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Medieval Glendalough:
An Inter-Disciplinary Study

Vol. I

William Harry Long

Ph.D. 1996
MEDIEVAL GLENDALOUGH:
AN INTER-DISCIPLINARY STUDY

VOLUME 1

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VOLUME 1 

William Henry Long 

Ph.D. 1996
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W. H. Long.
SUMMARY

This thesis studies the Early and Later Medieval remains in the valley of Glendalough from different perspectives. All of the remaining field monuments are initially analysed individually with a view to establishing the following: (a) To what extent the features of these monuments today are an accurate reflection of the way they were in the Medieval period. This is done by comparing written accounts and illustrations of Glendalough before or during the reconstruction works of the 1870s with the monuments themselves. (b) Where the names of the various churches came from. (c) The significance of any archaeological excavations which have been carried out. (d) To what extent the architectural features of the various buildings are characteristic of contemporary structures at other sites in Ireland. (e) Any possible traces of architectural influences from Britain or other parts of Europe.

This analysis establishes that Reefert Church and St. Saviour's Priory are largely reconstructions. Most of the major dressed or carved stonework can, however, be verified as original in both cases, although some of the reconstruction work at St. Saviour’s Priory cannot reflect original features. The main architectural feature of the Priests' House, a recessed arch in the east wall, has been wrongly reconstructed and there is no reliable evidence for the existence of a tower over the Gatehouse. The reconstruction reports of the Commissioners of Public Works are very useful but generally lack significant details. They cannot be relied upon as comprehensive accounts of the main work which was carried out. In the case of the round tower, for instance, the reconstruction workers had covered over all but one of the putlock holes which were in the building. Nothing about this is mentioned in the 1876-77 report. It is a significant detail, as it elucidates the methods of construction which were originally used.

Romanesque and later churches are dated on the basis of the style of their carvings and mouldings. At least three new construction projects were carried out at Glendalough between the time of the Anglo-Norman invasion and c.1220: the Priests' House; Phase 2 of St. Mary's; and Phase 3 of the Cathedral. In the case of the latter, a strong influence from Britain can be identified. When viewed in their historical context, these findings suggest that from 1169 to c.1220, Glendalough had not gone into decline but was surviving by co-operating to a certain extent with the Anglo-Normans.

Churches and other structures which are mentioned at Glendalough before the 1870s reconstructions have disappeared. Even between 1912 and the present, St. Kevin's Cell has almost completely vanished. While it is difficult to speculate about the extent and function of the structures which are gone, it is certain that a good deal more survived in stone in the nineteenth century than is now apparent. It is also significant that, in terms of enclosures, the rectangular shape is more dominant at Glendalough than the circular or sub-circular. There is also evidence that, at Reefert Church and Temple-na-Skellig, there are additional enclosures or earthworks which have not been previously identified.
Two types of stone which had not been previously identified correctly were used in the 12th and 13th centuries at Glendalough. These are apinite/dolerite and Dundry limestone. A detailed survey of the stone types used at different stages and the manner in which they were worked reveals patterns which allow the buildings at Glendalough to be placed in a chronological sequence. A general survey of documentary evidence for the development of stone and wooden construction in the period 750-1200 A.D. provides a framework within which the sequence of building at Glendalough can be viewed. There is no reason to doubt that the earliest stone buildings could have been constructed in the late 7th or early 8th century, at Glendalough as at other major ecclesiastical sites. References to churches in stone, as opposed to wood, in the *Annals of Ulster*, however, do not become more numerous until the period 1050-1100. It is therefore likely that, while the earliest stone church at Glendalough may have been built in the 7th or 8th century, many of the churches could date from the 11th and 12th centuries. The twelfth century saw great changes in architectural style at Glendalough which are reflected in the types of stone used and the methods of working it.

The increased use of stone in the 10th-12th centuries is also reflected in the law-texts on the skills of the *sáer*. These coincide to a remarkable degree with the evidence of the *Annals of Ulster* and the archaeological remains of the Early Medieval period. The buildings, crosses and other objects which the *sáer* is expected to produce have nearly all been found archaeologically. The law-text on the costing of buildings also had a firm basis in reality. Although its language is somewhat difficult, it can provide Early Medieval prices when carefully analysed and practically applied to the surviving structures at Glendalough.

The economic cost of Glendalough’s remains was considerable and underscores the fact that this and other ecclesiastical cities were a vital part of the economic and political landscape of Early Medieval Ireland. Religion, economics, education, culture and politics all had a part in defining Glendalough as an ecclesiastical city. There can be little doubt that, in Medieval terms, Glendalough was a city by the 11th-12th century period. In the *Expugnation Hibernica* and *The Song of Dermot and the Earl*, outsiders had no hesitation in using the contemporary equivalents of our English word “city” for places of a similar size and ecclesiastical status to Glendalough. Glendalough, however, consists of not just the city but a number of other settlements in the valley. The inter-disciplinary approach sheds considerable light on the remains of Glendalough. It helps us to view them not only as architectural survivals but as products of the *sáer* and changing approaches to construction; as symbols of economic wealth; as indicators of Irish conservatism or influences from Britain and Europe; and finally as the skeleton of an important group of settlements whose heart was the ecclesiastical city.
I wish to thank my wife, Carol, who laid out the entire thesis, including the tables and graphs. Her patience and support, along with that of her parents Mary and Patrick Donnelly, were crucial in the final stage of this work. My thanks also to Darach de Brun for additional typing and binding.

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I have also benefited enormously from the post-graduate research seminars in the Department of Medieval History. Although it was initially a somewhat daunting prospect to present a paper to such a learned and critical audience, the learning was always shared and the criticisms were constructive. Many good people work hard there and even sharing despair at the slow progress of ones work was a therapy at times. A special thanks to Linzi Simpson, Dr. Katherine Simms, Dr. Ailbhe Mac Shamhrán and Dr. Colmán Etchingham for many stimulating and elucidating discussions and to Cormac O' Cléirigh for advice on computers. My thanks also to Brendan Dempsey in the Photographic Centre, and to John Walters, B.sc. for Geological maps.

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The Grace Lawless Lee fund provided me with the financial assistance necessary to carry out the stone survey at Glendalough. The Royal Irish Academy provided funding for the survey of the "hut platforms". For these awards I was very grateful as the surveys would not have been possible without them. Without the Post-Graduate Award which I was awarded by Trinity, the research for this thesis would never have begun and I thank all who showed to the good faith to give me this opportunity.

Mr. Tomás O’ Lochlainn of Johnstown, Arklow, Co. Wicklow assisted me with the stone survey and taught me much about looking at buildings as a series of practical problems to be resolved rather than simply as the bearers of certain architectural features. His insights were invaluable. Certain people are an inspiration in their general determination to carry on against great odds. In this respect, I wish to thank my parents, William and Margaret Long and Alison, Conor and Deirdre Long. They have provided support and encouragement in many ways throughout the last six years.
Prof. James Lydon has been a constant source of enthusiasm and advice since I first came to Trinity. He fired my own enthusiasm for history at an early stage, especially in his ability to almost recreate Medieval Ireland in a classroom. My final thanks must go to my Supervisor, Dr. Terry Barry. His great patience and his willingness to allow me to explore new approaches to archaeology, architecture and settlement history were vital. His encouragement and constructive criticisms have guided me in a constant endeavour to improve the quality of my work. He has also been of great assistance in many practical ways and was always available for advice. It has been a pleasure to work under his supervision.
ABBREVIATIONS

cm = centimetres
C.P. = Commissioners of Public Works
W
Fig. = Figure
f.n. = footnote
fol. = Folio
ibid = ibidem = in the same place
IR£ = Punt or Irish pound
km = kilometre
n. = note
n.d. = no date
no. = number
m = metre
O.S. = Ordnance Survey
O.P. = Office of Public Works
W
Pl. = Plate
p. = page
p. = platform in Chapter 2, subsection on EARTHEN PLATFORMS
pp = pages
R.I.A = Royal Irish Academy

For abbreviations used in bibliographical references, see Bibliography.
CHAPTER 1

INTRODUCTION
In ninth century Ireland, the three great collections of stone buildings in Ireland were to be found at Armagh, Kildare and Clonmacnois. The Early Medieval remains of both Armagh and Kildare have been largely swallowed up by subsequent urban development, but Clonmacnois retains a substantial collection of Early Medieval and Later remains. Although Glendalough was not amongst the top three centres of stone architecture in the ninth century, its remains today, along with those of Clonmacnois, represent the largest collection of Early Medieval buildings which survive in Ireland. Unspoilt by the development of post-medieval urbanism which occurred at both Armagh and Kildare, Glendalough and Clonmacnois provide rare opportunities to study the architecture and settlement history of pre-Norman Ireland. Both sites also provide fine examples of the Hibem-Romanesque style of architecture and buildings which indicate that, while the arrival of the Anglo-Normans in Ireland may have caused these settlements to decline in importance, this decline was not immediate.

While the opportunities for excavation have been exploited in recent years at Clonmacnois, Glendalough has seen only some small-scale excavations. In fact the last four excavations to be carried out in Glendalough have been rescue excavations, extremely limited in scope. They do provide some interesting evidence which, in this thesis, will be studied in the context of the settlement history of the valley. Archaeological excavation, however, is not the only means by which new evidence can be discovered. Although the valley's remains have been studied in detail by numerous scholars since the eighteenth century, there are confusions and contradictions arising from their works which will need to be cleared up. Errors of interpretation have been made which could quite easily have been avoided by a careful reading of the more astute, though often ignored, nineteenth century antiquarians such as Wilde and Colles. Two examples will illustrate clearly the need to review in detail the available records of Glendalough's remains.

The first concerns the Gatehouse at Glendalough, the only structure of its kind to survive from the Early Medieval period in Ireland. As recently as 1990, Edwards stated very definitely that this building "...originally had a tower". Leask, whom Edwards refers to on this point, noted that it had been stated "...that there was a tower standing over the gateway in 1795". He did, however, express doubts about this, stating that "...the side walls do not look adequate to support a tower of any height". More recently Barrow has analysed the question of the tower in detail. He shows that the evidence for a tower is extremely doubtful, but does not conclude that it definitely never existed. There is, therefore, a major contradiction between Edwards' definite statement about the tower and the extreme doubts which Leask and Barrow express. The confusion over this point has its roots in the eighteenth century and has carried right through to the present. This thesis will attempt to trace the source and development of this confusion and resolve the contradictions apparent today on this and other matters.

The second example concerns the round tower itself. A detailed model showing the round tower under construction was incorporated into the exhibition at the new Visitor Centre in Glendalough. It shows the masons working from a free-standing scaffold. As will be seen, however,
Wilde (1873) provides evidence that an entirely different type of scaffolding to that shown in the model would have been used.

These and other contradictory interpretations of the surviving structures at Glendalough underline the necessity of carefully analysing the buildings themselves and the various records of them. Before the reconstruction works carried out by the Commissioners of Public Works in 1875-7, some of the buildings had already been restored. Others were in a considerable state of disrepair, and while the reports of the Commissioners themselves are very useful in providing some record of the work carried out, they did not detail some points of considerable importance. Accounts of the buildings written before 1875, especially those of O' Donovan (1838), Petrie (1845), Colles (1870) and Wilde (1873) can often throw considerable light on details which are obscure in the Commissioners' reports or in the reconstructed buildings themselves. A detailed analysis of what is genuinely original in the remains of Glendalough will therefore be essential before any interpretations on structural details, dating or function can be made. Chapters 2 and 3 will concern themselves with such an analysis, recording, in addition, reports on structures which can no longer be seen.

Chapters 2 and 3 will also examine any documentary or stylistic evidence for the date or general history of particular structures. The Vita and Bethada of St. Kevin have been used by various authors from the time O' Donovan wrote (1838) onwards to account for the settlement history of the valley. Although they were undoubtedly written a considerable time after St. Kevin's death in the early seventh century, they do contain traditions which must have some basis in truth. It will be seen, for instance, that comparison of some of the place-names used in the Lives to describe particular churches in the valley with those used in Anglo-Norman sources such as Allen's Register, reveals a considerable degree of agreement. The use of the Lives as sources for settlement history is problematic and has given rise to considerable debate amongst historians. The approach adopted here will be a cautious one. It will seek to assess the value of the Lives by considering them within the context of other written sources and the archaeological or architectural evidence which is available. It must be recognised that the motivations of hagiographers involved the glorification of a particular saint, the popularisation of that saint's cult and, in many cases, the establishment of claims to land, jurisdiction or tax rights which concerned the ecclesiastical establishment founded by the saint. In the absence of other sources, however, the settlement historian must attempt to use the works of hagiographers judiciously as a guide to possibilities which might otherwise remain unexplored.

The purpose of the numerous illustrations which accompany Chapters 2 and 3 will be threefold. Firstly, they will provide a detailed visual dimension which is vital to an analysis in which the main source is the buildings themselves and other structures. Secondly, illustrations will eliminate the necessity for long, detailed descriptive accounts of architectural features. Thirdly, in the case of the plates, they will provide a detailed photographic record of the remains of Glendalough as they are today. The attraction which the valley's monuments present for treasure-hunters and vandals is not a modern phenomenon but one of which we must always be aware. In the nineteenth
the pieces of iron which they contained.\textsuperscript{13} The earliest photographs of Glendalough did not include the features which disappeared as a result of this nineteenth century vandalism. Despite the legislation which now protects the monuments, the danger of their being defaced or of carved stones being removed is very real. It is partly to provide an insurance against this possibility that the numerous plates will be included. Cochrane's report for the Commissioners of Public Works (1911-12) does provide an excellent record of the monuments at Glendalough, including plans and sections. There is, however, only one photograph. In the case of a structure such as St. Kevin's Cell, which Cochrane described in detail\textsuperscript{14} but is now a mere foundation, one wishes that a photograph had been provided. The description is very valuable as a record of what has disappeared, but certain details, such as the types of stone used in its construction, do not survive.

There are considerable differences of opinion on the dating of pre-Romanesque churches in Glendalough, as elsewhere in Ireland. Table 1.1 shows that dates given for Temple-na-Skellig, Phase 1 of the Cathedral and St. Kevin's Church vary by 400, 200 and 300 years respectively. There is no definite evidence to support or deny the validity of any of the construction dates which various authors have suggested for these churches. Temple-na-Skellig, for example, could have been built in the seventh century as we know that a stone church had been constructed in Ireland by that date. On the other hand there is nothing in the building itself, with the exception of the twelfth-century east window, which would rule out an eleventh-century date for the construction of its earliest parts.\textsuperscript{15} To suggest dates for churches such as this without new, definite evidence would only add to the confusion that already exists. Although Table 1.1 shows that there is some degree of agreement on construction dates for churches such as Reekert and Trinity, no general consensus has yet emerged on the dating of pre-Romanesque Irish churches in general. The reason for this is simply lack of evidence and there will be no consensus on this subject until new evidence emerges.

In Chapters 2 and 3, therefore, pre-Romanesque churches will not be provided with construction dates. In the case of Romanesque and later buildings, the evidence is of a different nature. The dating of churches in this period by the close study of mouldings, carving styles and motifs has become more systematic and reliable.\textsuperscript{16} These aspects of all churches in Glendalough of the Romanesque and Gothic period will be studied in considerable detail with a view to establishing more reliable dates than have previously been suggested.

One recent development which is of considerable interest is the publication of radiocarbon dates for a selection of Early Medieval Irish monuments by Berger.\textsuperscript{17} The calibrated radiocarbon dates for individual churches span periods ranging from 180 years to 1430 years.\textsuperscript{18} Many of the dates, therefore, simply fall within a time-span which research from other evidence had already established. The only building at Glendalough from which Berger took a mortar sample for dating was St. Kevin's Church. This provided a calibrated date of 1000-1280.\textsuperscript{19} Table 1.1 shows that no authority on Glendalough dates St. Kevin's Church any later than the early twelfth century. Any time from c.1160, when the first Romanesque building was constructed at Glendalough\textsuperscript{20}, to 1280 seems highly unlikely as a construction date for St. Kevin's Church. It will be seen in Chapter 3 that this
stone roof and belfry, shares many of the features of pre-Romanesque churches.\textsuperscript{21} In this particular case, conventional methods of dating can reduce the span of the dates provided by Berger. The improvement of the methodology used by Berger, however, may yield better results in the future. While the initial results may be disappointing, an open mind should be kept about possible developments in the future.

Most authorities on Glendalough have shown little interest in the different types of building stone which were used. Indeed two of the types of stone which were used have not been correctly identified at all. The present author consulted geologists on this point and carried out a detailed stone survey of the various types of stone used in the remains at Glendalough. In the course of this survey, different methods of working in stone became apparent. The stone types themselves and the methods by which they were worked provide evidence which helps to establish the sequence in which individual buildings or groups of buildings were constructed. The first half of Chapter 4 will present and analyse the results of the stone survey. In the second half of this chapter, a more general analysis of the evidence for the development of stone construction at different stages of the Early Medieval period will be attempted. This will inevitably entail discussion of the related subject of construction in wood. The \textit{Annals of Ulster} will provide the main primary source for the second half of Chapter 4, which will establish a chronological framework within which the results of the stone survey at Glendalough can be viewed.

The builders who constructed Glendalough's remains are referred to as a class in the Old and Middle Irish law-texts. The \textit{s\'ar} was expected to be competent in many different areas of construction. Although \textit{s\'ar} will be translated here as 'craftsman' and referred to as 'he', this will be simply to avoid the encumbrance of constantly using 'craftsman/craftswoman' and 'he/she'. The \textit{Dictionary of the Irish Language} translates \textit{s\'ar} as 'an artificer; in older language apparently used in wide sense of a craftsman in general'.\textsuperscript{22} There is, however, a reference to \textit{bansaer}, a craftswoman or 'woman wright',\textsuperscript{23} indicating that not all craftspersons were males.

Two of the law-texts which relate to the \textit{s\'ar} contain valuable information about his standing in society and the products of his labours. Although both of these texts have been referred to by many historians since Petrie published and analysed them in 1845,\textsuperscript{24} no attempt has been made to comprehensively understand and test their validity. The first is written in Old Irish (7th-9th centuries) with Middle Irish (10th-12th centuries) commentary and is found in \textit{Uraicecht Becc}.\textsuperscript{25} It gives the honour-price of the \textit{s\'ar} and details how his mastery over the construction of various buildings, domestic vessels and other items contribute to the honour-price. In Chapter 5, the numerous items mentioned in this text will be checked against archaeological finds of the Early Medieval period.

The second text is in Middle Irish and gives a detailed account of the methods used to cost wooden churches, stone churches and round towers.\textsuperscript{26} Although some of the language used in this text is somewhat technical and ambiguous, an attempt will be made to interpret it fully. The historians who have interpreted it since Petrie's time have only done so to a very limited degree. The main subject which it deals with is costing and no historian has tried to apply it to Early Medieval
buildings in order to calculate exactly what their prices were. In carrying out this work the present author has carefully consulted with experts on Old Irish and building at different stages.\textsuperscript{27}

The remains at Glendalough have generally been studied as examples of particular architectural styles. The research in Chapter 5, however, will be used to explore the thesis that the various buildings in the valley are also an important indicator of economic wealth. It will be seen that they cost a considerable amount in the currency of Early Medieval Ireland and were constructed by a legally independent class of craftsmen who had a high status in society. The fact that the scholars who have studied the remains of Glendalough and other centres of the Early Medieval church have been primarily historians of art and architecture has perhaps led to an insufficient appreciation of the economic aspects of buildings. This may also explain why those scholars who have referred to the law-text on costings have only done so on particular points such as the types of roofing and construction materials which were used.\textsuperscript{28} Alternatively, the difficulties of interpreting the text itself may have deterred many scholars. The study of the early Irish law-texts has advanced rapidly in recent years. The publication of new translations of individual texts and commentaries, as well as Kelly's \textit{A Guide to Early Irish Law} (1988), has opened up the subject to those who are not necessarily experts.

The sections of \textit{Uraicecht Becc} which deal with the skills of the \textit{sàer} will also be examined for evidence that Irish society was not static throughout the Early Medieval period. Chapter 5 will look at how the skills of the \textit{sàer} changed as the need for different types of structures changed. In relation to the question of urban and rural settlements, there were also changes. Although Irish society may have remained characteristically rural throughout the entire period,\textsuperscript{29} it would be simplistic to believe that there was no change in terms of urban settlements. Ireland may have lacked any urban centres in the 5th century, but the situation had changed considerably by the end of the Early Medieval period. In addition to the Vikings' contribution to urban development at Dublin, Wexford, Waterford and Limerick, monastic and ecclesiastical centres also played a significant role in the growth of urbanism. The area around Glendalough's Cathedral, consisting of those buildings and enclosures which will be studied in Chapter 3, will be referred to throughout this thesis as the 'ecclesiastical city' or occasionally simply as the 'city'. Despite the current trend amongst historians and archaeologists to deliberately avoid the use of the term 'city' for the main ecclesiastical settlements of Early Medieval Ireland, there are many reasons why this term is used here.

The concept of Glendalough as a city will be explored in Chapter 6, which also examines the terminology which has evolved in recent years as a result of the debate on urbanism. This debate has become somewhat ludicrous. The number of new terms which have been proposed as alternatives for 'city' continues to grow and the terms themselves become increasingly awkward and outlandish. The direction and relevance of this debate need to be questioned. Is it simply an ongoing display of pedantry or does it actually add to our knowledge of the subject it deals with? Chapter 6 will try to answer this and other questions. The concept of the city will be viewed in the context of the earlier chapters and within the framework of Glendalough's history as a settlement which was part of a broader Irish and European Medieval society.
A glossary of the architectural terms which will be used in this thesis has been provided, along with appendices in various subjects. Although metric measurements will be used throughout most of this work, imperial measures will be used in Chapter 5. The law-text on costings used the foot as a unit of measurement. It is therefore more practical to calculate the cost of Glendalough’s buildings in imperial rather than metric measurements. A table of conversion factors is provided at the start of Appendix 5.

Appendix 1 lists all references (up to 1169) to burnings, plunderings and killings at Glendalough from the various Annals. Both rectified dates and the dates when particular events were recorded in different sources are provided. Rectified dates will be used for annal references throughout the thesis. Where there are differences between a rectified date and the date under which an event is recorded, this will always noted. The Mac Airt and Mac Niochaill edition of the Annals of Ulster will be used for all events up to 1131 and the Hennessy edition for post-1131 events.

Archaeological excavation might yet reveal more evidence on the history of Glendalough’s settlements, their buildings and material culture. There is, however, much to be discovered through field-work and an inter-disciplinary approach. One person cannot hope to be fully expert in the variety of sources and disciplines which will be used in this work. The greatest care has, however, been taken by the present author to learn in fields which were new to him, consulting with experts on any major points of doubt. The inter-disciplinary approach means that the remains of Glendalough can be viewed from different perspectives. They are partly a product of nineteenth century restorers, originally built by a class of craftsmen who held a very high status in Early Medieval times. They are of interest as examples of various architectural styles but also as Christian temples and places of refuge. Religious idealism undoubtedly inspired their construction, but the resources required to pay for them points towards a church organisation which was as powerful economically as it was spiritually. These and other perspectives will be explored here through an inter-disciplinary approach. If there are risks inherent in this approach, perhaps the end result will justify the means used to achieve it.

NOTES

1 Triads, no 34.

2 The most recent excavations at Glendalough took place in January, 1995. These involved the archaeological monitoring of trenches and pits being dug in advance of an extension to the hotel at Glendalough rather than proper archaeological excavations. The only find was an eroded shard of English medieval pottery. A copy of the report was sent to the present author by the Archaeological Consultant involved, Margaret Gowen. Excavations were
carried out at the base of St. Kevin's Cross in 1989 in advance of the straightening and consolidation of the cross; see Chapter 3, under **THE CEMETERY AND PRIESTS' HOUSE**. Manning, C., 1984, contains a full report on excavations carried out in advance of the construction of the Visitor Centre at Glendalough. *D.H.R.*, 1972 gives a brief account of the excavation of two sections of St. Kevin's Road during the construction of Turlosh Hill hydro-electric power station.


ibid..


See Chapter 3, under **THE ROUND TOWER** for details, including an analysis if the comment made in Wilde, W., 1873, p.464.

The main works which have used the lives for settlement history in more recent years are *P.N.* I; Price, L., 1940; and Barrow, L., 1984.

While Kenny, J.F., 1929, p. 404 dates the *Vita* to the tenth century, Sharpe, R., 1991, p. 27 discusses it under twelfth-century saints lives. The *Betheda* could be even later. Simms, K., 1995, p. 196 states that *Betha C. II* "...can only be dated some time between the twelfth and sixteenth centuries."

See, for example, Chapter 2 under **TEMPLE-NA-SKELLIG**.


Wilde, 1873, p. 481.

ibid., p. 464.

*C.P.W.*, 1911-12, p. 8.

See Chapter 2, under **TEMPLE-NA-SKELLIG**.

On mouldings, the work of Morris, R.K., 1992 has established a coherent chronology for Britain which also refers to some Irish buildings. The various works of Stalley, R., listed in the bibliography have contributed greatly to the advance of dating Irish buildings through a combination of mouldings, carving styles and motifs.


ibid., p. 172, Table 2. The oratory on Caher Island, Co. Mayo has a calibrated date of 80-510. The round tower at Ratoo, Co. Kerry has a calibrated date of 990-1170.

ibid., p. 171.

See Chapter 2, under **ST. SAVIOUR'S PRIORY**.

See Chapter 3, under **ST. KEVIN'S KITCHEN**.

*D.I.L.*, s.v. 2 saer.

ibid., s.v. *ben*. 

8
Petrie, 1845, pp. 346-7 and 364-6.

See Chapter 5 under **THE STATUS, SKILLS AND ORGANISATION OF THE SÁER**.

ibid., under **LAW TRACT ON COST OF BUILDINGS**.

When the idea of using the text to cost the different buildings at Glendalough initially occurred, discussion on the validity of such an undertaking was held with Liam Bretnach of Trinity College, Dublin. During the difficult work of coming to terms with the various complexities of the text, a number of discussions were held with Tomás O' Lochlainn, a builder and carpenter from Johnstown, near Arklow, Co. Wicklow. These discussions were crucial in providing an insight into the way a builder views the construction process, especially in relation to costings. Liam Bretnach read an early draft of Chapter 5, correcting some errors of interpretation and the spelling of Old and Middle Irish words.

ibid., under **LAW-TEXTS: INTRODUCTION**.

Binchy, D.A., 1954, p. 54 says, in a frequently quoted comment, that early Irish society was "tribal, rural, hierarchical and familiar."
CHAPTER 2

Churches and other remains outside the ecclesiastical city
TEMPLE-NA-SKELLIG

The most westerly church which survives at Glendalough (Fig. 2.1) is Temple-na-Skellig, located in a small hollow between Lugduff mountain and the southern shore of the Upper Lake (Fig. 2.2 and Pl. 2.1). There are very steep cliffs to the east, west and north and the site is bounded on the south by the waters of the Upper Lake. Temple-na-Skellig is virtually an island, accessible with safety and ease only by boat.¹

There can be little doubt that crossing the lake by boat was the main route to Temple-na-Skellig in Early Medieval times. A series of "ancient steps", ² laid bare in 1876-77 by the Commissioners of Public Works, lead from the lake to the first of two artificially excavated platforms (Fig. 2.2). The plan of the site in the report of the Commissioners for 1911-12 shows 36 of these steps. Only 25 exist at the site today. ³ They vary in width from c.50 cm at the top to over 80 cm at the bottom, widening out only in the last few steps. A small pillar, of dry-stone construction, just 1 m high, secures the bottom steps on the western side where the ground falls away sharply.

The platform to which these steps lead is about 8 m above the lake. There is a steep drop immediately to the north of it. On the south side, a wall was built to retain the mountain above. Constant landslides ⁴ have filled the gap of almost 1 m that originally existed between this retaining wall and the south wall of the church. The church itself is a simple single-chamber structure measuring 7.75 m by 4.19 m internally (Fig. 2.2). The walls were "nearly level with the ground" in 1838 ⁵, and were cleared of debris in 1876-77.⁶ They are made up mostly of small pieces of mica-schist and stand to-day at a height of just over 1 m. The west doorway consists of large blocks of dressed granite and has inclined jambs. The massive lintel stone, 94 cm long, 68.5 cm deep and about 30 cm thick, is now resting against the wall outside the door (Pl. 2.2). Made of dressed granite, it has an 8 cm protrusion, which originally functioned as a drip-course, 25.5 cm long and 9 cm wide. An upward protrusion on the top raises the outer face of the stone about 5 cm. It is 36 cm wide and extends across almost half the width of the lintel stone (Fig. 2.3 and Pl. 2.2). This feature would originally have served to "lock" the lintel into the course of masonry which was laid above it. The carving of a number of features (in this case the drip-course and the upward protrusion) out of a single block of stone is a marked feature of the pre-Romanesque masonry at Glendalough.⁷ The amount of labour required to cut such a hard stone as granite into these shapes was considerable. The lack of carved ornament in such pre-Romanesque church buildings should not blind us to the fact that much thought and physical labour went into producing what could be described as an aesthetic simplicity.⁸

The only window which survives in the church at Temple-na-Skellig is the eastern window. This was reconstructed from stones found amongst the debris in 1876-77 ⁹ (Fig. 2.4). It is a two-light structure, the round heads of both windows being cut out of a single stone (Pl. 2.3). The mullion is of dressed granite and is chamfered on its interior face (Fig. 2.5). The chamfer protrudes 2 cm at the top, increasing gradually to 4 cm at the bottom. The windows of pre-Romanesque churches throughout Ireland are normally single-light structures.¹⁰ In Glendalough, for example, the only other
church with a two-light window is St. Saviour's, which can be dated to between 1152 and 1163.\textsuperscript{11} As the trabeate doorway at Temple-na-Skellig is clearly pre-Romanesque, the east window indicates that the church was re-built in the late twelfth century. Further evidence of this can be seen in a carved fragment in the Visitor Centre which was found at Temple-na-Skellig in 1912.\textsuperscript{12} This unfinished stone has a fragment of square fret or key pattern carved on one edge (Fig. 2.6). Any plan to include this stone in the church re-building of the twelfth century must have been abandoned.\textsuperscript{13} It is significant to note, however, that the only other place where a similar feature is to be found is in the twelfth-century chancel window at St. Mary's Church.\textsuperscript{14} The combination of trabeate doorway and later Romanesque style window in a single-chamber church is unique at Glendalough. A landslide which occurred after the original stone church was built must have caused considerable damage to it. In the twelfth-century rebuilding, the original door was retained and a new east window was added. A large landslide did occur before or during the twelfth century,\textsuperscript{15} evidence of which will be discussed later.

The only other feature of note within the church is a small aumbry in the south wall. This is not mentioned in any accounts of the site written before the reconstruction of 1876-77 and was presumably uncovered at that date. The cross which stands just outside the east window was unearthed by Wilde in 1873\textsuperscript{16} (Pl. 2.4).

To the west of the platform on which the church stands is a second platform 1 m higher (Figs. 2.7 and 2.8). A series of more gradually rising steps than those coming from the lake are sunk into the platform. This causeway was uncovered around 1911.\textsuperscript{17} A layer of ashes and charcoal, 8 cm to 23 cm thick, was discovered over and around the causeway. Cochrane, author of the 1911-12 Report of the Commissioners of Public Works in Ireland thought this "seemed to indicate the presence of former buildings of combustible materials which had been burned".\textsuperscript{18} The charcoal layer lay 1.2 m below the present surface.\textsuperscript{19} Cochrane noted the "heavy landslides" from the mountainside above the platform.\textsuperscript{20} This may be the reason why the charcoal layer started as deep as 1.2 m below the surface. Charcoal layers of about 18 cm in depth were noted by Healy in his excavation of one of the small platforms that exist in Glendalough. He interviewed local foresters who said that they often noticed these charcoal layers on the platforms. Healy concluded that the platforms were charcoal-burning sites which dated from around 1700 when ores were being smelted at Glendalough.\textsuperscript{21} The platform at Temple-na-Skellig may also have been used for this purpose. The charcoal layer, which in Healy's excavated site was just below the surface, was here covered by 1.2 m of debris from a landslide. Healy points out that the thickness and wide spread of charcoal which he found is unlikely to come from the burning of a hut. The layer at Temple-na-Skellig was of similar depth and ran for a distance of 3.7 m to 4.9 m over and around the causeway.\textsuperscript{22}

The steps of the causeway were recorded as being 67 cm below the charcoal layer in 1911-12.\textsuperscript{23} In 1956 and 1958 Henry excavated this platform at Temple-na-Skellig.\textsuperscript{24} Another large landslide had obviously occurred at the site since 1912 for it was described in 1956 as "a rather shapeless mound of earth which rested on a ruined wall." When the "avalanche of debris" was cleared Henry discovered "... a well-built platform on which wattle huts connected by paved paths had been erected." No dating could be deduced from finds at this level "... except that it belongs to
a period when iron was in use. It may be of Early Medieval date. The huts had been destroyed by an avalanche of large slabs." These slabs were cleared away at a later date and "a wooden house resting on a base of stones and daub was built in the middle of the platform." Coins and pottery allowed Henry to date the occupation of this house to a period from the late 12th century to the late 14th or 15th century "... when it was destroyed by a fresh avalanche of debris." The course of the paths can be seen in Fig. 2.7. The path in the south-east corner is still visible to-day. It leads up to a small platform, slightly above the height of the main platform, and may have contained a hut. These excavations must also have uncovered three large steps which are built into the retaining wall in the north-west corner and gave access to the platform from the west. These steps were not recorded on the 1911-12 plan of the site.

One feature at Temple-na-Skellig which has never been noted before in any plans or descriptions of the site is a series of steps leading from the south-east corner of the main settlement platform down to another, smaller platform (Fig. 2.2). This platform is clearly man-made, cut out of the natural slope of the mountainside. Its location just below the main settlement platform and the steps approaching it from the latter suggest that it may be an extension of the settlement area. Two further platforms are located about 200 m to the west of the main site of Temple-na-Skellig. While the precise date or significance of these platforms cannot be fully assessed without excavation, it is likely that they were originally the sites of houses or huts associated with the Early or Late Medieval settlement.

