allowed for in the calculation to determine an ancient unit of measurement, the search should be conducted on the basis of 'preferred measurement probability'. A full account of the application of this method to the question of the 'Norman church foot' is in preparation by Dr Keith Orford (University of Durham) and the writer, but the indications are that the Norman builders used a unit of 11.54 in (0.962 ft/0.2931 m). This is close to the Roman foot of 11.6 in.

[15] There is an interesting present-day parallel to this use of the body as a scale. Some cameras, in the place of a coincident-image rangefinder, offer a simple adjustable optical frame within which the photographer places the head of the subject. Since, within the limits allowed by the characteristics of the equipment, it is assumed that human skulls possess similar overall dimensions, the adjustable frame can be mechanically coupled to the focussing adjustment of the lens. Adjusting the frame to fit the subject's head thus sets the object-to-film distance and the lens is in focus.

[16] For the shorter distances, the discrepancy between the foot and the local variations which may be encountered is usually small. For example, a length of 30 Roman feet (of 11.6 in) is 29.0 statute feet, which is near enough to alert the investigator to the significant figure of 30. The metric equivalent, 8.84 m, is less easy to recognize as a multiple of 0.295 m, which is the local variation of the foot in this case.

[17] Other co-ordinate systems may be found useful, of course. When a large number of points had to be located in a short space of time during the York Minster excavations, the Polar system was found to be the most convenient.

[18] The widespread practice of decimalizing Imperial measurements means that there is no difficulty in expressing co-ordinates in feet. Levelling staffs show the foot sub-divided decimally.

[19] The process by which co-ordinates may be calculated from direct measurement from points of known position is arrived at in the following way:

O, A are planning points of known location.

Q is the point requiring co-ordinates.

$$OQ^2 = y^2 + x^2$$
$$AQ^2 = (OA - y)^2 + x^2$$
$$\therefore AQ^2 - OQ^2 = (OA - y)^2 - y^2$$
$$= OA^2 + y^2 - 2OAy - y^2$$

Rearrange $y = \dfrac{OA^2 + OQ^2 - AQ^2}{2\,OA}$

$$= \frac{(\text{datum length})^2 + (\text{measurement 1})^2 - (\text{measurement 2})^2}{2 \times \text{datum length}}$$

Substitute for *y*

$$OQ^2 = \left(\frac{OA^2 + OQ^2 - AQ^2}{2\,OA}\right)^2 + x^2$$

$$x = \sqrt{OQ^2 - y^2}$$
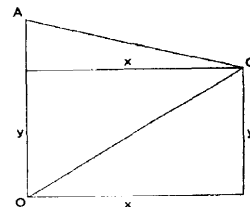
This procedure will provide co-ordinates with reference to the *y*-axis *OA* and thus illustrates the principle of producing reference co-ordinates from measurements obtained by triangulation. Should the co-ordinates of the points at *O* and *A* be known, the main grid co-ordinates are simply obtained. This conversation to co-ordinates may precede plotting, of course, and thereby save time, but if a programmable calculator to take care of the trigonometry (albeit simple) is not available to the plotter, traditional methods of plotting, employing intersecting arcs, may be found more convenient.

REFERENCES—PART 4

Alexander, 1968   J A Alexander 'Clopton: The Life-cycle of a Cambridgeshire Village'. in L M Munby *(ed.) East Anglian Studies* (1968), 48–70.

Barker, 1969   P Barker 'Some aspects of the excavation of timber buildings'. *World Archaeol.* **1,** No. 2 (1969), 220–35.

Barnie *et al,* 1975   H Barnie, S Hirst, and P A Rahtz 'Wootton Wawen churchyard, Warwks. 1974'. *West Midlands Archaeological News Sheet* **17** (1974), 68–71.

Biddle, 1964   M Biddle 'Excavations at Winchester'. *Antiq. J.* **44** (1964), 188–219; and subsequent 45–50 (1965–70).

—, 1972   M Biddle 'Excavations at Winchester, 1970'. *ibid.* **52** (1972), 93–131

— and Kjølbye-Biddle, 1969   M Biddle and B Kjølbye-Biddle 'Metres, areas and robbing'. *World Archaeol.* **1.** No. 2 (1969), 208–19.

Boyle, 1885   J R Boyle 'On the Monastery and Church of St Paul, Jarrow'. *Archaeol. Aeliana* (Ser. 2) **10** (1885), 195–219.

Brothwell, 1972   D Brothwell 'British Palaeodemography and Earlier British Populations'. *World Archaeol.* **4** (1972), 75–87.

Burgess, 1963   F Burgess *English Churchyard Memorials* (London, 1963).

Butler *et al,* 1975   L A S Butler, P A Rahtz, and H M Taylor 'Deerhurst 1971–l 974; The Society's Research Project on the English Church'. *Antiq. J.* **55** (1975). 346–65.

Cope, 1972   G Cope 'Theological considerations concerning church buildings, vessels and furnishings'. *Problem Churches,* ed. Cope, (Birmingham, 1972), 6–26.

CPW, 1970   *How to Look After Your Church.* Council for Places of Worship (formerly Council for the Care of Churches). (London, 1970).

CPW, 1974   *Churches and Archaeology: Digging Operations in and around churches.* Council for Places of Worship (London, 1974).

Cramp, 1969   R Cramp 'Excavations at the Saxon Monastic Sites of Wearmouth and Jarrow'. *Medieval Archaeol.* **13** (1969), 21–65.

—, 1973   R Cramp 'Anglo-Saxon Monasteries of the North'. *Scot. Archaeol. Forum* **5** (1973), 114–24.

Dilke. 1971   O A W Dilke *The Roman Land Serveyors* (Newton Abbot, 1971).

DMVRG, 1953-75   *Annual Reports* of the (Deserted) Medieval Village Research Group, **1–24** (1953–75).

Dowrick and Beckmann, 1971   D J Dowrick and P Beckmann 'York Minster structural restoration'. *Proceedings Inst. of civil Engineers,* Paper 7415 S.

Fletcher, 1974   E Fletcher 'Brixworth: Was There a Crypt?' *J. Brit. Archaeol. Ass.* (Ser. 3) 37 (1974), 88-96.

Grimes, 1968   W F Grimes *The Excavation of Roman and Medieval London* (London, 1968).

Hodgson, 1911   J F Hodgson 'The Monastic Choir or Church of St Paul, Jarrow'. *Trans. Architect. Soc. Durham Northumberland* **6** (1906–11), 132–62.

Hope-Taylor, 1971   B Hope-Taylor *Under York Minster: Archaeological Discoveries 1966–71* (York, 1971).

Hurst, 1971   J G Hurst 'A Review of Archaeological Research (to 1968)', in M W Beresford and J G Hurst *(eds.) Deserted Medieval Villages* (London. 1971), 76–144.

—, 1972   J G Hurst 'The Changing Medieval Village in England', in P J Ucko *et al (eds.) Man, Settlement and Urbanism* (London, 1972), 53l–40.

Hurst, 1975   J G Hurst 'Villagers who kept on moving house'. *Observer Colour Supplement,* 25 May 1975, 22–3.

—, 1976   J G Hurst and M W Beresford 'Wharram Percy: A Case Study in Microtopography', in P H Sawyer *(ed.) Medieval Settlement: Continuity and Change.* (London, 1976, 114–44).

Jones, 1976   J Jones *How to Record Graveyards.* CBA/Rescue Handbook (1976).

Klingelhöfer, 1974   E C Klingelhöfer 'Broadfield Deserted Medieval Village' *Brit. Archaeol. Reports* **2** (1974).

Medieval Britain   *Medieval Britain,* Section I: Villages: in *Medieval Archaeol.* **1–19** (1957–75).

Philips, 1975   A D Phillips 'Excavations at York Minster 1967–73'. *The Friends of York Minster 46th Annual Report* (1975), 19–27.

Rahtz, 1975   P A Rahtz 'Wroxeter Churchyard 1974'. *West Midlands Archaeological News Sheet* **17** (1974), 28–31.

—, 1976   P A Rahtz *Deerhurst 1971–73.* CBA Research Report No. 15 (1976).

Richmond, 1973   I A Richmond 'Roman Essex'. *VCH Essex,* iii (1963), l–23.

Rodwell. 1975a   W J Rodwell 'Archaeology and the Church'. *Antiquity, 49* (1975), 33–42.

—, 1975b   W J Rodwell 'Hadstock'. *Curr. Archaeol.* No. 47, 375–81.

—, 1976   W J Rodwell 'The Archaeological Investigation of Hadstock Church, Essex: An Interim Report'. *Antiq. J.* **56** (1976).

Rodwell, forthcoming   W J Rodwell *Historic Churches: A Wasting Asset* CBA Research Report No. 19 (in the press).

Rodwell and Rodwell, 1973a   K A Rodwell and W J Rodwell 'Excavations at Rivenhall Church, Essex: An Interim Report'. *Antiq. J.* **53** (1973), 219–31.

— and —, 1973b   K A Rodwell and W J Rodwell 'Rivenhall'. *Curr. Archaeol.* No. 36, 14–18.

— and —, 1973c   K A Rodwell and W J Rodwell *4000 Years of Rivenhall.*

— and —, 1974   K A Rodwell and W J Rodwell *Under Hadstock Church.*

Savage, 1900   H E Savage 'Jarrow Church and Monastery'. *Archaeol. Aeliana* (Ser. 2) **22** (1900), 30–60.

Taylor, 1968   H M Taylor 'Corridor Crypts on the Continent and in England'. *N. Staffordshire J. Fld. Stud.* **9** (1968), 17–52.

—, 1972   H M Taylor 'Structural Criticism'. *Anglo-Saxon England* **1** (1972), 259–72.

—, 1973   H M Taylor 'The Archaeological Investigation of Churches in Great Britain'. *Antiq. J.* **53** (1973), 13–15.

—, 1974   H M Taylor 'Archaeological Study of Churches'. *Theology,* January 1974, 7–14.

Taylor and Taylor, 1965   H M Taylor and J Taylor *Anglo-Saxon Architecture* vol. I (Cambridge, 1965).