The excavated and above-ground evidence together suggest two distinct phases at Temple-na-Skellig. The first stone church and the wattle huts certainly pre-date the late twelfth century and both could be centuries earlier. The earliest stone church could date from the late seventh or early eighth century, when documentary sources first mention a stone church in Ireland. The huts were described by the excavator as belonging to "a period when iron was in use" which could, conceivably, be Iron Age. An association with the Early Medieval church settlement seems far more likely, however, as there is no other evidence of settlement in Glendalough in the Iron Age. The avalanche of large slabs which caused the destruction of the Phase 1 huts could have severely damaged the church. This was rebuilt in Phase 2 (late twelfth century) and a new wooden structure was constructed on the settlement platform (occupied twelfth to late fourteenth or fifteenth century). The church at Temple-na-Skellig is the only church in Glendalough which was a single-chamber structure in the Early Medieval period but did not have a chancel added on at a later date. The lack of a chancel here can be explained by the lack of space. Three large graveslabs and a cross behind the east wall are evidence that the place where a chancel might have been added was used as a cemetery. Two other graveslabs were located to the north and west of the church, very close to its walls (Fig. 2.2). The addition of a chancel would have restricted the already severely limited space available for burial.

The interpretation of the various Lives of St. Kevin has caused considerable differences of opinion amongst scholars. Using the Lives to identify particular church sites has led to diametrically opposed viewpoints and the various interpretations are extremely confusing. Much of the confusion
centres around the Upper Lake area and the identification of Disert Caimhghin. Some authors argue it was the Reefert Church, 32 others, often from the same passages, that it was Temple-na-Skellig. 33 The Lives themselves are confused and may, as Price argues, have been deliberately changed on some points of topography or site description. 34 One point which is highly significant and can help in understanding the Lives is that the concept of “the desert” from which disert 35 and various other terms employed for “hermitage” came, was not always tied to a particular church site. In the Vita Kevin is described as wandering per deserta loca solus 36 when he first comes at Glendalough. This phrase does not refer only to Glendalough but to the entire mountainous area surrounding it. Eoganus, Lochanus and Enna, Kevin’s seniores or elders, eventually come and take him from Glendalough, described in this passage as a valle deserta. 37 Betha C. I, similarly describes Glendalough as nglend fásaigh or “desert glen,” 38 a phrase which also appears in Betha C. II 39. Events in all the lives are largely centred on the area around the Upper Lake and it is obvious that Kevin wandered around this entire area. The Vita describes how, having built a monastery, Kevin lived alone for four years in different places in the upper part of the valley between the mountain and the lake. (Et ita solus in superiori ipsius vallis plaga inter montes et stagnum in diversis locis per quatuor annos hermita fuit). 40

Another passage, in which an angel warns him of a rock overhanging his cave (spelunce), begins with the words in tempore quadragessimali, cum esset sanctus Comgenus in deserto, “at the time of Lent, when St. Kevin was in his desert.” 41 The deserto here is obviously the area around the Upper Lake and passages in both the Vita and the Bethada indicate that he wandered on both the north and the south sides of his “desert.” 42 Internal evidence for the Lives, illustrates clearly that the various terms used for “desert” are loosely applied to entire mountainous areas, the valley of Glendalough or the area around the Upper Lake. The latter is the most common usage after Kevin finally settles in Glendalough. His “desert” is the area around the Upper Lake and, in all the Lives, he wanders around all parts of it. Later authors may have tried to attach particular sanctity to certain church sites when writing the lives, but Temple-na-Skellig, Reefert Church or even both sites could have served as church centres for the “desert” or hermitage around the Upper Lake. In the Vita, one description of a site described as heremus Coemgen 43 has been interpreted as Temple-na-Skellig and (by different authors) as Reefert Church. 44 Comparison with other sources confirms that the site is in fact Reefert Church. 46 A number of passages in the Bethada, however, do associate St. Kevin very specifically with Temple-na-Skellig. Betha C. I describes how “he would cross the lake without any boat to the rock (sgeillic) to say Mass every day, and remained without dread or fear above the lake.” 47 Betha C. II, in a similar passage, describes how:

Coemgen would go on the broad pool
Without boat or ferry daily
To say mass on his skerry (sgeillic)
A place well-pleasing to God. 48
Betha C. III tells of St. Kevin "... in the desert (dithreibh) where he was, withdrawing himself for the society of men on the west side of the rock (leith thiar don sceilig) in Glendalough." 49 Although Reefert Church seems to have assumed the title Disert Caomhghin, the church and settlement at Temple-na-Skellig were still within the "desert" of the Upper Lake and its environs.

It would be easy to dismiss the Lives as propaganda or fantastic tales, but they do contain traditions which must have had some basis in truth. More accurate, non-hagiographical sources, confirm Temple-na-skellig was a distinct settlement from that at the Reefert Church or Disert Caomhghin in the late twelfth century. Scelec, a Latinised form of the Irish sgellic is mentioned in a papal charter of confirmation to Abbot Thomas and the "convent of Glendalachen" dated Dec. 22 1198.50 Scelec is listed as separate from both "the great church of SS Peter and Paul of Glendalach" and "St. Candin's (i.e. Kevin's) hermitage (desertum) with its cell." Some time between 1257 and 1263 a Donohu, prior de Rupe juxta (near to) Glindelache was sworn in as a juror at an Inquisition at Castlekevin, the manor of the Anglo-Norman bishop of Dublin. 51 Rupes, Latin for "cliff", is obviously a translation of the Irish sgellic and was similarly used by the Anglo-Normans for Ballinskelligs on the coast of Co. Kerry. 52 Occupation at Sgelllic in Glendalough ended in the late fourteenth or fifteenth centuries. It was not until 1786 that it was given the name "Temple-na-Skellig" by Archdall, 53 although natives of Glendalough to-day still refer to it simply as "The Skellig".

Traditions of an Early Medieval church and monastic settlement at Temple-na-Skellig are supported by archaeological evidence, even if the wattled huts discovered by Henry cannot be definitively dated back to St. Kevin's time. The archaeological and documentary evidence coincide also in the twelfth to fifteenth century period, when there was a priory here. The three additional platforms noted above suggest that settlement may not have been confined to the area excavated by Henry. Temple-na-Skellig was a nucleated settlement where a religious community could dwell, pray, have their own religious services and bury their dead. In these senses, a certain degree of independence from the settlements at Reefert Church and the ecclesiastical city must have existed. The limited possibilities for agriculture and food production however, suggest a dependence on supplies form outside the settlement, and the head of the community here hardly ruled independently of the ecclesiastical authorities in the valley as a whole. Thus we find that while Scelec is listed separately in the 1198 charter, it is an appurtenance of Glendalough's Abbot Thomas, to whom the overall charter is granted.

Constant landslides and avalanches of slabs, evidenced in both the Medieval and Modern periods, 54 must have made life at Temple-na-Skellig extremely dangerous. In this and its isolation, being virtually an island, it could be compared to Skellig Michael off the coast of Co. Kerry. In addition to these factors, both sites compare in that the topography of the landscape dictates the outline shape of the platforms, terraces or enclosures on which churches and huts were built. At Temple-na-Skellig and on parts of Skellig Michael, 55 these are rectangular or sub-rectangular in shape. A well-banked rectangular terrace is much more likely to retain its shape and avoid subsidence when cut out of a steep mountain or rock face than a circular structure. Despite the assertion which is often made, that ecclesiastical enclosures are usually circular or curvilinear, 56
rectangular enclosures are found at all but one of the church sites in Glendalough, including the ecclesiastical city. On a level site, the circular or sub-circular form may have been favoured. In a steep-sided valley such as Glendalough, however, topographical considerations take precedence.

**ST. KEVIN’S BED**

About 180 m east of Temple-na-Skellig is the small cave known as “St. Kevin’s Bed” (Pl. 2.5). The details of this structure can be seen in Figs. 2.9 and 2.10. It is about 9 m above the lake and rough, badly worn steps lead up to it from the shore on its western side. The cave is definitely man-made and Hemp suggested that it was a Bronze Age rock-tomb comparable to those of Pantalica, Sicily, a suggestion repeated by Leask. Bronze Age burials of this kind, however, have not been identified in Ireland. In a recent paper, Stout identifies the cist or stone box containing a cremation or inhumation accompanied by a bowl or vase food vessel as the main burial mode in Bronze Age Wicklow. These have been found under circular mounds, in unmarked flat cemeteries and, in one case, under a low cairn. Wedge tombs are also thought to be of Bronze Age date, but there is no evidence for burials in caves such as St. Kevin’s Bed.

Barrow suggested that the cave was an opening for a Bronze Age mine comparable to those on Mount Gabriel in west Cork. He also noted a similar opening on the way up to St. Kevin’s Bed which he thought was discontinued when the first proved fruitless. Further evidence from the Wicklow mountains (as a whole) and from Glendalough itself lend further credibility to Barrow’s suggestion. One of the richest mineral veins in Ireland cuts through the Wicklow mountains, running in a north-east to south-west direction across Glendalough. St. Kevin’s Bed is located only a few hundred metres to the east of the granite-schist boundary around which most of the minerals occur. Extensive evidence for human activity in the Avoca region suggests that, in the Bronze Age, gold ores in that particular area were exploited. It is a distinct possibility that trial cuttings were made at that time in Glendalough. There is definite evidence of the smelting of iron ore (most likely to have been mined at the west end of the valley) in Glendalough in the 13th to 14th centuries. In later years, right up to 1958, substantial lead ore and smaller quantities of zinc, silver and copper ores were mined in Glendalough and the adjoining valley of Glendasan. In this context, it seems far more likely that St. Kevin’s Bed was originally cut as a trial shaft rather than as a Bronze Age Tomb. Although there are a number of incidents in the Lives of St. Kevin which associate him with the cave, it is noteworthy that none of them claim he actually cut it out himself. The “Bed” could, therefore, have existed before the time of the Saint.

The *Vita* describes Kevin living in his cave (*spelunce*) in the “desert” (*in deserto*) during Lent and *leapta Chaoimhghin* or “Kevin’s Bed” is mentioned as a goal for pilgrims in *Betha C.* In *Betha C. II* we read of the saint:

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..........In his cave (*uaimh*) responding to God
and the Lough below him like the ocean
Scoring the rocks nearby.
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Betha C. III confirms that "he would often go to the crag and the cave called Coemgan's bed (leapta Coemgen)," a practice also carried out by St. Laurence O'Toole in the twelfth century. These descriptions invite direct comparison to the Life of St. Martin of Tours, written by Sulpicus Severus soon after the saint's death in the last quarter of the fourth century. This records that:

His own cell was built of wood as were those of many of his brethren; but most of them had hollowed out shelters for themselves in the rock of the overhanging mountain.

In the sixth century, Irish monasticism developed under the influence of British monasteries based on Gallic models. Whithorn in Galloway (Candida Casa), for instance, founded in the fifth century and dedicated to Saint Martin, has a strong tradition as a centre with which many of the sixth century Irish monastic founders was associated. The *Vita* of St. Martin (and the *Dialogo*) both survive in a very early form in *The Book of Armagh*. St. Martin was a considerable influence on early Christians in Ireland. His Life has been compared to that of St. Patrick; St. Maedoc of Ferns claims to have carried "the ankle of Martin" along with the relics of other saints on his travels; the Irish life of Ciarán of Saighir claims that he visited "St. Martin’s City" (Tours) and brought back relics with which he was later buried. Whatever the historical truth behind these claims, the Irish were certainly fond of forging connections with the Gallic saint. A manuscript written some time after 1061 at Glendalough contains a "*Commemoratio de Sancto Martino et Patricio et Nicholao et Coemgino*" with collect, secret and post-communion mentioning these saints. The fact that St. Kevin and St. Martin were being prayed to together in the eleventh century may indicate a tradition that both saints adhered to the same kind of religious ideals. The occupation, at an earlier date, of the cave at the Upper Lake in Glendalough may well have been inspired by the example of St. Martin. While it is impossible to prove such connections, an awareness of the influence of Gallic monasticism is relevant to seeking an explanation as to why St. Kevin would choose to dwell even occasionally in such a dangerous place. It seems likely that he and others did and that the "Bed" represents the most dramatic example in Glendalough of the Egyptian and Gallic-inspired practice of severe asceticism for which the Irish were famed throughout Europe. Both St. Kevin's Bed and Temple-na-skellig were within the area called deserto or disert, a concept which itself originated ultimately from the hermitages of the Egyptian desert. When this term did come to be applied to a specific church settlement at Glendalough, however, it was Reefert Church which (certainly in the twelfth century) claimed the name Disert Chaoimhghin.

**REEFERT CHURCH AND IT’S ENVIRONS**

Reefert Church is located about ½ km east of Temple-na-Skellig along the southern shore of the Upper Lake (Fig. 2.11). The church, an undecorated structure with coeval nave and chancel stands within a complex series of earthworks (Fig. 2.11). The church and surrounding dry-stone wall "z" were reconstructed in 1876-77. The only record made of the various walls and pathways was
that the surrounding fence was repaired and the approaches gravelled. The 1870 report made before reconstruction started at Reefert, noted that "... the churchyard retains its old caisel." The 1838 Ordnance Survey map shows two walls running very close together along the route now taken by sunken pathway "A" in Fig. 2.11. This starts where "A" is marked, and follows the same course as "A" as far as the steps at "F". Here there is no wall blocking the course of the path as it turns sharply northwards, following the exact course of pathway "I". The building up at the wall at point "F" and the insertion of steps must have been done in 1876-77. This is a significant point, as the reconstruction effectively destroyed what appears to have originally been a continuity between pathway "A" and pathway "I". The settlement at Reefert does show evidence of an additional, outer enclosure, but this reconstruction gives the impression that access was closed off at point "F". Before moving onto examine this outer enclosure, it should be noted that the inner enclosure "Z" is otherwise marked in 1838 in exactly the same shape as it exists to-day. It measures c.40 m (on the north side) by c.27 m (on the east side).

The pre-reconstruction records of Glendalough concentrate almost exclusively on architectural details and take little notice of earthworks and enclosure walls. The dry-stone wall at "K", however appears to be part of what was originally an outer enclosure. It is over 50 m from point "F" on enclosure "Z". The stone-work which defines paths "I" and "J" ends within the lines suggested by this outer enclosure. On the eastern side, it is difficult to trace the course of this enclosure. A hotel was built just to the east of Reefert some time between 1838 and 1908, but walls shown on the 1838 map can be seen in Fig. 2.11. The start of sunken pathway "A" would seem to indicate the north-eastern corner of the outer enclosure, which would thus be c. 130-140 metres form wall "K" to "A".

Outside the central enclosure "Z" is a rectangular platform "H" measuring c. 5 metres by c. 15 m. There are number of large stones on the north-west corner of this platform which could mark the corner of a building. As they are overgrown by grass, mosses and a tree, it is impossible to examine them in detail. The 1870 report does state that: "The churchyard retains its old caisel, and the foundations of several buildings are to be traced around it; so that careful examination might enable us to recover the plan of the original monastery." As in the case of foundations covered over near St. Kevin's "Kitchen" in the ecclesiastical city, these additional buildings appear to have been covered over after 1870. This platform may mark the site of one of them. It further reinforces the possibility that the settlement at Reefert was far larger than, and had more structures than are contained within, the enclosure "Z" where reconstruction efforts were concentrated.

The doorway at Reefert (Pl. 2.6) is the only feature which survives intact from before the reconstruction (Fig. 2.12). In 1870 the plan of the church could be made out and the lower part of the walls were described as being "tolerably perfect." The arched heads of the windows, the voussoirs of the chancel arch and the brackets which carried the projecting eaves of the roof were all visible among the ruins in 1870. They were used to reconstruct the church as it exists to-day in 1876-77.

The architectural details and measurements of the church can be seen in Figs. 2.13 - 2.15. The nave and chancel are bonded together at the lowest level in the walls (i.e. in that part of the
building which has not been reconstructed). This indicates that they were built at the same time. The construction of churches with coeval nave and chancel does represent a new stage in stone-built churches at Glendalough. The first stage involved the construction of the original Cathedral. This was followed by the building of single-chamber churches at St. Kevin's, Temple-na-Skellig and St. Mary's. All of these, except Temple-na-Skellig, have later chancels. In the cases of St. Mary's and the Cathedral, the chancel and a north door, both recognisably twelfth century, were added. The addition of a chancel and sacristy to St. Kevin's Church is not recognisable as twelfth century on the basis of sculptural details alone. It does appear that the primary consideration in this case was to architecturally co-ordinate the chancel and sacristy with the original building. Although Temple-na-Skellig did not have a chancel added on in later times the east window does represent a re-building in the twelfth century. The twelfth-century re-buildings of single-chamber structures was preceded by a stage which involved the construction of churches with a coeval nave and chancel (Reefert Church and Trinity Church).

At Reefert, we can see that this second stage was pre-Romanesque by the lack of sculpted detail in that style. The trabeate doorway, with it's massive granite lintel and large blocks of granite in the jambs of the door, is also found at Trinity Church, Temple-na-Skellig and St. Mary's. Monolithic round window-heads are also common to all four churches (Pls. 2.7 and 2.8). Unique features of these churches, however, are the use of plain arches (in the chancels at Reefert and Trinity) and the use of projecting corbels to carry the eaves of the roofs.

The chancel arch at Reefert Church consists of voussoirs of well-dressed and squared granite. The arch has two faces, one facing the nave, the other facing the chancel, with a rubble fill in between. The piers and the arch itself form a continuous whole with no change in design and no capitals marking the point where the pillars end and the arch begins. This and the almost identical arches in the Gatehouse of the ecclesiastical city and the chancel of Trinity Church must be amongst the earliest in Ireland. Even the earliest Romanesque churches identified by Leask have more complex chancel arches than this and most have round-headed, rather than the older trabeate doorways. The only pre-Romanesque chancel arches which compare to those at Glendalough of which the present author is aware of are at Killiney Church, Co. Dublin; Tully, Co. Dublin; and Temple Brecan on Inishmore, Co. Galway (Pl. 2.9). Although there is no rubble fill between the two faces of the arch in the latter church, and the pillars and arch are delineated by simple capitals, the use of simply dressed and squared stone throughout is similar. The east window at Temple Brecan is of Gothic style but was added later and the large masonry and simple window-heads of both nave and chancel indicate that the original church was pre-Romanesque. The use of projecting corbels to support the roof timbers represents a refinement of the antae found in many early Irish churches. Antae are large, pilaster-like projections of the side walls, taking them east and west beyond the gables, and served the same functions as the corbels at Reefert Church and Trinity Church. The only other examples identified in Ireland come from churches which have Romanesque features. At Oughtmarma, Co. Clare, they occur in a nave-and-chancel church which does have a lintelled west doorway but appears to have had the chancel arch inserted at a later date. The only other two
known examples also come from Co. Clare. At Termon Cronán they are found in a single-chamber church which has a lintelled west doorway but also other features which suggest it was Romanesque (Pl. 2.10). The west doorway is blocked up and a pointed doorway has been inserted in the south wall, the latter a feature of Irish church plans which came in with Romanesque architecture. The east window has some decorated stones on the interior, there are grotesque Romanesque-style heads in the exterior walls and the corbels themselves are carved on the undersides with animal masks. Harbison identified another example of a corbel carved with a head of twelfth century style at Kilvoynaun, Co. Clare. The two Glendalough examples, therefore, are unique in that they occur in churches where there are no Romanesque features or carvings. This, combined with their virtually unique chancel arches, makes them most unusual amongst early Irish churches. Leask thought they could belong to the tenth century, which is possible. As we have no indication of date for the arches, however, and the corbels cannot be placed in the same chronological period as other Romanesque examples, dating is very difficult. All that can be said with any certainty is that they belong to a transitional phase which occurred between the time of the first, single-chamber stone churches and the flowering of the Romanesque style.

Reefert, in Irish Ri Fert, or the “cemetery of kings”, is a name passed on by oral tradition and was not written down until 1779. Betha C. I, however, claims that, because “God gave heaven to every one who should be buried in the mould of Kevin... many kings and chiefs amount the kings of Erin, and of Britain, chose to be buried in Glendalough for love of God and Kevin.” The local dynasties, many of whom provided kings of Leinster, controlled the main offices at Glendalough for long periods from about the eighth century and many would undoubtedly have been buried here. The claim that kings and chiefs of Britain were also buried at Glendalough may not be entirely false. Bede (writing c. 800) referred to the fact that, c. 664, many of the Anglo-Saxon nobility as well as the lower ranks, were going to Ireland to study in the monasteries. If they died here they were presumably buried with due respect for rank, as Bede records that they were willingly received by the Irish who supplied the food, books and teaching gratis. The tradition that Glendalough was amongst the prime centres of burial and pilgrimage in Ireland is also recorded in Betha C. II and Betha C. III. Although the name “Reefert” is not specifically used, the reference to the burial of kings and chiefs leaves little room for doubt that this is the place referred to. Pl. 2.11, a nineteenth-century drawing of Reefert, shows many graves around the church. Many of these still exist at the site to-day, but all of the slabs and crosses are carved in local mica-schist and the vast majority are worn down to a point where no design or inscription is visible.

One grave-slab which has entirely disappeared bore the inscription “dr do Carpre Mac Cathuil, AW Ihs XPS” (Fig. 2.16). Wilde observed in 1873 that “... the inscription was recently broken off by the guide who was in the habit of breaking off bits of this stone to give travellers for relics!” The Annals of the Four Masters record at 1013 (recté 1014) that “Cairpre Fial, Mac Cathail, ancoire Glinne dá Locha” died, undoubtedly the same “Carpre” of the disappeared grave-slab. The
latter was located "near the south wall" of Reefert Church in 1873. Its presence provides evidence that Reefert, as well as being a royal cemetery, was the centre of a hermitage in the late tenth and eleventh century.

There is further archaeological evidence to support this. A beehive hut, of which little now remains but the foundations, is located just above Reefert Church (Pl. 2.12). The pathway which ran from the inner to the outer enclosure at point "J" continues on to the "cell", ascending the slope by a series of steps. These have been reconstructed in more recent times, but were described in 1911-12 as part of an "ancient track...and there are stones scattered about, the remains of the rude steps in the ascent." Traditionally known as St. Kevin's Cell, there were far more substantial remains of this building surviving in 1911-12.

The Commissioners of Public Works report for that year gives a description which, in view of the fact that the "cell" is now a more foundation is worth quoting in full:

The walls are 2 feet 9 inches [84 cm] to 3 feet [90 cm] in thickness and vary in height form 1 foot 3 inches [38 cm] to 3 feet [90 cm]. The diameter inside is 11 feet 3 inches [3.37 m] from east to west and 10 feet 6 inches [3.15m] from north to south, a portion of the wall to the south-west is faced with stones 3 to 4 inches [8-10 cm] thick set on edge, the largest is 3 feet long [90 cm] and 2 feet [60 cm] over the ground. The narrow doorway is on the east, looking down on the valley; a tree has displaced the stones on the north jamb, but the other jamb is uninjured for 2 feet 6 inches[76 cm] in height. The walls of the hut batter on the outside and slightly overhang on the inside, and although there is no other indication of how it was roofed, it is probable that the roof was of stone, built on the beehive plan, and similar to those of the early monastic settlement on Skellig Michael.  

The report goes onto suggest that this may be the cell started in the Vita to have been built in a narrow place between the mountain and the lake. Other authors, however, have argued from the same passage in the Vita that this place was Temple-na-Skellig. Confusion abounds on the interpretation of this passage, and the description in the Vita itself is somewhat unclear. It describes how St. Kevin, having founded a monastery in the lower valley, went off alone to the upper valley, specified as being about one mile away (quasi per unum miliarium a monastico). Here he built a mansiunculum, "a small dwelling or building", "in loco angusto inter montem et stagnum sibi, ubi erant dense arbores et clari rivuli". These words, "in a narrow place between the mountain and the lake where there were dense trees and clear rivulets" could describe either Temple-na-Skellig or Reefert Church. Perhaps the author of the Vita was being deliberately vague, for he goes on to describe how Kevin dwelt for seven years alone in different places between the mountain and the lake; "but his monks afterwards built a famous cell (claram cellam) in the desert (heremo), where St. Coemgen
dwell between the Upper Lake and the mountain on the southern side, where there is now a famous monastery (clarum monasterium) in which very pious men ever dwell." Plummer’s Latin text then states:

\[
\text{et illud vocator scotice (Disert Caimhghin), quod sonat latine}
\]
\[
\text{heremus Coemgeni. which translated means:}
\]
\[
\text{and this in Irish is (Disert Caimhghin) which in Latin is heremus}
\]
\[
\text{Coemgeni.}
\]

Plummer explains in a foot-note that “Disert Caimhghin” has been omitted but two other manuscripts of the Vita have “Desertum Caymgimi” and “Desertum Caimhghin” without giving any Irish name. The missing Irish name in the main manuscript which Plummer uses can only be the Irish for heremus or desertum Caimhghin, which would be Disert Caimhghin. The “famous cell” and the “famous monastery” are part of the same site and the Bethada are in accordance with the Vita on this point. Betha C. I mentions “Coemgen’s hut” (cró Choimhghin) immediately after the sentence on the burial-place of kings and Betha C. II states:

The kings of Erin chose
And her queens customarily
To be buried in this noble church,
where are triumphs till doom.

These are the relics of the bishops
Under the soil till the day of the vast judgement;
Near the pen of Coemgen (cró Caomhghin) of the devotion.

These sections in the Bethada are clearly distinct from those which describe the skellic (i.e. Temple-na-Skellig), the latter coming earlier on in Kevin’s life. From the Bethada, then, it is clear that the burial-place of kings (Reefert Church) is near cró Caomhghin or Kevin’s Cell. The Vita calls Reefert Disert Caomhghin, the latter also close to the claram cellaum of St. Kevin. Field evidence confirms the proximity and connections between the two sites. One historical source which definitively confirms that Disert Caomhghin and Temple-na-Skellig were separate settlements, however, has gone unnoticed by many scholars. This is the papal charter of confirmation (1193) referred to earlier, which lists “the great church” (the Cathedral), “Scelec” (now Temple-na-Skellig) and “St. Comdin’s (i.e. Kevin’s) hermitage (desertum) with it’s cell” as separate appurtenances of Glendalough. Temple-na-Skellig would undoubtedly have been a monastery of the disert (the hermitage area around the Upper Lake) in the Early Medieval period. The destruction of the settlement (Phase one) there by an avalanche of slabs could have led to its abandonment until the late twelfth century. When re-established (as Scelec or Rupe) it was still within the disert, but the particular site which had assumed the name Disert Caomhghin by that time was at Reefert Church.

The Annals of the Four Masters record the death, in 1108, of “Eochaid, son of the lector (Ferleigind) Ua Fothadain, a noble priest (uasal ssagart), senior (senior) and amnchara of Disert Chaeimhghin.” Anmchara means a “soul-friend, confessor, spiritual director.” Senóir means “a
The two terms together signify that this man held a position approximating to abbot of the hermitage. As with Temple-na-Skellig, there is a definite case to be made for Reefert Church as the centre of a settlement which was, to a certain degree, independent of the main settlement at the ecclesiastical city. It had its own cemetery, its own cells and the field evidence suggests that, like the ecclesiastical city, it had a double enclosure. The *Bethada* suggest that Reefert, not the ecclesiastical city, was the real goal of pilgrims, and this is supported by evidence of a string of crosses on a route leading from the city along the north side on a route leading from the city along the north side of the lower lake towards Reefert (Fig. 2.17). Laurence O'Toole, as Archbishop of Dublin (1162-80), made a grant of land to "The Convent of the Desert of St. Kevin," although the canons there were made to surrender their claims to these lands by Archbishop Fulk in 1263. Laurence had founded a house of Augustinian canons at St. Saviour's Priory while Abbot of Glendalough and Reefert, survived until at least the mid-thirteenth century.

The settlement at Reefert Church was of considerable size, and may even have spread beyond the Poulnass River, which marks the southern side of its outer enclosure (Fig. 2.11). A number of features to the north of the river, just opposite Reefert, are worthy of note. The closest is the remains of what appear to be foundations for a rectangular building. On the 1838 6-inch map, only a graveyard is shown here (Fig. 2.17). The 1910 6-inch map again shows a graveyard, but with the outline of what seems to be this rectangular building adjoining it to the south. O'Donovan in his Ordnance Survey letters simply recorded "several crosses which were visited by pilgrims when performing their turass or stations here." The rectangular foundations must have been uncovered between 1838 and 1910 and still survive to-day, although there is little trace of a graveyard at the site. The Commissioners of Public Works described it in 1911-12, and did note that "burials have taken place in it." It measures 6.24 m wide (externally) and about 11 m long. It is approximately aligned east-west and, although there are granite quoins at both western corners, the eastern end of the structure is not so well defined. The walls survive to a maximum height of about 1 m. It is featureless apart from a breach in the south wall towards the eastern end. This must have been more clearly defined in 1911-12, as it was then described as a doorway 76 cm wide with "slate" (presumably mica-schist) jambs. The walls are of loose rubble and there is no trace of mortar having been used. While it is difficult to ascertain the age or authenticity of this structure, the presence of a graveyard here in former times does imply it is on sanctified ground. It could, given its door in the south wall, represent a late twelfth or early thirteenth-century expansion of the settlement around Reefert.

The 1838 map shows two circular enclosures to the north of the graveyard opposite Reefert Church (Fig. 2.17). They are c. 100.6 m apart, but only the southernmost survives (Pl. 2.13). Both had stone crosses in or near them in 1838 and at that time still formed stations on the pilgrim route. The northernmost enclosure had disappeared by 1910 (Fig. 2.18). Sweeten carried out a partial excavation of the surviving enclosure in recent years, but found no evidence that it was an Early Medieval structure. He thought it likely that it may have been a folly of the 18th or 19th century.
is significant to note that O'Donovan, writing of this and the other disappeared enclosure in 1838, described them as two "enclosures like forts, but were probably enclosures for cattle." O'Donovan does not give a reason for this opinion. It is clear, however, that he considered them to be distinct structures from the "Dane's fort". The latter was a term used by many nineteenth-century antiquarians to describe what modern archaeologists call a "stone fort" or cashel.

Even if these cashels were not part of the Early or Later Medieval settlement at Reefert, the settlement was nonetheless of considerable size and importance. It was a site of burial and pilgrimage, right through O'Donovan's time and a goal for pilgrims to this day. The numerous graveslabs and crosses here undoubtedly compared, in number and in style, to those of Clonmacnois. This often goes unnoticed today because the local Glendalough mica-schist has weathered very badly compared to the sandstone graveslabs of Clonmacnois. In addition, some of the graveslabs suffered at the hands of the nineteenth century guides and other incidents which have occurred at Reefert should be noted. The virtual disappearance of St. Kevin's Cell since 1911-12 would lead any curious archaeologist to question whether or not the beehive cell as a monastic architectural form was really as insignificant at Glendalough as it appears to be. There is the tantalising comment written by Colles' that, in 1870 before reconstruction " . . . the foundations of several buildings are to be traced around it (i.e. Reefert Church); so that careful examination might enable us to recover the plan of the original monastery." These "foundations" do not appear to have been subject to the "careful examination" which Colles hoped for. There is no reason to doubt his observations or recommendations. He noted of "the ancient Pilgrims Road" that it "extended northward across the valley from Righfeart Church to the river which connects the two lakes, and was bordered by a line of cairns and crosses, which still remain as do a couple of caiiseals, apparently sepulchral enclosures, in the adjoining fields. The route of the Pilgrim's path can be seen exactly as Colles describes it in the 1838 map (Fig. 2.17). He goes on to state: "But the southern half of the road has been destroyed, and its site ploughed over in the last few years; and unless some protector arises, the cairns and caiiseals will be cleared away one of these days." The 1910 map (Fig. 2.18) shows the fields of which Colles wrote in 1870 and, exactly as he had warned, one of the "caiseals" had been destroyed. The ancient Pilgrims' Road can no longer be seen to-day.

Reefert Church has also suffered from the attentions of well-meaning nineteenth-century antiquarians. In 1874 certain "Excavations at Glendalough" were reported in the Journal of the Royal Historical and Archaeological Association of Ireland. The Rev. J. Rowan, R.C.C., reported that during the autumn of 1873 or 1874, accompanied by Sir William Wilde and a certain Father Clarke, he "cleared the Trinity and Reefert churches. They cut away trees and "cleared out" the buildings. Rowan reports casually that: "we cleared the Reefert Church very fully. Both Sir W. Wilde and Father Clarke supposed the clearing would turn up many things, but nothing of interest came of it. Occasionally a flag would appear in the floor, but when turned over it was found to contain no inscription, and it only covered a heap of ashes - probably the ashes of the dead. Father Clarke told me he had the inner part of the chancel dug into, and he was surprised to find in it some animal remains. Could anyone have desecrated it by burying the bones of animals?"
The flag-stones on the floor of Reefert could have been Early Medieval graveslabs. The lack of inscriptions would certainly not indicate that they were simply "flags", as many of the Reefert graveslabs have worn badly. The ashes could have been cremated human remains. For the modern archaeologist, the digging up of the interior of Reefert Church in 1873 or 1874 will have destroyed at least the uppermost layers. These nineteenth-century enthusiasts did much good work in pushing for the maintenance and care of Glendalough's monuments. They could not be expected to foresee how much more late twentieth-century archaeologists can tell with their refined archaeological techniques. More recent years, however, have seen the advent of treasure-hunters equipped with metal-detectors and Reefert Church is still a place where indiscriminate "digs" take place.

EARTHEN PLATFORMS

Within the disert or the area around the Upper Lake there are a large number of circular and oval earthworks. Their main characteristic is that soil excavated from the upper part is used to build up the lower part. (The same basic technique was used in building the two platforms on which the church and the settlement were constructed at Temple-na-Skellig). These earthworks vary in size and some have stone retaining walls at the back, or, in a few cases, remains of rectangular stone buildings nearby. They were first noted in 1938 when 70 - 80 sites were found and identified as hut platforms. "In our opinion," the authors of the report concluded, "the evidence points to a construction of circular wooden huts on the platforms, although abundant stone was immediately available. These huts would have been from 12 feet [3.6 m] to 20 feet[6 m] in diameter." 136

in 1972, Healy produced a typescript on Glendalough which included a more comprehensive survey of the platforms and the results of an excavation carried out on one platform. 137 He identified and surveyed 86 platforms on the north and south sides of the Upper Lake (Table 2.1).

The platforms can be seen to vary from 5 m to 10 m in width. While some are almost circular, most are oval shaped. Healy's map (Fig. 2.18) shows that they occur across a widespread area to the north, south and west of the Upper Lake. Healy noted that, with the single exception of St. Kevin's Cell, none of the eighty-six sites examined showed any trace of a hut or other structure. 136 Sites p. (= platform) 11 and p. 43 had the remains of rectangular dry-stone huts, but these were adjoining on the upper side of the sites and not on the platform. 138 Burrowing by rabbits had disturbed the soil on many platforms and this soil was always found to contain charcoal. 140 Forestry workers reported deep layers of charcoal when planting around the sites. 141 Healy spoke to a local mining engineer who "is familiar with these platforms and believes them to be places for burning charcoal which were operated about 1700 for smelting iron ore." 142

Healy carried out "a conclusive test" on "a typical platform", No. p. 78. This measures 8 metres wide and 5 metres in depth and has a well-defined wall of dry built masonry 50 cm high at the back. This wall extends for 4.5 metres. Healy's account of the excavation is worth quoting in full: (See fig. 2.19 and Fig. 2.20).
Trial trenches were cut from front to back and from side to side. On the surface of the ground was a stratum of humus and sod to an average depth of 4 cm. Below this was a very black soil mixed with fragments of charcoal. The average depth of this layer on the inner half of the platform was 7 cm, but the depth increased towards the front where the maximum was 75 cm. The soil here was also blacker and contained more charcoal. Below the black soil was a clean gravelly clay with some rough paving of flat pieces of mica-schist. Much of this clay was burned to a deep red colour which extended to a depth of about 10 cm. At the centre of the platform below the black soil was an area of yellow shaley mica-schist in small broken flakes 1.5 metres wide and extending to the front of the platform. Outside this deposit the red clay extended for two metres on each side and for 1.30 metres towards the back of the platform. Near the centre were two post-holes 5 cm in diameter. One was 10 cm deep and the other 5 cm deep. They were filled with black soil. 143

Healy does not attempt to interpret this evidence, but simply presents it as a “conclusive test”. The excavation was only partial, but the thick, widespread covering of charcoal would seem to support the conclusion that charcoal-burning took place here. Obviously the site was roughly paved with slabs of mica-schist. The finding of post-holes is of interest, but there is not enough information to indicate what type of structure they came from.

Healy concluded his report with the comment that, while two large, rectangular platforms (p. 81 and p. 85)144 may have been intended as hut sites, the vast majority were for the burning of charcoal. “They probably date from between 1680 when iron smelting was introduced into Co. Wicklow and 1740 when there was a drastic decline in this industry.” 145

The present author has visited the platforms surveyed by Healy and added an additional 14 platforms to the latter’s survey. 146 (Fig. 2.17 and Table 2.2). There is a very clear distinction between the larger sites, most of which are clearly defined (Pl. 2.14) and the smaller ones, which are generally poorly defined. While Healy noted this distinction, he did not draw any conclusions or classify the sites into two sub-groups. While not all of the smaller sites are badly defined, many of them are. None of the larger sites are badly defined.

The smaller, badly defined sites are also notable in having no dry-stone retaining walls or other associated structures. The larger, more clearly defined examples can have retaining walls or banks over 2 m high and look like far more recent structures. On these grounds, the sites have been subdivided into smaller, badly defined sites (marked * in Tables 2.1 and 2.2) and others. A further subdivisions of “others” (marked S on Table 2.1) includes platforms 80, 81 and 85. Platform 85, at Temple-na-Skellig, is the settlement platform. 147 Platform 80, St. Kevin’s Cell, had a beehive hut constructed on it. 148 Platform 81, a long narrow platform above Reefert Church, may also have been
a settlement platform. It is distinguished from the "others" in being rectangular and bears more resemblance to the settlement platform at Temple-na-Skellig than to any other platform included in the survey. Although not included here, the rectangular platform just south of Reefert Church (see "H" in Fig. 2.11) is a similar type of earthwork.

The platform which Healy excavated and described as "a typical platform" is of the larger, more clearly defined type with a dry-stone retaining wall at its back. The information from this excavation, then, can only be seen as "conclusive" for this and similar site types. The sub-group S are, conclusively in the case of St. Kevin's Cell and Temple-na-Skellig, more reasonably considered as settlement platforms.

Even with the sub-group "others" there are problems with assuming that all are charcoal burning sites. The platform on which St. Kevin's Cell once stood is of the larger, more clearly defined type. Had we no record of the cell or beehive hut, this would be assumed to be a charcoal-burning site. Hemp and Gresham wrote in 1938 that "other small platforms are isolated. They average about 8 foot (2.43 m) to 10 foot (3.40 m) in diameter and are generally circular. In two cases there were remains of stone rings on them." The location of these sites is not given and the present author has been unable to trace them. Given the rapidity with which St. Kevin's Cell walls have disappeared since 1911-12, it is not unlikely that these "stone rings" have also gone. They sound distinctly like the foundations of beehive huts.

Overall, it is somewhat simplistic to classify all of the sites in Table 2.1 (excepting S sites, as Healy does) as "charcoal burning sites." The smaller, badly defined sub-group could be hut platforms dating from the time of the early monasteries in Glendalough. They occur in the immediate area of Reefert and Temple-na-Skellig and within the general area of the disert or hermitage. Further examples of platforms (which have yet to be surveyed) exist on Derrybawn mountain, immediately above the ecclesiastical city and further east towards St. Saviour's. The rangers in Wicklow National Park have told the present author that they have also seen platforms on the north side of the valley, on the slopes of Brockagh Mountain overlooking the ecclesiastical city.

As disert means "hermitage" and the tradition of "going into the desert alone" was an integral part of Irish monasticism, we would expect isolated parts of Glendalough valley to have been occupied by lone monks. A recent survey at Skellig Michael, for instance, has discovered the cell of a lone hermit high up on the South Peak. It was located well away from the main monastery in a place which was extremely difficult of access. At Glendalough, the presence of St. Kevin's Cell and the survival of the term disert indicate the same tendency to withdraw to solitude. Wandering alone in diversis locis around the Upper Lake is a common theme not only in the Vita of Coemgan but also in the Bethada. Betha C. Ill describes him returning from his "bed" "by the wood called Cael Faithe to the north of the lough" where he would be "a long time in the lough up to his waist reciting his hours." It continues:

Seven years in tangled deserts
Was he in gentle sort
Dwelling beside his people
Without food in Cael Faithe.\textsuperscript{152}

The \textit{Vita} also records that Kevin built an oratory of twigs (\textit{oratorium sibi construxit ex virgis}) on the northern side of the lake (\textit{in margine aquilonali}).\textsuperscript{153} Although no Early Medieval site has ever been identified on the north side of the Upper Lake, some of the "platforms" there could be Early Medieval. Wattle-and-daub huts were definitely built at Temple-na-Skellig and a beehive hut at St. Kevin's Cell. There is no reason to doubt that some of the smaller, badly defined platforms which survive to-day could be the sole remains of hermits' cells similar to those which we know existed in Glendalough. While there is no definite evidence of this, the possibility should be considered until evidence to the contrary is discovered. The truth about the platforms at Glendalough may yet prove to be that they were a mixture of charcoal-burning sites and Early Medieval hut platforms.

\section*{TRINITY CHURCH}

The first church to the east of the ecclesiastical city, c. ½ km from the Gatehouse, is Trinity Church (Fig. 2.21 and Pl. 2.15). This is built on a platform cut out of the sloping ground above the Glenealo River. The southern side of this platform is defined by a sloping bank consisting of stones mixed loosely with earth. 2.4 m form the edge of this bank is the southern wall of the church's rectangular enclosure (See Fig. 2.21). The enclosure walls, which are of dry-stone, enclose an area of 27.7 m x 16.4 m. This enclosure existed in much the same shape in 1839 with the exception that the southern wall, in its western section, ran to the north-west rather than in a straight line.

The original steps leading down to the church from higher ground were noted by restorers in 1875 (Pl. 2.16 and Pl. 2.17). The church itself consists of a nave and chancel and a later western annexe, which supported a round tower or belfry (Fig. 2.21 and Pl. 2.18). It was described by Colles in 1870 as "the most perfect in the valley."\textsuperscript{155} Indeed it is apparent from the reports of both Colles in 1870 and Wilde in 1873\textsuperscript{157} that the southern doorway and the southern wall of the annexe (with its window) are the only features which survive to-day as reconstruction's rather than originals. The walls, however, were much overgrown with ivy. Clearing this to reveal and preserve the masonry was the first work of restoration that the Commissioners of Public Works reported in Glendalough.\textsuperscript{158} They also found the arch and jamb stones of the southern doorway and restored this, along with "the small windows at the southern end."\textsuperscript{159} The gable over the chancel arch, though still standing, was "on the verge of falling" and was carefully restored.\textsuperscript{160} Most of the features in Trinity Church thus survive in their original form.

The building originally consisted of a nave and chancel only. The western annexe is not bonded into the west wall of the nave and is clearly a later addition (Pl. 2.26). The original entrance was not through the southern doorway, which was added when the western annexe blocked access through the original doorway in the west wall of the nave. The west door (Pl. 2.19 and 2.20), now the entrance to the annexe, is very similar to that at Reefert. It has sloping jambs, measuring 78 cm wide at the base narrowing to 61 cm less in width at the top. It is 1.89 m high. It has a massive lintel stone 1.6 m long and 25 cm to 38 cm deep. The lintel is the full thickness of the wall, 83 cm, and is of
granite. The jambs consist of large blocks, mostly of granite, but only two of these in the north jamb and two of them in the south are the full thickness of the wall. The north jamb has 8 large stones, the south jamb six. The granite blocks are squared and dressed, but the presence of a rough slab of mica-schist at the top of each, visible on the east and west sides of the north jamb, though only on the west of the south jamb, spoil the uniformity of the doorway. This is a curious feature not found at either Reefert or St. Mary's where very similar doorways are made entirely of granite.

The southern doorway is round-headed and constructed with granite blocks, some reasonably large but none of which go through the full thickness of the wall. It was reconstructed in 1875\(^{161}\) when the arch and jamb stones were found amongst the rubble (Pls. 2.21 and 2.22). The granite blocks are squared and dressed as in the west doorway, but the use of smaller blocks is a feature more characteristic of Romanesque than of pre-Romanesque churches in Glendalough. The lack of any attempt at decoration in this doorway or anywhere else in the church indicate that it does not belong to the fully developed Romanesque period. \(^{162}\) Neither can it be classed with the early doorways like the west one here, at Reefert, St. Mary's and Temple-na-Skellig, all of which are flat-headed and have massive blocks in their jambs. While still retaining the inclined jambs of the early period, this doorway, with its round head and smaller stones, bears more resemblance to the south door at St. Saviour's than to any other in Glendalough. It could, therefore, belong to the period just before the full flowering of Romanesque in the valley.

The nave has only one window, in the south wall. This is round-headed, the head being cut out of a single slab of mica-schist, and internally splayed (Pls. 2.23 and 2.24). The east window of the chancel and the north and south windows of the western annexe are similarly constructed (Pls. 2.25 - 2.30). The east window of the chancel is unusual in having a drip-course cut out of the single block of mica-schist which forms the head of the window on the outside (Pls. 2.29 and 2.30). There are also two holes on the outer edge of this window, one in the sill and one in the head, which must have held a central upright post. The drip-course is found in the lintel stones of the doorways at Temple-na-Skellig and St. Kevin's Church and is similarly carved in a single stone. This is the only example in Glendalough, however, of such a feature in a window-head. The holes which indicate a central upright, possibly of wood, are also unusual. A similar feature is found in the east window of the Cathedral and is reminiscent of the two-light east windows at Temple-na-Skellig and St. Saviour's. In the latter cases the central upright is of stone. The apparent attempt to create a two-light window at Trinity Church may not be an original feature. Two-light windows are not at all common in early Irish churches. At Glendalough, they are found only in the Romanesque St. Saviour's Priory (1153-62) and as a later addition at Temple-na-Skellig.

The south window of the chancel at Trinity Church is unique in Glendalough and quite rare in Irish churches as a whole. Its head consists of two long slabs of mica-schist which are the full thickness of the wall and are placed as to form a triangular head (Pl. 2.31 and 2.32). Petrie noted and drew similar examples from the churches at Kiltiernan, Co. Galway (Fig. 2.22) and Kilcannagh “ on the Middle Island of Aran”\(^{163}\) (Fig. 2.23). This small sub-group of triangular-headed windows in early Irish churches may simply be a native eccentricity but could represent an influence from Anglo-
Saxon Britain. While most windows and doorways of British churches in the Anglo-Saxon period were round-headed, triangular heads existed in some churches. It is also interesting to note that both single- and double-light windows are found in these churches. The plan of Trinity Church, so peculiar amongst Irish churches for its western annexe which supported a round tower, could also be influenced by Anglo-Saxon designs. Nave and chancel churches with a round tower attached to the west end in precisely the same manner as at Trinity Church are found in East Anglia (Fig. 2.21 b).

A detailed survey of Anglo-Saxon architecture states that of a total of ninety-nine wholly or partly surviving Anglo-Saxon towers, 62 are square west towers, 21 are round west towers, and the other sixteen are square in plan but occur in different parts of the church. The round west towers are wholly confined to East Anglia, the reason for this being uncertain. The west walls of many of the naves are bonded into the towers in many cases. In others, it is clear that the tower is a later addition.

A more recent study states that barely 6 out of 200 round western towers in England can be dated with any conviction before the Conquest (of 1066). The majority in fact can be shown to belong to the late eleventh, twelfth and even thirteenth centuries. It also indicated that although not exclusively confined to East Anglia, the great majority of round western towers are found there. The form is viewed as part of a "regional school" of minor churches. The type does not occur in Normandy at any date, but there are remarkable similarities with examples in Northern Germany. The latter could date from as early as the late tenth century and continued in fashion until the late 1100's. This brief history of the Anglo-Saxon or East Anglian round western towers will be borne in mind throughout the analysis of features at Trinity Church. It will be further discussed when this analysis is completed.

Before turning to examine the evidence for the round tower over the western annexe, it is necessary to examine other features of the original nave-and-chancel church. That both nave and chancel were built at the same time is clear from the manner in which the chancel walls are bonded into the nave below the springing of the chancel arch (Pl. 2.33). The chancel arch is the same width as the chancel itself. It consists of two separate faces of dressed granite voussoirs with a rubble fill between the faces (Pl. 2.34 and 2.35). The west facing consists of 15 blocks, roughly equal in size, with a single key-stone. The east face has a similar number of blocks, but whereas a single block forms the keystone, of the west face, two stones are used here (Pl. 2.35). Thus the east face is the same as the outer arch of the Gatehouse at the ecclesiastical city. Indeed there is a strong resemblance between the mode of construction and the use of roughly equal blocks of granite properly radiated in the two arches of the Gatehouse and the double-arches at both Trinity Church and Reefert Church.

Other features at Reefert and Trinity are very similar. The sizes of the nave and chancel are almost identical:

<table>
<thead>
<tr>
<th></th>
<th>Nave</th>
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<th>Nave</th>
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<th>Chancel</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Reefert</td>
<td>8.72 m x 5.17 m</td>
<td>Trinity</td>
<td>8.85 m x 5.25 m</td>
<td>Reefert</td>
<td>3.90 m x 2.28 m</td>
<td></td>
</tr>
</tbody>
</table>
Similarities in the western doorways have been noted above. In addition, Trinity Church also has six projecting corbels to take the end-beams of the roof (Pl. 2.36). Unlike Reefert, where they are of granite, all the corbels at Trinity Church are of mica-schist. Most of the stones are very long compared to those at Reefert, varying in length from c. 110 cm to c. 90 cm. (The longest corbel stone at Reefert is shorter than this). It is also noteworthy that at Trinity Church, all six stones are wider than was necessary for the size of the section which protrudes. While this is not the case with all of the corbels at Reefert, one of them was cut in the same manner.

Despite these differences in the corbels their existence at both churches and other structural similarities indicate that both were built at the same time probably by the same builders. The alignment of the churches varies greatly, Reefert having its axis only 3 degrees north of east while that of Trinity is 35 degrees south of east. Wilde noted that the nave and chancel of Trinity Church did not quite run due east but slightly south of east "... a circumstance," he says, "... not uncommon in early Irish churches, and said to depend upon the season of the year when the foundations are laid." The only days of the year when the sun rises due east and sets due west at on March 21st, the Spring equinox, and September 23rd, the autumn equinox. Builders aligning church foundations to the rising sun could thus be a considerable number of degrees out of line with the east-west axis if they aligned in mid-summer or mid-winter. Most of the churches at Glendalough are differently aligned, varying to between 3 and 35 degrees of an exact east-west alignment as fixed by magnetic north. This could, as Wilde suggested, be a result of building at different times of the year. It does seem, however, that an approximate east-west alignment was sufficient for the church builders at Glendalough. This is indicated by the lack of any attempt to align all churches on the same axis or to the position of the rising or setting sun at a particular time of the year. Reefert Church is, in fact, the church which comes closest (within 3 degrees) to being exactly aligned, while Trinity Church is farthest (35 degrees) off the east-west axis. Many factors could account for this difference: building at different seasons, building on foundations of wooden churches which had been aligned many years before; the relative insignificance of exact alignment as opposed to other factors, such as topography or other landscape features, which could have been significant in determining the position of a church. The difference in alignment, therefore, does not undermine the likelihood of Reefert and Trinity being constructed by the same builders.

The western annexe is not bonded into the walls of the nave, indicating that it was a later addition. The walls are considerably thicker than in the nave, measuring 95 cm at the south window compared to 75 cm at the nave's west door. The southern wall was apparently re-built in 1875, this being obvious to-day in the less tightly packed stones of its masonry and the presence of far more mortar between the stones than is evident in other parts of the building (Pl. 2.25). When Wilde visited in 1873 there was "a southern dry-wall" at the annexe which, he said, "... although composed of the original stones, is undoubtedly modem." He goes on to explain how, around 1833, a "travelling voteen or 'Hermit'" came to Glendalough and took up residence at Trinity Church. "The good people
of the neighbourhood cleared out the base of the belfry (annexe) for the reception of this man, built up the south wall, and roofed it.\textsuperscript{177}

The annexe had indeed served as a belfry which collapsed in a storm in 1818,\textsuperscript{178} probably bringing with it the southern section of the wall on which it rested. Beranger drew it before it collapsed (Pl. 2.27). Although the southern wall of the annexe is somewhat closer to the southern wall of the nave than Beranger drew it, this drawing appears to be reasonably accurate. The stepped base of the tower, which rises from the top of the annexe wall, still partially exists to-day (Pl. 2.18). This is an original feature which was drawn from the inside by Wakeman and published by Wilde in 1873 (Fig. 2.24).\textsuperscript{179} Petrie also saw the tower, and described it as being 60 feet high including the base, which was 15 feet.\textsuperscript{180} To the west of Trinity Church, just outside the enclosure, there are the remains of two dry-stone houses which are now in ruins. Much of the stones for these houses must have come from the collapsed tower.

There are two windows in the annexe, the northern one being original, the southern one being a reconstruction made with the original arch and jamb stones in 1875.\textsuperscript{181} Both windows blend in, architecturally with the earlier south window of the nave and east window of the chancel. Although somewhat smaller, the annexe windows have heads carved from a single block of mica-schist in the same style as the earlier heads. The stones which form the sills of these windows are also noteworthy. In the southern window a single large stone has a section cut out of it to form the sill, the bases of the jambs and the beginning of the downward, inward splay of the window (Pl. 2.25 and Pl. 2.26). A single large stone, part of which forms the sill of the north window, is also cut inwards and downwards, this cut widening away from the external sill to form the splay of the window. Similar features can be seen in stones forming the sills of windows in the nave and chancel. This tendency to cut various shapes out of large, single stones in windows, seen to a lesser extent at Reefert, is a marked feature of the masonry at Trinity.

The lack of reconstruction at Trinity and the survival of its walls and gables to a considerable height allows us to study the original, as opposed to reconstructed, masonry style of early Irish builders. As in St. Mary's, they used many large, some massive, blocks of granite and mica-schist. These are interspersed with smaller stones or spalls and a minimal amount of mortar was used. In the reconstructed south wall of the annexe, the natural shape of the stones is not allowed to dictate the lines of the courses of masonry. Any irregular stones are regularised into approximately straight lines by the use of smaller stones and a lot of mortar. This is obvious around the south window (Pl. 2.25). In parts of the building where the original masonry survives, the stones are laid in courses which are sometimes straight but are often somewhat irregular. Below the east window, for example, a large slab of mica-schist which curves upwards is allowed to dictate the course of the stones. This lack of an attempt to fix the stones into straight courses, allowing stones of curved or otherwise awkward shapes to occur naturally instead, is one of the most interesting features of this style. Once the stone was quarried and broken into large slabs, the masons took delight in fitting stones of awkward or unusual shape into the building.
There are numerous examples of this at Trinity Church. PI. 2.37 shows a single stone of unusual shape fitted into the base of the north wall of the nave. In the south-east quoin of the nave, there is a long slab of mica-schist which forms one of the quoin-stones but gradually curves downwards away from the quoin (PI. 2.38). This, amongst other examples, displays a desire on the part of the masons to allow the natural shape and grain of the stone to come through. Even the simplicity of the squared and dressed granite in the doorways and arches is designed to display the natural beauty of this stone. This style is in marked contrast to that of the Romanesque period, where stones are more often cut into regular shapes and the use of stone as a vehicle for abstract and biblical symbolism takes precedence over exhibiting its natural characteristics. Many observers have commented on the simplicity and lack of ornamentation in early Irish churches. Few, however, have noted the deliberate attempt to display the natural qualities of stone, a feature which tells us as much about the aesthetic which informed early Irish monasticism just as elaborate carvings of the Romanesque period tell us of the aesthetics of the twelfth century. Carved ornament from before the twelfth century is found only on graveslabs at Glendalough. Here there was a necessity to inscribe a tombstone with a Christian symbol, the cross, and sometimes a name is included. In church-building, however, the simplicity and delight in the beauty of nature which are such an inherent part of early Irish poetry achieve architectural expression.

The monastic poets took great joy in observing nature as it was and being a part of the natural world rather than outside it. This concept can be seen at Glendalough in particular in a story about St. Kevin which Giraldus Cambrensis recorded in the twelfth century. While St. Kevin was praying, hands raised upwards to heaven, a blackbird settled in one hand and laid its eggs there. Rather than disturb the eggs, the saint waited patiently for them to hatch, neither closing nor withdrawing his hand. In a similar manner, the officials who supervised the building of churches had the stone shaped and cut to a minimal degree, emphasis being laid on the natural characteristics of the stones. In both cases what could be broadly defined as an aesthetic of minimum interference in and enhancement of nature's products is at work. At Trinity Church we can see how this was achieved architecturally by the original masons but not fully brought out by the restoration workers of 1875.

Another feature at Trinity Church which has suffered in the last century is the mill-wheel. This was complete in the late nineteenth century, but is now broken (PI. 2.39 and PI. 2.40). It was obviously broken at some stage and a small, circular plinth was constructed, the broken fragments of the mill-wheel being cemented to the plinth. PI. 2.40 gives some idea of its shape by arranging the fragments, which are now lying loosely on the plinth.

The name "Trinity Church" appears to be traditional and does not appear in any sources of the Early or Late Medieval period. It is first recorded on the Down Survey map (1655-9) and appeared as "Trinetie ch." In Petty's Atlas (published 1685), many of the nineteenth century antiquarians referred to it as "The ivy church" in reference, apparently, to its being overgrown with ivy before the restoration of 1875-76. It is of interest to note that here, as in the eastern wall of St. Mary's, the ivy preserved much of the original masonry.
Barrow notes that Trinity Church "... is sometimes known as Teampull Mochuarog" and there is some evidence that this could have been the name of the church in the Early Medieval period. Mogoroc, in the *Vita* was described as giving the *viaticum* to St. Kevin and his cell was, according to the same source, east of the city of St. Kevin. He is also associated with Delgany, Co. Wicklow and is listed among forty saints of Glendalough in the *Irish Litanies*. According to *De Matris* in the *Book of Leinster*, Mogoroc of Dergne (Delgany) was a son of Dina, daughter of a Saxon King and Brachan, King of Brychyniog. Price describes the latter as an early figure in Welsh legendary history.

Whatever the veracity of the claim in the *Vita* that this British saint gave the *viaticum* to St. Kevin, there can be little doubt that there was a substantial degree of cultural and ecclesiastical interchange between Ireland and Britain in the seventh century. Writing in the eighth century of events around 664 A.D., Bede devotes a chapter of his *Ecclesiastical History* to "Egbert, an Englishman of holy life, becomes a monk in Ireland." He states that:

At this period there were many English nobles and lesser folk in Ireland who had left their own land during the episcopates of Bishops Finan and Colman, either to pursue religious studies or to lead a life of stricter discipline. Before long, some of these devoted themselves to the monastic life, while others preferred to travel, studying under various teachers in turn. Scots [i.e. Irish] welcomed them all kindly, and, without asking for any payment, provided them with daily food, books, and instruction.

There can be little doubt that one of the centres in Ireland to which those Englishmen gravitated was Glendalough. The early ninth century *Martyrology of Oengus* illustrates more clearly the direct links that existed between Britain and Glendalough. St. Cellach of Glendalough was commemorated on October 7, and a gloss in the *Martyrology* explains:

Of Cellach, i.e. in Hui Mial is deacon Cellach, in Disert Cellaigh to the south-east of Glendalough. Cellach the Saxon of Glendalough (Cellach Sachs o Glinn da locha). He was not English, but he came from the English to the Irish, because he was Irish (*non Anglus fuit, sed venit ad Scoticos de Anglis quia Scoticus fuit*). What is significant here is the apparent ease with which a cleric could move between Britain and Ireland.

By the early twelfth century, the movement for ecclesiastical reform was gathering pace in Ireland. St. Malachy, travelling in Europe, introduced the Cistercian order to Ireland in 1142, and with it came new architectural influences. In 1140, having returned from Europe, he organised the building of a new monastery in Bangor. St. Bernard, in his *Life of St. Malachy* described how "Malachy thought that a stone oratory should be built at Bangor similar to those which he had seen erected in other places. And when he began to lay the foundations the natives were all amazed because no buildings of that kind were found in the region." While we know from the Annals that stone churches did exist in Ireland long before 1140, Malachy's church at Bangor illustrates clearly the
manner in which ecclesiastics who had been abroad could bring new architectural influences to Ireland. Mellifont Abbey itself is an even more striking example of this. In Dublin, Archbishop Lanfranc of Canterbury had been exerting his influence over ecclesiastical affairs since at least 1074. In that year, the second Bishop of Dublin was consecrated by Lanfranc, who also wrote to Toirrdelbach Ua Briain and Gofraid, king of Dublin, urging ecclesiastical reform. These were the beginnings of a movement in Ireland which would eventually see the full flowering of Romanesque style architecture in buildings such as Cormac's chapel (consecrated 1134). With a tradition of British contacts which stretched back to the seventh century and its close proximity to Dublin, Glendalough can hardly have escaped the ecclesiastical, political and architectural influences which were developing in the 1070s.

It is in this context that the more unusual features of Trinity Church must be viewed. The later south doorway, with its smaller stones arranged in arched fashion is, in this sense, more Romanesque than early Irish. It still retains inclined jambs, indicating, perhaps, that it belongs to a period of transition from early Irish to Romanesque. The addition of the western annexe with round tower is a highly unusual feature. Lambay Island, of the coast of Dublin, also had a church which had a tower attached at one end of the roof ridge. St. Kevin’s Church in the ecclesiastical city of Glendalough is similar in having a western round tower. Here, however, the tower is built over the nave rather than being added to it. These are the only three early Irish churches which have attached round towers. The location of all three in the eastern part of the country suggests an influence from Britain. Trinity Church, in plan, has no identical parallels in Ireland but churches of this plan do exist in East Anglia. Fernie, summarising his survey of the East Anglian western round towers states:

The Conquest (of 1066) . . . had no significance for the round tower, introduced, as it seems to have been, well before the 1060's yet reaching the zenith of its popularity in the twelfth century, making it at the same time both Anglo-Saxon and Anglo-Norman. The plan of Trinity Church, its "early Romanesque" style south doorway, the indications of a possible two-light window in its eastern wall and the fact that it is the only church in Glendalough to have a triangular-headed window; all of the factors are suggestive of a new influence. This influence may well be a British one or, more specifically East Anglian. The early twelfth century saw the beginnings of Romanesque influence in Ireland and the rise of the popularity of western round towers in Britain (mainly East Anglia). This may be the period to which the western annexe, it’s round tower, the southern doorway and the possible two-light east window at Trinity Church belong.

While there is not yet enough firm evidence to prove this, it is certainly time to review traditional notions about certain structures. The de Paors, writing in 1964, had this to say about the relationship between churches with “attached” towers and the more common “free-standing” towers:

A few of the small early Irish stone churches - St. Kevin’s and Trinity at Glendalough, and the little church on Lambay Island - have or had small towers of the same form, which were attached to the church at one end of the roof ridge. These are probably of the early
period when belfries were first being built, but this experiment was
soon abandoned and the common practice because the building
of the great free-standing tower...\(^{200}\)

There is no evidence to support this concept. Indeed, the evidence from Trinity Church,
where the round tower was a later attachment to a coeval nave-and-chancel church and the southern
doorway is positively not of typical early Irish style, suggests the opposite. The “early Romanesque”
features at Trinity Church mean that it must have post-dated the construction of the free-standing
round tower in the ecclesiastical city and the tower in the original, single-chamber St. Kevin’s
"Kitchen."

Trinity Church is, in sum, a unique church in the context of Early Medieval Irish architecture.
Its earliest phase (nave and chancel) compares only with Reefert Church while the later additions
have no surviving parallels in Ireland. It is arguably the church which best preserves its original
masonry amongst the Glendalough remains and thus provides a great opportunity to study an Early
Medieval mason’s work at first hand. This is a significant point, for not all of the structures which
survive at Glendalough retain their original masonry. St. Saviour’s Church, located to the south-east
of Trinity Church, provides a stark contrast to the latter in being substantially reconstructed.

ST. SAVIOUR’S PRIORY

St. Saviour’s, the most richly decorated church in Glendalough, is located 1 km east of the
ecclesiastical city. It is very close to the Glenealo River, on its southern bank, and is surrounded by
an enclosure wall. This wall, of dry-stone construction, forms an irregularly-shaped polygon and is c.1
m high in most places. It existed in the same shape in 1839.\(^{201}\) There is no break in the enclosure
wall for an entrance, but steps are built into the wall on the southern and northern sides (Pl. 2.41).
Within the enclosure is a Romanesque church with coeval nave and chancel and an adjoining
apartment on the north side of the chancel (Pl. 2.42 and Fig 2.25)

St. Saviour’s was substantially reconstructed in 1875-77.\(^{202}\) A clearance of “accumulated
rubbish” had to be carried out in 1875 and 1876 before reconstruction work commented.\(^{203}\) This,
however, was not the first time the site had been cleared. Wilde, who visited it in 1873, reported:
“upwards of a century ago, Mr. Evans of Avondale, M.D. for Wicklow, cleared this rubbish out and
came upon the structure now under consideration.”\(^{204}\) Beranger (1779),\(^{205}\) Archdall (1786)\(^{206}\) and
Petrie (1845)\(^{209}\) all gave either detailed descriptions or drawings of carved stones at St. Saviour’s,
and Wilde was of the opinion that these stones were well preserved because of being “buried
underneath the general mass of rubbish for centuries” before Evans’ clearance.\(^{208}\) By 1870, the walls
were “rapidly being broken up by the growth of young trees.”\(^{209}\) Wilde described the effect of the trees
a few years later as being “by far the most destructive influence, for some time past”\(^{210}\) on the
building. A plan made in 1873 shows that the walls had completely fallen for most of the course of
the nave’s north wall, the entire east wall of the “apartment” and much of the north wall of the latter
(Fig. 2.26).
The nave to-day has two entrance doorways in the south wall, a doorway leading into the "apartment" in its north wall and only two windows, both in its south wall. Only the south-eastern doorway existed in 1873, and no windows were noted in the southern wall before reconstruction. Deane, however, reported in 1876-77, that: "On the southern side were found the arch and jamb-stones of three windows, as well as those of two entrances." This statement is somewhat confusing as only two windows were reconstructed in the south wall (the chancel's east window is mentioned separately) and only the jamb-stones, not the arch, exist in the reconstructed south-western doorway. There is no trace at all of a break in the wall where the south-western doorway now exists. The stones used to reconstruct the jambs of this doorway are not necessarily stones for a door-jamb, but could just as easily belong to a window. There is thus considerable reason to doubt that the south-western doorway was an original feature. When Deane refers to finding the "arch and jamb-stones of three windows", the arch stones may have been those of the two windows and the south-eastern doorway. The simple, undecorated voussoirs of the south-eastern doorway are very similar in style to those used on the inside of all the windows at St. Saviour's.

Both doorways have slightly inclined jambs with no mouldings (Plates 2.43 and 2.44). The south-eastern doorway before reconstruction had a "porch" which was noted by Beranger (1779) and Brash (1858) and can be seen on the 1873 plan (Fig. 2.26). In 1873, the walls of this porch were "about 3 feet high" (L' on Fig. 2.26). No trace of this structure exists to-day, again casting serious doubt on the reliability of certain reconstructed features at St. Saviour's. Cochrane was of the opinion that "... probably this [the porch reported by Brash] was a sacristy approached through this opening." Such a passage linking a nave to a sacristy would be highly unusual in a Romanesque church. The normal means of access to a sacristy, whether it is from nave to chancel, is through a simple opening in the wall, not a passage. It must also be admitted, however, that the presence of a porch in the form of a simple passage would be equally unusual in a Romanesque Church. Porches are rare in themselves, doorways normally being confined to the thickness of the walls. Cormac's Chapel in Cashel does have a porch which extends beyond the thickness of the wall around its north door. The passage, however, widens outwards from the thickness of the wall to form a highly decorated exterior. There is no evidence of similar features at St. Saviour's.

Another highly unusual feature of the plan of the nave at St. Saviour's is the absence of a western doorway or any trace, record or description of one before the reconstruction of 1876-77. The vast majority of Romanesque churches in Ireland have a west doorway, often with highly ornate carvings and a number of orders. The lack of a west door at St. Saviour's and, in a building with elaborately carved chancel arch and east window, the complete absence of any decoration in the two south doorways suggest yet again an incorrect reconstruction. St. Finghin's Church in Clonmacnoise has no west door it's sole entrance being in the south wall of the nave. This, however, is one of a number of features which make this church atypical in plan amongst Irish Romanesque churches. Its chancel is small and almost square while its nave is relatively long and narrow.

A round tower was incorporated into the original building on the south side, with access being gained from the chancel. This feature makes it unique amongst Irish churches of the Romanesque
period. The church at Dysert O'Dea, Co. Clare also has a doorway in the south wall, but this door is reconstructed and may originally have been in the west wall. The vast majority of Romanesque churches had their sole or main entrance in the west wall. The atypical St. Finghin's is worthy of note, but its main entrance in the south wall was nonetheless carved with jambs in three orders, with roll mouldings in the second order and chevrons in the outer order. This, or even more elaborate carving and additional orders in some cases, is typical of the type of decoration that is found in the main entrance door of decorated Irish Romanesque churches. St. Saviour's could, like St. Finghin's, be atypical in having no west doorway. Its lack of any carved details or mouldings, however, in either of its two surviving southern doorways make it unique. Given that in all other Irish Romanesque churches where chevrons animal heads, human heads, floral and abstract designs and interlace are carved in great detail in chancel arches and windows, the main doorways (mostly in the west) are decorated in a similar fashion it seems obvious that the main doorway of St. Saviour's is missing. Before examining this matter further in the overall context of the restored building, it is necessary to complete the survey of architectural details in other parts of the church.