A Widening Horizon   **Martin Biddle**

I shall begin by discussing the church as a component in the history of secular society, the life of the church outside itself, so to speak. All aspects of British archaeology tend at the moment, certainly in the post-Roman period, to be highly particularistic, to be concerned with a particular object or class of objects, an individual building, or a single site, rather than with trying to see the broader patterns within which these fit. There are, of course, exceptions, such as the work of the Medieval Village Research Group over the last quarter of a century, but they remain exceptions. The great Victorian tradition of church investigation was broadly concerned with the development of individual churches. Only in the hands of certain great masters— Thomas Rickman, Hamilton Thompson, and Francis Bond, for example—did it become a more generalized study. Similarly, we have tended in the last few years to approach the church very much in the traditional archaeological way, to take an individual church as an object in itself, rather than looking beyond the church to the kind of historical problems which our investigation of its site and structure can illuminate. I shall deal first with the continuity problem; second, with the question of Pagan-Christian transition; and, third, I shall say something about the archaeology of churchyard burial, without, I hope, encroaching on what Philip Rahtz has said elsewhere in this volume (pp. 41–45). Thus I shall discuss the origin of churches, and the growth of churches, before going on to discuss the church structure itself and the various aspects of it to which we might perhaps usefully turn our attention.

CONTINUITY

The continuity problem may be examined under three heads: structural continuity, continuity of site use, and settlement continuity. These are three areas in which our investigation of the church has an especially important role to play. Some of the things I shall say will be totally obvious to many people, but I hope I shall be allowed to put them in a general context.

Structural continuity

The question of structural continuity, in the current state of our knowledge, is the simplest of all. The use of a Romano-British building for the basic fabric of a Christian church can be looked at in two ways: as the re-use of a convenient deserted ruin, or—and this is a much more difficult question—as a reflection of the continuity of Christian use of the site and structure. We have some difficult cases already before us in this country: for example, Stone-by-Faversham, in Kent, excavated by Lord Fletcher and Colonel Meates (1969, 273). Here we have a rectangular Roman building, possibly a mortuary structure, which was transformed into the chancel of an Anglo-Saxon church .

Lullingstone provides a very similar case, where the chancel of the church, presumably of Anglo-Saxon date, was built over the site of an important Roman mausoleum immediately adjacent to the famous villa (Taylor and Taylor, 1965, 401–2). There is also the difficult question of the church of St Martin at Canterbury, which has been claimed as a Roman structure, but which most people would now regard as either a late 6th or an early 7th century building (Taylor and Taylor, 1965, 143–5; Jenkins, 1965, 11). This view depends, of course, only on what we can see above ground, and on the rather limited excavation that has so far taken place.   There is also the problem of the documentary sources for Christchurch, Canterbury, which we are specifically told by Bede was a Romano-British church, or a Romano-British building re-furbished and re-used (Taylor, H M, 1969, 101; Parsons, 1969, 175; Gem, 1970, 196; Gilbert, 1970, 202; for Bede's statement, see *HE* i. 33.). There can be no doubt that, as our investigations continue, the question of the continuity of church structures back into either a pre-Christian period or into a Christian Romano-British context will become more and more pressing. One has only to think of places on the Continent, such as the Roman temple of the Maison Carrée at Nîmes, or the Temple of Antoninus and Faustina in Rome, to see striking examples of the re-use of pagan classical buildings for church structures. There is no inherent reason why surviving Romano-British ruins should not have been re-used for the emplacement of a Christian church in the period of the conversion, and indeed later. Roman ruins are still with us today above ground, and not only the walls of the great forts of the Saxon Shore. Many fragments of Romano-British town walls still stand, and a surprisingly large number of fragments of town gates. We know that there were many more in the 18th and even in the early 19th century, and there can be no doubt that even more Roman buildings survived above ground in the 7th, 8th, 9th, and even 10th centuries. In a society whose basic word for 'to build' was *timbran,* a society wedded to a tradition of timber construction, such standing ruins may have been, and indeed, as the case of Stone-by-Faversham shows, were, from time to time re-used.

The question of the continuity of Christian use from a Romano-British church to a church of Anglo-Saxon Christianity is more difficult. Personally, I believe it did happen. One has only to consider, for example, the difference in the weight of Anglo-Saxon penetration in the eastern and western parts of the country to see that it is possible, and indeed probable, that in the Celtic west Romano-British buildings of Christian origin and Christian use were found in use at the time of the local 'conversion' and have remained in use ever since, even if totally rebuilt. And we should remember that the 'Celtic west' still extended quite a long way east at the time of the conversion. I am raising these

broad issues because we must think about them and expect to encounter them. I will return to this question of continuity of Christian use below because it is also relevant to the slightly different question of general continuity in the use of the site.

Continuity of site use

What I am seeking to define here is whether there was continuity of function,   of land-use, if you like, on a site. This is a much broader concept than that of the continuous Christian use of a specific structure. It is clear, for example,   that the pagan burial-grounds around the Roman cities of Gaul and Upper and Lower Germany remained in use into the Christian period and with the establishment of a church have remained in use down to the present. One has only to think of the cemetery under the church of St Viktor at Xanten, beside the Roman road to the south from *Colonia Ulpia Traiana,* where the two martyr burials (the name Xanten, *ad sanctos,* means 'at the martyrs') formed part of a very much larger cemetery, much of which was initially pre- or non-Christian. The situation at Bonn is similar (Petrikovits, 1960, pl. 19), and Cologne, Trier,   and Mainz provide many examples to show that Christian mortuary chapels and Christian graveyards grew up in areas which had for generations, indeed for centuries, been the burial-grounds of the Roman cities (Cologne: Hegel, 1963; Trier : Schindler, 1973;   Mainz: Weidemann, 1968). Whether this ever happened in Britain is still unclear, but if we recall the case of St Martin's, Canterbury, the most important points about that church are its site and the objects   which have come from its churchyard. The site lies beside a Roman road, within the general limits of one of the Roman cemeteries outside the walls of the city. From that cemetery, although not from the site of the church, has come a Christian object, a pottery bowl incised with a chi-rho *(Antiq. J.,* 1927, 321–2; Whiting and Mead, 1928, 97–108, esp. Group 4, Vessel 74b). From the churchyard itself has come the only graveyard deposit of Anglo-Saxon and Frankish gold so far found in this country (Grierson, 1952–4, 39). The St Martin's find included the famous medallion of Liudhard, as well as other important objects, and can perhaps be dated to about AD 590 or a little later. What was it doing in St Martin's churchyard? Was it a substitute for the deposition of grave-goods, richer indeed than the small hoards of silver *sceattas* found in 8th century Kentish graves (Rigold, 1960, 6–53, esp. 7–8; 1974b, 203)? Whatever the reason for its deposition, this find carries the active use of the site back into the late 6th century, and does so in terms of contemporary archaeological material rather than Bede's *post hoc* record. The chapel established for the use of Bertha, wife of Æthelberht of Kent, if correctly equated with the present St Martin's, may not mark a new start but may instead represent the continuous use of this cemetery from the Roman period onwards.   This no longer appears so extra-ordinary when one remembers those Romano-British towns, particularly on the eastern seaboard, in whose cemeteries early Anglo-Saxon ceramics are now being found in increasing quantities. If this can occur at The Mount, or at Heworth, outside York, it may have occurred in Kent.

But it is St Albans which offers the most striking possibility that a cemetery has remained in continuous use from the Roman period. Wilhelm Levison first brought together the full range of insular and continental literary sources and archaeological analogues relating to the grave of Alban, the proto-martyr of Britain, in a paper in   *Antiquity* (1941, 337; Morris, 1968, 1). On the continent, Alban was one of the most popular of all early dedications, and in the Rhineland, for example,   it is a dedication which is nearly always regarded as suggesting the possi-bility of continuity from the late Roman period. At St Albans, the abbey of St Alban lies beside one of the minor Roman roads running south-east out of the Roman city. It lies in an area from which Roman burials have come and Bede states that the cult of Alban was still observed in his day in a basilica constructed in Roman times on the site of the saint's martyrdom   *(HE* i. 7). No excavations have yet taken place at St Alban's or in its immediate vicinity under controlled archaeological conditions, but it certainly does not seem rash to suggest that St Albans may be directly comparable to both Xanten and Bonn. In both cases martyr-graves located in a cemetery beside a road leading out of a major settlement became in the course of time the site of a great church.

Quite apart th en from the question of the continuous use of structures, or the re-use of convenient ruins, there is the question of continuity in the use of a site. This is very difficult to establish on the basis of a small-scale excavation and has to be examined in a broad context. The two examples I have taken can only be understood in the context of an understanding of the evolution of the cemetery pattern in the immediate neighbourhood of a major Roman town. I could make a further case with regard to London, for it is remarkable that the only masonry buildings of Roman date known to the west of the City have been found under the churches of St Bride, Fleet Street, St Andrew, Holborn, Westminster Abbey, St Martin-in-the-Fields, and possibly St Andrew's, Kingsbury (Biddle and Hudson, 1973, 4.18; Merrifield, 1976, 57). If masonry buildings were normal in the western suburb of London, they would undoubtedly have been found in the many other disturbances of the ground which have taken place there. The evidence at least suggests that visible Roman masonry structures were in some way incorporated into the early structure of these churches. My personal view is that a Christian sub-Roman community could well have survived in London down to the time of the conversion. I see no evidence against this proposition, and a good deal of evidence to suggest that it may have happened. The lack of Anglo-Saxon cemetery material in the immediate neighbourhood of London is not the less striking for being notorious. It suggests a power centred in that city which was absorbing incoming elements rather than being absorbed by them. But these are very deep waters and the problems have to be argued in the context of developing views on the continuity question in other lands. All I wish to do in this paper is to stress the possibility of things to which we must not close our minds as the whole question of church archaeology gets under way.

Settlement continuity

Lastly in this first section I want to say something about settlement continuity. Here I can again only raise problems and ask questions. It is obvious that the foundation of a major church in a former Roman town may be an important indicator of the continuity of

settlement—for example, the recorded foundation of bishops' sees at Canterbury in 597, at Rochester in 604, at St Paul's, London, in 604, and at York in 625. In a missionary world, churches are not built where people do not come together. They are not founded in a place haunted by ghosts, unless to exorcize them, or in a wilderness. They are built in conjunction with centres of political power, in places to which people resort, a point which Bruce-Mitford has emphasized in his recent *Aspects of Anglo-Saxon Archaeology,* in discussing the question of the conversion of East Anglia (Bruce-Mitford, 1974, 23). The foundation of early bishops' churches in places like Canterbury, London, Rochester, and York indicates that there was some reason for them to be founded there rather than somewhere else, and is thus itself an aspect of the evidence for the continuity question.