The two windows in the south wall of the nave are similar in design. Both have a large external rebate, and a wide inner splay (Fig. 2.27) and plain hoods chamfered on the underside which terminate in small rectangular blocks (Pls.2.45 and 2.46). The south-eastern window, however, is somewhat larger (see Fig. 2.27a for measurements) and its arched head is decorated by roll mouldings with single and double rows of pellets between them (Fig. 2.27 and Pl. 2.45). Only two voussoirs survive on the western side of the arch and three on the east. The stones which make up the rest of the arch were obviously inserted by reconstruction workers in 1876-77. The plain arch of the south-western window is cut for a single block of stone. The majority of the stones used in both windows is the "green-stone" found at the Priests' House, and St. Mary's.

The chancel arch at St. Saviour's (Fig. 2.28 and Pl. 2.56) is executed in three orders. There are detailed carvings in the capitals and bases of the pillars and both inner and middle rings of the arch. With the exception of one carved capital, the pillars survive in their original form, and were described and drawn by Petrie over 30 years before the reconstruction of 1876-77 (Fig. 2.29). The capital of the middle column on the south side was described by Petrie in 1845 as having been "recently carried away", but he reproduced a drawing of it made by Beranger in 1779 (Fig. 2.32). As drawings made by Beranger of carved details which still survive are reasonably accurate (Figs. 2.30 and 2.31), this drawing can be taken as a fairly accurate depiction of the missing capital. Figs. 2.32 - 2.40 and Pls. 2.50 - 2.58 show older drawings and recent photographs of some of the more interesting carved details of the chancel arch. (Comparable carved details from other sites which also have been inserted will be discussed later).

One drawing contained in the Commissioners of Public Works report for 1876-77 is somewhat confusing and requires explanation (Fig. 2.41). It purports to show the "Chancel arch, St. Saviour's Church, Glendalough" but bears little resemblance to the arch as reconstructed the following year. Deane reported in 1875-76 that rubbish was cleared at St. Saviour's and "having found nearly all the ring stones among the rubbish" he proposed to reconstruct it. The work of
reconstruction was not carried out until the following year, details being given by Deane in his 1876-77 report.\textsuperscript{221} The drawing appended to the report in 1875-76 is obviously Deane's attempt to form some idea of how the arch looked originally on the basis of carved stones found in the first phase of clearance.\textsuperscript{222} The “stone of hood Mould not to scale” shown in the centre of this drawing is clearly the hood-moulding with pellets that was later inserted into the exterior of the chancel's east window (see Pl. 2.59). Deane appears to have taken the one piece of moulding found in 1875-76 and drawn it into his proposed reconstruction as a complete hood moulding with pellets. The middle order of the arch rings is, in fact, what was reconstructed in 1876-77 as the \textit{inner} order. It is not quite clear where Deane got the design for the outer order (under the hood moulding) and the inner order in his 1875-76 drawing. What is certain is that this drawing was simply the architect's attempt at drawing a picture of how the arch looked originally on the basis of carved stones which had come to hand. By 1876-77 the discovery of further stones and more detailed consideration of reconstructing the chancel arch and east window led to the present, somewhat different, design for the chancel arch.

The east window, as reconstructed, also has intricately carved details both inside and outside (Figs. 2.43 - 2.48 and Pls. 2.62 - 2.68). It is obvious in the design sequences of the interior arch and jambs that the reconstruction is not entirely correct. Given that a number of carved stones were missing, however, and the fact that this was clearly indicated by filling in the gaps with plain, rough stones, the window as reconstructed gives a reasonable indication of how the original looked. The exterior window-head has two arches carved from a single stone, a feature also found in the east window at Temple-na-Skellig. A grave-stone lying on the ground at St. Saviour's to-day, with two rounded heads cut out of it has caused puzzlement to many local historians (Pl. 2.70). The two rounded heads are slightly irregular in their splay. Together they span a width of 70 cm. The exterior span of the double-head over the east window is 69 cm, splaying inward to 85 cm. The headstone, therefore, may have been carved for use as an east window head before the original was found. Unusual features resulting from reconstruction abound at St. Saviour's. The largest aumbry in the chancel, located in the south wall, has a mill-wheel 60 cm in radius inserted into its back (Pl. 2.69). The mill-wheel is of granite, with a hole 26 cm thick in its centre. This hole has been continued beyond the mill-wheel through the full thickness of the chancel wall. The hole goes outwards towards its exterior opening, where it is 24 cm high and 21 cm wide.

This hole in the chancel wall can have served no purpose other than to satisfy the sense of humour of some of those who “reconstructed” it. There is no indication of an aumbry in the wall at this point in the 1873 plan (Fig. 2.27). The entire feature, then, appears to be not a reconstruction, but a construction which did not exist in the original building. The chancel has, at present, seven aumbrys; four in the south wall, two in the east and one in the north. The 1873 plan shows only two; one in the south wall and one in the north, both close to the eastern wall.

The 1873 plan (Fig. 2.27) has been appended with notes about some of the features it details and the present state of the building.\textsuperscript{223} In most places the original corner-stones can be distinguished from the reconstructed ones. The original quoins unusually consist of the "green-stone" or granite or a
combination of both, cut into regular blocks and well-dressed. Reconstruction quoins are more irregular and can consist of any type of undressed stone.

The "apartment", probably a domestic building, located on the nave's northern side did exist before reconstruction (See Fig. 2.25 and Pl. 2.71). It has two windows, one in the north wall (Pl. 2.72 and Fig. 2.27) and one in the east wall (Pl. 2.73 and Fig. 2.27). They are similar to those in the nave, but differ in detail. The north window has an external rebate which is partly chamfered off to meet the face of the wall. Unlike in all the other windows, this detail is cut out of the solid stone forming the opening. In this sense, it bears some resemblance to the sills in Trinity Church, which are also cut from a single stone. The east window has an external rebate with 8 cm engaged shafts at each side and a small hood-moulding above. The north window also had a hood-moulding, but its head, unlike the eastern one, has been cut out of just two blocks of stone. These windows cannot be in their original position as the walls did not survive to this height in 1873.

Below the east window of the domestic building there is a doorway (Pl. 2.71). It measures 63 cm from the underside of the lintel to the present ground level and the opening is 55 cm wide at the top. Its southern jamb is chamfered from the ground up to a height of about (10 cm). The stone used is the "green-stone" normally found in quoins and door-jambs, so this section must be original. The rest of the door has obviously been reconstructed. The walls were rebuilt across the doorway on the northern side (Pl. 2.71). This door opens into a passage with steps running through the wall, upwards to the south. The width of the passage and the steps varies but is c. 55 cm wide most of the way up. It opens onto the wall just above the chancel. The chancel originally had a corbelled stone roof (See Pl. 2.60) and these steps lead to the chamber above it.

The section of the wall where the door occurs is marked on the 1873 plan (Fig. 2.26) as "d. nearly Covered." The 1873 plan, however, does include an indication, in dotted lines just to the left of "E" of the opening of the passage onto the wall at the top. The steps and passage, then, are obviously original, but the doorway has been badly reconstructed. The entire east wall of the domestic building is considerably thicker than the other walls. It measures 128 cm compared to 88 cm (north wall), 96 cm (south wall) and 103 cm (west wall). The chancel walls are of a similar thickness, 122 cm on the north side and 127 cm on the south side. This was to take the extra weight of the chancel's corbelled roof.

The west wall of the domestic building has a series of putlock holes, the lower row going through the full thickness of the wall, the upper two being blocked. All of these holes are c. 18 cm high and 14 cm - 18 cm wide. Their size and height off the ground (in the case of the lower row) are very close to the measurements of similar holes in the Cathedral and round tower. This wall must survive in its original state for much of its height, thus retaining the putlock holes. No holes exist in other parts of the walls at St. Saviour's, probably because of the reconstruction works in 1875-77.

These reconstruction works have obscured some details of the building's structure, but probably saved many of the carved stones which could otherwise have been stolen. Although safe from looters, however, many of the carvings are under threat from vandals and weathering. Petrie's drawings show that, when compared to the plates illustrating their present state, some of the
carvings have survived well while others have not. The faces on the capital illustrated in Plates 2.48 and 2.49, for instance, have lost their details. Another capital (Pl. 2.50) is being slowly covered by calcite from the mortar in the walls above it.

Despite the poor reconstruction and the effects of time, St. Saviour's is still the finest example in Glendalough of Romanesque architecture. The Vie et Miracles de St. Laurent, archevêque de Dublin describes Laurence as Abbot of Glendalough (1153-1162), spending the great riches of the Abbey and a treasure deposited with him by his father on "feeding the poor and building churches" ("pauperibus nutriendis et ecclesiis edificiandis"). Laurence O'Toole was one of the most important figures in the twelfth-century church reform in Ireland. The evidence of his "building churches" in Glendalough is supported, at St. Saviour's, by stylistic evidence from sculpted details. Many of these compare closely to details at Baltinglass Abbey, founded by Dermot McMurrough in 1148 and constructed between then and 1180. The figure of a lion biting its tail in the east window of St. Saviour's (Pl. 2.60) is also found in a pillar base of the earliest phase at Baltinglass (Pl. 2.61). This motif is highly unusual in Irish Romanesque architecture, and the stylistic similarity of both sculptures is remarkable. Part-scallops carved in the capitals of the outside of the east window at St. Saviour's (Fig. 2.41) are similar to those at Baltinglass (Fig. 2.33) and a step-pattern used on one of the bases of the chancel arch of the former (Pl. 2.56 and Fig. 2.39) also has parallels in the latter. Other more general features of Romanesque architecture are common to both, such as the use of chevrons and rows of pellets. The latter feature, again, has almost identical parallels in St. Saviour's and Baltinglass (Pl. 2.52 and Pl. 2.53).

The implication of these details is that the masonry of St. Saviour's and that of Baltinglass Abbey was produced by the same workshop. While the birds, human heads, floral patterns and other more abstract carvings at St. Saviour's are not paralleled in Baltinglass, this probably owes more to the Cistercian prohibition on decoration than to the mason's work. A date of 1153-1162 for St. Saviour's Priory, then, accords with both historical and sculptural evidence.

Laurence O'Toole is associated with many foundations of Augustinians canons of Arroasian observance in the 1160 and later. In his time as abbot of Glendalough he witnessed the charter of Dermot McMurrough to the Arroasian Abbey of St. Mary's, Ferns (before 1162). He again appears as a witness to a charter of Mac Murrough's of c. 1162 granting lands in Baldoyle which ultimately (1171-2) became part of the Arroasian Priory of All Hallows. His Vie claims that in c. 1163, shortly after he became archbishop of Dublin, Laurence sought papal confirmation for the use of the Arroasian observance in his cathedral. All Saints (or All Hallows) is named as Arroasian in a papal confirmation issued on 2 July 1186. Just after 1216, Saint Saviour's, Glendalough (Sancti Salvatoris de Glindelaghe) became subject to the Priory of All Hallows, Dublin. (Omninum Sanctorum justa Dublin). It is likely that the priory at Glendalough was Arroasian from its foundation and part of Laurence's efforts to reform the Irish Church.

No study of the architecture of Ireland's Arroasian priories has yet been made and it is therefore impossible to distinguish any features which they may have shared in common. Although the Arroasian observance was strongly influenced by the Cistercians, there is little evidence of the
same uniformity in architecture and layout which the Cistercian Rule imposed. Some features at St. Saviour’s Priory, however, are paralleled elsewhere in Arroasian churches of the same period.

At Ferns, St. Mary’s Abbey, re-built by Dermot McMurrough in 1169, consists of a nave-and-chancel church which has a curious tower on its western end (Pl. 2.74). It resembles St. Saviour’s, however, in having a room attached to the north of the chancel from which a stairs rises to another room over the chancel. As at St. Saviour’s, the chancel roof originally had barrel vaulting. A similar plan exists at Monaincha, Co. Tipperary. Here a nave-and-chancel church has a northern “apartment” which was barrel-vaulted and has a stairs running up to a second floor. Although the northern part of Monaincha church is of inferior masonry, its date is uncertain and it could have been added soon after the twelfth-century church. The church was certainly a priory in the fourteenth century, and could have been Augustinian since the twelfth century.

Although one cannot generalise form these examples, it is clear that St. Saviour’s, St. Mary’s (Ferns) and Monaincha do share certain features. All have northern wings which are joined to the chancel or the nave; the northern wing in each case has stairs leading to a second floor, and all have barrel vaulting over either the chancel or the northern wing. In the cases of Ferns and Glendalough, it is easy to see the means by which architectural influence may have spread. Laurence O’Toole entered Glendalough’s abbey after being held hostage by Dermot McMurrough. The charters which the latter gave to Arroasian foundations which were witnessed by Laurence are evidence of close contacts between the two in later years. Mac Murrough was also said, in the Life of St. Laurence, to have tried to impose an abbot at Glendalough after Laurence left to become archbishop of Dublin (1162). As Dermot was also the founder of Baltinglass Abbey (1148), it seems likely that architectural influences (possibly even masons) found at this site, at Glendalough and at Ferns were spread through him and his ecclesiastical contacts, of whom Laurence was one.

By the time it became subject to All Saints, the canons of St. Saviour’s Priory were being charged with disorderly and irregular conduct. The subjecting of St. Saviour’s to All Saints, which followed the Union of the Sees of Dublin and Glendalough, may have been part of the Anglo-Norman attempt to exert control over the church in Glendalough. “Thomas, prior of St. Saviour’s of Glendalough” attended the Inquisition held at the archiepiscopal manor of Castlekevin in 1257-63 along with the priors of the “great church” and Temple-na-Skellig (Rupe). By 1263, the canons at Reefert Church were forced to give up their claim to lands granted to them by Laurence O’Toole when archbishop of Dublin. The “canons of the Disart of St. Keyuin” were represented by the prior of St. Saviour’s in a meeting at Castle Kevin that year in which their claim was surrendered. Although the Registry of All Hallows mentions St. Saviour’s again in 1274, and also in 1539, the monastery appears to have become inactive during the Gaelic Revival of the late thirteenth and early fourteenth centuries.
CONCLUSION

The reconstruction works carried out in 1876-77 probably saved most of the buildings studied in this chapter from further or complete ruin. Some buildings required more rebuilding than others. St. Saviour's Priory and Reefert Church, for instance, are almost completely reconstructed while Trinity Church (apart from the loss of the tower) retains much of its original masonry. We can thus study the masonry at Trinity Church as truly original and recognise that of the buildings at Reefert and St. Saviour's as a nineteenth century reconstruction. It is also important, however, to point out that while the latter two churches are largely reconstructions, most of the stones used in arches, windows and doors can be verified as original by reference to various accounts written before and during the works of 1875-77. Unfortunately, in the case of St. Saviour's, many of the most intricate carvings are being destroyed by calcite from the mortar used in reconstruction. Pls 2.63, 2.50, 2.57 and 2.62 illustrate the worst examples. There is no evidence that these stones were in such a bad state when Petrie drew them before reconstruction.

The Commissioners of Public Works, and most authors on Glendalough, have concentrated their attention almost exclusively on the church buildings and their immediate surroundings. A number of earthworks and (in the case of Reefert particularly) additional enclosures have been discussed in detail here for the first time. The evidence of a more sizeable settlement around Reefert Church than has previously been recognised could be said to support Price's argument that this was originally the main monastery at Glendalough. This point will be discussed further in Chapter 6 on the ecclesiastical city, which Price maintains was settled only after Reefert had grown to a size where more space than was available was required. The platforms which occur in such large numbers around the Upper Lake or "desert" area also belong to a class of earthenworks which may have significance for the Early Medieval settlement in Glendalough.

The fresh examination made of the Lives of St. Kevin looks closely at the particular words which it uses, and has tried to clear up the identification of church sites or settlements by reference to other written sources and the remains themselves. There can be no doubt that the Lives concentrate substantially on the area around the Upper Lake. It is relevant to note that, outside the ecclesiastical city, the most westerly building is the oldest, the most easterly the latest. Temple-na-Skellig, the most westerly, is the only single-chamber church outside the city. There is a gradual progression in architectural development as one moves east. Reefert Church, with its coeval nave-and-chancel structure, represents a new stage in this development. Trinity Church, while identical to Reefert in its initial construction, had a later western tower added on. Finally, St. Saviour's Priory represents the most sophisticated church outside the city in decorative terms, and also the latest. It seems that the religious settlements of Glendalough very gradually spread beyond the Upper Lake "desert" so strongly associated with the Life of St. Kevin.

The rectangular enclosures noted at Temple-na-Skellig, where topography dictates the shape, are also found at Reefert, Trinity Church and in the ecclesiastical city. It is of interest to note that St. Saviour's Priory has a polygonal enclosure. Unlike the sites at Temple-na-Skellig, Reefert and Trinity Church, St. Saviour's was on a flat site thus eliminating the necessity for a rectangular
enclosure. As shall be seen in Chapter 3, different topographical features dictated the shape of the enclosures around the city.

In terms of dwellings there is a sharp contrast between the Early Medieval evidence from Temple-na-Skellig and that of the twelfth century at St. Saviour's Priory. In the former case dwellings consisted of a number of wattle-and-daub huts connected by stone paths on the platform to the west of the church. There may also have been individual, isolated huts scattered around other parts of the Upper Lake area. At St. Saviour's, the domestic quarters appear to a communal, dormitory type of arrangement, housed in the apartment which adjoined the church on the northern side. These could be seen as physical contrasts between the early Irish form of monasticism and that of the European orders which took root in Ireland from the twelfth century onwards.

Finally, it is crucial to emphasise that Glendalough was not just a single settlement at the ecclesiastical city but consisted of a number of settlements scattered along 4 km of the valley. There is no known group of Early Medieval monastic or ecclesiastical settlements of this kind anywhere else in Ireland. Even at Clonmacnois, where the number of remaining churches and the size of the ecclesiastical city compare most closely to Glendalough, there is only one church outside (and quite close to) the main settlement. The collection of Early medieval settlement at Glendalough is unique in Ireland. And although the place decreased in significance with the rise of Dublin and Anglo-Norman influence, religious settlements continued to exist here after 1169. Not only is the form and extent of the collected settlements unique, but some of the individual buildings both outside and within the ecclesiastical city, are also unique. It is to the churches and various other structures of the ecclesiastical city that we must now turn our attention.

NOTES

1 Leask, H.G., Glendalough, p. 9, described it as being "approachable only by boat." This is not literally true. The site can also be approached by a difficult climb across the cliff above St. Kevin's Bed to the east. From the west it is possible to gain access by wading knee-high through the lake for a distance of c. 100 m. It is, however, true that the safest and easiest way to get to Temple-na-Skellig is by boat.

2 C.P.W., 1876-7, p. 74.


4 The clearing of debris was reported in C.P.W., 1876-77, p. 74. Henry's excavations also revealed two major landsides in the Medieval period; see C.O.W.A., 1960, p. 13.

5 O.S.L., fol. 513.

6 C.P.W., 1876-7, p. 74.

7 See Chapter 4 for further details.
Further discussed above under **TRINITY CHURCH**.

C.P.W., 1876-7, p. 74.


See below under **ST. SAVIOUR'S PRIORY**.

C.P.W., 1911-12, p. 44 and p. 40, Fig. 148 (Fig. 2.6 in this thesis).

Given Temple-na-Skellig's isolation, it is unlikely that the stone is from another church.

See Chapter 3 under **OUR LADY'S or ST. MARY'S CHURCH**.


Wilde, W., 1873, p. 184.

C.P.W., 1911-12, p. 5, says: "This causeway has only recently been uncovered."

ibid.

ibid.

ibid.

Healy, P., 1972, pp. 140-141.

C.P.W., 1911-12, p. 5. The report says 12 feet (3.66 m) to 13 feet (4.87 m).

ibid. Given in 1911-12 as 27 inches (67 cm)

C.O.W.A., 1960, p. 13. All quotes on this excavation come from this source.

O.S.L., fol. 513: O'Donovan did mention that he saw the ruins of a small cell near the church at Temple-na-skellig, presumably made of stone.

Field-work, August 1995.

Platform numbers 99 and 100 on Fig 2.18 below, not previously identified.

See below under **EARTEN PLATFORMS**.

The first stone church in Ireland, at Duleek, Co. Meath, is mentioned in Tirechán's Life of St. Patrick, written in the second half of the seventh century; P.B.A., p. 146. It is also mentioned in A.U., 725.1. For further details and analysis, see Chapter 4 under **STONE AND WOODEN BUILDING; A CHRONOLOGICAL FRAMEWORK**.

St. Mary's Church, St. Kevin's Church and the Cathedral, all in the ecclesiastical city, are the other churches which were originally single-chamber; see Chapter 3.

The main authors who have attempted to interpret the remains of Glendalough through the *Vita* and the *Bethada* of St. Kevin are O'Donovan in O.S.L.; Price, L., 1940 and P.N., I; Barrow, L., 1984; and O' Hanlon, J., 1890-97, vi, pp. 28-90 contains notes on particular sites.

P.N., I, p. 38 argues that "Diseart Chaomhghir" was Reefert Church.

O' Donovan in O.S.L., fol. 444, identified Temple-na-Skellig as "Disartkevin". Barrow, L., 1984, pp. 12-13, argues for a somewhat broader interpretation of the word *disert*, but believes that the earlier events in the *Vita* are more concentrated on Temple-na-Skellig.
Price, L., 1940, pp. 263-271 argued that the main monastery was located at the Reefert Church originally but was moved to the site where the round tower and the Cathedral now stand. The *Vita*, he argues, was changed after the move.

*D.I.L* s.v. *disert*, derived from the Latin *desertus*.

*Vita*, p. 236.

ibid., p. 238.


*Vita*, p. 242. A literal translation would be: "And thus alone in the upper part of this same valley between the mountain and the lake, in various parts, for four years he was a hermit. in *O.S.L.*, fol. 442, *quatuor annos* has been wrongly translated as "seven years".

*Vita*, p. 244.

Temple-na-Skellig, St. Kevin's Bed and Reefert Church, all referred to below, are located on the southern side of the lake. See n. 152 and n. 153 below for references to the northern side.


Price, L., 1940, pp. 38-9, identifies it as Reefert Church.

See below under **REEFERT CHURCH AND ITS ENVIRONS**.


ibid., p. 142.


*P.N.*, i, p. 40.

Two landslides, on before the late twelfth century and one in the late fourteenth or early fifteenth century noted by Henry; see *C.O.W.A.*, 1960, p. 13. Landslides in modern times have been noted in *C.P.W.*, 1911-12, pp. 4-5.

See plan of Skellig Michael, Fig. 2 in Leask, H.G., 1987, p. 14.

Edwards, N., 1990, p. 107 says: "They are usually cuvilinear and two, or occasionally three, widely spaced concentric enclosures are not uncommon."


St. Enda of Aran is the most significant member of this group; see Ryan, J., 1931, p. 106. One of his most famous disciples was St. Ciaran of Clonmacnois; see Ryan, J., 1931, p. 106. Ciaran's death is recorded in *A. Clon.* s.a. 600 along with a story about how "his companion Keyngynn or Keyvinn...dwelling at Glennalok in Leinster" was sent for. Kevin is recorded s.a. 614 as "a fellow of St. Queran". Kevin and Ciaran could have had contact in the sixth century, although the story may reflect a layer alliance between Glendalough and Clonmacnois; see Mac Shamhráin, A.S., 1994, p. 140 ff.

See Ryan, J., 1931, pp. 94-5.

*Vita.* p. 244.


A later O.S. map, surveyed in 1908, shows the hotel, but it does not appear on the 1838 map.

See Chapter 3, under **ST. KEVIN'S KITCHEN.**
See Chapter 4.

There are also trabeate doorways at St. Kevin’s and the Cathedral, but these also have a relieving arch built over the lintel which, in both cases, is not granite but mica-schist, a weaker stone.


Westropp, T.J., 1905, pp. 65-6, has a detailed description of Temple Brecan. The earliest part of the church at Killiney, Co. Dublin consists of a coeval nave and chancel church very similar to Reefert Church and Trinity Church; field work, 1993 and N. M. I., p.78 for Tully, Co. Dublin, see N. M. I., p.81


Field-trip, August, 1995.


Fert is a term that describes "a mound or tumulus...especially a mound over a burial place." (D.I.L., s.v. fert). Tirechán, writing in the late seventh century, pointed out that the term fert is used by the heathen Irish, but that it is now called relic; see P.B.A., pp. 144-5. Fert could, therefore, imply that, whereas it occurs as a place-name element that place was originally a site of pagan burial. D.I.L., s.v. fert, however, notes that it was "later used in general sense of grave (especially in poetic usage) and of Christian Burial."


Mac Shamhráin, A.S., 1989, p. 79.


ibid..


Lionard, P., 1961, p. 132.

Wilde, W., 1873, p. 482. Colles, J.A.P., 1870, p. 198, described the stone as "mutilated". A.F.M., s.a. 1013 (recté 1014).

Wilde, W., 1873, p. 482.

C.P.W., 1911-12, p. 8.

ibid..


Vita, p. 241.

ibid., p. 242.

ibid..
115 ibid., p. 242, f.n. 1.
119 *A.F.M.*, 1108.
120 *D.I.L.*, s.v. *anmcara*.
121 ibid., s.v. *senór*.
123 ibid., p. 97.
124 See below under *ST. SAVIOUR’S PRIORY*.
125 *O.S.L.*, fol. 512.
126 *C.P.W.*, 1911-12, p. 7.
127 ibid., p. 7. Measurement given in report as 2 feet 6 inches.
128 *O.S.L.*, fol. 512.
129 Pers. comm., D. Sweetman, O.P.W.. neither was there evidence, as Leask suggests in *Glendalough*, p. 14, of "an early occupation of the valley." Sweetman also observed that the battering of the walls, such an obvious feature at the cashels of Staigue and Dún Aonghasa, is not apparent in the remains of the so-called "cashels" at Glendalough.
130 *O.S.L.*, fol. 512. O’Donovan said they were "near the Reefed Church on the south side of the river." This appears to be a mistake, as the map produced in 1838 shows two circular enclosures on the north side of the Poulnass River near Reefert, but none on the south.
132 ibid., p. 198.
133 ibid. .
134 Rowan, J., 1874, pp. 11-12.
135 ibid. .
138 ibid., p. 139.
139 ibid. "p" numbers used here are those given by Healy to the platforms he identified, mapped on Fig 2.18 and tabulated in Table 2.1. I have continued his numerical sequence for the extra sites which my field-work identified; see Table 2.2.
140 ibid., p. 140.
141 ibid..
142 ibid..
143 ibid., pp. 140-1.
Platform 81 is above St. Kevin's Cell. Platform 85 is the settlement platform at Temple-na-Skellig.

Healy, P., 1972, p. 141.

A survey carried out, with funding from the Royal Irish Academy, in 1991 and 1992.

See above under **TEMPLE-NA-SKELLI**

See above under **REEFERT CHURCH AND ITS ENVIRONS**.

Hemp, W.J. and Gresham, C., 1938, p.281.

Horn, W., Marshall-White, J. and Rourke, G.,1990, gives a full account of the discovery.


*Vita*, pp. 243-4.

*C.P.W.*, 1875-6, p. 70.


ibid..

Wilde, W., 1873, p. 459.

*C.P.W.*, 1875-6, p. 70. Wilde, W., 1873, p. 459, reported that the church was "rapidly going to destruction, chiefly from injury by the trees growing on its walls, and which had in several places, but especially on the southern wall of the nave, thrown in their roots with such energy as to bulge outwards some of the largest stones."

*ibid.*

As represented by the elaborate carvings at St. Saviour's Priory.

Petrie, G., 1845, pp. 183-4. Other examples can be found at St. Columb's House, Kells; Teampull mac Duach and Teampull Brecain, Inishmore, Aran Islands; Kilelton; and St. Camin's, Inisheertra. Triangular windows are found in many round towers.


ibid., p. 891.

ibid., p. 897.


ibid..

ibid..

The similarities between Reefert Church and Trinity Church were first pointed out in detail by Cochrane in *C.P.W.*, 1911-12, p. 7. He did, however, note that the masonry at Reefert was
inferior to that at Trinity, but failed to point out that this is because Reefert is almost completely a
reconstruction while Trinity is largely original.

C.P.W., 1911-12, pp. 25 and 27 is incorrect in stating that only one of the blocks at Trinity "is
shaped out of a larger block than was requisite for the size of the bracket.

As measured in May, 1912; C.P.W., 1911-12, pp. 6 and 25.

Wilde, W., 1873, p. 460.

Wilde, W., 1873, p. 461.

ibid., pp. 461-2.


Beranger copied the drawing from an original by the Earl of Portarlington. On his visit to
Glendalough in 1779, Beranger wrote on the drawing: "I have compared this on the spot, and
found it very exact." (See Wilde, W., 1873, pp. 457-8)

The difference could be that O'Hanlon's figure does not include the base, which would bring the
height to 55 feet, closer to Petrie's figure of 60 feet.

C.P.W., 1875-6, p. 70.

One example is Henry, F., 1967, p. 57, remarks (of the period 800-1020) that "the churches are
no more than large rectangular boxes in which the choir is only beginning to have a separate
space and they will remain that way until the twelfth century."

Top., p. 61.

It was noted lying in the corner of the church by Rowan, who cleared it with Wilde and Clarke in
1873 or 1874; Rowan, J., 1874, p. 11.

P.N. I, p. 29. This was his opinion, and the references to the Down Survey and Petty's Atlas are
taken from him.

The name appears in no official documents of the post-1169 period. Neither does it appear in the
Annals, Martyrologies, Lives of St. Kevin or other sources written in or referring to the pre-1169
period.

See Chapter 3 under OUR LADY'S OR ST. MARY'S CHURCH.

Barrow, L., 1984, p. 43.

Vita C., p. 257.

P.N. v, p. 320.


P.N. v, p. 321.


ibid..

Vita Mal., pp. 77-8, in a chapter entitled "The prophecy of the stone oratory, the first built in that land, and the trove treasure. A man described as "the chief leader in speaking as he was the initiator of the evil" asks St. Malachy: "My good man, what are you thinking of bringing such a novelty into our area? We are Irishmen, not Frenchmen. What sort of silliness is this? What need is there for a work so extravagant, so haughty?"

Gwynn, A., 1992, p. 79.

A.F.M., 1134.


O.S., 6-Inch series, surveyed 1838, Sheet no. 23 Co. Wicklow, surveyed 1838.

C.P.W., 1875-6, p. 70 and C.P.W, 1876-7, p. 70.

Wilde, W., 1873, p. 451, f.n. 1. Petrie, G., 1845, p. 256, says it was Samuel Hayes of Avondale c.1770.

Wilde, W., 1873, pp. 251-8, where Beranger's drawings are reproduced.

ibid., p. 242, where Archdall's account is quoted in detail.

Petrie, G., 1845, p. 257 ff..

Wilde, W., 1974, p. 451, f.n. 1.


Wilde, W., 1873, pp. 451-2. On p. 452 Wilde specifies that these trees were "chiefly ash and thorn."

C.P.W., 1876-7, P. 70.

Wilde, W., 1873, p. 453. Wilde comments on Beranger's drawing: "He likewise marks in the site of the southern doorway of the nave, which appears to have been a description of a porch leading into the outward enclosure."

Brash's visit is reported by Cochrane in C.P.W., 1911-12, pp. 27-8.

C.P.W., 1911-12, p. 28.


Wilde, W., 1873, p. 453, did remark that: "There was probably a primitive doorway in the western end of the nave." Neither he nor any other observer, however, present any evidence of such a doorway.

See Leask, H.G., 1987, pp. 147-51. Beranger drew St. Finghin's in 1779 and his plan shows that there was no western door before the Commissioners of Public works restored the buildings. The south door is shown on the plan, along with breaks in the south and north walls, both of irregular form. See Petrie, G., 1845, for a reproduction.
St. Cormac's Chapel, Cashel also has a bell-tower built at the same time (c.1134) as its nave and chancel. The tower, however, is square in plan and is attached to the south-eastern corner of the nave; see Leask, H.G., 1987, p. 114.

Leask, H.G., 1987, p. 151, describes it as a "much altered church" and says the south door is obviously a reconstruction (of the west door of the original church)."

Leask, H.G., 1987, p. 151, describes it as a "much altered church" and says the south door is obviously a reconstruction (of the west door of the original church)."

C.P.W., 1875-6, p. 70.

C.P.W., 1876-7, p. 70-1.

i.e. the phase reported in 1876-7, pp. 70-1.

From field-work carried out in April-May 1993.

See Chapter 3 under THE CATHEDRAL.

While it is difficult to assess the extent to which vandalism has caused damage at St. Saviour's, the present author has seen considerable quantities of stones torn from the tops of the walls by campers who also ringed the barks of trees around the site.

Vie L., p. 135.


ibid., p. 180 and pp. 273-4, n. 8, notes this and other stylistic parallels between the two.

Thanks to R. Stalley, Dept. of Architecture and Art History, T.C.D., for advice on this point.


The Mac Murrough charter of c.1162 is contained in Reg. O.S., p. 50. He granted the lands of Baldoyle to the bishop of Louth, but the same lands appear among those by the Arroasian Priory of All Hallows in a charter of Henry II, 1171-2 in Reg. O.S., p. 11 and pp. 19-20.

Vie L., p. 138. This is Holy Trinity or Christchurch Cathedral.

Reg O.S., p. 100 and Introduction, p. xii. All Hallows was on the site of T.C.D..


ibid., p. 175.


ibid., pp. 86-7.

Reg. O.S., p. 100.

Alen's Reg., p. 110.

ibid., p. 97.

In 1274 as Insula Sanctii Salvatoris de Glindelacha; in 1539 as Cella Sancti Salvatoris in Glendalough; see P.N., i, p. 34.

CHAPTER 3

Churches and other remains of the ecclesiastical city
ENCLOSURES AND GATEHOUSE

The ecclesiastical city of Glendalough was built on a naturally formed delta created over many centuries by the accumulation of debris carried down from Glendasan and the upper part of Glendalough valley by rivers. These rivers, the Glendasan and the Glenealo, meet at the south-east of the city (Fig. 3.1). Together they provide natural boundaries and defences for Glendalough’s main settlement on its southern, eastern and northern sides. Attacks are extremely unlikely to have come from the west as only the upper valley and mountains which are impassable to any major attacking force lie on this side of the city. The existence of the naturally raised land of the delta bordered by the rivers must have provided a powerful attraction to the settlers who established themselves here. Within a double enclosure they built a Cathedral, a round tower and a number of small churches, all of which still survive (Pl. 3.1). Just opposite the Gatehouse, on the northern side of the river, a market-place and possibly a lay settlement grew in the eleventh or twelfth century. It is on the Gatehouse and enclosures that attention will first be focused.