What then of the medieval churches that are to be found in former Roman walled places of lesser rank, small towns and forts, which have remained villages or little more? Are we to apply to them any basically different explanation for the existence of churches within their walls than we are to apply to the great episcopal towns, the *civitates?* For example, no discussion of Caistor-by-Norwich, neither the publication of the well known air-photograph by Wheeler (1929, 182–7) nor the recent volume by Myres and Green (1973), has commented on the presence of an isolated medieval church within the walls of *Venta Icenorum,* dedicated to St Edmund and aligned on the grid-pattern of the Roman town. Yet this is one of the first observations which might have been made of what is one of the most famous of all air-photographs of a Romano-British site. The church lies towards one corner of the Roman walled area, alongside and parallel to one of the main streets of the town. Why does it lie there within the walls of a deserted Roman town? Why is it not in Caistor or Markshall, the villages a hundred yards or so outside the Roman walls? And is it pure chance that the church is aligned on the Roman streets? I do not know the answers, but I would certainly like to ask the questions.

When one looks more widely at the smaller walled towns of Roman Britain, an interesting pattern emerges. For example, along the line of the Ermine Street through Rutland and Lincolnshire are the small towns of Great Casterton and Ancaster, and further east those of Horncastle and Caistor. Inside the Roman walls of each of these towns are medieval churches whose dedications—SS Peter and Paul (Gt Casterton and Caistor), St Mary (Horncastle), and St Martin (Ancaster)—belong to what is potentially the oldest stratum of church dedication. Again, all I ask is why small medieval villages and towns should be found within Roman walls, and why it is that their church is so often conveniently tucked away in some corner of the defended area. Do we really think that the abandonment of settlements and their reoccupation occurred time and again in accordance with some magic principle of economic suitability which both Roman engineers and medieval peasants understood? A simpler answer is that we are dealing with cases of continuity. But the question is to define this continuity. What form did it take? These places have certainly not always been of the same status. We have the example of Winchester to teach us that a great Romano-British city, the fifth largest in the country, could decline to a small if politically important settlement, before

re-emerging several hundred years later as a major town. Places do not remain constant. They may indeed change in all kinds of ways. In this pattern of the relationship of churches to walled settlements there may be some kind of linking thread, potentially understandable if we ask the right questions.

The remarkable thing is that the questions seem not to have been asked. Why, for example, are there so many churches, sometimes isolated, sometimes in connection with villages, to be found inside the walls of those Roman stone-walled forts which remained in use down to the latest period of Roman Britain? At Leintwardine in Herefordshire there are three successive forts, one of the 1st century, one of the earlier 2nd century, and a mid-2nd century fort which was occupied to the late 4th century, if not beyond. The sites of the earlier forts have remained unoccupied, but Leintwardine itself stands on the site of the third and latest fort. This seems never to have had a stone wall, but only earthen defences, and yet there is inside it a medieval village with its church tucked away in one corner of the rampart. There is no doubt that the modern road through Leintwardine runs from the site of the north gate to the site of the south gate of the Roman fort. Yet because we are dealing here with a fort which does not appear ever to have been stone-walled, this apparent topographical continuity can scarcely have been conditioned by the existence of major stone defences. What then has been the factor which has led to the existence of Leintwardine on this spot, to the survival of the exact line of the north–south road, and to the presence of a church within the walls? All this, I may add, in open country offering many alternative sites for settlement.

Consider the towns and forts of Roman Wales. Caerwent, Caerleon, and Chester (if I may be allowed to call Chester Welsh) all have churches inside them. But so do the minor Roman forts like Caerhûn and Loughor and Caer Gybi. And this is to ignore the many cases where churches are to be found beside the road immediately outside the gates of a fort, today either in isolation or with a surrounding village. The relationship between fort and church and town and village is not invariable, but it is frequent enough to demand explanation. This is a Celtic area, where a degree of continuity is to be expected, but what about the area of Hadrian's Wall? If you look along the Wall from east to west you see a remarkable situation. None of the forts on the eastern half of the Wall has a church inside the defences, but virtually all the forts to the west do have. I cannot pretend to know the answer to this, but the western part of the Wall lay in the kingdom of the Strathclyde Britons, while the eastern half of the Wall was probably in the area of the Votadini. In talking of the western half of the Wall, we are talking of the area from which St Patrick came, an area in which Romano-British Christianity was certainly well established. The churches do not normally lie in a logical relationship to the internal planning of these and other northern forts. They may indeed sit at an angle of something like 45° across the *principia,* as at Carpow, but on the whole they occupy one of two positions, either more or less in the centre, or in one corner of the defended area. The same situation is to be seen in some forts south of the Wall: in Ribchester, Ebchester, Doncaster, and Piercebridge, for example, as well as in a town such as Aldborough. Roman forts quite often became the sites of medieval

villages, but the mechanisms by which this happened have rarely been questioned, let alone investigated. Since the church is frequently the earliest visible element in the village, whether because it incorporates the earliest structural evidence or because it is the earliest documented feature, it obviously provides something we can cling to in asking what this relationship means. Let us glance for a moment, to take a further example, at the forts of the Saxon Shore. All but two—Brancaster and Lympne—of the fourteen or so forts have a church inside them, and some of these are among the earliest churches we know, like St Peter at Bradwell-on-Sea in the fortress of *Othona*, or St Mary at Reculver in the fortress of *Regulbium*. But there are less well known cases. There is the small Christian church of perhaps 8th century date inside the walls of Richborough (Bushe-Fox, 1928, 34–40). The early church at Pevensey, which the owner of the castle had to get the specific agreement of the inhabitants of Pevensey to move, lay within the walls of the Saxon Shore fort (A J Taylor, 1969, 144–51, esp. 149–51). There was a church or chapel, evidenced only from the medieval period, inside the fort of Bitterne *(Clausentum)* (Crawford, 1947, 148–55).

Is this all a matter of coincidence? I do not think there is a simple answer. Some of the cases I have mentioned may well be coincidence: a major stone-walled structure was available which provided, at some date long after its abandonment, a useful enclosure for a new generation of occupants. But I am sure this does not provide a general explanation. It does not explain, for example, why St Felix was apparently given the Saxon Shore fort of Walton-on-Sea for the first see of East Anglia.[2] There are many questions like this which could be asked, but if one looks at the continental literature, the placing of churches in and beside Roman forts and in small towns provides one of the basic lines of inquiry in the investigation of early medieval settlement. I think, for example, of the work of Weidemann on Mainz, Metz, and the area between the *limes* and the Rhine (Weidemann, 1968, 146; 1970, 147; 1972, 99). Here is a theatre where our investigation of the church touches on major historical problems. The establishment, for example, of the dates at which churches came into being and of their relationship to the setting in which they were constructed would illuminate in an entirely fresh way the problems I have tried to raise here.

Papers like Margaret Deansley's on 'Roman traditionalist influence among the Anglo-Saxons' show that a sometimes distorted understanding of and veneration for the imperial past was a feature of the Anglo-Saxon world (Deansley, 1943, 129).[3] Behind these conscious Romanisms and half-understood memories may lie the realities of the cultural changes which are more easily understood today now that we can see the close relationship which existed between the first Anglo-Saxon arrivals and the Romano-British people, among whom the newcomers were settled for the defence of the province itself. How much easier it is to contemplate these contacts between Anglo-Saxon England and Roman Britain than it was in the old days fifteen years ago when everything English began with the *Adventus Saxonum,* which only took place, to all intents and purposes, after Roman Britain had somehow mysteriously disappeared. In the investigation of our churches the continuity problem, the problem of Roman-Saxon contact and cultural change, is one to which we must give a great deal of attention.

PAGAN–CHRISTIAN TRANSITION

Another major problem is provided by the question of the Christian re-use of pagan shrines. Pope Gregory instructed Augustine through Abbot Mellitius not to destroy pagan temples but to consecrate them as churches (Bede, *HE* i. 30). He was writing without direct knowledge of Britain and may well have had in mind temples like those to be seen around him in Rome, many of which had already been converted to Christian use. He may have supposed that conditions in Britain were similar and his instruction is clear and to the point. But what is the archaeological evidence? Yeavering may provide one example, where Brian Hope-Taylor thinks that one of the buildings which may earlier have been a pagan shrine was converted to Christian use. Stone-by-Faversham might possibly provide another case, but this seems less likely. Why is there so little evidence? Do we know what we are looking for? What would we expect to find of a pagan shrine which had been converted into a Christian place of worship? And here I mean not a Romano-British temple but a pagan Anglo-Saxon shrine. Until very recently we really did not know, but now Olaf Olsen in his important study of the pagan origins of church sites in Scandinavia and especially in Denmark has given us some idea of the possibilities, at least in so far as post-migration Scandinavia may be relevant to migration-period England (Olsen, 1965). Pagan shrines of the kind called *hørgr* were, his evidence suggests, essentially holy places for nature worship. Normally, it appears, they were in the open, perhaps in a grove, and may have been marked by a pile of stones, with or without a cult-statue and a well. Sometimes they may have been protected by a shelter, but this would appear to have been quite insubstantial. Another kind of place of pagan religious activity was called a *hof,* which Olsen defines as "a farm where cult meetings were regularly held for more people than those living on the farm". This would be an ordinary living-house and would not be archaeologically distinguishable, as Olsen points out, from a farm-house or barn. If this careful analysis, which is accepted by many Scandinavian archaeologists, suggests that pagan religious sites were either in the open air with an idol and possibly a light shelter, or were buildings which cannot be distinguished from domestic structures, our problem of identifying pagan activity on Christian sites will be difficult indeed. The present negative state of the evidence may reflect this difficulty. To discover whether or not there was religious continuity of this kind from the pagan Germanic world to the Christian church, we shall have to undertake excavations which will place the church in the full setting not only of what lies below the actual structure but also in its vicinity. Sites such as these will present much greater problems than those where a Roman temple has been adapted for Christian use, a problem with which I dealt at the beginning of this paper.

THE ORIGINS OF CHURCHYARD BURIAL

Here is another historical question on which the investigation of churches can produce new evidence. How in fact did churchyards come into use? Pagan Anglo-Saxon cemeteries are known all over the eastern and southern parts of England, and among them it has been possible in the last 20 years or so to define a kind of burial place which is now broadly regarded as early

Christian (Hyslop, 1963, 161–200, esp. 189–94). These burials do not usually occur on the same sites as the more obviously pagan graves, but are often quite close to them, in separate cemeteries. Basically, the bodies were buried only with very personal equipment, or with objects which were not equipment at all but rather items of clothing or personal ornament. A woman, for example, might wear a necklace which, however rich, was an item of clothing rather than a grave offering. A man might be found with a buckle at the waist, but this was simply the remains of the belt which formed part of the clothing in which he was buried. A woman might have a work-box or strike-a-light, or a man might have a knife or a pair of shears, but these were not grave-goods so much as the actual equipment of the dead person, so closely associated with them as almost to form part of their clothing.

Winchester illustrates the problems surrounding the origin of churchyard burial. At Winnall I, just outside the city, there is a pagan Anglo-Saxon cemetery of the 6th century which may have continued in use into the early 7th. Close to it is the cemetery known as Winnall II, one of these putative early Christian cemeteries, on a new site, but derived from the same community, which I have just described (Meaney and Hawkes, 1970, esp. 50–8). Winnall II went out of use in the early 8th century at precisely the date when burial in the cathedral graveyard began (Kjølbye-Biddle, 1975, 87–108, esp. 100–7). Interestingly, burial did not apparently begin there at the time of the foundation of the church about 648, and none of the 700 or so excavated burials contained any grave-goods, at least in this early period. Yet the Winnall II cemetery just outside the city contained graves of supposedly Christian character with certain grave-goods of the kind described, and a small cemetery at Lower Brook Street inside the city also presented similar grave-goods, an exceptionally rich necklace, an iron knife or pair of shears, and a little bronze belt-buckle. So there seem to be three stages: pagan cemeteries; cemeteries on new sites, which may be Christian but which belong to a period before the cathedral church obtained control over the right of burial: and burial in the cathedral graveyard itself. Winchester was exceptional, although not unique, in that the cathedral controlled burial so completely that there were apparently no graveyards attached to the parish churches inside the walls of the city. By contrast, parish churches in the suburbs did have graveyards.

Here then in Winchester we seem to see a sequence in the development of churchyard burial. Is this applicable to the rest of the country? What is the social process by which pagan cemeteries were abandoned, new burial sites used for a while, in the interim period of the conversion, and churchyards eventually established? There is also the contrast between burial in churchyards and burial inside churches. How few early burials there were inside Hadstock church, as the recent excavations have shown. There were no burials at all inside the Old Minster at Winchester until the 9th century, and then only two, whereas outside there were hundreds. There was apparently an early prohibition on burial within the 'liturgical' fabric of the church (in practice the nave and 'chancel') and burial therefore took place in the lateral *porticus,* which seem in some way to have been regarded differently from the church itself. But what kind of persons could be buried inside the

porticus? And at what date did burial in the main fabric of the church begin, and why, and under what conditions? Here is another area we need to investigate.

As a kind of reflex to this problem of the emergence of churchyard burial there is the question of pagan burial in Christian cemeteries. This is seen particularly in the discovery of Viking weapons in Christian churchyards in the Danelaw and northern England. An axe found beside the Anglo-Saxon crypt at Repton in 1923 certainly came in my opinion from a burial and there are a good many other parallels which could be quoted (Wilson, 1968, 291; Wilson, 1967, 37). Were these the weapons of Christian Vikings who still retained the custom of burial with grave-goods, taking their weapons with them on their way to the Christian Valhalla? Or were these pagans who were being buried in a common place of burial? Or pagans whose Christian relatives looked for the salvation of the souls of the departed? Here again is a problem to be investigated and several different ways of looking at it.

We have been talking about the origin of churches, but what about the emergence of the administrative basis of the Anglo-Saxon church? I am thinking here of the establishment of 'old minster' churches, with ecclesiastical control over relatively large areas of countryside, served by a small community of priests, and perhaps connected with a monastery. The establishment by various means of daughter churches within the larger territory of these 'old minsters' led eventually to the evolution of the parochial system. Sometimes the territory related to such a minster can be defined, but systematic research in this field is scarcely under way and it is comparatively rare even to be able to identify the churches in question. Yet this must be important in our study of Anglo-Saxon church fabric, and will help to explain the character, and define the function, of some of our earlier structures. Titchfield, one of the earliest surviving churches in Hampshire, seems, for example, to have been an 'old minster' church. The development of the parochial system, whether in town or country, is essentially a matter which can be discussed only in a chronological framework provided by the date of the foundation of these churches established as a result of archaeological excavation. This framework cannot be derived from documents. One of the most interesting things to emerge from Lawrence Butler's paper is the realization that even in a well documented period it is the fabric of the church alone which can give us any coherent picture of its character and development. How much truer this must be in a period for which documents virtually do not exist. The fabric of a church is the essential basis for research into its past. In the question of origins it is only by archaeological investigation, both above and below ground, that we can produce the answers. This is equally true of the foundation of churches in later periods, although as time goes on there is likely to be more documentary evidence available. But does it refer to a foundation *de novo* or to a re-foundation? Has there been a change of dedication? These are a few of the problems which excavation can examine and sometimes solve.

I have asked questions, rather than given answers, about problems in continuity, about the pagan to Christian transition, about the origin of churchyard

burial, and about the origin and growth of churches. I have stressed that we ought to take a broad view of our problems, that we ought to try to evolve a strategy for church archaeology in relation to those major historical problems which the archaeology of the church can illuminate. When we approach an individual church, we have therefore to ask ourselves questions about it within a very wide frame of reference. We must lift up our eyes, and our understanding, from the particular to the general, from a single building to the society which it served and which alone gave it meaning.

CHURCH STRUCTURES

I shall end by listing a few of the specific structural problems of church buildings which I currently find particularly interesting, and with some words on our technical approach to the archaeology of the church.

We are still very poor in wooden churches in this country as a result of excavation, by comparison, for example, with Denmark where it is now quite normal to find two wooden stages before the establishment of the first stone church at the end of the 11th or beginning of the 12th century. There is the first stage of the church at Wharram Percy: there is the church at Potterne, near Devizes, in Wiltshire: there is, of course, Greensted in Essex; and there are a few other more or less possible examples. But no general pattern emerges. Is this an historical reality? Were there really very few timber churches in England, or have we not found them because our sample of excavated churches is very small, and our sample of totally excavated churches smaller still? Many references to wooden churches can be found in the documentary sources. For example, St Mary Bredin in Canterbury is St Mary Bredene, a name which is given in a Latin source as *ecclesia lignea, bredene* being an Old English word meaning 'plank' or 'planked' (Urry, 1967, 213). There are many other references but they have never been fully collected. [4] Wooden churches existed, but so far we have not found many of them.

To move beyond the general structure of the church to the many questions concerning the internal structure and fittings, it seems to me vitally important to identify and date the first introduction of major features. The position of the altar provides a case in point. Are nave altars invariable at an early period and, if so, at what stage do they give way to eastern altars? When are side altars inserted? At what date do roods appear, or, in archaeological terms, something which looks as if it may have supported a screen? When are fonts introduced and in which position? What is the function and date of the introduction of wall-benches? These are things so traditional in the fabric of the church that we may scarcely question when they were first established, but it is the date of their introduction, rather than their continued use, which presents one of the most critical historical issues we have to solve. Equally, the liturgical arrangement of the church over a succession of periods, each layout composed of an amalgam of features which originated at different earlier stages, must be reconstructed if we are to follow both constancy and change in liturgical practice as reflected in the structure itself (Olsen, 1967, 235–57; Biddle, 1969, 306–8; 1972, 104–7; 1975, 312, 318–20).

Outside the church, the study of boundaries seems to me vital to the study of the site, to the evolution of the churchyard, and sometimes even to the development of the church itself. The legal division between nave and chancel was in one sense a boundary and one which imposed its own constraints on the development of the fabric. Clearly there were sometimes external constraints, for example in the way in which churchyards developed in relation to boundaries, or with reference to internal divisions such as paths and fences. There were also structures in early churchyards and of these we know very little as yet. They included standing crosses, elaborate tomb-structures, and mortuary chapels, and in the cemetery of a large monastery they could be both extensive and important.

I shall finish with a few words on methods of study. Structural criticism (the term given by Dr H M Taylor to the analysis of standing structures) and excavation are inextricably and essentially inter-connected approaches to the same problem. Both depend on the principles of stratification which is a general explanatory law, relevant both to standing and buried structures. It matters little whether deposits are added one on top of another in a horizontal plane, or beside one another in a vertical plane, or even if they are inserted one partly below another, for the general principles of stratification still apply. Structural criticism and excavation are simply two aspects of the total examination of the material fabric of a church and its site. Those total examinations which have been carried out—Wharram Percy and Hadstock, for example—demonstrate in the completeness of their results the comparative uselessness of individual trenches in church excavation, unless these are designed to form part of a comprehensive investigation. Especially inside small churches, trenches fail to provide any grasp of the overall pattern. And it should be a tenet of archaeological faith that trenches should not be dug across the sites of ruined churches. They are simply not worth the time, money, and human effort involved and certainly do not justify the destruction of the evidence they cause. The parish churches of St Mary in Tanner Street and St Pancras, Winchester, provide some idea of the insights to be gained from total excavation, which in these cases also involved total removal of the structures, phase by phase. This is possible only where churches have been abandoned or are now threatened with destruction. But there are a very large number of such churches in this country, and in defining strategies for investigation some of these churches should perhaps be chosen for total investigation whether or not they are standing ruins. I am the last person to deny the value of investigating a standing building, such as Deerhurst or Repton, but one cannot dismantle them stone by stone, and this is just what one can do, in so far as they survive, to the many churches which over the centuries have been abandoned in town or country, which have vanished into the soil, but which can be recovered by field-work and excavation. These churches, which are now in many cases to be destroyed by commercial development, can be taken totally to pieces, and this we need to do as a control upon the somewhat less drastic work which is possible in our greater and still fortunately surviving monuments.

NOTES

[1] The topographical situation is conveniently shown by von Petrikovits (1968, pl. 11).

[2] If Stuart Rigold is right: see Rigold (1961, 55–9; 1974a, 97–102).

[3] See also Michael Hunter (1974, 29-50), in which archaeology is treated as if it dealt with *disjecta membra* rather than with dynamic historical and cultural entities.

[4] Zimmermann (1958) lists some 27 references to timber churches in pre- and post-Conquest Britain. Many more could be added from other sources.