Petrie (1845) provides the only known description of the city walls before reconstruction works began at Glendalough. He stated:

Of the cashel, or wall itself, which enclosed the monastic establishment, there are but slight vestiges remaining, but these are sufficient to show that it was built without cement and of a very irregular figure, in consequence of the inequality of the surface along which it passed and the great extent of the area which it enclosed.¹

Petrie’s description of the walls of the enclosure as dry-stone structures is of interest. Many traces of enclosure walls around the city today are still dry-stone, although some sections have since been cemented. Surviving structures and the 6-inch Ordnance Survey map (surveyed 1838)² suggest that there was not just one “cashel wall” or enclosure but two. More recent work by Swan has illustrated that the larger ecclesiastical or monastic establishments did normally have an inner and an outer enclosure³ (Fig. 3.1 b).

The original course of the inner enclosure at Glendalough can be seen in the 1838 6-inch map (Fig. 3.2). Much of this enclosure survives today, although the course of the outer enclosure is more difficult to determine. The Gatehouse before reconstruction (Pl. 3.6) and in its present form had walls extending to the west and east. On the western side (Pl. 3.2) the walls were bonded into the Gatehouse. On the eastern side (Pl. 3.3) they were separate from the Gatehouse, although built against its walls. While it is certain that the enclosure walls ran eastwards and westwards from the Gatehouse, this is the only place where they survive.

Solid stone walls of the type indicated around the Gatehouse may not have existed along the full course of the outer enclosure. Behind the stone facing shown in Pl. 3.3, there is a large bank of
earth with stones mixed loosely in. This suggests that, other than in the area around the Gatehouse, the outer enclosure may have consisted of an earthen bank rather than stone walls. Healy notes that Henry found what she described as the remains of a "monastic fosse" to the west of St. Mary's. This would represent the westernmost limits of the city's outer enclosure. The trenches were 2.6 m apart, the northern one being 90 cm wide and 75 cm deep and the southern one 1.63 m wide and 52 cm deep. Healy comments that the size of both was "rather insignificant for a monastic enclosure." This means, however, that the total width of the two trenches and the bank in between was 5.13 m. While the depth of the trenches may appear "insignificant", this width, combined with the possibility that the bank between the trenches may have been levelled, should warn us against ruling out this structure as part of the monastic enclosure.

Taking the roadway as a guide to the course of the outer enclosure as it ran eastwards from the Gatehouse; Henry's "monastic fosse" to the west of St. Mary's, and assuming that, even if a mound or walls did not run beside the rivers, the rivers themselves marked the outer boundaries of the city, the course of the outer enclosure would be as marked in Fig. 3.1 a. This corresponds with the outer enclosure as drawn by Swan (Fig. 3.1 b). The pattern of an outer and an inner enclosure with a church or Cathedral and a round tower within the inner enclosure can be found at other ecclesiastical sites such as Armagh, Kildare and Monasterboice (Fig. 3.3). The walls of the inner enclosure today, as seen in Fig. 3.1, are just as they existed in 1838 (Fig. 3.2). The city's two enclosures mark the limits of the termini or two district areas of sanctuary within the city.

The entrance at Glendalough is on the north-eastern fringes of the outer enclosure (Fig. 1 a) and is the only Gatehouse which survives at any Early Medieval ecclesiastical site in Ireland. It is built on high ground overlooking the Glendasan River. The building is almost square in the interior (Fig. 3.4) and consists of two wide-spanned arches with side walls which have projecting antae (Pls. 3.4 and 3.5). Petrie described it in 1845 as "...a monument unique in its kind, and which, from want of care, unfortunately, will soon cease to exist." His illustration of it (Pl. 3.6) shows the bases of the outer arch resting precariously on loose stones. Wilde, who visited Glendalough around 1873, states that the Mining Company "...restored the fallen arch of the two that once formed the portal of the sacred enclosure." As the inner arch looks relatively solid compared to the outer arch in Petrie's drawing, we can safely assume that it was the outer arch which collapsed. It was restored sometime before 1870, for Colles reported that year: "The Gateway of the Caisel was well restored a few years ago, and is in good condition."

Petrie stated that: "This gateway supported a tower." Numerous other authors since Petrie have repeated this, most recently Edwards in 1990. Petrie based his argument on the assumption that the three corbels on the east and west walls supported a floor of wood which in turn supported a tower. These corbels would, indeed, have supported a second floor, but not necessarily a tower. Grose published a drawing of Glendalough in 1793 which shows the Gatehouse with a tower. This drawing, however, is extremely inaccurate in a number of details (Pl. 3.7). The road passing in front of the Gatehouse to where the two men are standing follows the course of the Glendasan River,
which is not shown at all. The Gatehouse itself has no projecting antae and stands as a single isolated structure with no side-walls apparent as in Petrie's drawing. Although not visible in PI. 3.7, close scrutiny of the east window of the Cathedral in the original reveals that Grose drew it with a double-lancet. There is no evidence whatsoever to support these details. The round tower is shown as having a castellated top. Although the original conical cap of the tower collapsed, the present conical cap was reconstructed using the original stones which had fallen inside and around the base of the tower. The drawing is extremely inaccurate in all of these details. It is noteworthy that Grose has drawn, between the Gatehouse and the round tower, an isolated, single-arched structure. This stands roughly where the Gatehouse would be in relation to the round tower if the supposed Gatehouse in the foreground was really Trinity Church. The latter had a bell-tower attached to its western end as does the supposed Gatehouse in Grose's drawing. One can reasonably suggest, then, that among the many inaccuracies and confusions of this drawing, the artist mixed up Trinity Church and the Gatehouse, resulting in the mistaken idea that the Gatehouse originally had a tower. Although drawn almost 80 years later, Dunraven's drawing of Glendalough from a similar angle gives a picture of both the Gatehouse and the rest of the buildings which can be borne out as accurate by comparison with other sources (PI. 3.8). There is no evidence other than Grose's drawing to support the idea of a tower over the Gatehouse. Archdall, who wrote six years before Grose published his drawing, gives a detailed description of the Gatehouse but makes no mention of a tower. Cochrane noted in his 1911-12 report that "...the side-walls do not look sufficiently strong to bear a tower of any height." The side-walls are only about 60 cm thick, compared to over 1.5 m thick walls in St. Kevin's Church, which still supports a tower. The walls of the western annexe at Trinity Church, which also supported a tower, are almost 1 m thick.

The Gatehouse is constructed on a plinth made of large slabs of mica-schist which project beyond the wall for between 17 cm and 28 cm. The sloping ground around the outer arch necessitated the use of a number of large stones under each pier to bring this arch into line with the inner arch. The outer arch is made up of 25 blocks of granite (PI. 3.5), the inner one of 27 (PI. 3.4). No mortar was used in the arches themselves, although the walls above and around them do have mortar. These walls are made up entirely of mica-schist. A number of L-shaped monoliths are used in corners, most notably that in PI. 3.9.

There are three projecting corbels on each side of the interior of the building, just above the springing of the arches, but below the soffits of the keystones. Thick wooden barge-boards placed along the corbels would have raised the level of the second floor above the keystones. Either a ladder or a doorway leading from the bank on the eastern side directly onto the second floor gave access to this part of the building, which would have been suitable as quarters for a gatekeeper or custodian of the city.

Adjoining each of the inner antae, but not bonded into the latter, two walls of dry-stone construction c.2 m high bound the sunken walkway which slopes upwards from the Gatehouse. The walkway widens out after c.4 m and a separate wall continues to bound the path for a distance of c.5 m. These walls are not bonded into the walls which run from the antae, but are of similar dry-stone
construction. They existed in 1838 and the passage which they bound leads from the Gatehouse into the central enclosure of the city (Fig. 1 a). Traces of cobbling, more of which survived c.30 years ago, can still be seen in this passage, the sizes of the cobble-stones varying greatly (Pls. 3.4 and 3.10). The stones which make up the surviving sections of St. Kevin's Road at the Wicklow Gap show a similar variance in size. While no cobbling is apparent along pathways within the central enclosure, graves of more recent centuries are so dense in this area that they could have destroyed cobble-stones from the Early Medieval period. In her excavations at Temple-na-Skellig, where there were no recent burials, Henry found stone pathways connecting huts on the platform beside the church.20 There is good reason, therefore, for believing that the larger, busier and more populous area of the ecclesiastical city did originally have a network of cobbled streets, traces of which survive only in the passage of the Gatehouse because no graves were made here.

An early Irish law-text called the Heptads (9th century) distinguishes between the principal paths or streets (primisraitl) of a city (cathair) and its backstreets or alleys (cula). The former are described amongst places “frequented by everybody”, the latter amongst unfrequented places.21 Sráit was used in Old and Middle Irish to indicate a “street, road, path, way”,22 becoming sráid in Modern Irish, the standard word for street. As the sráit or street leading from the Gatehouse to the central enclosure at Glendalough would certainly have been amongst the primisraitl or principal streets of the city, we can infer that these streets were often, if not always, cobbled. Given that there were stone paths connecting simple monks’ huts at Temple-na-Skellig, it is possible that the less frequented cula or back-streets of the city were also cobbled. While the archaeological evidence for stone streets at Glendalough is slight, the Heptads do provide evidence that ecclesiastical cities did have a network of main streets and smaller alleys or back-streets.

Just inside the Gatehouse, on the right-hand side as one enters, there is a large slab of mica-schist with an incised cross (Fig. 3.5 and Pl. 3.9). The two lines incised upwards from the bottom of the cross and the arcs within its bottom corners have almost disappeared. The small square to the left of the cross can still be made out but is not clearly visible. The wearing down of these details since 1911-12 indicates how badly the local mica-schist at Glendalough weathers. This termorra cross marked the area of sanctuary which was delimited by the outer enclosure of the city.

There is no evidence of the date at which Glendalough's enclosure walls and Gatehouse were built. The remains of what must have been substantial walls at both sides of the Gatehouse; the solid structure of the latter; and its location on high ground overlooking the Glendasan River all indicate defensive, rather than purely religious, functions. While the canon lawyers of the eighth century may have considered the termini of holy places as marking areas of sanctuary, Glendalough had need of defensive termini. The first recorded attack came in 77523 and further attacks, both Viking and Irish, took place in every century of the Early Medieval period. From the ninth century onwards, no fewer than two attacks are recorded for any century.24 The eleventh century was the most violent on record, with nine attacks or killings at Glendalough.25 In this context it is hardly
surprising that we find some evidence surviving today of substantial defensive structures in the city's enclosure and Gatehouse.

**ST. MARY'S OR OUR LADY'S CHURCH**

St. Mary's Church is located within a raised enclosure which is almost rectangular but would be more accurately described as polygonal. It is c. 34 m on the north side and c. 27 m on the west. The ground to the north is almost level with that on which the church stands. To the south, however, the ground slopes steeply down to the river. As at Temple-na-Skellig and Reefert Church, a platform had to be created before any building could commence. The platform here is contained by a dry-stone wall on its southern, eastern and western sides (Pl. 3.11). There is also a dry-stone wall on the northern side, but here the ground within the enclosure is level with that of the field to the north. The enclosure existed in precisely the same shape in 1838. 26 Although most of the earlier writers on Glendalough took no note of enclosures, Wilde observed on his visit c. 1873 that: "To those who have the hardihood to clamber over its [St. Mary's] outer enclosure and risk the loose stones and thorns therein, it is well worthy of inspection." 27 No mention of the enclosure is made in the report of 1876-77, which details the reconstruction work at St. Mary's. It is clear, however, from the 1838 map and Wilde's report that the enclosure existed in the same shape and form as it exists today before reconstruction began.

St. Mary's church is located in the eastern side of the enclosure, its eastern wall being only 4.3m from the enclosure wall, and commands fine views of the lower lake. It is only c. 100m from the round tower and was hence within earshot of the bell which would have rung out over the city to call the monks (and possibly, nuns) to prayers and warn of any attacks which might take place. It consists of a nave and chancel, both considerably larger than at Reefert (Fig. 3.6). Leask considered that it was conceivable that the chancel took the place of an earlier structure. The only reason he gives is that "...it seems improbable that a nave of such proportions would not have been provided with a chancel". 28 There is, however, little evidence to support this. The chancel is not bonded into the nave at any point, which indicates that the church was originally a simple, single-chamber structure. There are clearly visible joints in the eastern walls of the nave for c.1.3 m each side of the opening in the chancel. Most of the wall was evidently knocked down and rebuilt with the chancel opening. The foundation stones of the original east wall can be seen in the ground between the two piers of the chancel arch. One of these stones is the full width of the wall and is 1.4m long. This is the most positive evidence that the church was originally a single-chamber structure. In churches which have a coeval nave and chancel at Glendalough, there are no traces of "foundation" stones underneath the arches. 29 Obviously, foundation stones only exist on the ground underneath arches where they originally had a solid east wall above them. The very narrow passage between the east
wall of the chancel and the enclosure wall may have resulted from the chancel being added without the enclosure being extended eastwards (Pl. 3.11).

Both nave and chancel are constructed on a plinth. This is visible on all sides of the building, but sinks below the ground on the north side. The plinth is made up of long slabs of mica-schist. This stone is found throughout the building, although many blocks of granite were also used in the walls, quoins and doorways (Pl. 3.12). The nave and chancel were clearly visible in 1820 (Pl. 3.13). Although greatly overgrown at that time (with "trees and ivy" as described in 1870), the western gable survived to a great height. In 1876-77 the restorers simply recorded that: "The nave has been cleared out and the walls secured from further ruin." Most of the western gable, then, has survived in its original form. There is a string-course, which is roughly at the height of the side walls but slopes downward from north to south by as much as 14 cm (Pl. 3.12). Below the string-course the wall is built of massive stones interspersed with spalls. The largest of these is a block of granite to the north of the west door which measures 1.45m by 83 cm. Above the string-course the masonry is slightly rougher and the stones are smaller. There are clearly two different phases of construction. As the masonry above the string-course is similar to that in the chancel, it appears that the string-course and the gable above it were added to the original building at the same time as the chancel. Although the stone used in the western gable is mostly mica-schist, there are also many blocks of granite, particularly in the quoins. The side walls batter slightly, though this is only apparent in the south-western quoin of the nave (Pl. 3.12).

St. Mary's Church has doorways in the west and north walls of the nave. There are two windows, one in the south wall of the nave the other in the east wall of the chancel. The western doorway existed in its present state as early as 1779, when Beranger sheltered underneath it. Petrie included a detail of it in his book of 1845 (Fig. 3.7). It is a lintelled doorway with inclined jambs, 1.98m high (Pl. 3.14). It is not, as Petrie wrote, made up of stones "which including the lintel, are only seven in number". This is how they appear from the outside, and it may have been the original intention of the builders to use only three stones in each of the jambs (Pl. 15). The bottom stone of each jamb, however, is not fully rectangular and a small block has been fitted into the top of both stones on the inside to regularise them with the rest of the doorway (Pl. 3.15). The doorway, then, is made up of three massive granite blocks and a smaller one in each jamb, and a single lintel-stone, also of granite. The sill is a single block of granite which protrudes beyond the door-jambs inside and outside. Both inside and outside, however, the upper surface of the stone is brought into line with the door-jambs by a rebate (Pl. 3.16). This sill is unique amongst those in the doorways of the churches at Glendalough. The exterior of the doorway has an architrave cut on the lintel and jambs. It protrudes for 0.8 cm being 12.5 cm wide at the top widening gradually to 20 cm bottom. On the lintel stone it is 16 cm wide and above it a line has been cut parallel to the architrave which is returned at the ends. The upper stone of the north jamb shows that an attempt was made to continue this line along the jamb. (Apparent in Pl. 3.14, but not in Fig. 3.7). The two middle stones of the north jamb, on the interior, have slightly sunk mouldings. The unfinished mouldings may indicate that an attempt was made to add to the decoration of the doorway after its construction, but the task proved too
difficult to complete without dismantling the entire doorway. A mason would normally carve such
details into the individual stones of a doorway before it was built.

The west doorway of St. Mary's is unique amongst the churches at Glendalough in having a
saltire cross carved into the underside of its lintel (Fig 3.8a). Like the cross inside the Gatehouse, this
may indicate that one is entering an area of sanctuary. While this feature is not common in pre
Romanesque churches, the church at Killiney, Co. Dublin also has a cross, carved in relief, on the
underside of west door's lintel (Fig. 3.8b). Crosses also exist over the lintels on the outer side of
trabeate doorways in St. Fechins Church, Fore, Co. Westmeath and at Clonamerry, Co. Kilkenny.
Both of these doorways have architraves similar to St. Mary's. Although many pre-Romanesque
churches have undecorated trabeate doorways, more attention should be paid to the fact that there
are a significant number decorated with architraves or crosses or both.

The north doorway is built in a different style to the west doorway. It was noted in 1870 as "a
breach in the north wall" which should be repaired. No mention is made of it in the 1876-77 report
and it must therefore have been exposed at a later date. It is 75 cm wide on the outside, splaying to
width of 1.4 m on the inside. The jambs are level with the surface of the wall on the outside, but on
the inside they extend beyond it forming piers c. 5 cm on the east and on the west (Pl. 3.17). The
square base-stone in the western jamb is chamfered and projects beyond the upper stones of the
jamb (Pl. 3.17). The eastern base-stone is much eroded. Both are of the same soft type of stone
which is found in the east window of the chancel and in the cathedral.

The south window of the nave is just under 1 m high and 25 cm wide on the outside (Pl.
3.18). It is splayed inward. The round head is cut from a single block of stone and there is a small,
chamfered hood-moulding above it on the outside (Pl. 3.18). It is similar in style to the windows at
St. Saviour's Priory. The green-stone used in its jambs, head and moulding is also the same as that
used in St. Saviour's (dated c. 1153-62) and the Priest's House (dated c. 1170-86). This type of
stone is also found in the bases of the chancel piers in St. Mary's and a few pieces also occur in the
chancel walls. It does not occur in the walls of the nave or its west doorway and was obviously part
of a twelfth century reconstruction which also included the upper part of the west gable (with string-
course) and the addition of the nave's north doorway.

The chancel piers, with their chamfered bases of the same green-stone, obviously date from
the twelfth century as well. Although the chancel arch itself has completely disappeared, Archdall
states that there was an "arch of hewn stone, exactly similar to that of the Cathedral" at the east end
of the church. The various reports from before and during the reconstruction works of 1875-77
make no mention of a chancel arch, or stones from it, existing at St. Mary's. It is possible that an
arch similar to that of the Cathedral existed here at one time, but all traces of anything other than the
piers and their bases have disappeared.

The east window of the chancel is 1 m high and 28 cm wide, splaying inward to a width of 58
cm. It is round-headed, but the head is not cut from a single stone as it is in the south window (Pl.
3.19). The jambs are chamfered on the outside and also have a V-groove, both features continuing
across the stones of the window-head. There is a hood-moulding over the window which consists of
five stones. Two of these have an incised fret pattern, but the other three are plain. The hood-
moulding terminates with two animal heads which are badly worn (Pl. 3.20). Colles noted in 1870 that "if... the ruins filling the chancel (which is more modern than the nave) were cleared away, the stones of the window would probably be found". The 1876-77 report states that "little or no architectural detail was found in the excavations" and the south window was first described in the report of 1911-12. One can only conclude that the stones of the east window were discovered between 1877 and 1911, and the window was then reconstructed. The key pattern is obviously incomplete and the restorers appear to have added in the three extra stones of the hood-moulding to complete the window. The jambs, head and hood-moulding in the east window are of the same soft stone found in the north door of the church. This stone was only used in Glendalough in the late twelfth century thus providing an approximate dating for the north door of the nave and the chancel.

The key pattern and terminating animal heads of the hood-moulding, however, are features which have no parallels in other Romanesque buildings of Glendalough. The key or fret pattern is a classical ornament which occurs in many early Irish grave-slabs and high crosses. It is not an ornament which is normally found in Romanesque windows, where various forms of chevrons normally dominate. One example of a key-pattern can be found at Ferns, Co. Wexford on the shaft of a cross reputed to mark the grave of Dermot McMurrough (PI. 3.21). The carving here is much shallower than at Glendalough's St. Mary's Church. The much deeper carving of the latter examples owes something to the softness of the stone compared to the hard granite at Ferns. It also suggests, however, the influence of Anglo-Norman masons. Their work, first evidenced at Christ Church Cathedral, Dublin (c.1186-1200) is distinguished from Irish masonry by the depth of their carving. Even more significantly, Christ Church (Pl. 3.22) and St. Mary's provide rare examples of the key-pattern being used in Romanesque or Transitional churches. A Robert, cementarius ("mason"), undoubtedly of Anglo-Norman origin, is listed amongst the late twelfth century citizens of Dublin and Christ Church Cathedral displays considerable evidence of Anglo-Norman masons having worked there. Given the rarity of key pattern in Irish Romanesque work and the proximity and ecclesiastical contacts between Dublin and Glendalough it seems more than likely that the key pattern hood-moulding at St. Mary's is copied from Christ Church. It could represent a local innovation on the use of key-pattern seen at Dublin. With the late Romanesque phase at Christ Church dated at c.1186-1200, a late twelfth or early thirteenth century date for Our Lady's chancel at Glendalough seems reasonable.

Other notable features at St. Mary's include a stone altar measuring 1.9 m by 1.02 m under the east window in the chancel. There is also a deeply cut groove in the external face of the south wall about 3 m above the ground. It runs from just east of the southern window towards to the southeastern quoin of the nave for a distance of 220 cm. It is 4 cm wide and was intended to take the roof of an abutting building which has disappeared. The presence of such a structure would be extremely curious, as there is no sign that this building gave immediate access to the nave. The
1911-12 report describes "... a peculiar depression in the face of the nave wall about 3 feet [92 cm] west of the chancel, and 12 feet [3.68] m above floor level, the position in which a rood beam would be placed in later times." This feature is not visible today.

St. Mary's or Our Lady's Church is a name which appears to have evolved through local tradition in which it was known as "The Lady Church". There are churches outside the main walls of the monastic enclosures at Inishmurray and Inisglora both called Teampull na mBan. At Clonmacnois a pathway can be seen leading eastwards from the main enclosure of the ecclesiastical city towards the Nun's Church less than 1 km away. It is clear that locating a nun's church outside the main enclosure of a monastery or ecclesiastical city was a feature of a number of sites. "The Lady Church", changed later to Our Lady's Church", may have been a nunnery originally. It is located outside the central enclosure, but was probably within the outer enclosure of the ecclesiastical city. It is frequently called "St. Mary's Church" today, but there is no documentary evidence for this name. If this was a nun's church the wooden lean-to building on the south side may have been a sacristy, designed to separate priests completely from the nuns while the former prepared for mass.

The Latin life of St. Kevin describes how an angel predicted that the saints resurrection would take place at a spot to the east of the Lower Lake. Although this comes from one of the sections which appears to be a later interpolation to explain the moving of the main monastery from the Upper Lake, there is a tradition today amongst local people that it was here that St. Kevin was buried. There is a cemetery within the enclosure. Simple crosses and graveslabs can be seen to the west and north of the church. In the northwest corner of the enclosure there are a series of long, narrow slabs of mica-schist surrounding an area of grass about 2 m by 4 m. A hole, stone-lined, in the centre may have held a cross originally. Although on a smaller scale, similar kerbings exist around the graves of the Reefert Church.

THE CATHEDRAL

The Cathedral (Pl. 3.23) is the largest surviving church at Glendalough and is located within the city's inner enclosure, c.100 m southwest of the Gatehouse. It consists of a nave, one of the largest among surviving pre-Norman Irish cathedrals. A chancel and a sacristy. Although Cochrane drew a plan of the Cathedral in 1911-12 with only two phases (Pl. 3.9a), Leask's more complex plan (Pl. 3.9b) showing three distinct periods of construction is more accurate. The first involved an attempt to construct a nave using very large ashlars. The second phase builders finished the nave using rubble masonry built on top of the earlier ashlars. In the third phase, the east wall of the nave was taken down and a chancel and sacristy were added. A doorway was also added in the nave's north wall. The first two phases were pre-Romanesque while the third phase was Early Gothic.
The masonry of Phase 1 is unique amongst Glendalough's surviving buildings. There is considerable evidence that an attempt was made to construct a single-chamber church using well cut ashlars fitted together with little or no use of mortar. This structure either collapsed or the style of its masonry was abandoned before it was completed.  

Phase 1 walls now survive to a maximum height of only about 1.5 m around the west door (Pl. 3.24 + Pl. 3.25). The original antae, which have a chamfer on both sides, survive up to 2.25 m and more. The second phase continuations of the antae are not chamfered and use different constructional methods. The antae project beyond the east and west walls of the building (Fig. 3.9) and are wider for c.50 cm at the top than at the bottom. They originally held the roof trusses and thus fulfilled the same function as the projecting corbels at Trinity Church and Reefert Church.

The west doorway existed as it does today before the reconstruction work of 1876-77 as can be seen by the drawing published by Petrie in 1845 (Fig. 3.10). It has inclined jambs with an architrave (both inside and out) which was not continued by the Phase 2 builders (Pl. 3.24 and Pl. 3.25). The top stone in each jamb marks the beginning of Phase 2 and the masonry along the line marked by the base of these stones throughout the west wall is the beginning of the Phase 2 uncoursed rubble. In addition to the top stone of each of the jambs, therefore, the lintel and relieving arch of the west doorway must be considered as belonging to Phase 2. Phase 1 masonry survives to a height of c.1 m in the south and north walls, except for the area where it was disturbed to allow for the insertion of the early Gothic north door. Only some Phase 1 ashlars survive in the east wall around the corners on the inside, most of the east wall being removed to add the chancel in Phase 3.

Although the Phase 2 masonry in the nave is very similar to that in the chancel, the windows and arch of the latter are Early Gothic in style. The windows of the nave are pre-Romanesque in style and both use some of the ashlars of Phase 1 in their jambs. The uncoursed rubble of the nave would not have been difficult to imitate in building the chancel, and the style of the nave's windows clearly indicate that they were not built at the same time as those of the chancel. The heads of the nave's windows are identical in style (if smaller) to the relieving arch of the west door, being made up of roughly cut pieces of mica-schist, radiated in a semi-circle (Pl. 3.25 and Pl. 3.26). Although the easterly of the two southern windows has this type of head on the outside, it has a monolithic arch as a head on the inside (Pl. 3.27). The manner in which this stone is well carved and dressed into a regular shape is typical of Phase 1. There is also some evidence that the well-carved D-shaped stones found in the rubble masonry of Phase 2 (Pl. 3.28) were originally intended to be Phase 1 window-heads. They were abandoned in the half-finished form in which we see them today by the Phase 2 builders. The latter obviously favoured the use of a number of small, undressed, radiated stones, such as we see in Pl. 3.26, for window heads.

The single-chamber Cathedral which was begun in Phase 1 was completed in a different style in Phase 2, but both styles are clearly pre-Romanesque. Before moving on to examine the changes which took place in Phase 3, one particular feature of the west doorway is worth analysing. This is the presence of three holes in the rebated section of each of the door's jambs (Pl. 3.25).
the south jamb they measure, from top to bottom, c. 14 cm x 9 cm, 10 cm x 6 cm and 14 cm x 10 cm. The holes in the north jamb are aligned to those in the south jamb and the top and bottom holes are of a similar size. The middle hole of the south jamb is open on one side and may have been broken at some stage (Pl. 3.25). A gap of 8 cm exists between the holes and the edge of the rebate where the door itself would have been.\textsuperscript{64} Wooden posts would have been inserted into the holes to bar the door from the inside. Some of the holes \textsuperscript{65} are badly worn on one side from the constant insertion and removal of such posts, which must have fitted very tightly in order to secure the door. The presence of these holes in the Cathedral door at Glendalough indicate that, in addition to serving as a place of religious worship, it was also important as a place of refuge in times of attack. Although the round towers also fulfilled the latter function,\textsuperscript{66} the Annals contain more references to the slaying and burning of people in churches, or outside the doors of churches, than in round towers. In 1003 for instance, "Aedh, son of Echthighern was killed in the oratory of Feara-mor-Maedog [Ferns, Co. Wexford] by Mail-na-mbo".\textsuperscript{67} In 1019 "the stone church of Dermagh [Durrow, Co. Offaly] was broken down by Muirchertach na carraig in an attack on Mael Muad, king of Fir Chell, and the latter was forcibly taken from it and afterwards put to death,"\textsuperscript{68} The latter entry illustrates the significant point that the right of sanctuary\textsuperscript{69} within churches was respected by some attackers, but this did not prevent them from slaying people in the doorways of churches as they came out. Numerous other entries in the Annals provide evidence that killings in the doorways of or just outside churches were widespread across Ireland from the eighth right up to the sixteenth century.\textsuperscript{70}

These references deal specifically with churches as opposed to round towers. The Annals do indicate that the latter structures did serve as places of refuge in times of attack. This, however, was one of a number of functions served by the round towers\textsuperscript{71} and the relative importance of the churches as places of refuge of both persons and property\textsuperscript{72} is reflected in the Annals. It should be emphasised, therefore, that churches had a role to play in security which was equally significant to that of the round towers. The substantial bar holes in the doorway of the Cathedral at Glendalough should be viewed in this context. Security from attack was obviously important in the construction of this building. Being the largest and most centrally located church in Glendalough valley, it could have sheltered a great number of people in time of attack.\textsuperscript{73}

In Phase 3 a new door was built in the nave and a chancel and sacristy were added. The north door was discovered under a pile of rubble in 1857.\textsuperscript{74} It consists of three external orders (Pl. 3.29) and one internal order (Fig. 3.11) of which only the lower sections survive. Like all the chancel arch and window mouldings of Phase 3, the north door's mouldings are carved in Dundry limestone.\textsuperscript{75} They consist of a combination of rolls of different types, filleted, gouged, plain and small (Fig. 3.11). The bases of the various orders are badly weathered and some of the moulded stones are broken.

Only the pier of the chancel arch survived \textit{in situ} before the reconstruction of 1876-77.\textsuperscript{76} Some of the stones which made up the three orders of the arch itself were discovered amongst fallen masonry in the area around the arch and restored to their present position in 1876-77.\textsuperscript{77} (Pls. 3.30 - 3.32). The pillars consist of large blocks of dressed granite and mica-schist which have a c. 9 cm
chamfer on the angles (Pl. 3.30). There are stop chamfers about 48 cm above the plinths of each pillar and the plinths themselves are also chamfered. These plinths have sockets, measuring 13 cm x 17 cm, cut out of them. The sockets are directly below the capital of each pillar and probably took the base of a detached column. Only the capital at the northern side (Pl. 3.31) survives in its original form. It is decorated with trumpeted scallops carved in Dundry limestone.

Above the capitals of each pillar there are mica-schist abaci which are chamfered on the lower edges. (Pl. 3.31 and 3.32). The three orders of what remains of the arch itself rise from these abaci. In section, the chancel arch mouldings consist of a combination of various types of rolls and fillets (see Fig. 3.11a for details). The middle order of the west-facing side of the arch is carved with centripetal chevrons, arranged point-to-point touching the arris roll (Pl. 3.31).

Chevrons are also found on the arch of the lancet window in the east wall which, although substantially restructured in 1876-77, retains some of its original stones. There are two rolls of stepped centrifugal chevron on the soffit of the arch which meet a thin roll on the arris (Pl. 3.33). Scroll terminals are found on the chevron rolls of the springer on the north side of the arch (Pl. 3.33). The jamb stones of the arch have a keeled roll flanked on either side by small gouged rolls. Only three of the jamb-stones survive on the north side and twelve on the south side. Of the external jambs of the window, only two survive on each side, carved with an external rebate and a deep quirk. All of the mouldings in the east window are carved in Dundry limestone, as are those slight remains of mouldings found in the chancel's three other windows. The capitals of the east window are missing but Beranger drew what he stated were these capitals in 1779 (Fig. 3.12).

The quoins of the chancel are constructed of granite blocks with a c.4 cm chamfer. (Pl. 3.34). A string-course runs from quoin to quoin along the east wall on the outside. (Pl. 3.34). In section, this is formed of a large roll and terminates in a scroll on the south side and an animal head on the north side. It is composed mostly of mica-schist, although there are two blocks of Dundry limestone, one on either side of the east window. The string-course drops down to frame the base of the east window (Pl. 3.34), a feature also found in the string-course on the interior of the east wall. The interior string-course continues into the north wall where it terminates before the first window. It also continues into the southern wall where it drops below the window (Pl. 3.35) and terminates in a scroll carved in Dundry limestone. Like the exterior string-course, it is formed of a large roll and composed mostly of mica-schist. In addition to the south wall terminal, however, there are two blocks of Dundry, one of which is badly destroyed.

The western jamb of the aumbry, which is under the chancel's southern window, is also made of Dundry which was again used in the sacristy door (Pl. 3.36). The latter originally had moulded jambs (and probably an arch) on the chancel side, but a flat lintel behind this with plain jambs on the sacristy side (Pl. 3.37). The bases of the moulded jambs are badly worn, but appear to have been chamfered and are identical to the base of the north door in St. Mary's. Only one moulded stone survives above the base in the western jamb. This appears to have a large roll on its corner, flanked on either side by a gouged roll and a fillet. The stone is, however, badly worn and precise details of its original moulding are difficult to ascertain. The sacristy has an outer door on
its eastern side which is now blocked up. There is a small aumbry just inside the door leading to the chancel.

At the top of the chancel’s southern wall there is an interior ledge along which the roof timbers would have been fixed. The retaining wall of this ledge has a series of holes along its length which would have carried water off the roof (Pl. 3.38). This feature is not found in the nave or indeed in any of the other churches in Glendalough. It is, rather, found in Later Medieval buildings, where the holes are often decorated with semi-human or beastly gargoyles.

Phases 1 and 2 of the Cathedral, although clearly pre-Romanesque, provide no accurate evidence of dating. A number of the carved features of Phase 3, however, can, by comparison with other sites, provide an indication of dating. The capital under the chancel arch (Pl. 3.31) finds its closest parallel in the south transept of Christ Church Cathedral, Dublin. (c. 1186 - 1200). In both cases there are arch capitals carved in Dundry with concave trumpeted scallops under rectangular abaci. It has been convincingly argued by Stalley that the building of Christ Church, Dublin was carried out by masons from the Bristol Channel and Severn valley area. Indeed a Robert, *cementarius*, as pointed out earlier, is listed as a citizen of Dublin in the late twelfth century and many stylistic comparisons have been made between the carved details of Christ Church and those of contemporary churches in the west of Britain. It is hardly surprising, therefore, to find further comparisons with the Glendalough capital at St. Mary’s, Shrewsbury and St. David’s Cathedral in Wales. Both of the latter have been included amongst the churches built by the West County School of masons c.1160 - 1200. While plain and partial scallops are found in Ireland from the mid-twelfth century right up to the early Gothic period, the particular style and form of the Glendalough trumpeted scallop is much closer to those found in Christ Church, Dublin, and the west of Britain.

The types of chevron which are found in the Cathedral’s chancel arch and east window are also markedly British in style. The particular form of centripetal chevrons in the chancel arch are very common in England but there are no comparable examples known in Ireland. The stepped centrifugal chevrons in the east window can be compared to examples at Baltinglass but the latter differ from those found in Glendalough in two ways. Firstly, they have a foliate pattern carved inside the chevrons. Secondly, a groove is carved between the two chevrons in the Baltinglass examples. The style of chevron found in Glendalough’s Cathedral chancel arch are much more common in England, where one example of very similar type can be found at Durham castle.

The mouldings of the Cathedral’s east window, north door and chancel arch, combined with plain rolls and various types of fillets (Fig. 3.11) suggests an early thirteenth century date. The appearance of ogee keel and roll-and-fillet mouldings (or filleted rolls) in England from the 1160’s on marked a “revolution’ in Gothic style, leading to the complex moulding profiles of later Gothic. In England roll-and-fillet mouldings can be found as early as 1179 - 84 (Canterbury Cathedral) but they occur more widely after c.1200. In the west country (e.g. St. Mary’s, Shrewsbury, nave c.1200) filleted multiple shafts in piers and responds were a particularly marked feature. In the first phase of

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Christ Church (1186-1200) plain rolls dominate, although multiple filleted rolls are a marked feature of the second phase (dated c.1216-1236). Filleted rolls, however, are also found in Ireland as early as c. 1210 in Graiguenamanagh, Co. Kilkenny. The first two decades of the thirteenth century, therefore, is the time when the earliest dated examples of filleted rolls are found in Ireland. Taking this and the trumpeted scallop (dated c.1186-1200 at Christ Church, Dublin), a date of c.1200-1220 seems likely for Phase 3 of Glendalough's Cathedral.

The use of stone from near Bristol and the marked Anglo-Norman style in which it was worked together suggest that it is more probable that masons from England, rather than native masons were employed. This was the case at Christ Church, Dublin in c. 1186-1200 and again from c.1216-1236. The first Anglo-Norman bishop of Dublin, John Cumin (1181-1212) was not only the overseer of the first (c.1186-1200) phase of rebuilding at his cathedral but was also central to the long campaign to secure legal title to the lands and offices controlled by Glendalough. The history of Glendalough at the time when the Cathedral's Phase 3 building was carried out (c.1200-1220) is complicated by Dublin's attempts to secure the unification of the two dioceses. At a time when native Irish and Anglo-Norman ecclesiastical interests would appear to be in conflict, it may seem surprising to find such a pronounced Anglo-Norman architectural influence in Glendalough. How could stone from Bristol and masons carving in a style common in the west of Britain find their way into Glendalough at such a time? Despite the testimony of the Archbishop of Tuam (1215), which has been shown to be false in many respects, the salient facts on Glendalough are that: (a) The abbots and bishops of Glendalough sought, from the 1170s, to secure legal title to their lands and offices within the Anglo-Norman system. (b) All of the bishops of Glendalough from the time the Anglo-Normans arrived in Ireland exchanged lands or witnessed charters (or did both) with the archbishops of Dublin. (c) The bishop of Glendalough at the time of Phase 3 of the Cathedral was William Piro (1192-1212), an Anglo-Norman. (d) Although hostilities broke out on the archbishop's lands in Wicklow in the late thirteenth century, marking the start of a Gaelic resurgence, there is no sign of military resistance to Anglo-Norman rule in the area until 1270.

There is nothing in the historical record, therefore, to suggest that the Anglo-Normans would have had any problems transporting masons and stone to Glendalough c.1200-1220. While it may be tempting to see the Phase 3 construction of Glendalough's Cathedral as the final architectural flourish of a native diocese still hoping to survive absorption into the Anglo-Norman held metropolitan see, this may not have been the case. In the same year that Piro was appointed bishop of Glendalough, John, Lord of Ireland, granted the bishopric of Glendalough to the archbishop of Dublin and his successors in perpetuity. In the words of John's charter, "the bishop of Glendalough is to be chaplain and vicar of the archbishop of Dublin". Piro, in effect, was bishop only in name. In these circumstances, it is difficult to imagine him rebuilding Glendalough's Cathedral to prepare it for continued diocesan status. He may, however, have sought to rebuild it to serve a lesser, future role, that of a priory subject to a mother-house in Dublin. After the union of the dioceses had received papal approval (25 February, 1216) and the archbishop of Dublin had also secured control over
the abbacy of Glendalough, there was a priory established at the "Great Church" of Glendalough. This can only have been the former Cathedral and it was subject to Holy Trinity, Dublin. It was one of three priories in the valley of Glendalough which, in c.1257-1267, sent its priors to serve as jurors at an Inquisition held at the archiepiscopal manor of Castlekevin, 6 km from Glendalough. Around this time also, the prior and canons of "the great church" quoted details of a grant of pasture rights made to them by Fulk, archbishop of Dublin (1257-1271). The priory at the former Cathedral was well incorporated into the Anglo-Norman system by the mid-thirteenth century. The last bishop of Glendalough, who must have been aware of his metropolitan's intentions for the diocese which he held, is more likely to have carried out the Phase 3 building for the future priory than for the doomed Cathedral.

Bishops are recorded at Glendalough from the sixth century. Although Phase 1 of the Cathedral may not have dated from that time, its masonry is remarkable for its massive, almost primitive, simplicity. The finished, single-chamber structure of Phase 2 reflects the wealth and importance of Glendalough, only Clonmacnois and Clonfert building cathedrals of comparable size in pre-Norman Ireland. Phase 3 of the Cathedral's construction took place at a time when, ironically, the ecclesiastical city was about to lose its diocesan status to a vigorous and determined Anglo-Norman archdiocese of Dublin. It lacks the grandeur and sophistication of other cathedrals which the Anglo-Normans built in Gothic style. It nonetheless bears the marks of that style, a strong contrast to the simple ashlar of Phase 1. Both styles remain to-day, a testament in stone to the very different buildings styles of Early and Later Medieval Ireland, the latter profoundly influenced by the tastes and fashion of the Anglo-Norman colonists.

THE ROUND TOWER

To the north-west of the Cathedral is the round tower (Pl. 3.39). It occupies the highest ground within the central enclosure, being slightly above the ground level of the Cathedral. At 30.5 m it is the fourth highest surviving tower in Ireland. Although considerable repairs were carried out in 1876-77, a photograph in Dunraven's Notes on Irish Architecture shows that only the conical cap of the tower was missing before repairs started. The "shaped stones of the cone" were discovered amongst the debris around the base and inside of the tower in 1876-77 and the "apex" was found in the Cathedral. These were replaced and the walls were "...carefully pointed with cement". Although most of the tower was still standing before reconstruction, it was "...on the verge of ruin, the mortar quite washed out of the walls". The latter were described in 1870 as bulging extensively in two places. Although not mentioned by Deane in the 1876-77 report, the north jamb of the eastern upper window, which had fallen by 1870, must also have been restored by the reconstruction
workers. The reports of the reconstruction works carried out at Glendalough often contain interesting
details, but do not always constitute a fully detailed account of what was done.

The base of the tower is stepped, the foundations lying only about 1 m below today's ground
level (Fig. 3.12). The external diameter is just under 4.8 m at point 'z' on Fig. 3.12, tapering to 4.2 m
below the base of the conical roof. The masonry of the tower is made up mostly of uncoursed
mica-schist. There are some blocks of granite and occasionally, in the top three-quarters of the
tower, encircling bands of the same stone. These bands of more regularly coursed granite
strengthen the tower overall by breaking the pressure on the weaker mica-schist.

Above ground level there were six floors laid on wooden beams set into the wall. The beam-
holes can still be seen inside the tower, Fig. 3.13 illustrating their scale and position at the first and
second levels. The beams of the first floor ran on a north-east to south-west axis, those of the
second floor running south-east to north-west. The weight of the floors was thus distributed evenly up
through the tower by constructing the floors at right angles to each other (Fig. 3.13). The doorway is
not at ground level but on the first floor, the sill standing at 3.5 m above ground level. The second,
third, fourth and fifth floors have one window each. These face slightly west of south, north, west and
slightly south of east respectively. Each window measures about 25 cm wide by 46 cm high and has
a flat lintel, slightly inclined jambs and no internal splay. The jambs and lintels are all of mica-schist,
with the exception of the fifth-floor window, which is of granite. The sixth floor has four windows of
similar design to those in the lower floors but they are somewhat larger (Pl. 3.40). The top windows
are a few degrees south of east and north of west, but are roughly aligned to the cardinal points. It is
notable that the Cathedral also has its axis turned slightly south of east, but not quite as much as in
the tower.

Just above the four windows of the top floor there is a string-course from which the conical
cap of the tower rises to its apex (Pl. 3.40). A lightning conductor has been fixed to the top of the
tower in recent years. It is significant that local tradition records that the cap of the tower was
originally destroyed by a strike of lightning, a phenomenon which was also recorded in Early
Medieval times.

The doorway has inclined jambs and a round-headed lintel cut in a single block of granite
(Fig. 3.12 and Pl. 3.41). The jambs and sill are also made of large blocks of granite, all of which
(including the round head) are the full depth of the wall (99 cm at this level). The doorway is 1.73 m
high, its width decreasing from 61 cm at the sill to 53 cm at the level of the springing of the arch. It
faces south-eastwards towards the Cathedral's west door.

Scholars have observed that round towers are usually located in the western part of a
monastic or ecclesiastical site with their doorways frequently facing directly towards the principal
church. Features of the round tower at Glendalough such as its shallow foundations, its above-
ground doorway, the batter of its walls, conical cap and top windows facing the cardinal
points are also paralleled in other towers around the country. In addition to facing the Cathedral,
however, the round tower also shares some of its features. The fact that both are aligned in a similar
fashion has already been noted. The granite "bands" in the round tower's masonry also finds a
parallel in the Cathedral. in the Phase 2 masonry of the latter, uncoursed rubble is conspicuously broken occasionally by regular courses of stones, mostly of granite. The solid window-head of the south-easterly window of the Cathedral's nave (also Phase 2), although of mica-schist, is very similar in style to the round head of the tower's doorway. Although round heads cut out of a single stone can be found at other churches in the valley, these are the only examples which have such large and perfectly acute arches. It is possible that Phase 2 of the Cathedral and the round tower were constructed around the same time, but the builders of the round tower may simply have copied some of the techniques used in the Cathedral. The round tower is certainly pre-Romanesque as, unlike some other towers in Ireland, it has no decoration whatsoever. The first half of the twelfth century is therefore the latest time at which it could have been constructed. As the earliest recorded clochtech (literally "bell-house") is recorded in 950, any date between c. 950 - c. 1150 is possible for the construction of Glendalough's round tower.

One feature of the tower which has puzzled observers is a small hole above the offset at its base. This hole is 13.7 cm wide and 17.3 cm high and runs through the full thickness of the wall. Cochrane, Leask and Barrow describe its purpose as either "uncertain" or "unknown". At the Cathedral (all phases) and St. Saviour's Priory there are regular lines of similar holes in the masonry which show a variance in width of c. 13 cm - 18 cm and a similar variance in height. The measurements of the hole in the tower fall within this range. At St. Saviour's, a line of three of these holes are found at 80 cm, 84 cm and 87 cm above an uneven ground level. The lowest holes in the Cathedral's walls occur at 94 cm and 95.5 cm above ground. At both St. Saviour's Priory and the Cathedral, these were obviously putlock holes. From the lines of holes at the Cathedral and St. Saviour's, it is clear that the first row of putlocks were inserted at a height of between 80 cm and 96 cm. The hole in the round tower is within this range, being 82 cm above the present ground level. It is the sole survivor of a series of putlock holes which can only have been filled in during the reconstruction works of 1876-77. Wilde stated clearly of the tower at Glendalough in 1874 that: "Putlock holes may be observed in this structure, showing that it was built by means of scaffolding form without." There is no reason to doubt this statement from Wilde. His eye for detail, his knowledge of building and architecture and a balanced judgement make him one of the best sources on Glendalough before the reconstructions which began in 1875. It is obvious that the work carried out on the tower in 1876 included filling in putlock holes and that this, along with the repairs to the jamb of the eastern top window, escaped mention in the Commissioners report. The sole surviving putlock hole was either filled in 1876 and opened up again or, for some unknown reason, was simply left unfilled by the reconstruction workers. At St. Saviour's Priory, which was almost completely rebuilt from its foundations up, the putlock holes are found in a section of the walls which is known to have survived to a substantial height before reconstruction. This illustrates that it was the tendency amongst reconstruction workers to re-build without the use of putlock scaffolding or to fill in putlock holes where the stonework was loose and a lot of new cement was required.

Putlock holes have been identified in churches at other Early Medieval ecclesiastical
sites and in some other round towers. Putlock scaffolding was, therefore, definitely in use for the construction of both churches and round towers in Early Medieval Ireland. It could dwell have been more common and widespread than the remains of buildings presently reveal. Given that so many buildings in Ireland were reconstructed in the late nineteenth and early twentieth centuries, the evidence for putlock scaffolding could have been covered over, as happened at Glendalough. The example of the hole in the round tower which even Cochrane, Leask and Barrow failed to identify certainly underlines the importance of examining descriptions of buildings before reconstruction. The failure to adopt this approach can lead to misinterpretations, a fact which is well illustrated at the Visitor Centre in Glendalough. In an otherwise well researched exhibition on early Irish monasteries, there is a model which shows the round tower under construction. The tower has been built up to the second floor, and the doorway is shown with the putlock hole below it. The scaffolding around the building, however, is not putlock scaffolding but the free-standing scaffold more favoured by modern builders. The model, therefore, is wrong in one of the most basic details of what it is supposed to illustrate, the method used to construct the round tower at Glendalough. This misinterpretation could have been avoided by a careful reading of Wilde and comparison to the Cathedral and St. Saviour’s Priory.

The use of the Irish term cloctheach (literally “bell-house”) in the Annals and other sources indicates clearly that these structures were considered primarily as belfries. As Petrie first argued in the last century, however, it is clear that the round towers served a number of other purposes. Entries in the Annals in 950, 1076, 1126, 1156, 1171 and 1176 all record killings in attacks on or burnings of belfries. This, combined with the fact that all but one of the surviving round towers of Ireland have their doorways above ground level, shows that they were used as places of refuge in times of attack. The relatively small number of killings recorded in round towers compared to those recorded in church doors can be read a number of ways. Certainly the round towers were not the only, and perhaps not even the main, places of refuge at monastic or ecclesiastical sites. The fact that so many more killings are recorded in doorways of churches could indicate that they were less successful, the round towers more successful, in protecting people during an attack. A round tower with its doorway well above ground level would certainly seem easier to defend than a church and this seems the most likely explanation of the relative numbers of recorded killings in the two types of buildings.

There is little evidence to support the notion that the round towers were built specifically to provide refuge from Viking attacks. The first recorded Viking attack on Ireland took place in 795 and the first cloctheach is not mentioned in the Annals until over a century and a half later (950). Before, during and after the earliest wave of Viking attacks, the Irish themselves were burning and plundering ecclesiastical sites. Indeed, of the five recorded attacks on round towers where killings took place, only one is specified as being carried out by Vikings, two were Irish killings of Irish victims, and two were burnings carried out during warfare where the attackers are not specified. The evidence, therefore, points towards the use of round towers as places of refuge because of warfare in general, not specifically because of the Vikings.
One reference in the Annals describes how the *clochtheach* of Monasterboice was burned in 1097 with its books and treasures. The round towers may have been used to provide protection for the valuables of the monastery or ecclesiastical site on a more widespread basis than this one specific instance suggests. They would have provided greater security for valuables (including manuscripts) than any other building. It is also possible that the towers served as libraries. In addition to the 1097 reference to books being burned, there are two references which specifically mention a lector (*fer leghind* or "professor" (*ard mhaighistir*) being killed in a tower. This is significant because these are the only two instances where the particular title of a murdered monastic or ecclesiastical official is given. In both cases they are lecturers, no abbots, bishops or other important members of the community receiving mention. The only plausible explanation for this is that the lector spent more time in the tower because it was used as a library and was therefore his place of work. The large amounts of wall-space available for book-shelves at the different levels of the towers would certainly have made them suitable for the regular storage and safe-keeping of manuscripts.

The round towers would also have served as landmarks, vantage-points and look-outs from which warnings of imminent attack could be given. It is quite a remarkable fact that, despite being scattered across 5 km of a narrow, curved valley, all of the church sites in Glendalough have a point within or close to their enclosures from which the top of the round tower is visible. Even Temple-na-Skellig, virtually an island surrounded on three sides by sheer cliffs, commands a fine view of the tower from its settlement platform. A more central location could not have been chosen, the tower also commanding clear views of the approaches to the valley from all directions, including the Wicklow Gap. That this was a deliberate choice of a strategic location for a landmark and look-out seems clear.

The Cathedral and the round tower dominate the central enclosure of the ecclesiastical city of Glendalough. The only other surviving structures of the central enclosure are the Early Medieval cemetery with St. Kevin's Cross and the small building known as "The Priests' House."

**THE CEMETERY AND PRIESTS' HOUSE**

To the south of the round tower, near the south-western corner of the Cathedral, is what appears to be the original cemetery of the ecclesiastical city. The walls were first traced and marked out by Cochrane in advance of his 1911-12 report. Fig. 3.14a shows the walls as drawn in 1911-12 and although most of the sections which existed then are still visible to-day, they are overgrown or collapsed in many places. There was at least one entrance, on the north side (Fig. 3.14a), and probably one on the south side also. The latter is suggested by the location of the cemetery between St. Kevin's Kitchen (to the south) and the Cathedral (to the north-east), although the walls are too badly destroyed on the southern side to pinpoint where an entrance may have existed. St. Kevin's Cross (Pl. 3.42) a large, plain Celtic cross, carved from a single block of granite, stands along the eastern course of the cemetery's walls. Excavations around the base of the cross in 1989 revealed the base plate, with its socket. A lot of disturbed burials were found around the cross and, although
the cross itself was not removed, there appeared to be burials underneath it. 169 No datings were deduced from the finds, although it seems clear that the area around the cross was being used as a cemetery before the cross was put in place. 170 Although the very simplicity of the cross itself has been used to date it to the ninth century, it could be earlier or even later than that. 171 It may have served as a temenn or boundary marker, 172 marking the easternmost limits of the cemetery. Some local traditions suggest that it marks the burial place of St. Kevin, but there are no medieval sources to confirm this.

Within the walls of the cemetery is a small building known as “The Priests’ House” (Pl. 3.43). Its dimension can be seen in Fig. 3.14b. The name is not a medieval one but comes from the fact that local parish priests were buried within the walls of the building in the eighteenth and nineteenth centuries. 173 Petrie wrote of it in 1845 that “...there now unfortunately remain only slight vestiges.” 174 Colles gave more detail of its condition in 1870, stating that “only the lower two or three courses of masonry remain” but noted “several carved stones (including the lower part of the curious pediment described at p. 246 of Petrie’s, ‘round Towers’) belonging to the ‘Priests’ Church’ now lying in the nave” (of the Cathedral). 175 Both the “pediment” and the building itself, reconstructed in 1876-77, have been the subject of much inconclusive debate since the nineteenth century.

As it stands, “the Priests’ House” has a number of curious features. In the east wall there is an arched, splayed and moulded recess 2.13 m wide. The area spanned by the arch and bounded by fluted engaged shafts is filled in with stonework, a narrow “window” being the only opening (Pl. 3.43). Its decorations include chevrons, leaf patterns, chamfered impostes, carved bases and fluted pilasters (Pl. 3.44). In the south wall is the only entrance doorway, 1.77 m high but a mere 50 cm wide. The “curious pediment” (Pl. 3.47), now incomplete, has been used as a lintel on the outside section of the doorway, whose splay can be seen in Fig. 3.14. Other features of note are a recess 73 cm wide in the west wall (Pl. 3.45) and a rectangular altar built up against the east wall (Pl. 3.46).

The Priests’ House was badly reconstructed on two occasions, some time before 1779 and again in the 1870s. A recent study by Moss 176 has demonstrated that, before the building was drawn by Beranger in 1779 (Fig. 3.15), it had been wrongly reconstructed. She distinguished three different sizes of voussoir in the arch and concluded that they originally came from an arched structure (probably a window) constructed in three orders. 177 This early reconstruction may have been carried out to suit the re-use of the building as a burial-place for priests. Two of the three inscribed tombstones in the Priests’ House date from before Beranger’s visit in 1779. They are dated 1759 and 1772. The building may have been built in or before 1759 with a wide arch, open almost to the ground, to allow for the sliding in of priests’ coffins for burial. In Beranger’s original drawing (Fig. 3.15), the dotted lines do not represent solid infill but work “built up latterly with stones in part, and the centre with earth mixed with hay.” 178 He describes the arched structure as the “front entrance” 179 of the building, and the arch was obviously reconstructed as a wide opening. Beranger described the southern doorway as 20½ inches 180 (52 cm) wide, hardly of sufficient size to allow coffins to be brought inside. That a medieval building should be substantially rebuilt or structurally altered to suit the purposes of people re-using it in the eighteenth or nineteenth century is not without precedent in
Glendalough. The western annexe of Trinity Church was rebuilt and roofed in 1833 to serve as an “abode” for a wandering hermit. St. Kevin’s Kitchen was also altered structurally to suit its temporary use as a parish church in the nineteenth century.

By the 1870’s, when Colles surveyed Glendalough’s buildings and the Commissioners of Public Works carried out their reconstructions, the Priests’ House as Beranger drew it had collapsed. Although the Commissioners obviously believed they were rebuilding it as it existed in 1779, they used Petrie’s copy of Beranger’s drawing (Fig. 3.16 and 3.17) rather than the original. Petrie had mistakenly drawn Beranger’s dotted lines as solid, giving the impression that the arch was infilled with stonework, with a narrow window in the centre. This is the way the Commissioner’s reconstructed it and it exists in this form to the present day. Even as a rebuilding of Beranger’s (already reconstructed) Priests’ House, it is incorrect as there should be no infill between the engaged shafts of the arch and therefore no narrow window in the centre. These errors tend to multiply and as recently as 1991 Harbison interpreted the building as it stands without appreciating the complexities and mistakes of its rebuilding of the narrow window in the east wall (which is not original) he says:

The purpose of the window-like slit was probably to allow pilgrims to gaze inside, or even to reach in a piece of cloth which could then touch the earth in which the saint was buried, yet prevent them from actually entering the building.

As in the case of the round tower, the reconstructions of the 1870s have not only been inaccurate in themselves but have led to further inaccuracies when the buildings are interpreted as they stand.

While it is possible that the window in two or three orders postulated by Moss did belong to the Priests’ House, it seems unusually large and ornate for such a small building. The confusion surrounding both reconstructions and the lack of any drawings or plans which are even likely to reflect what originally stood here make interpretation highly problematic. This could, conceivably have been an early, undecorated church of small size originally, the carved stones being built into it in the eighteenth century. It is noteworthy that two buildings near St. Kevin’s Kitchen which were briefly described by O’Donovan in 1838 cannot be traced above ground to-day. The carved stones could be from one of these but on the basis of our present evidence, it is impossible to say.

The carved stones themselves are genuinely medieval in style. They are carved in the greenish-coloured stone which is extensively used in St. Saviour’s Priory (c. 1153-1162). Indeed a number of the carved features of the Priests’ House are Romanesque in style and have parallels in St. Saviour’s. These include the rows of pellets found in the engaged shafts; the foliate patterns at the bases of these engaged shafts; and a moustached face whose hair is intertwined with an interlace pattern. Only the lower section of the latter survives to-day (Pl. 3.48). Although chevrons are also extensively used at both St. Saviour’s and the Priests’ House, they differ in style. The chevrons at the Priests’ House have a single trefoil infill comparable to the north doorway into the nave at Baltinglass Abbey and the east window at Jerpoint Abbey. The sculpted work at these sites has been dated to c. 1160 - c. 1180. While the Priests’ House has many features which are Romanesque, the mouldings are different and of a later date to those found at St. Saviour’s. The chevrons are arranged point-to-
point and meet on a keeled arris. Keeled moulding is also found under the moustached face of the north capital (Pl. 3.48). In Europe and in England, plain roll mouldings (the type found in St. Saviour’s Priory) gradually gave way to keel and filleted roll mouldings in the earliest stages of Gothic architecture.\(^{190}\) Keel appears in England for the first time in the 1160’s and 1170’s, Roche Abbey in Yorkshire (c. 1170) providing one of the earliest examples.\(^{191}\) In England, it continued in use well into the thirteenth century\(^ {192}\) and the earliest Irish examples are Inch Abbey, Co. down (founded 1187), Christ Church Cathedral, Dublin (c. 1186-1200) and Corcomroe Abbey, Co. Clare (c. 1205-1210).\(^ {193}\) Although the Priests’ House shares certain details with St. Saviour’s, it does appear to be later from the style of its mouldings. Any date for c. 1170 to c. 1186 is possible.

On one carved stone at the Priests’ House which does not fit comfortably into this dating scheme is the "curious pediment" over the south door (Pl. 3.47). As with the "arched recess," the original, complete form and function of this stone are obscure\(^ {194}\) As it survives to-day (incomplete) it is carved with three figures. In the centre is a seated figure, holding an open book in his hands. To the right a figure in profile, somewhat bowed down, holds a quadrangular bell in one hand. Another profiled figure, which is also bowed down, holds a staff or crosier in his hand. The central figure is headless and the top of his staff or crosier is not visible because of the manner in which the stone has broken.

Figures carrying staffs or croziers are found on a number of high crosses (although quadrangular bells are rare)\(^ {195}\) and the style of the carving may seem to have more in common with these earlier monuments. The green-coloured stone in which the carving is executed however, does appear only in buildings with features of the Romanesque period or later at Glendalough.\(^ {196}\) This suggests that the stone is likely to be roughly contemporary with the other carved stones at the Priests’ House, certainly no earlier than the Romanesque period.

Some crucial points which would help in interpreting the subject matter of this stone unfortunately remain obscure. Is the figure on the left holding a crozier whose crook curls inwards or an open shepherd-type staff of early Irish style?\(^ {197}\) Was the central figure’s head originally tonsured or crowned?\(^ {199}\) Neither of these questions can be answered as drawings of the complete stone are of doubtful authenticity. The only accurate drawing is Wilde’s (Fig. 3.18) which shows the stone much the same as it exists to-day.

The stone could come from the time of Abbot Thomas O’Toole, a nephew of St. Laurence O’Toole, who held the abbacy throughout the last three decades of the twelfth century and up to 1213 or later.\(^ {198}\) At a time when both the bishopric\(^ {200}\) and the abbacy\(^ {201}\) were in danger of being subsumed by Dublin, a carving like this, executed in traditional style, could have been commissioned to emphasise the source of Glendalough’s authority and importance since the sixth century: Both bishop (the figure on the left with staff or crosier) and abbot (the figure on the right with the bell)\(^ {202}\) derived their significance from the saintly founder Kevin (seated, centre) and not from the Anglo-Norman ecclesiastical authorities in Dublin. While such an interpretation remains largely speculative, a symbolism such as this would reflect ecclesiastical concerns at Glendalough in the final decades of the twelfth century.
As a tympanum over a church doorway, this stone is rare in an Irish context. Two other tympana can be seen at Cormac's Chapel, Co. Tipperary, but their style and subject-matter are very different to the Glendalough example. The latter is so badly worn and its precise original shape so difficult to ascertain that it is not even certain that it did, originally, function as a tympanum over the Priests' House doorway.

Many major questions about this building cannot be answered definitively. What is reasonably certain is that the carved stones of the arch came from an ornate series of arches which, in style, date to c. 1170-1186. This, along with St. Mary's and the Cathedral provides evidence that building and the development of new architectural styles did not cease at Glendalough during the first decades of the Anglo-Norman presence. The east-west alignment of the Priests' House and its location within the cemetery of the ecclesiastical city suggests that it is likely to have served as a mortuary chapel. Given the history of Glendalough in the last decades of the twelfth century, it could also have been built to provide the relics of St. Kevin with a new resting place, therefore emphasising the traditional rights of the Church at Glendalough in the face of a perceived threat to those rights from Dublin.

ST. KEVIN'S "KITCHEN"

South of the ancient cemetery, a sunken way lined by dry-stone walls leads down to the west door of St. Kevin's "Kitchen" (Pl. 3.50 and Pl. 3.53). A flight of modern steps lead down to the eastern side of the "Kitchen." The eastern approach follows the contour of the bank, but the western approach is deeply excavated below the level of the bank. Wilde noted before reconstruction that, passing down to the Kitchen, "we observe a deep excavation which looks like a covered way leading upwards towards the Cathedral." This is the original approach to St. Kevin's Kitchen from the Cathedral, leading to the only original entrance to the building, the west door (Pl. 3.52). The eastern approach may date from more recent centuries, when the collapse of the chancel allowed access to the building through the chancel arch (in the east wall).

The name "St. Kevin's Kitchen" comes from a belief held locally for some time, and still held by a few local people, that the bell-tower was a "chimney" and, hence, the building was a kitchen. It will be referred to hereafter as St. Kevin's Church, a name sometimes, but not always, used in more recent years. It consists of a nave with stone roof and round tower, a later sacristy, also with stone roof and the foundations of a chancel.

The nave is constructed on a plinth, c. 40 cm wider than the base of the wall. There is an internal batter of 46 cm in all four walls. A string-course forms a cornice all the way round the tops of the walls, projecting 10 cm. It is c. 14-15 cm thick and is unusual in having interlocking joints in the west, north (two) and south (one) slides. In the centre of the string-course of the east wall a socket has been cut to allow for the insertion of a cross.

The roof of the nave is of stones, mostly mica-schist, laid on the corbel principle. They are laid in horizontal courses and are roughly dressed on the outside to form the straight slope of the roof.
They all slope downwards towards the outside to keep the roof dry. About 2.1 m below the apex of the roof a true arch is introduced formed of stones properly radiating for the most part form a common centre. The soffit of the vault thus formed is not a semi-circular arch but semi-ellipse (Fig. 3.19). This gives greater strength and thickness to the corbelling at the point where it is most required i.e. where the soft of the vault approaches most closely the external surface of the roof. The construction of this roof was carried out by masons or artisans of considerable skill. Cochrane remarking on the "singular construction" and "remarkable" use of the arch constructed 2.1 m form the apex. 208 All available records show that the original St. Kevin's Church (the present nave) has never collapsed.

While contributory factors in the constructional solidity of the building include the thickness of the walls and the mode of construction used in building the roof, a proper foundation is also crucial. The soft alluvial soil in the area of St. Kevin's Church necessitated deep foundations. In 1911-12, the ground was dug on the south side of the building to a depth of 1.22 m below the plinth course. Cochrane reported that "there was every indication that the masonry went down to a much greater depth." 209 He also noted that "such care to ensure good construction is not usual in primitive buildings." 210 While the architectural techniques used in building St. Kevin's Church are certainly sophisticated, other "primitive" buildings such as Trinity Church were built with great care and did not survive the centuries as well simply because they had wooden roofs. The round tower is also a good example of a primitive building in which great care to ensure good construction was taken.

Most of the stone used in St. Kevin's Church is mica-schist, although granite does occur occasionally in quoins in the walls and over the west door (Pl. 3.53). Some massive blocks are used and the masonry as a whole is characterised by the use of large blocks interspersed with spalls. The lintel stone of the west door is a block of mica-schist which extends through the full thickness of the wall. It has a hood projection of 11.5 cm cut in the solid (Pl. 3.54). The jambs are inclined and built with somewhat smaller stones. There is a relieving arch over the lintel consisting mostly of granite. The doorway was blocked up with masonry when Petrie illustrated it in 1845 and was later opened up again. 211 There are two vertical holes 5 cm in diameter cut out of the projecting hood (Pl. 3.54). These must have held door-jambs to which an external door was hinged. A similar arrangement can be seen in Gallarus oratory, Co. Kerry, where two projecting corbels on the interior side of the doorway have holes which must have held the door-jambs. 212 Beside the hole on the southern side of the doorway of St. Kevin's Church there is another hole 2.5 cm in diameter. This does not go through the full thickness of the hood but is cut out of its underside to a depth of about 76.5 cm. Below this, in the sill of the door, is a small hole, also 2.5 cm in diameter. Some kind of post was obviously inserted into these holes but they may be later additions. It is difficult to see what function an extra post, inside the main door-jamb on the southern side, would have fulfilled in the original structure.

In the southern wall a large rectangular window, now blocked up, can be seen (Pl. 3.55). This was not an original feature but was cut out of the wall at some time around 1833, when St. Kevin's Church was used as a parish church for the district. Archdall wrote in 1786, however, of a window.
here which was "about 8 feet [2.43 m] from the south-east angle, and was ornamented with an architrave elegantly wrought, but being of freestone it was conveyed away by the neighbouring inhabitants and brayed to powder for domestic use." 213

The elegantly wrought architrave was not illustrated but it must have been a later addition as all the stonework of St. Kevin's Church is undecorated. The mention of freestone (any fine-grained stone that can be cut and worked in any direction without breaking) is of interest. Only Dundry limestone could be described as "freestone" in the context of building stone types used at Glendalough. An ornate window, carved in Dundry, could have been opened up here in the late twelfth or early thirteenth century, as happened in the south wall of the aisle of St. Mary's Church. The creation of a large, rectangular window in the eighteenth century has obliterated all traces of this window and Archdall's remains the only description of it.

The original single-chamber church had a window in the east wall. The head was rounded, cut from a single block of mica-schist and internally splayed. This is all that remains of it to-day, most of the window having been destroyed when the east wall was opened up to build a chancel arch.

There were two floors inside the original nave, in addition to the vault at the top. The beam-holes of the second floor can still be seen to-day (See Fig. 3.19). All four beam-holes survive in the north wall, but in the south wall two were destroyed by the large, rectangular window. The construction of this window, and the destruction of a substantial section of the southern wall which it entailed, caused a large crack which extends from above the lintel into the corbelled roof. The second floor was lit by a flat-headed window, internally splayed, in the east gable (Pls. 3.56 and 3.57).