REFERENCES

Biddle, 1969   M Biddle 'Excavations at Winchester 1968', *Antiq. J.* **49** (1969), 295–329.

—, 1972   M Biddle, 'Excavations at Winchester 1970', *ibid.,* **52** (1972), 93–131.

—, 1975   M Biddle, 'Excavations at Winchester, 1971', *ibid.,* **55** (1975), 96–126, 295–337.

Riddle and Hudson, 1973   M Biddle and D M Hudson, *The Future of London's Past* (Worcester, 1973).

Bruce-Mitford, 1974   R L S Bruce-Mitford, *Aspects of Anglo-Saxon Archaeology: Sutton Hoo and other discoveries* (London, 1974).

Bushe-Fox, 1928   J P Bushe-Fox, *Second Report on the Excavations of the Roman Fort at Richborough, Kent.* Soc. of Antiquaries Research Report **7** (London, 1928).

Crawford, 1947   O G S Crawford, 'Bitterne after the Romans'. *Proc. Hampshire Fld. Club Archaeol. Soc.* **16** (1947). 148–55.

Deansley, 1943   M Deansley 'Roman traditionalist influence among the Anglo-Saxons', *Engl. Hist. Rev.,* **58** (1943), 129–46.

Fletcher and Meates, 1969   E Fletcher and G W Meates, 'The Ruined Church of Stone-by-Faversham', *Antiq. J.* **49** (1969), 273–94.

Gem, 1970   R D H Gem 'The Anglo-Saxon Cathedral Church at Canterbury: a further contribution', *Archaeol. J.* **127** (1970), 196–201.

Gilbert. 1970   E C Gilbert, 'The Date of the late Saxon Cathedral at Canterbury', *ibid.,* **127** (1970), 202–10.

Grierson, 1952–4   P Grierson, 'The Canterbury (St Martin's) hoard of Frankish and Anglo-Saxon coin-ornaments', *Brit. Numis. J.* **27** (1952–4), 39–51.

Hegel, 1963   E Hegel, 'Die rheinische Kirche in römischer und frühfränkischer Zeit', *Das erste Jahrtausend.* Ed. V H Elbern (Düsseldorf, 2nd ed. 1963), i, 93–113.

Hunter, 1974   M Hunter, 'Germanic and Roman antiquity and the sense of the past in Anglo-Saxon England'. *Anglo-Saxon England,* **3** (1974). 29–50.

Hyslop, 1963   M Hyslop, 'Two Anglo-Saxon cemeteries at Chamberlains Barn, Leighton Buzzard, Bedfordshire', *Archaeol. J.* **120** (1963), 161–200.

Jenkins, 1965   F Jenkins, 'St Martin's Church at Canterbury: a survey of the earliest structural features',*Medieval Archaeol.* **9** (1965), 11–15.

Kjølbye-Biddle, 1975   B Kjølbye-Biddle, 'A cathedral cemetery: problems in excavation and interpretation', *World Archaeol.* **7** i (1975), 87–108.

Levison, 1941   W Levison, 'St Alban and St Albans'. *Antiquity* **15** (1941), 337–59.

Meaney and Hawkes, 1970   A L Meaney and S C Hawkes. *Two Anglo-Saxon Cemeteries at Winnall,* Soc. for Medieval Archaeology, Monograph Ser. 4 (London, 1970).

Merrifield, 1976   R Merrifield, 'Roman'. In *The Archaeology of the London Area: Current Knowledge and Problems,* London and Middlesex Archaeological Society, Special Paper No. 1 (1976), 50–9.

Morris, 1968   J Morris, 'The Date of St Alban', *Hertfordshire Archaeol.* **1** (1968), 1–8.

Myres and Green, 1973   J N L Myres and B Green, *The Anglo-Saxon Cemeteries of Caistor-by-Norwich and Markshall. Norfolk,* Soc. of Antiquaries Research Report **30** (London, 1973).

Olsen, 1966   O Olsen, *Hørg, Hov og Kirke* (Copenhagen, 1966). Also as *Aarbøger for Nordisk oldkyndighed og historie* for 1965, with an English summary, 277–88.

Olsen, 1967   O Olsen, 'Rumindretningen i romanske lands-bykirker', *Kirkehistoriske Samlinger,* **7** ser., **6.** ii (1967), 235–57.

Parsons, 1969   D Parsons, 'The Pre-Conquest Cathedral at Canterbury' *Archoeol. Cantiana.* **84** (1969), 175–84.

Petrikovits, 1960   H von Petrikovits, *Das römische Rheinland,* Beihefte der Bonner Jahrbücher **8** (1960).

Rigold, 1960   S E Rigold, 'The two primary series of sceattas', *Brit. Numis. J.* **30** (1960), 6–53.

—, 1961   S E Rigold, 'The supposed see of Dunwich', *J. Brit. Archaeol. Ass.* 3 ser., **24** (1961), 55–9.

—, 1974a   S E Rigold, 'Further evidence about the site of "Dommoc", *ibid.,* **37** (1974), 97–102.

—, 1974b   S E Rigold, 'Coins found in Anglo-Saxon burials'. In *Coins and the Archaeologist,* ed. J Casey and R Reece, British Archaeological Reports **4** (Oxford, 1974), 201–5.

Schindler, 1973   R Schindler. in *Vor- und Frühformen der europäischen Stadt im Mittelalter.* Ed. H Jankuhn, W Schlesinger, and H Steuer, Abh. d. Akademie d. Wissenschaften, Philolog.-Hist. Klasse, 3te Folge, Nr. 83 (Göttingen, 1973), i, 130–51.

Taylor, A J, 1969   A J Taylor, 'Evidence for a pre-Conquest origin for the Chapels in Hastings and Pevensey Castles', *Château Gaillard,* iii (ed. A J Taylor, 1969), 144–51.

Taylor, H M, 1969   H M Taylor, 'The Anglo-Saxon Cathedral Church at Canterbury', *Archaeol. J.* **126** (1969), 101–30.

Taylor and Taylor, 1965   H M Taylor and J Taylor, *Anglo-Saxon Architecture* (Cambridge, 1965) I.

Urry, 1967   W Urry, *Canterbury under the Angevin Kings* (London, 1967).

Weidemann, 1968   K Weidemann. 'Die Topographie von Mainz in der Römerzeit und dem frühen Mittelalter'. *Jahrbuch des Römische-Germanischen Zentralmuseums Mainz,* **15** (1968), 146–9.

—, 1970   K Weidemann, 'Zur Topographie von Metz in der Römerzeit und im frühen Mittelalter', *ibid.,* **17** (1970), 147–71.

—, 1972   K Weidemann, 'Untersuchungen zur Siedlungsgeschichte des Landes zwischen Limes und Rhein vom Ende der Römerherrschaft bis zum Frühmittelalter', *ibid.,* **19** (1972). 99–154.

Whiting and Mead, 1928   W Whiting and H T Mead, 'A Roman cemetery at St Martin s Hill, Canterbury', *Archaeol. Cantiana.* **40** (1928), 97–108.

Wilson, 1967   D M Wilson, 'The Vikings' relationship with Christianity in Northern England', *J. Brit. Archaeol. Ass.* 3 ser. **30** (1967), 37–46.

—, 1968   D M Wilson, 'Archaeological evidence for the Viking settlements and raids in England', *Frühmittelalterliche Studien,* **2** (1968), 291–304.

Zimmermann, 1958   W Zimmermann, 'Ecclesia lignea und lignels tabulis fabricata', *Bonner Jahrbücher,* **158** (1958). 414–53.

Earlier contributors to this collection of essays have explored the potential of the church as an historic site. But no archaeologist can fully explain the significance of the evidence he finds unless he is aware of the function of the building he is investigating. My aim is to discuss the purpose of a church and the churchman's attitude towards it. And there could be no better introduction, in fact no better summary, than the sentiments contained in the hymn "We love the place, O God". The first two verses read:

> We love the place, O God
>   Wherein thine honour dwells;
> The joy of thine abode
>   All earthly joy excels.
> It is the house of prayer,
>   Wherein thy servants meet;
> And thou, O Lord, art there
>   Thy chosen flock to greet.
>   *(Hymns Ancient and Modern Revised,* 242)

Perhaps nostalgia for the English parish church refined the inspiration of the author of the hymn and the composer of the tune, *Quam Dilecta,* for both were Victorian colonial dignitaries: William Bullock, Dean of Halifax, Nova Scotia; and Bishop Jenner of Dunedin, New Zealand.

First and foremost a church is a Christian building and Christianity is a living religion. There are countless people in the world who confess the same Lord, who receive the same sacraments, who are inspired by the same Holy Spirit as their forefathers in the Faith. A church archaeologist, then, is not dealing with a Mithraeum or the Temple of Diana whose adherents are long since dead. Even if he is not a believer himself, he may talk with those who do believe and who practise their faith, and he may read Christian literature and participate in the Christian liturgy. He may, for instance, compare the way Anglican clergy today rotate the position of the altar with the evidence which Martin Biddle found in St Mary's, Tanner Street, Winchester, where the church was modified on at least twelve occasions between 1250 and 1470 (Biddle, 1969, 308; Taylor, 1973, 52). Sad to say, the days are past when most archaeological societies boasted a preponderance of clergy on their councils, but the working out of the new Mass in the Roman Catholic Church, and the new Anglican liturgy (Series 1, 2, and 3) provides a valuable opportunity for dialogue between the archaeologist, the priest, and his people. For it is only through an understanding of previous liturgies that a satisfactory contemporary liturgy can evolve. At a time when the church appears to be facing overwhelming odds, Christians should remember Bishop Lightfoot's words that the study of history is "a tonic for drooping hearts".

The principal function of a church is to serve as a place where local Christians can meet for worship and fellowship, their supreme act of worship being the Sunday offering of the Holy Eucharist. For this purpose four walls and a roof will suffice to protect priest and people from the weather, and the essential furniture is merely a table and the vessels for the bread and the wine. But the Eucharist is not only the ministry of the sacrament, it is the ministry of the Word and there may need to be a suitable place from which that word may be preached. Furthermore, the Church follows the ceremonial re-enactment of the mysteries of the Faith over the course of the liturgical 'Christian year' and there must be space, in particular, for the solemnities of the Easter season, To describe a church simply as a 'Eucharistic room' is therefore inadequate, for there is so much else that is performed within its walls. There the neophyte is baptised; man and woman are joined in holy matrimony; the dead are brought before burial; the daily office is recited. Yet although worship is its main function, churches have often been used for secular purposes in the course of their history; and nowadays they are even more frequently the scene for parochial gatherings of one sort or another (Davies, 1968).