The beam-holes, as well as carrying the beams for the second floor would also have served as support for a large wooden frame or centring during construction of the roof. This frame supported the stones of the arch as they were being laid in place. Once the arched roof was completed, the framework underneath was removed allowing the arch to lock into place. The corbelled outside was then built up to the apex of this first, semi-circular arch. 214 The process was repeated to create the final section of the roof, with its semi-elliptical arch and external corbelling. The plaster on the interior of the vault still bears the imprint of the wooden beams used to construct the framework for the semi-elliptical arch. The framework consisted of a series of long wooden planks of 15 cm to 18 cm wide running vertically, supported on the underside by horizontal timbers. The stones were set form the outside and, when the roof was completed, the framework was removed leaving the print of the planks on the plaster. 215

The plaster looks surprisingly fresh to-day, but all available evidence points to it being original. The only reason for the plank-makers is the part they played in the construction of the roof. As there is nothing to suggest that this roof ever collapsed and it most certainly was not stripped down and re-built in 1876-77, 216 we can only conclude that the plaster and plank-marks are original. The accounts of Brash and Wilde support this conclusion. Brash, who wrote in 1875 but had first visited Glendalough in 1858 wrote that the mortar here "... looks fresh and the marks of centring are quite apparent, showing that the sheeting consisted of narrow planks 5 to 6 inches (c. 13 cm - 15 cm)
wide." Wilde, who climbed into the croft of the church in 1873 noted that it was "smoothly coated . . . with intensely hard cement, so as to be impenetrable and wet"; and that "the outer roof stones are laid on the flat and were well mortared and grouted." This indicates that, just before reconstruction, the plaster existed and the roof was perfectly solid.

The "concrete cement" used by the Commissioners of Public Works in 1876-77 is of a different colour and composition to the plaster that survives in the croft to-day. Concrete is a mixture of cement, sand, aggregate and water and its use by the C.P.W. in restoration works is very obvious in some places. It is grey in colour. The plaster in the croft is orange in colour and, while smooth on the surface, contains grains of mica and pebbles underneath.

Access to the croft is gained through a hole 53 cm square located in the vaulted inner roof just 1.06 m form the west gable. A ladder from the second floor would, originally, have been the means used to get to this opening. The croft runs the full length of the building and is lit by a small window, flat-headed and internally splayed, in the east gable. The croft is almost 2 m (6') high internally at its centre. The wider lower section of the croft, which has roughly finished masonry, and the upper semi-elliptical arch can be seen, with measurements, in Fig. 3.19. In its western end three is a doorway which opens into the tower.

Most observers, including Petrie, Cochrane, Champneys and Leask expressed the opinion that the tower is a later addition. The reason given in all cases is that the masonry of the tower is inferior. The masonry is certainly a little different in that the stones used are smaller than those used in the main body of the building. This, however, was an absolute necessity in constructing a small round tower. Externally, it is perfectly bonded into the roof (Pl. 3.58) and the gable (Pl. 3.59). Internally there are no signs in the masonry around the door into the tower that it is a later addition.

The idea that the tower is later seems to have come, originally, from Petrie. There is no evidence that he ever climbed into the croft to examine the structure in greater detail. Wilde wrote in 1873:

\[
\text{that it (the tower) was part and parcel of the original building, no one who had ever got into it could deny.}
\]

He goes on to offer "with great diffidence" an opinion contrary to Petrie's. Barrow, who did not climb into the croft himself, quoted Wilde and stated that "seen from the ground the tower certainly does not look like an addition." The present author has examined the interior in detail and could find no evidence that the tower is a later addition. The external masonry, photographed through a zoom lens, (Pls. 3.58 and 3.59) confirms that it is well bonded into the roof. The stone used is the mica-schist which is pre-dominant in the main body of building.

In addition it is significant that such a heavy structure as this tower has not caused any weakness in the building. The foundations and thickness of the walls must have been calculated to support this tower. At Trinity Church, where the tower was clearly later, a special annexe with thick walls was built to support it. That this was not necessary at St. Kevin's Church is further evidence that the tower is an original feature.
The tower rests partly on the east gable and partly on the internal barrel vault of the nave. In addition to the ground floor, there are two floors in the tower which were supported by corbelled ledges. These protrude for 7.6 cm\(^2\) and run along the full circumference of the walls. Each floor was c. 2m high. The first floor was lit by a small window in the west, the second by a similar window in the east and the top floor by four larger windows aligned approximately to the cardinal points. All of these windows are flat-headed and, in this, are similar to those in the Round tower of the central enclosure. The latter, however, used beam-holes in the walls rather than corbelled ledges to support the timbers of its floors.

In the very centre of the roof there is a hole which could originally have held a mortar into which a bell was set. At the base of the tower, just inside the door, there are three holes which carried bell-ropes.\(^{227}\) They have a bore of 4 cm and are 35 cm deep, running through the full thickness of the barrel vault. They are visible from the ground floor of the nave and eliminated the necessity of climbing into the tower to ring the bell.

The position of the bell-holes at the side of the tower and not in its centre indicate that the ropes ran down the side of the original bell. One of the groundsmen at Glendalough gave a description to the present author of a bell found in the vicinity of St. Kevin’s Church about 7 years ago. It was c. 35 cm high, of bronze very rough on the outside as one would find in a bell made from a clay moulding. The rope ran around the top of the bell and down one side. There was a small “catch” near the top to hold this rope in place. From these details, it appears that the bell did come from St. Kevin’s Church. Unfortunately, it has completely disappeared, this description being all that remains of it.\(^{228}\)

There is a simple Latin cross of mica-schist at the apex of the nave roof on the eastern side (Pl. 3.60). This did not appear in any of the pre-reconstruction drawings of Glendalough and was first noted in 1911-12.\(^{229}\) The pointing and securing of loose stones carried out in 1876-77 would appear to have involved filling in some of the putlock holes. Nonetheless, three of these are still visible in the east wall to-day, and four in the west gable (Pl. 3.52 and Pl. 3.56). In all other respects the original single-chamber St. Kevin’s Church, with its stone roof and west tower, remains unaltered by the reconstruction of 1876-77 (Pl. 3.61).

The only traces of the later chancel which survive to-day are its foundations and the upturned V where the east gable was cut to receive the roof. It was illustrated by Petrie in his “Excursions through Ireland, 1820”, when the roof appeared to have partially collapsed (Pl. 3.62). It was the same as the sacristy in having a small, rounded-headed eastern window with a string-course running above the windows through the full width of both nave and sacristy. It is clear, however, from the traces of the roof in the east gable that it was originally higher than the apex of the sacristy roof. A small corbel above the second-floor window of the east gable would originally have supported the apex of the chancel roof. The chancel collapsed or was destroyed c. 1840.\(^{230}\) Less care in building the foundations and inferior masonry to that of the original building may have contributed to the fate of the chancel.
The masonry of the sacristy is not as smoothly finished as in the earlier nave. There are quite a number of granite blocks used, the north-east and north-west quoin being made almost entirely of this type of stone. An attempt was made to carve the round head of the east window out of granite. This failed, however, and the unfinished "head" was used in the bottom of the south jamb of the window. Like those in the original building, the sacristy window is splayed inward. A tiny window in the east gable, c. 1 m below the apex of the roof, opens into a small croft. It is very narrow and is only about 41 cm - 61 cm high at its highest point. 231

There is no access into the croft for humans, this being its only opening, although birds use it as a nesting place. There is a fissure c. 30 cm - 60 cm wide just below the level of the string-course of the nave, running perpendicular to it along the top of the sacristy's south wall. This was as gutter originally located between the chancel and sacristy roofs. A damp-course of tar just over the croft window indicates that the top of the roof has been restored.

The lintel of the sacristy door and its jambs are of mica-schist, very roughly cut. The lintel is a single stone, c. 2 m wide and c. 15 cm thick. The door, internally, is 1.04 m wide at the bottom, narrowing to just 97 cm at the top. The external jambs have been cut so as to give the effect of two small pillars. Two large projecting stones, one over the doorway measuring 1.4 m another opposite it in the north wall measuring 1.32 m indicate that the sacristy had a half-loft in its western end.

Although Beranger (1779) used the name "St. Kevin's House" 232 and Archdall (1786) noted that "St. Kevin's Kitchen" was the "vulgar appellation" for this building, 233 O'Donovan was incorrect in identifying with it the Cró Chaoimhghin mentioned in the Annals in 1163. 234 Analysis of references from various sources to Cró Chaoimhghin show that it was the Reefert Church at the Upper Lake. 235 Whatever its name may have been in earlier times, the building now know as St. Kevin's Kitchen or St. Kevin's Church is unique among pre-Romanesque Irish churches. Its stone roof can be compared to St. Columb's House, (Kells, Co. Meath)236 and a church (now gone) at Devenish (Co. Fermanagh); 237 but it is the only known pre-Romanesque church in Ireland which has a round tower incorporated into a solid stone roof. 238 Nothing in the architectural or documentary record can help with the dating of the original, single-chamber structure. St. Kevin's Church is, however, the only Glendalough building to be examined by Berger in his recent study of datings based on a new radiocarbon system. A sample of mortar provided a calibrated date for this church of AD 1000 - 1280. 239 While one could agree with an earliest date of c. 1000 A.D., the lack of any sculpted detail strongly suggests that a latest possible date around the mid-twelfth century would be more realistic. By this time a full flowering of Romanesque sculpted detail in Irish churches is evident, finding its earliest expression at Glendalough in St. Saviour's Priory.

ST. CIIARAN'S CHURCH AND TWO UNNAMED CHURCHES

To the south-east of St. Kevin's Church are the remains of a small building called St. Ciaran's Church. These remains were reportedly "discovered" by the restoration workers in 1876-77, 240 but had in fact been noted, and their location drawn, in 1780 241 (Fig. 3.20). By the time
O'Donovan wrote his Ordnance Survey Letters (1840), St. Ciaran's Church had “totally disappeared,” to be rediscovered in 1876-77. It consists of the walls of a nave and chancel, which survive to-day to a height of just over 60 cm (Fig. 3.21). The base of an altar 1.24 m by 65 cm, noted in 1876-77, still lies beneath a pile of fallen stones. Most of the masonry consists of mica-schist rubble, with occasional blocks of granite. The inner faces of the jambs of the west door and the jambs of the chancel arch are carved with what appear to be attempts at simple architraves. The chancel is well bonded into the nave and has the remains of a doorway 61 cm wide, now blocked up, in its south wall. There are no traces of a sacristy, but a doorway in a similar position in the Cathedral’s chancel leads into a sacristy. There could have been a wooden sacristy and it is noteworthy that the chancel of St. Mary’s Church shows some evidence of having had a wooden building adjoining the southern wall of its nave.

The name “St. Ciaran’s Church” must have come from local oral tradition as it is recorded on the plan of 1780. O’Donovan identified it with a Cro Chiaráin which is mentioned in the Annals in 1163. Unlike Cro Chaoimhghin in this entry, there is no alternative site at Glendalough which is known to have had the name Cro Chiaráin. This, and the survival of the name “St. Ciaran’s Church in oral tradition, suggest that O'Donovan’s identification is in this case correct.

Although this or other documentary sources cannot provide us with a construction date for the church, a date in the late twelfth or early thirteenth century is possible. With a coeval nave and chancel and a southern doorway, there is some comparison with the plan of the final phase of the Cathedral (dated c. 1200-1220). No carved details comparable to those found in the Cathedral survive, but because the remains of St. Ciaran’s are so scant, it is impossible to be sure that there were not ornate carving in the original building.

The plan of 1780 not only helped O'Donovan to identify the site of St. Ciaran’s Church, which in his time had disappeared, but also showed the location of two additional churches which are mentioned only in the Ordnance Survey Letters (churches “H” and “I”, Fig. 3.20). Both are rectangular aligned east-west and appeared on the first 6-inch sheet of Glendalough as “site of church.” Church “H”, which faces the south-west corner of St. Kevin’s Church, was located only 14.07 m from the latter. By 1840, O'Donovan wrote: “no trace of this is now to be seen.” Church I, located about 12.06 m to the north-west of St. Kevin’s Church, was still visible in O'Donovan’s time. “Fragments of the walls of this church still remain,” he wrote, “but no idea can be formed from them of its extent or characteristics.” Colles seems to have been aware of these buildings when he wrote his 1870 report, as he recommended that a number of sites around St. Kevin’s Church should be excavated. St. Ciaran’s, however, was the only structure to be re-discovered in the 1870s reconstruction works and no mention was made of excavations at the sites of churches “H” and “I”. Church “I” must now be under the bank to the north of St. Kevin’s Church and Colles noted this bank
as promising well in regard to excavation in 1870. Excavations might still uncover the remains of both church "I" and church "H".

CONCLUSION

The most striking feature of the enclosures and buildings which make up the ecclesiastical city of Glendalough is the extent of their defensive capability. The site itself was chosen not only because it was located in a valley which provided a desert retreat for monks seeking solitude. This function was fulfilled by the disert area of the Upper Lake. While Glendalough's location along one of the main trading routes from the coast to the inland plains must have been significant in the city's development, the choice of that particular area of the lower valley's floor which was naturally most defensible must be significant. Rivers provide natural outer defences on three sides of the site and the inner enclosure follows the lines of a naturally raised area. The round tower not only commands views of the entire valley, right up to beyond Temple-na-Skellig c. 2 km to the west. It is also strategically located to command views over the approach road from the inland plains as it descends through the valley of Glendasan. In addition to these natural or locational factors in Glendalough's defences, many of the city's structures were built with defensive capability. The enclosures themselves, the substantial Gatehouse, the round tower, the Cathedral's west door and even St. Kevin's Church all fall within this category. Apart from having a virtually indestructible stone roof, St. Kevin's Church also had a croft and tower which were accessible only by a ladder leading from the second floor. Even if attackers gained access to the main body of this church, the croft and tower would prove extremely difficult to enter. Trinity Church, although located outside the city's enclosures, would also have provided an early warning of attackers coming into the valley from the east. Located well above the valley floor, its original round tower at about 18 m high must have commanded fine views, especially to the east of the city. An early warning could easily have been communicated from here to the city's round tower and thereafter along the entire valley. While the ecclesiastical and spiritual aspects of Glendalough's history have always been emphasised, little attention has been paid to the extent and complexity of defensive aspects of the main settlement in the valley and its surviving buildings.

It is also noteworthy that the city of Glendalough, like other settlements in the valley, does not conform to the general pattern of Early Medieval ecclesiastical sites being surrounded by circular or sub-circular enclosures. This further emphasises the point made in Chapter 2 that topography could, and in the case of Glendalough did, prove to be the deciding factor in shaping the enclosures. Another point which emerged in Chapter 2 and is further reinforced by this examination of the city's buildings is the extent to which it is necessary to closely analyse pre-1876 accounts of Glendalough. Not only do they reveal that features such as the round tower's putlock holes have been obscured by reconstruction they also draw attention to other structures which existed in the past and could yet be rediscovered, such as churches "H" and "I" near St. Kevin's Church.
In 1870 Colles not only pointed out that excavation of the sites of churches "H", "I" and St. Ciaran's Church could be "easily conducted", as they lay outside the modern cemetery. He stated that: "The cemetery is also full of foundations which, if carefully measured, might give some information as to the plan of the monastery." He cannot have been referring to the foundations of any of the buildings covered in this chapter as he had already dealt with all of these. Colles proves to be consistently accurate and highly observant in his report of 1870 when it is compared with other accounts. His comments about other foundations, which echo Brewer's comments 45 years earlier, should be taken seriously. Unfortunately there is no evidence that the Commissioners of Public Works investigated either these foundations or the remains of churches "H" and "I". While the latter may still survive, the structures which existed within the cemetery could well have been destroyed by the numerous burials which have taken place since 1870.

The stone structures which do remain within the city's enclosures are undoubtedly a mere skeleton of what existed here originally. While it is frequently assumed that most other structures at such ecclesiastical sites, such as dwellings, refectories, guest-houses, workshops and stores, must have been made of wood, this assumption should not be too readily made in the case of Glendalough. The majority of buildings which survive are churches which, by virtue of the function as places of religious worship, would be less prone to deliberate destruction or plundering for building stone. More functional buildings might not be protected by such taboos. Skellig Michael, Co. Kerry provides a good contrast to Glendalough in terms of its inaccessibility. Here not only oratories but also a number of clocháns or stone cells survive which could have served as dwellings, workshops, stores or in other capacities. The lack of clocháns at Glendalough cannot be explained by the argument that this was a regional architectural fashion, confined to the west of the island. A clochán did exist near Reefert church, and its almost total destruction since 1911-12 has already been noted. Like Skellig Michael and other western sites such as the Aran Islands, stone was immediately available in Glendalough. The numerous foundations which Colles describes as existing within the cemetery may well have been those of clocháns or other stone buildings. The clochán near Reefert Church may have survived longer than others because of its reputation as St. Kevin's Cell. But even that could not protect its destruction between 1911-12 and the present. Sufficient evidence does not exist for us to state that Glendalough had many more stone buildings within its walls than those which survive to-day. Colles' comment, however, viewed in the context of what survives at Skellig Michael and what has so easily disappeared near the Reefert Church in this century, certainly points in that direction.

Glendalough is usually viewed as an Early Medieval settlement which sank into obscurity after the Anglo-Normans arrived in 1169. The ecclesiastical city, however, is notable for the concentration of buildings which post-date the arrival of the Anglo-Normans. In the Priests' House, and possibly St. Ciaran's Church, we have evidence that new buildings continued to go up. In addition the Cathedral and St. Mary's Church underwent extension and renovation. These buildings span the years c. 1170 to c. 1220 and show that Glendalough did not succumb immediately to the pressures of Anglo-Norman colonisation in Ireland. Although Glendalough did eventually lose its
diocesan status and much of its landed wealth to the Anglo-Norman diocese, this occurred by a slow process which spanned almost half a century. The eventual union with Dublin in 1216 was preceded by a period of vigorous building and renovation at Glendalough, most of which was concentrated in the main settlement area, the ecclesiastical city.

Some of Glendalough's buildings, such as the round tower and the early, single-chamber church at St. Mary's, display features which are common to many Early Medieval ecclesiastical buildings in Ireland. Other structures, namely the Gatehouse and the original St. Kevin's Church, are unique. Outside the city, Trinity Church, with its pre-Romanesque western tower, has already been noted as another unique building in a Early Medieval Irish context. In addition both Reefert Church and the original (towerless) Trinity Church are quite rare in having coeval nave-and-chancel churches which are undecorated and pre-date the full flowerings of Romanesque architecture. British and continental European influences can be suggested for most of these rare or unique architectural survivals at Glendalough. They suggest that, at the very least, Glendalough in the latter part of the Early Medieval period had regular contact with Britain and Europe. It can even be argued that Glendalough was a more cosmopolitan centre than other ecclesiastical cities such as Clonmacnoise, which does not display the same extent of diversity and uniqueness in its Early Medieval architecture.

The dating of the Early Medieval buildings remains problematic. A close study of the masonry styles and stone use in the buildings at Glendalough can, however, throw some light on their development and provides a good point from which to study the relative significance of construction in stone, as opposed to wood, in Early Medieval Ireland. It is on these subjects that attention will now be focused.

NOTES

1. Petrie, G., 1845, p. 452.
2. O.S., 6-inch series (surveyed 1838), Co. Wicklow, Sheet 23.
3. Swan, L., 1985, p. 98, Fig. 4.16.
5. ibid.
6. Although Healy's report is unclear as to the precise location and length of the fosse, Henry, F., 1967, p. 44, Fig. 5, notes, as number 8 on her "Plan of the 'city' of Glendalough", "remains of the enclosure in the garden of 'The Lodge' ." As 'The Lodge' lies to the northwest of St. Mary's, this may be the fosse to which Healy refers.
7. Swan, L., 1985, p. 98, Fig. 4.16.
8. See Chapter 6, under THE GROWTH OF GLENDALOUGH, ITS SIZE AND LAYOUT.
Petrie, G., 1845, p. 450.
Wilde, W., 1873, p. 461.
Petrie, G., 1845, p. 450.
See below under THE CATHEDRAL.
See below under THE ROUND TOWER.
Archdall, M., 1786, p. 772.
C.P.W., 1911-12, p. 24.
The latter was suggested by Cochrane in C.P.W., 1911-12, p. 24.
See above, Chapter 2 under TEMPLE-NA-SKELLIG.
C.I.H. 57.4-6 = A.L. V, 326.30-2.
D.I.L., s.v. sráit.
See Appendix 1.
ibid..
ibid..
O.S. 6-inch series (surveyed 1838), Co. Wicklow, Sheet 23.
Wilde, W., 1873, p. 479.
Leask, H.G., Glendalough, p. 16.
Reefert Church, Trinity Church and St. Saviour's Priory.
Colles, J.A.P., 1870, p. 196.
C.P.W., 1876-77, p. 73.
Wilde, W., 1873, p. 447.
Petrie, G., 1845, p. 170.
ibid., p. 171.
Leask, H.G., 1987, p. 57, Fig 31a and Fig. 31b.
Colles, J.A.P., 1870, p. 196.
See above, Chapter 2 under ST. SAVIOUR'S PRIORY.
See below under THE PRIESTS' HOUSE.
Stone types are discussed in further detail in Chapter 4.
Archdall, M., 1786, p. 774.

The voussoirs of the Cathedral's arch are made of Dundry limestone. It is quite possible that the bases of the arch of St. Mary's were of green-stone while the voussoirs (as Archdall suggests)
were carved from Dundry limestone as this combination of stones is used in the pillars and arch of the east window of the church.

42 Colles, J.A.P., 1870, p. 196.
43 C.P.W., 1876-77, p. 73.
44 C.P.W., 1911-12, pp. 9-10.

See Chapter 4 under ROCK FORMATION AND STONE TYPES USED AT GLENDALOUGH and THE ROMANESQUE AND ROMANESQUE-GOTHIC TRANSITIONAL ERA.

45 See Crawford, H.S., 1926, pp. 34-41 and Pls. XXVII-XXX provides detailed descriptions and illustrations of fret patterns from the Early Medieval period.

46 G.N.M., p. 246. For Ferns see also C.P.W., 1909-11, p. 11.

From the evidence presented by Stalley, R., 1979, it does seem that Christ Church is the earliest known example of the work of Anglo-Norman masons in Ireland after the invasion. He dates the earliest phase of building to c.1186-1200 (p. 116) and notes that this eastern section of the Cathedral is the only obvious example of Anglo-Norman building in Ireland in the first thirty years after the invasion.

47 H.M.D., pp. 3-48 has a list of over 1600 citizens of Dublin at the close of the twelfth-century amongst whom is listed (on p. 37) "Robertus cemtarius". R.M.L.W., s.v. cement gives cemtarius as "mason". Commenting on this, Stalley, R., 1979, p. 109, was of the opinion that "Robert is undoubtedly English." He also points to further mention of a mason called Nicholas of Coventry amongst the citizens of Dublin in a list dated 1225-50; see H.M.D., p. 120.

Not just the fact that Dundry limestone is used extensively for carved details, but the sculpture itself. The best recent examination of this is Stalley, R., 1979, where it is pointed out that the best English parallels for the sculpture of Christ Church, Dublin are found at Wells Cathedral, Somerset.

48 Ecclesiastical contacts are examined in greater detail below under THE CATHEDRAL.

This was the opinion of Cochrane in C.P.W., 1911-12, p. 10. I see no reason to disagree.

This was the name by which Beranger called it in 1779; see Wilde, W., 1873, p. 447.

From a field-trip to Clonmacnois, summer 1991.

It was recorded as "Lady Church" in the Down Survey of 1655-9, as "Lady's Church" by Beranger (1779) and was changed, without any documentary basis, to "Our Lady's Church" by Archdall in 1786; see P.N., I, p. 47.

Vita, p. 245. The angel directs him to the spot, described as in oriente minoris stagni, "to the east of the lesser lake", where St. Kevin is to build a monastery.
Leask, H.G., 1987, p. 71, notes: "Its nave is the widest of any pre-Gothic church in Ireland, measuring just 30 feet across, from pillar to pillar, of the nave of the thirteenth century cathedral of St. Patrick, Dublin." In terms of overall size, Glendalough (14.51m x 8.57m), Clonmacnois (18.3mx 8.5m) and Clonfert (16.2m x 8.25m) are the largest pre-Norman cathedrals surviving.

The first phase of the cathedral's construction is dealt with in greater detail in Chapter 4 under EARLY STONE CONSTRUCTION AT GLENDALOUGH: THE CATHEDRAL. The main concern in this chapter is to distinguish the main architectural features which belong to each phase.

The south-east anta survives up to 2.25 m, the south-west anta up to 2.46 m and those on the north-east and north-west corners of the building up to 2.96 m and 2.92 m respectively. See Chapter 4 under EARLY STONE CONSTRUCTION AT GLENDALOUGH: THE CATHEDRAL.

O.S.L., fol. 455, recorded that the south wall's easterly window was "...stopped up with rough masonwork." C.P.W., 1876-77, p. 70, states that the windows "...on the south side have been opened."

For a detailed examination of this evidence, see Chapter 4 under EARLY STONE CONSTRUCTION AT GLENDALOUGH: THE CATHEDRAL.

See Chapter 4 under EVIDENCE OF DOOR-HANGINGS for evidence of the type of door-hanging which was used.

Especially notable in this regard is the top hole in the south jamb, where the is well worn on the side from which the bar would have been inserted.

See Chapter 4 under THE ROUND TOWER.

The earliest is found in A.F.M. under 732 (recté 737) when, after the battle of Faughart (Co. Louth, the king of Ulaid was beheaded "on Cloch-an-Chommaigh, in the doorway of the church of Fochard." Other examples are found in A.U., 789.8 and 851.6; A.F.M., 1003 (recté 1004), 1030 and 1034; A.I., 1037.3; A.U., 1045.3; A.F.M., 1069; and M.I.A., 1155. See Lucas, A.T., 1963, especially pp. 188-9, where he discusses allegations of treachery in the 850 and 1003 (recté 1004) incidents. "Treachery in these cases," he says, "is explicable on the supposition that the victims were entitled to expect that their rights of sanctuary would have been honorably observed" (p. 188).

See below under THE ROUND TOWER.
In addition to the instances noted in n. 70 above of killings in church doorways, Lucas, A.T., 1963, pp. 183-93 quotes numerous other examples of attacks in churches due to the sanctuary laws as they related to persons. He also (pp. 199-201) examines the evidence for property being kept in sanctuary in pre-Norman times.

Recorded instances of attacks on Glendalough are listed in Appendix 1.

Wilde, W., 1873, p. 465, f.n. 1, says: "I remember the foundations of this doorway for a great many years, but they were generally covered with a heap of stones. My friend Mr. J.J. McCarthy informs me that, with some friends, he had these stones removed and the bases of the oolite pillars exposed in 1857."

For details on the identification, geological formation and building qualities of this stone, see Chapter 4 under ROCK FORMATION AND STONE TYPES USED AT GLENDALOUGH and THE BUILDING QUALITIES OF DIFFERENT STONES.

Colles, J.A.P., 1870, p. 195, mentioned "...the jambs of the chancel arch (of which nothing else remains)."

ibid. describes a "...mass of fallen wall at the east end of the nave." This was covering the base of the chancel arch pillars. C.P.W., 1876-77, p. 70 states that "...beneath where the chancel arch stood, most of the arch stones [were found]."

See Appendix 2, for details of the "missing capital" drawn by Beranger.

The window in the chancel's south wall has four blocks of Dundry. Of the two windows in the north wall, the western one retains two blocks of Dundry while the eastern one retains only one. In all three cases the Dundry mouldings are in the exterior.

This structure has a piscina within it.


There are two trumpeted scallops at the top of pillars consisting of double roll mouldings in what is now called St. Laurence's Chapel in the south transept of Christ Church Cathedral, Dublin. This is amongst the earliest parts of the cathedral, dated by Stalley, R., 1979, p. 116, to c. 1186-1200.


See n. 49 above.

Stalley, R., 1979, pp. 107-22.

Brackspear, H., 1931, PI. VII B, "St. Mary's, Shrewsbury, arches in south transept", shows trumpet scalloped capital which, like those at Glendalough and Christ Church, Dublin, rises into a rectangular abacus.

ibid., PI. VIII A, "St. David's, north side of nave", shows numerous capitals carved with trumpeted scallops. Again, the abaci above are rectangular.

ibid., p. 4, dates the "school of the west" work to c. 1160-1200, with a few instances of its influence living on for another 20 years.
The earliest examples of scallops in Ireland are found at Mellifont Abbey, Co. Louth in the mid-twelfth century; see Stalley, R., 1987, p. 183. Partial scallops found in places such as St. Saviour's Priory, Glendalough (c. 1153-62) and Baltinglass Abbey (c. 1160-70) are both earlier and very different in character to those found in Glendalough's Cathedral. At Baltinglass, for instance, the partial scallops are carved all around the capitals of large piers; see Stalley, R., 1987, Pl. 52. The trumpeted scallops of Glendalough's Cathedral, carved out of a single, small, rectangular block are much closer in style to those found at St. Mary's, Shrewsbury and St. David's.

I am very grateful to R. Moss, Department of Architecture and Art History, T.C.D., for the precise definitions and comparisons of chevron types. The Durham Castle chevrons occur in the north range, 2nd storey Norman Gallery in the upper floor chamber, south side, west window.

Morris, R.K., 1992, p. 8, lists "Dublin, Christ Church Cathedral, 1216 sqq." as an example from the west country school. See Leask, H.G., 1960, p. 78, Fig. 42, for moulding sections from the second phase at Christ Church Cathedral.

See moulding sections in Stalley, R., 1987, Fig. 73 (moulding of south-east crossing pier, Graiguenanagh, Co. Kilkenny, c. 1210). Doorway mouldings with filleted rolls can also be seen in Fig. 69, dated c. 1210 (Inch, Co. Down) and c.1220 (Graiguenamanagh).

I discussed this point, as it relates to the style of the chevrons with R. Moss, currently doing research on chevrons in Ireland. She agreed that the Cathedral's final phase must have involved the employment of English masons.

See n. 49 above.

It was to Archbishop Cumin that John, Lord of Ireland, granted the diocese of Glendalough in 1185 (Crede Mihi no. XXIV) and 1192 (ibid. no. XLI). These charters provided a legal basis for the union of the dioceses of Glendalough and Dublin, which received papal confirmation in 1216; see n. 99 below.

The famous testimony of the Archbishop of Tuam to the Lateran Council (1215) is in Pont. Hib., II, p. 172, n. 3. There is an English translation in Alen's Reg., pp. 40-1. This testimony helped to secure papal confirmation of the Union of the dioceses of Glendalough and Dublin. The archbishop stated that Glendalough "...is now and has been for some forty years so deserted and desolate that what was once a church has now become a cave of robbers and a nest of thieves...".

Gwynn, A., 1992, pp. 268-9 has systematically proven the falseness of many of the Archbishop's statements. The very fact that so much new building was carried out in the 40 years referred to disproves the assertion that Glendalough was deserted and desolate.

A good example of this is Thomas O' Toole, who was Abbot of Glendalough from the early years of the Anglo-Norman presence in Ireland until 1213 or later. The abbacy was
confirmed to him by Strongbow c. 1172 (Crede Mihi, p. 46 and Ronan, M.V., 1930, pp. 68-70); by Henry II (Crede Mihi, p. 38 and A.R., p. 16); by John as Lord of Ireland in 1192 (A.R., p. 21); and twice by John as King in 1200 (C.D.I. I, pp. 20-1) and 1213 (C.D.I. I, p. 77). Cinaed Ua Rónáin, Bishop of Glendalough at the time of the invasion, was amongst the prelates who did fealty to Henry II at the synod of Cashel (Pont. Hib. I, p. 171, n. 5).

For details, see Mac Shamhrán, A.S., pp. 87-8 (abbots) and pp. 91-2 (bishops).

William, Bishop of Glendalough, first appears as a witness to a charter dated to 1192 (C.S.M. I, p. 143 and Gwynn, A., 1955-6, p. 300, f.n. 49.) Gwynn describes him, in association with another William, archdeacon of Dublin, as "largely responsible for the government of the see of Dublin during the seven long years of Archbishop Cumin's exile." (Gwynn, A., 1955-6, p. 300.) It appears that William Piro was chosen by Cumin as an ally in the Glendalough bishopric who would not oppose the eventual union of the Dublin and Glendalough. In the same year that William first appears as bishop (1192), the charter of John, Lord of Ireland to Archbishop Cumin described the new bishop of Glendalough as being "...the chaplin and vicar of the Archbishop of Dublin." (Crede Mihi, pp. 44-5)

A.T., 1176, records that "Glendalough was plundered by the Foreigners." There is, however, no evidence of military resistance to the Anglo-Normans in the Glendalough area until 1270 when Edward, the son of the King of England (later Edward I) commanded the justiciar "...to aid the archbishop of Dublin against those rebelling against his authority." (Allen's Req., p. 134.) In the 1270s the Glendalough-Glenmalure area saw a number of campaigns against these Gaelic rebels; see Long, (W.) H., 1994 for a detailed discussion of this subject.

This was what the present author suggested tentatively in 1994; see Long, (W.) H., 1994, p. 252. Since then, however, a closer examination of the dating evidence, William Piro's ties with John Cumin and the discovery of the very definite stylistic links with England through the Cathedral's chevrons have led to a slightly different view.

Crede Mihi, pp. 44-5.

ibid.

Gwynn, A., 1992, pp. 269-70, was of the opinion that: "His [Piro's] position is defined with fair accuracy in a grant which John made...in 1192. In the charter John states that he granted the bishopric of Glendalough to Archbishop John and all his successors in perpetuity; that "whenever the church of Glendalough falls vacant, the archbishop of Dublin is to hold it in his hand without any need of seeking confirmation from myself or my heirs, and that he is to provide the bishopric with a new pastor without need of seeking my assent; and that the bishop of Glendalough is to be chaplin and vicar of the bishop of Dublin." While Gwynn does not state that Piro was bishop only in name, the words of the charter do suggest a bishop appointed only to oversee the smooth transfer of Glendalough's diocese into the hands of the archbishop of Dublin.

By papal bull of Innocent III; see Pont. Hib. I, pp. 171-2.
The last recorded abbot of Glendalough was "Tadeus Otothyll", who granted a vil and a church to Archbishop Luke of Dublin (1228-55); see Alen's Reg., p. 76. By the time of Archbishop Fulk (1256-71) the monastery of Glendalough had become a priory subject to the archbishops of Dublin, as evidenced in a grant made by Fulk to "the prior and canons of the great church of Glindelach"; see Alen's Reg., p. 142.

Alen's Reg., p. 38: Innocent III, on 12 May 1216 confirmed to Henry, Archbishop of Dublin at Holy Trinity, Dublin possession, amongst other places, of the Cathedral of SS. Peter and Paul. "The prior and canons of the great church" (see n. 110 above) must have established themselves in the former Cathedral during either Archbishop Luke's time (1228-55) or Archbishop Fulk's time (1256-71), remaining subject to Holy Trinity.

Alen's Reg., p. 110.

ibid., p. 142.