As fashions change, communities alter in size and theological emphases differ, so a church building grows or contracts. It is almost as if it were a living organism. Mr Hurst has graphically illustrated the organic development of St Martin's, Wharram Percy, showing how the story of the village is reflected in the architectural history of the church. A similar process can be seen at Jarrow and Upleatham, while Dr Taylor has drawn attention to the skill of the medieval builder in incorporating considerable parts of earlier structures into later buildings. Aspects of the history of a church may be reflected, too, in its furnishings. To take the question of seating alone, the medieval building had stone benches around the walls and apparently little other provision for the laity. Then came the Friars, the advance of preaching, and the open pew. In the 18th century the sermontaster required comfort for the length of the sermon: accordingly he was protected from the draught by the box pew. In the 19th century the Camden Society declared that only benches were the proper accommodation for the worshipper (White, 1962, 106). The development of seating and other church furnishings in subsequent years can be traced through Peter F Anson's *Fashions in Church Furnishings, 1840–1942.*

There are many buildings that have this organic growth yet lack the atmosphere peculiar to a church. This quality is derived from the fact that a church is the place where Christians meet, one generation after another, for the worship of Almighty God. If there is a 'horizontal' dimension, as brother and sister meet one another in Christ, so also is there the 'vertical' dimension where God meets man and man meets God. The consequence of this intersection is that the place of meeting, the church, becomes associated with the Divine. In the words of Jacob "How dreadful is this place! This is none other but the house of God: this is the gate of heaven" (Genesis 28, 17). Convincing as is the theology of those who maintain that holiness is derived solely from the use of a building for worship, there is little doubt that most church people perceive an intrinsic holiness in a church, the numinous element described by Rudolph Otto in his study of the Holy.

From the 17th century this concept was canonized by the Church of England. In an order for th e consecration of a church prepared by Bishop Lancelot Andrewes in 1620 occur the words: "We are now assembled here to put thy name upon this place, and the memorial of it, to make it thy house, to devote and dedicate it ever to thee, utterly separating it from all former uses common and profane, and wholly and only to consecrate it to the invocation of thy glorious name" (Davis, 1968).

The church is a special place, hallowed both by the worship that has been offered within and by the love of past generations for it. Indeed, in the Middle Ages the church building was regarded almost as if it were human. The ceremonies associated with the consecration of a church included not merely naming, but exorcism, baptism, and signing with the cross. Perhaps it was the faulty development of this theology that has led to the popular identification of the church building rather than the people as 'the Church' in a given parish. Or, possibly, it is part of humanity's deep-seated need to identify with something which speaks of permanence: *ad sacros usus, in aeternum.*

The perception of this atmosphere is real. It is comparable with the evaluation of a piece of sculpture, a painting, music, or drama, which each in turn evokes its own response in the individual. The title of a recent book by Alec Clifton Taylor (1974) is indicative of a fresh approach to churches and the particular quality they possess. For instance, the setting, the architecture, and the history all contribute towards the melancholy air which prevails at the remote church of Aughton in the old East Riding, whence came Robert Aske, the leader of the ill-fated Pilgrimage of Grace, who hung in chains from York Castle. The former priory church of St Mary , Nun Monkton, North Yorkshire, retains, as so many religious houses tend to do, an atmosphere of peace and worship. Nor does this atmosphere necessarily depend upon antiquity. Some architects know how to create it (Comper, 1946). The shrine of Our Lady of Walsingham, begun 1931 to a design by Milner and Craze, has a timeless air of mystery. The church of St Cuthbert, Philbeach Gardens, Kensington,   which has been hailed as the Cathedral of the Incarnation, was built between 1884 and 1887 by Roumieu Gough.

Yet so subtle is this atmosphere that it can not only be introduced, but also enhanced or evicted. The excavations at Rivenhall have revealed a Saxon church under a Victorian skin and increased this quality. On the other hand there are many Scandinavian churches which, while they have been preserved to the highest museum-like standards, yet are strangely sterile. Perhaps too much conservation is a bad thing. Osbert Lancaster wrote of the danger of what has been called the 'museum mentality' when he compares the fate of the church of Santa Sophia in Constantinople with that of the Great Mosque at Nicosia: ". . . . . it is a far, far better thing for the House of God to fall into the hands of the infidel than to pass into the keeping of an office of Works" (Lancaster, 1947).

Finally, the Christians who use these buildings for their worship believe in the Communion of Saints. They are one with Christians throughout the world; they are one with those who 'have departed hence in the Lord'. A church is part of a vast ecclesiastical network. So whether an excavation takes place in a used church

or in one that has had no services for many years, there is a sympathetic interest in what goes on. Furthermore, where the remains of the faithful are disturbed in a church or churchyard there is not only a natural anxiety in that these may be the bones of relatives, but also a theological factor to be borne in mind. The Christian regards the body as the temple of the Holy Spirit. Though the body be dead yet the bones are the remains of that structure and should be treated with respect. It may be that the cry "let the dead rest" stems mainly from the 18th century fear of the body-snatcher, but it is none the less genuine for that. It would appear from research into medieval burial practices that there was a constant cycle of burial, disturbance, and reburial. Many churchyards were used over and over again, bones being disinterred and reburied, often in conjunction with charnel houses and bone pits, until the heavy 18th and 19th century ledger stones were introduced. The excavation of human remains is a very sensitive matter. The Church may perhaps justifiably be accused of a double standard. Bones are rarely allowed to stand in the way of any architectural work, yet the archaeologist sometimes encounters opposition if he wishes to make a record of what is there in advance. Again, in a churchyard, which above all is "the area round a church where the dead are buried" (Stapleton and Burman, 1976), the time may well come when the parishioners will want to re-use an old part. But such re-use can only take place at the cost of disturbance of earlier graves.   In such circumstances it is surely reasonable to permit archaeological recording.

As years pass, the attitudes of those with a special interest in the church as a building change. In the 19th century ecclesiologists concentrated on the categorizing of stylistic features. Nowadays the aim is to show that churches are places which have been used for worship and are used today (Stapleton, 1966, 487). The church is to be seen as the architectural expression of the liturgy and all that goes on within it. The archaeologist can help greatly here as he lays bare the evolution of the plan, reveals the wear-pattern of the floor, or traces the elements of wax that fell from the lights before the statues.   Dr Butler and Mrs Owen have provided most valuable guidance for tracing the documentary evidence to do with a church, but there is also a considerable quantity of early liturgical material. Much was published in the 19th century, and especially in the 1890s when the Ritualisti   c Controversies were at their height, as scholars combed texts to find the authority for altar ornaments, rites, and ceremonies. Societies, too, like the Alcuin Club and the Henry Bradshaw Society have published volumes which deserve fresh attention from the archaeologist. A bibliography to help both the liturgist and the archaeologist is needed: could this be compiled jointly by the CBA and the Council for Places of Worship?

For many people archaeology is mistakenly regarded as being synonymous with excavation. If the opportunity for the excavation of a church does occur, then let it be approached with the greatest circumspection ; a Code of Practice should warmly be welcomed. If I may be allowed to introduce a medical analogy, when an archaeologist begins to investigate a church let him regard himself as a surgeon performing a delicate operation. His patient is a highly respected   member of the community, and th e operation is to preserve his life. Let this be his approach

rather than that of the pathologist who dissects the organs of an unknown corpse to determine the cause of death.

But how much archaeology there is in and around a church which needs neither trowel nor spade to uncover! Martin Biddle has already drawn attention to churches which stand in areas of former Roman occupation, but why are so many churches in the 'wrong place' as far as the modern parishioner is concerned, at the end of a village, or in the middle of a field? More attention is now being given to churchyards: their shape, development, and size. But nearby buildings should not be overlooked, such as the row of cottage s adjacent to Holy Trinity Goodramgate, York, which provided rents to pay for a chantry priest. An interest in Victorian horticulture has recently developed. Before it is too late the layout and landscaping of the vicarage garden should be recorded: its copper beech and holly hedge and "the lodge in the garden of cucumbers". Many Victorian churches are now threatened with demolition: a study needs to be made, too, of that complex of church, parsonage, and school which formed the essential 'plant' of the evangelical clergy. There are the questions of church dedication and orientation. Miss Arnold-Forster wrote her book as long ago as 1899. There have been several local studies in recent years, but there is more information to add. As a youngster I was thrilled by the explanation of the stratification in an excavation trench; is not church archaeology largely 'vertical archaeology' ? Dr Taylor and Martin Biddle have set out the basic principles, but there is room for a book for the beginner to tell him about mortars, tooling, joints, masoncraft, and carpentry. There are church bells, some still unrecorded, often with inscriptions which point to an origin in some other belfry. In many churches the bellframe is the oldest timber in the church. Who has studied the inscriptions to be found on chalices, frequently with an earlier pronunciation of the village phonetically inscribed? How much awaits the student as he pores over the musty 18th and 19th century bibles and prayer books in the corner of a church vestry. The very thumbmarks record the pattern of worship of a previous generation. Lastly, let all who have to do with a church building remember the words of T S Eliot in Little Gidding *(Four Quartets)* :

> You are not here to verify,
> Instruct yourself, or inform curiosity
> Or carry report, You are here to kneel
> Where prayer has been valid.

REFERENCES

Alternative Services, 1967   First Series. *An order for the Administration of the Lord's Supper or Holy Communion.*
—, 1967 and 1971   Second and Third Series. *An order for Holy Communion.*
Anson, 1960   P F Anson, *Fashions in Church Furnishings, 1840–1940.* (London, 1960).
Arnold-Forster, 1899   F Arnold-Forster, *Studies in Church Dedications,* London.
Benson, 1956   Rev H Benson, 'Church Orientations and Patronal Festivals', *Antiq. J.* **45,** 205.
Davies, 1968   J G Davies, *The Secular Use of Church Buildings,* SCM, 1968.
Clifton Taylor, 1974   A Clifton Taylor, *English Parish Churches as Works of Art,* London, 1974.

Comper, 1947   J N Comper, *Of the Atmosphere of a Church,* London, 1947.
Lancaster, 1947   (Sir) Osbert Lancaster, *The Future of the Past,* London, 1947.
Stapleton, 1966   H E C Stapleton, 'A Plea for the Parish History', *Church Quarterly Review,* **167** (1966), 487.
Stapleton and Burman 1976   H E C Stapleton and P A T Burman, *The Churchyards Handbook* (1976), 2nd edition.
Taylor, 1973   H M Taylor, 'The Position of the Altar in Early Anglo-Saxon Churches', *Antiq. J.* **53,** 52–58.
White, 1962   J F White, *The Cambridge Movement: the ecclesiologists and the Gothic revival.* Cambridge, 1962.
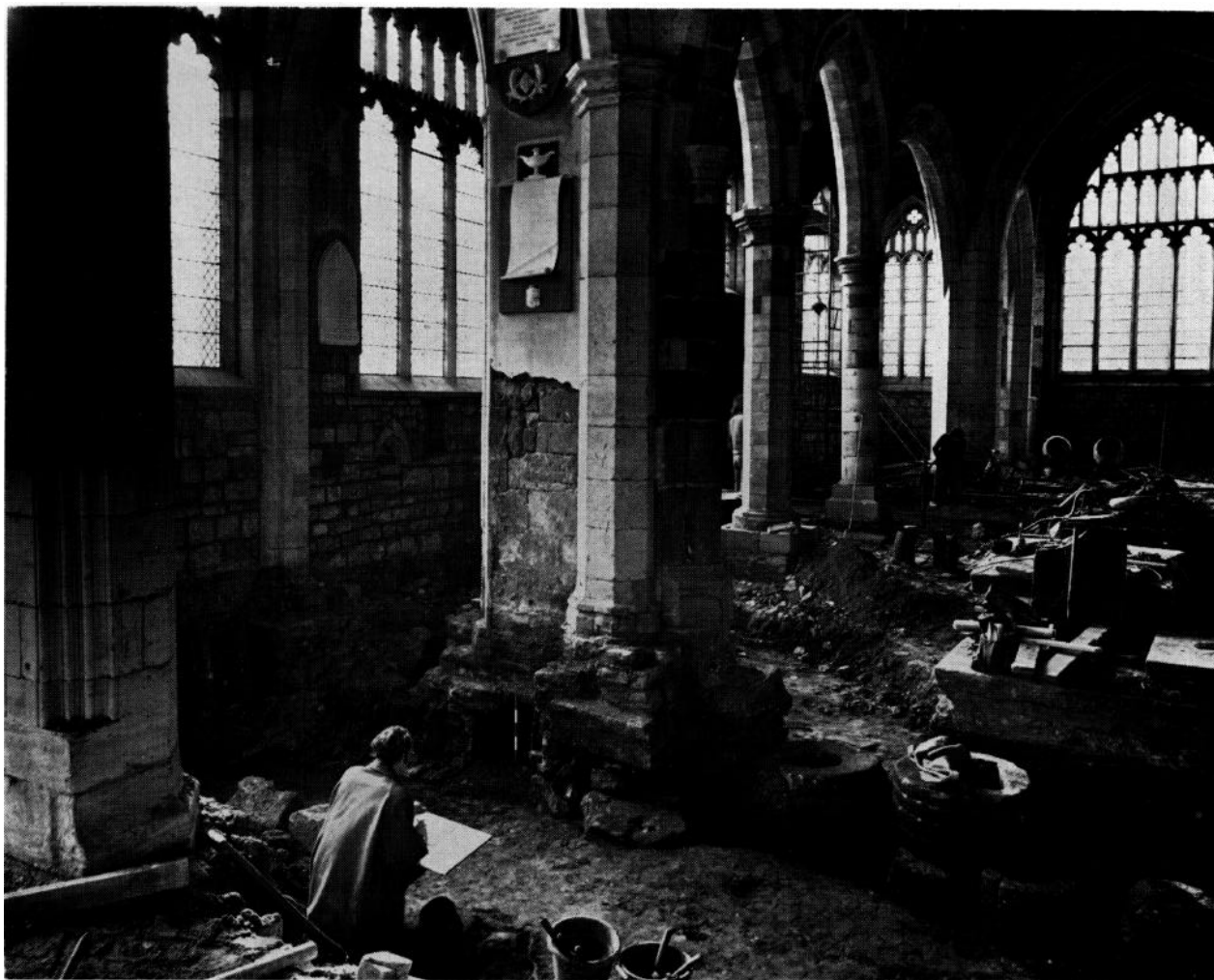
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Plate I

Plate II   Wharram Percy, St Martin's Church: General view from the south before the fall of the tower and the removal of the
            roof and vestry

Plate III Wharram Percy, St Martin's Church: General view of the fully
excavated nave looking west to the tower. In foreground chalk
foundations and the few remaining ashlar blocks of the first stone
Anglo-Saxon church, enclosing the postholes of an earlier timber church
The centre and far end much disturbed by post-medieval burials. 19th
century lead coffin and brick vault on right
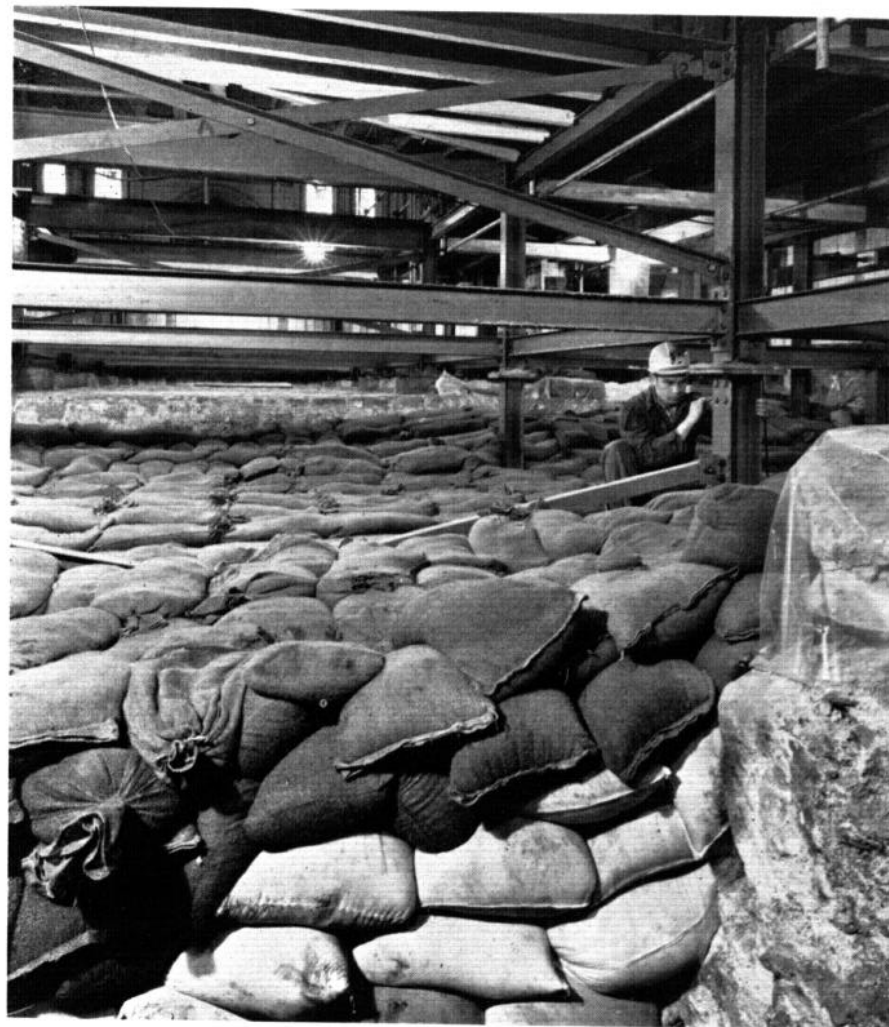
Plate IV Sandbags in the excavation below the Central Tower of York Minster, 1968
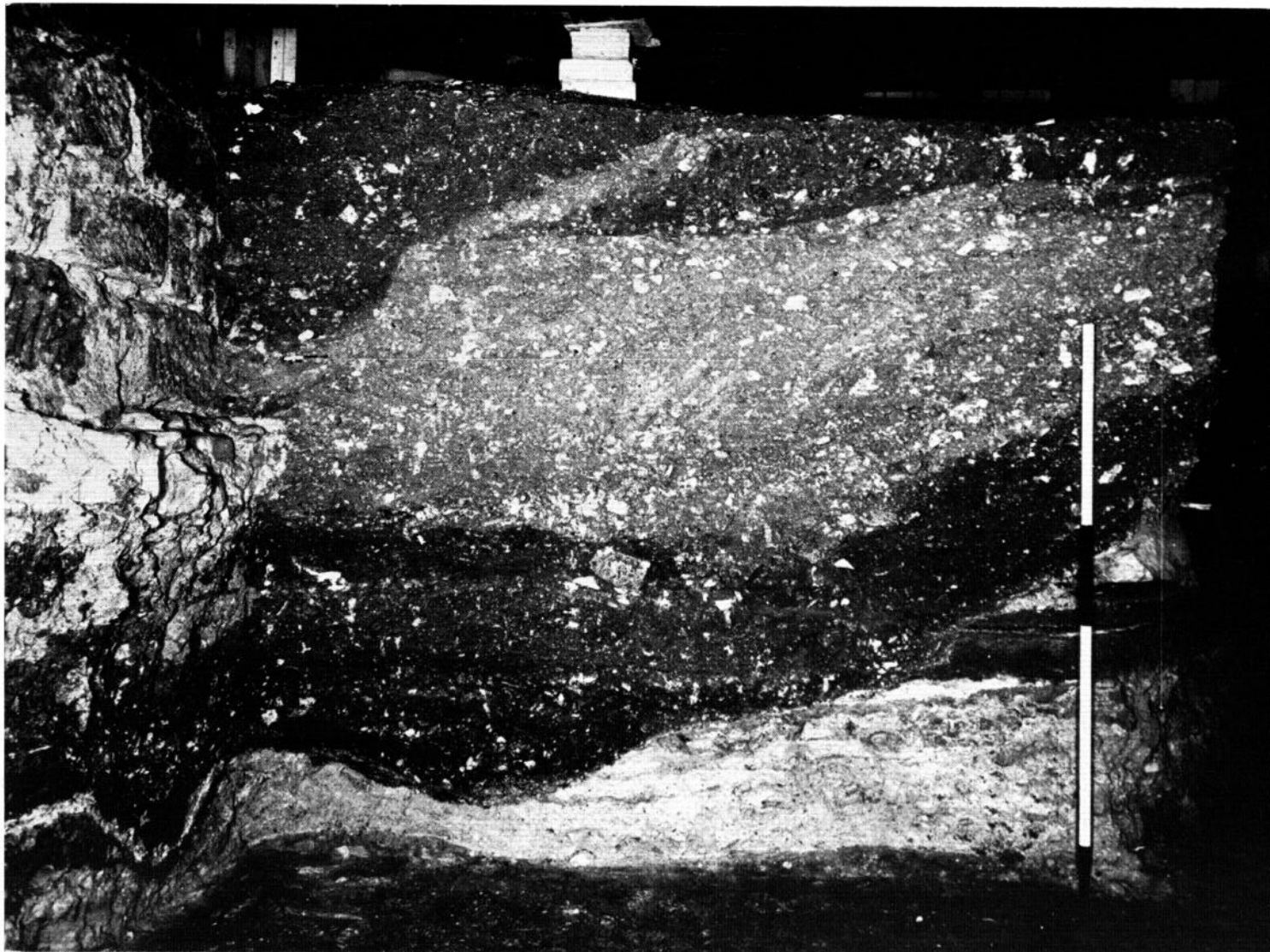[Photo : Ken Baldwin: Shepherd Building Group]

Plate V A photograph of a soil-section below the South Transept of York Minster taken with high-speed infra-red film through an appropriate filter and by the light of PF 100 flashbulbs. The exaggerated contrast which clearly differentiates the layers of soil has not led to a blocking of the highlights; detail is still apparent in the layer of of-white crushed limestone (a Roman floor-base) at the bottom of the section and on the stone-built foundation to the left
[Photo : Derek Phillips]

Plate VI Section with ghost images of photographer. The 'open flash' technique. Since the photograph was taken in almost total darkness, the shutter was left open while several flashes were used to light the subject. The four 'ghost' images of the photographer balancing on the steel beams while he fires the flashgun show the arrangement of the lighting. The camera position was arranged so that the upper part of the photograph may be trimmed neatly to remove both beams and figure
[Photo : Derek Phillips; Crown Copyright]

Plate VII A soil-section photographed on panchromatic film with direct-flash as the light source. The distinctions between the layers are easy to see and, unlike a photograph taken by diffused daylight, were not accentuated by a deliberate increasing of the contrast at the printing stage
[Photo: Derek Phillips; Crown Copyright]

*Plate VIII The convenience of the battery capacitor flash-gun. This photograph, taken over 120 ft
from the modern entrance of a Roman culvert excavated in 1972 by the York Archaeological
Trust, was taken by multiple flashes from a single-bulb gun. High humidity and the extremely
cramped conditions within the culvert would have made the use of photoflood or even quartz-
[iodine lighting difficult
 Photo: Derek Phillips; Copyright YAT]*
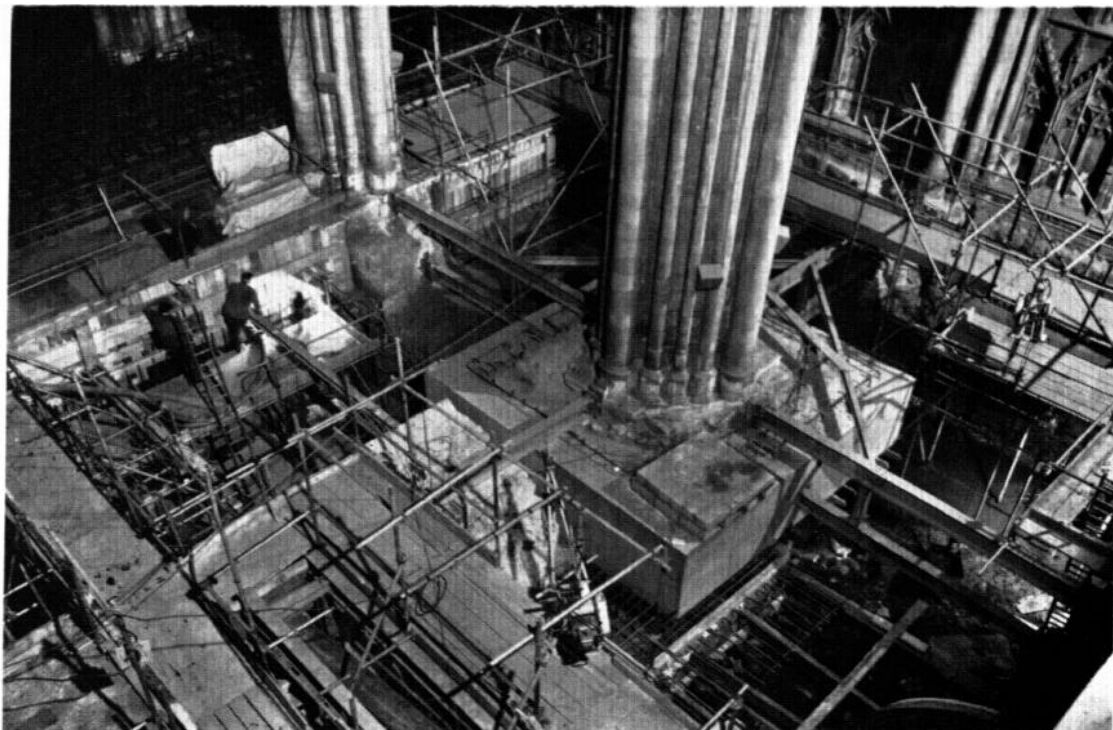
Plate IX Excavation below the Western Towers, York Minster 1970. General view, west end interior, from above. Conditions such as these force the excavator to adopt a flexible approach to the making of plans. The direct application of a grid planning system would be impossible in these circumstances
[Photo : T. Buchanan; Crown Copyright]
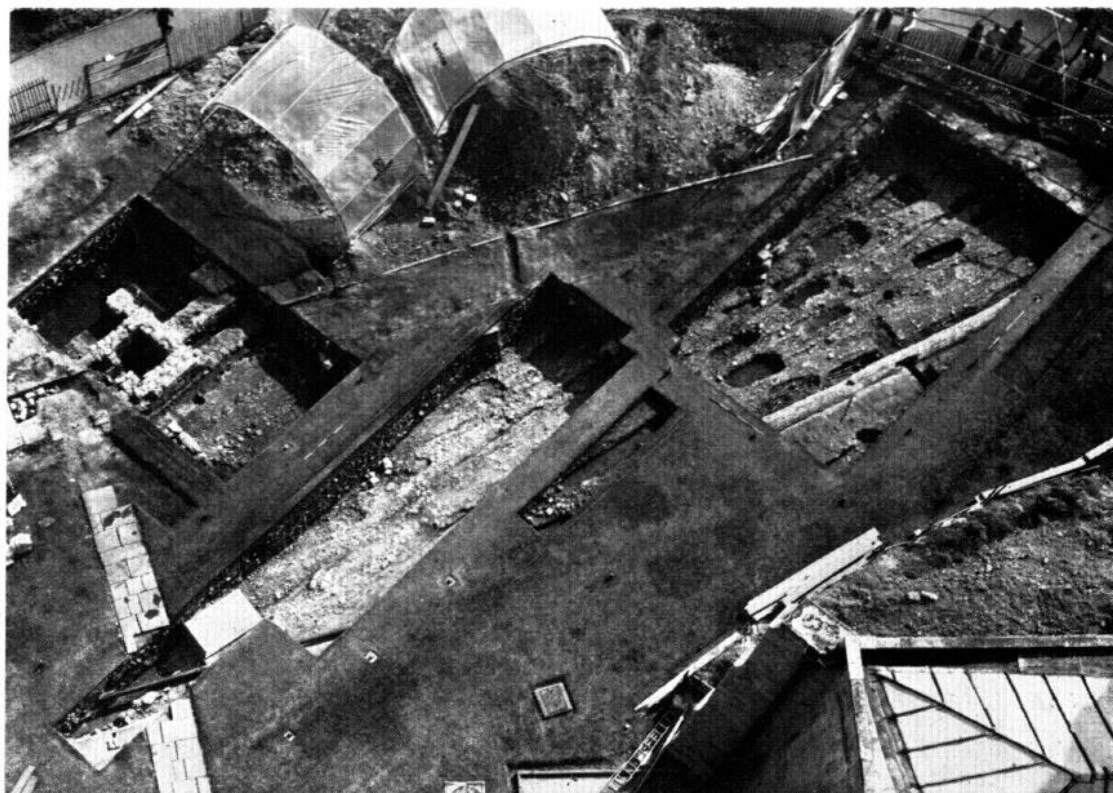
Plate X Cuttings to the south of the Choir, York Minster 1972. For these excavations it was found convenient to create a grid on a new alignment and relate the earlier discoveries by calculation. Since no expansion of the cuttings was anticipated, fixed points. seen here, could be placed alongside. Each point, bearing its co-ordinates, then served as a fixed planning point, temporary bench mark, and theodolite station
[Photo: Derek Phillips: Crown Copyright]

Plate XI   Cutting XK to the south of the Choir, York Minster 1972. The average depth of the cutting at this stage of the work, about 12 ft (3.7 m) , is shown by the 6 ft ranging-pole. Planning at this, and greater, depths can be accomplished by the use of temporary planning-points, located from the stations beside the cutting
[Photo: Derek Phillips; Crown Copyright]

Plate XII Skeleton within wooden coffin, York Minster 1972. This photograph, one of a series, was taken in order that the details of this burial could he added to the plan. The markers allow the bones to be located with precision. A scale, unnecessary for the purposes of completing the plan, has therefore been omitted from this photograph of the burial
[Photo: Derek Phillips; Crown Copyright]

Plate XIII Deerhurst: Exterior wall of great rectangular church viewed from within the north porticus, looking south. The east wall of the north porticus is on the extreme left. This photograph shows the results of plaster stripping. A string: grid has been placed at J m intervals. The intrusive nature of the lower door and the integral nature of the upper arch are evident : note the absence of herring bone or pitched stone coursing in the lower 2 m and the presence of this technique in the upper portion. Putlog holes for a timber scaffold show clearly at a point level with the mid-point of the upper arch jambs. The north porticus was h&ted against the great rectangular church and has left no trace of its junction (right) between the two ground-floor doorways