Aedán Mac Maine is the first bishop to be recorded at Glendalough. He appears to have held the office in 598; see Mac Shamhrain, A.S., 1989, p. 88 for a detailed discussion.

Glendalough's Cathedral (nave only) measures 14.51m x 8.97m, that of Clonmacnois (single-chamber) 18.3m x 8.5m.

Clonfert Cathedral has a later chancel and porch, but the earliest part, the nave, measures 16.2m x 8.25m.

These were exceptionally large for Irish churches in the Early Medieval period as Manning, C., 1985, p. 16, points out.

Such as Christ Church, Dublin, Waterford and Kilkenny. See Stalley, R., 1971, pp. 58-68 (Dublin); p. 71 (Waterford); and pp. 71-4 (Kilkenny).

After Kilmacduagh (34m), Kildare (33m) and Fertagh (31m); Barrow, L., 1985, inside back cover. C.P.W. 1911-12, p. 11, gives the height of the tower, including three offsets (two of which are now below ground level), as 103 feet (31.38m).

C.P.W., 1876-77, p. 72.

ibid..

ibid..

Colles, J.A.P., 1870, p. 195, states that "...at about three quarters of the way up, the wall has bulged extensively in two places."

ibid..

C.P.W., 1911-12, p. 11.

A.U., 1121.6: "The bell-tower of Telach Innmuinn in Osraige [Tullamaine, Co. Kilkenny] was struck by a ball of fire; a stone fell from it and killed a student in his cell."

Except for the two smallest stones, which are of mica-schist and do not extend through the full thickness of the wall. Petrie, G., 1845, p. 404, drew this doorway (exterior) before
reconstruction and, although he omitted the small bottom stone of the left jamb, his
drawing otherwise compares with the doorway as it exists to-day.

See, for example, Barrow, L., 1979, p. 26. For a more recent discussion of the
significance of this feature, see Hare, M. and Hamlin, A., 1986, p. 137.

Barrow, L., 1979, p. 23, notes the foundations below offsets at other sites as 60 cm
(Kilkenny and Kilmacduagh), 1.25m (Kildare) and possibly only 30 cm at Timahoe.

The round tower on Scattery Island is the only surviving example in the Ireland which has
its doorway at ground level. See Barrow, L., 1979, p. 64.


Barrow, L., 1985, opp. Fig. 7, notes that the conical cap is complete on 13 towers. Rynne,
E., 1980, pp. 29-30, argued that castellated tops on 7 round towers were not necessarily all
Late Medieval additions and that there could be as many round towers with castellated
tops as there are towers with original conical roofs. This remains to be proven. The
conical cap at Glendalough was reconstructed using the original "apex" and "shaped
stones of the cone" (C.P.W., 1876-77, p. 72) and conical caps were certainly a feature of
many towers, even if they were not the only type built.

Especially in the north wall, upper half. These coursed bands are also found in the south
wall of the chancel (Phase 3), again in the upper half of the wall. It is possible, in the case
of the Cathedral, that this is work carried out by the reconstruction workers in 1876-77, but
this cannot be the case in the round tower as its masonry survived right up to the upper
windows before 1876-77.

Possibly, as argued above in the case of the Cathedral, this window head was a Phase 1
feature rebuilt in Phase 2.

Two in the nave's south wall and one in the chancel of Reefert Church, for example. Also
found in Trinity Church.

There is further discussion of the sequence in which Glendalough's buildings were
constructed in Chapter 4, which is summarised in Table 4.5.

See Barrow, L., 1979, where example of towers which have carvings of twelfth-century or
Romanesque style include Kildare (pp. 118-22); Devenish, Co. Fermanagh (pp. 92-6);
Ratoo,
Co. Kerry (pp. 109-13); and Ardmore, Co. Waterford (pp. 192-5).

C.P.W., 1911-12, p. 12 states: "Its purpose is uncertain, but it is surmised that it was used
to communicate with an anchorite immured in the lower storey of the tower." Leask, H.G.,
Glendalough, p. 18 states simply: "Its purpose is uncertain." Barrow, L., 1984, p. 31
comments that "...its purpose is unknown."

In the west wall of the domestic building adjoining the church on the north side.

In the chancel's east wall.

Wilde, W., 1873, p. 464.
This is the west wall of the domestic building adjoining the north side of the church. In Fig. 2.27, a plan of St. Saviour's before reconstruction (drawn in 1873), many sections of the walls are noted as completely fallen, but the west wall of the domestic building appears as relatively complete.

At Clonmacnois, for instance, they can be seen in the Cathedral, where they have been dated to the tenth century, and in another pre-Romanesque church, Temple Ciaran; see Manning, C., 1994, pp. 25-6. Manning (ibid., p. 23) notes that: "These are a common feature of pre-Norman churches in Ireland." At Glendalough it seems that reconstructions may have hidden traces of putlock holes in many churches.

Barrow, L., 1979, p. 104, notes the presence of possible putlock holes in the incomplete towers of Taghadoe, Co. Kildare and Roscam, Co. Galway. Hare, M. and Hamlin, A., 1986, p. 137, illustrate the system of putlock holes at Roscam, adding (p. 136) Armoy, Co. Antrim and Devenish, Co. Fermanagh to the list of towers where putlock holes are apparent. They were of the opinion that "...close study of the towers would doubtless produce further example." There may be other towers like Glendalough where reconstruction has obscured the evidence of putlock holes.

See n. 144 and n. 145 above.

First mention in the Annals is in A.U., 950.7.

Most notably on the law tracts, discussed in detail in Chapter 5.

Petrie's argument for the multiple functions of round towers has never been substantially refuted; see Petrie, G., 1845, pp. 358-80. Acknowledging their primary use as belfries (pp. 358-67), he goes on to discuss their use as "ecclesiastical castles" or places of refuge (pp. 367-73), "for the purpose of safety and defence" (pp. 373-8), as beacons and as watchtowers (pp. 378-80).

A.U., 950.7.

A.L.C., 1076.6.

M.I.A., 1126.10.

A. Tíq., 1156, records that the tower of Aghmacart (Co. Laois) was burned during warfare and the lector (fer leghind) was killed. A.F.M. 1156 says the chief master (ardmhaighister) was killed in the bell-house at Fertagh (Co. Kilkenny). There must be some mistake about the location in one of these sources as they appear to describe the same event. See Hare, M. and Hamlin, A., 1986, p. 141 for comment.

A. Tíq. and A.F.M., 1171.

M.I.A., 1176.3.

See n. 130 above.

There are only 5 instances of people being killed in round towers up to 1176. In addition to the 10 references to killings at or before the door of a church listed in n. 70 above, there are
4 instances of people forced out of the sanctuary of a church and later killed or being slain within the church itself. These are found in A.F.M., 907 (recte 912) and 1002 (recte 1003); A.U., 1019.10; and A.I., 1007.3 and 1061.2. This makes a total of 15 entries up to 1176 where killings are specifically related to the church building as opposed to the round tower. See Lucas, A.T., 1967, pp. 183-94 for detailed analysis.

A.U., 795.3: "The burning of Rechru by the heathens, and Sci was overwhelmed and laid waste." Rechru, formerly thought to be Lambay Island off Co. Dublin, is now generally regarded as being Rathlin Island, Co. Antrim; see Edwards, N., 1990, p. 172. Sci is the island of Skye, off the west coast of Scotland.

See Chapter 6 under ECONOMIC AND POLITICAL FACTORS IN GLENDALOUGH'S GROWTH AS A CITY.

A.U., 950.7.

ibid., 1076.3 and M.I.A., 1176.

M.I.A., 1126 and A.F.M., 1156.

A.U., 1097.4.

A.U., 950.7, mentions "the lector (ferleigind) Caenachair" and others being burned, the first reference in the Annals to ferleigind. See also n. 153 above.

Manuscripts would have been amongst the most valuable possessions of a monastery or ecclesiastical city. No building at any Early Medieval site has been identified as a library, but manuscripts would surely have been kept in the most secure stone building at a site, where there was least risk of burning.

The walls of the cemetery did not appear on the O.S. 6-inch map surveyed in 1838 and were not noted before 1911-12. In C.P.W., 1911-12, p. 15, Cochrane states of his attempt to find a southern entrance that "...owing to the prevalence of graves and the consequent uprooting of the wall, investigation here became difficult." This is the closest indication we have that it was his "investigations" which first led to the uncovering of the walls.

"Excavations at St. Kevin's Cross, Glendalough, 1989", typescript of a report by A. Lynch of the O.P.W., the archaeologist who carried out the excavations.

This is the opinion of the present author, based on A. Lynch's report and conversation with her about the excavation.

Although Leask, H.G., Glendalough, the official guide, offers no suggestion of a date for St. Kevin's Cross, the official guided tour of Glendalough today gives a ninth-century date on the basis of the cross's simplicity. Such a featureless cross, however, is extremely difficult to date as it cannot be compared to any others on the basis of an artistic style which was prevalent at a certain time.

O.S.L., fol. 467 quotes the map made 60 years earlier for Col. Burton Conyngham as showing a small building which is called "the little Church where the priests are buried." Its use as a burial place for priests is also noted by Wilde, W., 1873, p. 466. The tombstones, which originally lay on the ground (see Fig. 3.14) are now standing upright, attached to the north wall of the building. There are four, dating from 1759, 1772, 1893 and one which has been prepared as a tombstone but bears no inscriptions.

Petrie, 1845, p. 248. Both Petrie and O’Donovan base their descriptions of the building on Beranger, one of the three artists on Col. Burton Conyngham’s 1779 trip to Glendalough.


ibid., pp. 25-32.

Quoted from Beranger’s original notes, appended to his drawing, by Wilde, W., 1873, p. 468. Beranger stated that the building "...has no windows, but only a small door in the side wall 20 1/2 inches broad; it is unroofed at present, and the front entrance built up latterly with stones in part, and the center with earth mixed with hay, as is shown by the dotted lines."

See full quote, n. 178 above.

See n. 178.

Wilde, W., 1873, pp. 461-2, describes how a travelling voteen or hermit came to Glendalough "...some 40 years ago" (i.e. c. 1833). "The good people of the neighbourhood", he says, "cleared out the base of the belfry for the reception of this holy man, built up the south wall and roofed it."

Wilde, W., 1873, p. 473-4. For details see below under ST. KEVIN’S KITCHEN.

C.P.W., 1876-77, p. 71: "On excavating the surrounding ground, sufficient stones of the eastern end of the southern entrance were found to enable the structure to be put in the same condition as it was in 1779."

his mistake by Petrie was specifically pointed out as early as 1874 by Wilde. After quoting both Beranger and Petrie, Wilde goes on to say: "...it is manifest, from Beranger’s original drawing and the description quoted above, that this temporary structure, said to represent a recessed arch, was nothing more than a heap of stoned placed in the opening behind, and with a lump of mud and hay in the centre. Had Petrie before him the book now in my hands, he would at once have seen the correctness of this view of the case." (Wilde, W., 1873, p. 468.)

Harbison, P., 1991, p. 120. On p. 119 Harbison does acknowledge that the wall was wrongly reconstructed, but goes on to say: "Nevertheless, a narrow, upright slit in the wall may well reflect an original feature."
See below under **ST. CIARAN'S CHURCH AND TWO UNNAMED CHURCHES**.

For comparison's in St. Saviour's, see Chapter 2 under **ST. SAVIOUR'S PRIORY**. All of these features are common in Romanesque architecture. Heads with their hair intertwined with an interlace pattern are found in the doorway of the round tower at Timahoe, Co. Laois where some of the figures are also moustached; see Leask, H.G., 1987, Fig 59 and Fig. 60. Killeshin, Co.Carlow has similar features; see Leask, H.G., 1987, Fig. 56.


Most of the mouldings in the arch and east window of St. Saviour's consist of rolls flanked by fillets.

Morris, R.K., 1992, p. 3.

ibid., p. 5

ibid..


Beranger, in 1779, found it "...on the ground near the Priests' Church."; Wilde, W., 1874, p. 469. He drew the stone as complete and the drawing is reproduced in Wilde, W., 1874, p. 469 and Barrow, L., 1984, Pl. 8. Petrie published a drawing of it in 1845 (Petrie, G., 1845, p. 251) and said that the stone was broken but "...the two pieces are preserved in a neighbouring house." (p. 251) Barrow, L., 1984, pp. 34-7, has convincingly argued that neither Beranger nor Petrie ever saw the stone complete, and there are pronounced contradictions in details between both drawings; see n. 197 and n. 198 below. Wilde discovered it in 1873 "...lying face downwards among the rubbish in the Cathedral; see Wilde, W., 1873, p. 470. He brought it back to Dublin, where it was handed over to the Commissioners of Public Works; see Wilde, Lady, 1876, p. 125. The Commissioners placed it in its present position in the 1870s, probably on the basis of Petrie's suggestion that it was a tympanum from the lintel of the door of the Priests' House; C.P.W., 1876-77, p. 71.

Doorty Cross, Kilfenora, Co. Clare (east face) shows a bishop with a spiral-headed crozier and two ecclesiastics plunging their staffs into a beast. One of the staffs has a crooked head, the other has a tau (or T-shaped head) head; Richardson, H. and Scarry, J., 1990, p. 42 and Pl. 134. The cross at Kinnity, Co. Offaly shows a staff being handed over to the founder of the church on its south face; ibid., p. 44 and Pl. 131. The cross-shaft at Old Kilcullen, Co. Kildare shows the founder of Kilcullen with a crooked staff in hand. There is a book and a quadrangular bell at either side of the staff; ibid., p. 48 and Pl. 168. While these are just a few of the examples of croziers or staffs in Early Medieval crosses, the Old Kilcullen base is the only example known to the present author of a quadrangular bell.

See Chapter 4 below under **THE ROMANESQUE AND ROMANESQUE-GOTHIC TRANSITIONAL ERA**.

Beranger's 1779 drawing showed it as the culed or spiralled type, while Petrie's 1845 drawing showed it as the open crook type. A simple stick with a crook was the form taken by
the bacall or staff carried by the Irish monks and saints in Early Medieval times. The bacall was used to fend off enemies and beasts and was often exchanged as a sign of affection or a seal of confraternity between saints; see Ryan, J., 1931, p. 385. The spiral-headed crozier was, by contrast, a symbol of episcopal office which appears in Ireland later than the bacall.

Beranger drew the central figure in 1779 with a tonsured head while Petrie's drawing of 1845 shows a crown; see Barrow, L., 1984, Pl. 8 for both drawings.

Thomas held the abbacy from c.1172 or before. Strongbow, c.1172, confirmed him in the abbacy; see Alen's Reg., p. 2 and Crede Mihi, pp. 46-7. He was still abbot in 1213; see charter of King John, 30 July 1213 in C.D.I. 1, p. 77.

See above under THE CATHEDRAL, especially n. 109 (final union of the dioceses of Glendalough and Dublin confirmed by pope in 1216).

The bacall (see n. 197 above), the relic-shrine and the bell of the founder were the chief emblems of the Early Medieval church in Ireland. These were used in the collection of dues and were considered so important that a penance of 40 years was imposed on anyone who stole them; see Ryan, J., 1931, p. 385, n. 3.


Both St. Mary's and the Cathedral were considerably altered post-1169, and both display materials and architectural influences which can be traced to mainland Britain. See above under OUR LADY'S OR ST. MARY'S CHURCH and THE CATHEDRAL.

The chancel was definitely still standing in 1786, when Archdall described it; see Archdall, M., 1786, p. 773. Colles, J.A.P., 1870, p. 196 states that: "the chancel fell or was pulled down about 30 years ago." This puts the date of the collapse of the chancel at c.1840 and Petrie's drawing of it in 1821 can therefore be assumed to be accurate; see Pl. 3.62.

Taken by Cochrane to indicate "...a very early period of construction in ecclesiastical buildings." (C.P.W., 1911-12, p. 15.)

Many other observers have commented on the extraordinarily high degree of skill required to construct this building, particularly the roof. Cochrane himself was an architect, and in describing the roof here I have largely paraphrased his excellent description in C.P.W., 1911-12, pp. 15-18.
For the illustration of the blocked doorway, see Petrie, G., 1845, p. 434. The doorway must have been opened up again during the reconstruction work of the 1870s. Although no mention of it is made in the C.P.W. reports, Colles, J.A.P., 1870, p. 196, recommended that "...the western doorway of the nave should be opened up."

See Leask, H.G., 1987, p. 24, for illustration. Leask comments that although a shutter-type door, hung from the top, has been suggested, it was more probable that "...the holed stones secured the tops of two wooden door-posts, the feet of which might be set in the floor. To one of the posts a timber or wicker door could have been hinged, while the closed door could be secured to the other by some simple form of bolt or bar." (ibid., p. 23) the latter type of structure is likely to have existed at St. Kevin's Church, the hood-moulding making a shutter impossible.

Archdall, M., 1786, p. 773. "To bray" means "to beat small; to bruise, pound, mainly in a mortar." (S.O.E.D., s.v. bray) For the date of the large, rectangular, southern window (c.1833) see Brash, R.R., 1875, p. 13: "there is a rude rectangular window-open in the south side, 3 feet wide; it was formed, as I was told by the parish priest, some fifteen years before my first visit in 1858."

I am indebted to a Master Stonemason for this information. He has worked on restoration projects at a number of medieval sites, including Kildare. While a timber framework built up from the ground could have been used, this would be an unnecessary waste of timber.

By kind permission of the Office of Public Works, I climbed into the croft with a member of the ground staff at Glendalough in March, 1992.

C.P.W., 1876-77, p. 73, simply records: "Pointing with cement concrete and resetting loose stones in the roof and cone of the tower."

Brash, R.R., 1875, p. 13. "Centreing" is a temporary structure, usually made of timber, used to support an arch during construction.

Both quotes from Wilde, W., 1873, p. 477. The plaster today is still "well-rounded" and "smoothly coated" despite the plank-marks, which are slight but clear.

C.P.W., 1876-77, p. 73, refers to work carried out at "St. Kevin's House": "Pointing with concrete cement and resetting loose stones in the roof and cone of the tower, embraces the work which has been done."

Petrie, G., 1845, pp. 432-3.

C.P.W., 1911-12, p. 15 and p. 18.

Champneys, A.C., 1910, p. 44.

Leask, H.G., Glendalough, p. 25.

Wilde, W., 1873, p. 477.

Barrow, L., 1984, p. 38.

This is the measurement for the first ledge. The second was inaccessible.
These were noted, but not measured, by Wilde, W., 1873, p. 476.

The groundsman informs me that the local Parish Priest of the time removed the bell from the site, apparently for safe-keeping. This was reported to the O.P.W. in Dublin, who sent a man to enquire into the matter. The Parish Priest denied any knowledge of the bell which, he said, was certainly not in his possession. Its whereabouts remains a mystery.

C.P.W., 1911-12, p. 18: "The small cross now on the apex of the east gable is not part of the original work."

Petrie, G., 1845, p. 431, wrote of "...the recent wanton destruction of the chancel." Colles, J.A.P., 1870, p. 196 reported: "The chancel fell or was pulled down about thirty years ago; but the stones of which it was built are piled up into a large square mass a little distance to the eastward."

This is an approximation of its height. Even looking into the croft with a torch, it is very difficult to see its precise layout.

See Wilde, W., 1873, p. 447.

P.N. I, p. 47.

A.F.M., 1163. In a footnote to this (f.n. x, p. 1150) O' Donovan states: "Cro-Chaeimghin i.e. St. Kevin's House, now St. Kevin's Kitchen, a small church in ruins near the cathedral church at Glendalough."

See under REEFERT CHURCH AND ITS ENVIRONS, Chapter 2 above.

See Leask, H.G., 1987, pp. 32-4. Although the church on St. Mac Dara's Island, Co. Galway, is also pre-Romanesque and has a solid stone roof, it did not have the supporting arch used at St. Kevin's Church and St. Columb's House.

See Henry, F., 1970, p. 151 and Pl. IV. The oratory was slightly smaller than St. Columb's House and had a similar stone roof. From the illustration in Henry (Pl. IV), it is impossible to tell whether or not the supporting arch was used to prop up the roof.

A church on Ireland's Eye had a round tower built on top of its choir. It is illustrated in Dunraven, 3rd Earl of, 1875, p. 154. Although it is impossible to see any decoration on this church in Dunraven's drawing, it has a round-headed west door and a substantial chancel arch and looks later in style (probably Romanesque) to St. Kevin's Church. Dunraven himself (p. 154) listed St. Kevin's Church first in a chronological list of towers "...which are attached to and evidently coeval with these buildings.

Berger, R., 1995, p. 171. The sample of mortar was taken from inside the nave of the church.

C.P.W., 1876-77, p. 73.

"Old plan made for Col. Burton Conyngham" about 1780, in O.S.L., fol. 517.

O.S.L., fol. 477.

C.P.W., 1876-77, p. 73.
The plan in *C.P.W.*, 1876-77, p. 73, does not show this doorway at all, but shows the south wall as solid. This was, presumably, a mistake as it is shown the same as it exists today in *C.P.W.*, 1911-12, p. 19.

See above under **ST. MARY'S OR OUR LADY'S CHURCH**.

*O.S.L.*, fol. 517, spelt "St. Kieran's Church".

*A.F.M.*, 1163. O’Donovan notes (f.n. w, p. 1150): "Cro-Chiaran i.e. St. Ciaran’s or St. Kieran’s House. This was the name of a small church near St. Kevin’s Kitchen..."

*O.S.*, 6-inch series (surveyed 1838), Co. Wicklow, Sheet 23.

"2 perches, 20 links" on the 1780 plan. 1 perch = 5.5 yards and 1 link = 7.92 inches. *(S.O.E.D., s.v. perch and link)* 2 perches, 20 links, therefore, would be 15.4 yards or 14.07m.

*O.S.L.*, fol. 477.

"2 perches, 10 links" on the 1780 plan.

*O.S.L.*, fol. 477.

Colles, J.A.P., 1870, p. 196: "the sites of Cro Cairain, the Regles an da Sicchell, and one or two other buildings, to the north, south and east of St. Kevin's House would probably repay excavation." "Regles an da Sinchell" was referred to in the 1163 entry of *A.F.M.*

Colles, J.A.P., 1870, p. 196.

Manning, C., 1995, p. 42: "A feature common to virtually all ecclesiastical sites was an enclosure, normally round or oval in shape and considerably larger than the modern graveyard that frequently marks these sites." Edwards, N., 1990, p. 107: "The *valla* surrounding major ecclesiastical sites frequently enclose very large areas. They are usually curvilinear and two, or occasionally three, widely spaced concentric enclosures are not uncommon."

Colles, J.A.P., 1870, p. 196.

Brewer, J.N., 1825, I, p. 320 (having previously described all of the main churches and towers of Glendalough): "The above are the most prominent objects which require attention; but, besides the subjects which have been described, there are many ruins of inferior ecclesiastical buildings, left without a name amidst the spoils of time. These are of sufficient interest to merit examination by the visitor whose taste and leisure may favour extended researches; but we are not aware that they afford any curious vestiges of architecture or sculpture."

See Chapter 2 under **REEFERT CHURCH AND ITS ENVIRONS**.

Leask, H.G., *Glendalough*, p. 7, wrote: "Under the impact of the feudal system, the great days of Glendalough passed away. The place sank into relative obscurity, but the fame of St. Kevin lived on."

See Chapter 6 under **CIVITAS AND CIVILISATION**.
CHAPTER 4

Medieval stone construction at Glendalough: The importance of stone use, documentary sources and the relative significance of construction in wood.
INTRODUCTION

Stone building in Ireland before the arrival of Christianity was dominated by circular or sub-circular structures. The masons who built them had no knowledge of the use of mortar in building stone structures. It is therefore reasonable to expect that the earliest rectangular buildings in stone would provide some evidence of inexperience on the part of the builders. A number of authors, most notably Leask,¹ have made occasional observations on this point and have studied in detail the influence of timber construction on stone building. At Glendalough, however evidence of inexperience on the part of stonemasons and a subsequent development of greater knowledge in the art of stone building have gone largely unnoticed. All available evidence indicates that the Early Medieval stone buildings at Glendalough were the first stone structures to be erected in the valley. The masons were therefore also inexperienced, in this particular case, in the use of local stone for construction purposes.

Developments in stone working and the related subject of the manner in which particular stone types were used need to be analysed more closely. Studies in Early Medieval construction to date have tended to concentrate almost exclusively on architectural styles as evidenced in plans, window and doorway forms, the absence or presence of decorations and other design features. To the people who built these structures, however, the basic material with which they worked could often dictate the design or architectural features of a building to a greater extent than any pre-conceived concept of what was desired. Architects did not necessarily design a building and then seek out the materials required to execute it in that style. The mason, rather, would look at the materials which were available and work them into the design which the limitations of those particular materials allowed. This pattern changed radically with the development of Romanesque architecture, but the extent to which available building stone could be a crucial factor in limiting design possibilities is pronounced in the earlier buildings. Evidence of these and related aspects of stone working are studied here. Most of the features analysed in detail are original, as opposed to reconstructed features of the nineteenth century.²

Stone, however, was not the only material from which the main body of Early Medieval ecclesiastical buildings were constructed. Wood was widely used, apparently before stone, in the building of churches and the significance of various terms used in documentary sources to describe the churches themselves is closely analysed. This is done with a view to establishing the relative importance of stone, as opposed to wooden, construction. A detailed study of the Annals of Ulster indicates that the gradual rise in the number of references to stone churches from their first mention in the eighth century is, by the mid-eleventh century, matched by a decline in the number of references to wooden churches. Any study of stone churches cannot, therefore, ignore the fact that its development is inextricably related to a decrease in timber construction. The Annals of Ulster also assist in providing a general chronological context for Early Medieval stone
churches in Ireland. In the absence of specific dates for Glendalough's pre-Romanesque remains, this at least provides some guide to dating which is reliable. It is necessary, however, to begin by identifying unequivocally the types of stone which were used for building at Glendalough, the qualities which they possess and the sources from which they came.

THE PROBLEM OF STONE IDENTIFICATION

No authority in Glendalough has yet attempted to comprehensively study the different stone types used in the surviving structures. While most authors refer to the use of local mica-schist and granite, other stone types which occur in the valley's buildings are the subject of contradictory statements. Of the mouldings used in the Cathedral's north door and east window, for instance, Colles (1870) stated that: "These are all composed of soft oolite, like Caen stone." Deane (1876-77) was of a similar opinion but was even more definite in stating that the mouldings were "all of Caen stone". Cochrane in his 1911-12 report, reversed this opinion:

This stone has been assumed to be oolitic limestone and imported, but a careful examination shows that it is felspathic granite, soft and fine grained, and of a quality which occurs in the Wicklow mountains.

Leask, as on many other points, follows the view of Cochrane in the official guide book. It seems surprising that there is such a divergence of opinion on this stone, but its identification needs to be cleared up. Another distinct stone type, used in arch, window and door mouldings at St. Saviour's Priory, the Priests' House and to a lesser extent, St. Mary's, is rarely even mentioned as being different. Leask, one of the few to take note of the stone, says of its use in the Priests' House that it is "a mica-schist of fine grain". The stone in fact is not even metamorphic, as is schist, but is igneous like granite. With antiquarians and architectural historians using terms such as "oolitic", "felspathic" and speaking of fine grained mica-schist, we must briefly study the geological terms which apply to Glendalough's building stones.

ROCK FORMATION AND STONE TYPES USED AT GLENDALOUGH

The main rock types used as building stone in Glendalough are granite and schist (Pl. 4.3 & Pl. 4.14). Granite is an igneous (Latin "fiery") rock, one formed by the cooling of a mass of molten material. It was formed at Glendalough four hundred million years ago. It is composed of crystals of quartz, feldspar and mica and is of coarse grain. Schist is a metamorphic rock, one which has been subjected to intense heat or to violent earth movements which altered its structure
and chemical composition. At Glendalough, there is a clearly visible granite-schist boundary at the west end of the upper lake. (Fig. 4.1) In a schist (named from the Greek for "split"), the minerals are grouped in flaky layers which can easily be detached. When much mica is present, the flakes have a silvery sheen and the rock is called mica-schist. To speak, as Leask did, of "a mica-schist of fine grain" is to fundamentally misunderstand the structure of the stone and the circumstances under which it was formed.

There are large outcrops of mica-schist all along the valley of Glendalough, some of which can be seen in Fig. 4.1. All buildings at Glendalough are no more than 1 kilometer from a source of schist. Although the main source of granite is at the western end of the valley, three kilometres from the city, massive glacial erratics are strewn all along the valley today. Two examples which have particular significance for the early medieval builders can be seen beside Trinity Church and just outside the city. The fact that the supply of granite from the erratics has not been exhausted at Glendalough suggests that the builders of the Early Medieval period did not have to quarry the granite from its original source. Much of the granite which they did use was also taken from the rivers of the valley, as is indicated by its rounded appearance.

Two new stone types were used by the builders of the Romanesque and Transitional buildings at Glendalough. While still utilising local granite and schist in the walls of these later buildings, a different type of stone was required for doorways, windows, arches and quoins. At St. Saviour's, the Priests' House and St. Mary's we find the greenish-grey stone which Leask referred to as "mica-schist of fine grain". (Pl. 4.1) The geologist Whittow lists "schists, slates and greenish calcareous sandstones" as the main building stones used in Glendalough. The "greenish calcareous sandstones" presumably refers to the type found at St. Saviour's, the Priests' House and St. Mary's. Neither this nor Leask's identification, however, is correct. Stillman has identified it as a basic igneous rock of the type called apinite or possibly dolerite. The name dolerite is etymologically derived from the Greek doleros (doleros), meaning "deceptive" and the rock is so named because of the difficulty in determining its composition. Basic igneous rocks can "shade off" imperceptibly into one another and in some cases are almost indistinguishable. Nonetheless apinite and dolerite are found in small intrusions which occur in the Vale of Avoca and southeastwards as far as Courtown. Dolerite is still quarried today at Arklow Head, but the stone used at Glendalough is more likely to have come from near Rathdrum where the closest intrusions occur. The other stone used in later buildings at Glendalough is extremely soft and of a brownish-yellow colour. Nineteenth century observers identified this as an oolitic limestone, both Portland and Caen being mentioned. These oolitic limestones are found in England and Normandy respectively. Oolitic limestones are completely made up of small, rounded grains which in appearance resemble the roe of a fish. Despite Cochrane and Leask's assertion that the stone at Glendalough is a local felspathic granite, its structure is clearly the "fish-roe" type of an oolitic
limestone. Wyse-Jackson, in consultation with Stalley, identified it as coming from the Dundry Quarry near Bristol. Although Dundry limestone has been identified at thirty-eight buildings, mostly ecclesiastical, in south-eastern Ireland, it has never before been identified at Glendalough (Pl. 4.2).

THE BUILDING QUALITIES OF DIFFERENT STONE TYPES

A good quarry man or stonemason needs to have some understanding of the geological formation and structure of rock if it is to be properly used as building stone. Many of the structures at Glendalough belong to a period when rectangular buildings in stone were an entirely new concept. Therefore the extent to which a sound knowledge of building stone is either apparent or lacking in original features of Glendalough's structures can give us some indication of the degree of experience in stoneworking which the builders of the different buildings had. A detailed survey of the use made of particular stone types at Glendalough indicates varying degrees of awareness of the qualities of building stone. There is a clearly identifiable development of a more expert and effective use of stone from one building to the next. The reasons why apinite and Dundry limestone were secured for Romanesque and Transitional buildings, rather than using locally available mica-schist and granite, are also related to the particular qualities these stones possess as building materials. It is therefore important to understand these qualities in each of the four stone types which were used at Glendalough.

Geologists employ various terms to describe the structure of different stones. Apinite would be described as amorphous i.e. it has no fabric at all (Pl. 4.1). Oolitic limestone has a homologus structure in which the grains are evenly distributed. (Pl. 4.2). While quarrymen refer to the "grain" of granite as the line along which it must be split, geologists refer to an alignment. The "grain" or alignment in granite is very slight and much of the expertise in quarrying and working granite as a building stone lies in being able to tell which way the "grain" runs. Once this has been established, granite will split very cleanly, leaving a smooth surface which requires little or no dressing. In the case of mica-schist, geologists refer to its schistosity, or the extent to which it is structured in distinct layers.

The structure of these stones is one of a number of factors which determines its suitability for building. The layered structure of mica-schist makes it relatively easy to quarry. It also, however, makes it unsuitable for carved detail. When exposed to weather the outer layers will flake off and where water is allowed to gather on the surface it can cause holes to be eroded through the different layers of the stone. This is one of the major reasons why relatively few good samples of graveslabs or crosses survive at Glendalough compared to Clonmacnois, a site of comparable size and importance. Numerous graveslabs survive around the Reefert Church at Glendalough, but most bear little or no trace of their original carvings because of the
nature of the mica-schist. Even where it is used for undecorated work, mica-schist is not an ideal building stone when used in large blocks. One of its constituents, mica, is today used as a lubricant and the stacked micaceous layers of the stone means that it has poor load-bearing capacities. The layers can shift enough for the stone to break if a load is put on it. Three different methods of laying mica-schist in a building can be seen in Fig. 4.2, all used at Glendalough. In (a) the layers are likely to shift and crack the stone where a load is laid on top of it. Unlike method (b) however, it is less likely to suffer erosion by rainwater. In method (b), water can exploit the exposure of the layers to a great extent as the stone is laid vertically. This is less likely to happen in (c), where horizontal layers are less susceptible to erosion by water. In (c), however as in all three methods, the layers can shift causing the stone to crack. Although more extensively used in building than any other stone at Glendalough, mica-schist is not an ideal building stone. While it makes good strong rubble work, its use in decorated grave-slabs, lintels and large ashlars can be seen to be problematic. The immediate availability of the stone in the valley and the ease with which it can be quarried account for its use as a building material.

Granite, also locally available, is not used to the same extent as mica-schist. It is a very hard stone which is difficult to quarry and cut. Although it is not an easy stone to work for carved details, plain granite weathers very well. There are no inherent fields of weakness as in mica-schist, making it a much stronger stone with which to build. Its slight alignment does not affect its load bearing capacities, making it more suitable than mica-schist, particularly for use in lintels, window-heads, quoins and arches. These are places where the load bearing capacities are crucial. Despite the better qualities which granite has as a building stone, its use at Glendalough is less extensive than mica-schist. The difficulty of working with its hard, dense structure meant that its use was kept to a minimum.

Although granite was used for detailed stone-carvings in the market cross, and some other fragmentary crosses which survive at Glendalough, the masons of the Romanesque and Transitional periods required stone for mouldings and detailed carvings on a large scale. The coarseness of granite meant that carving numerous voussoirs for arches and mouldings for doors and windows would be too time consuming. Its coarseness due to the presence of large crystals, also meant that, for the twelfth century mason who lacked the motor-driven, diamond tipped blade available to modern masons, it was difficult to carve sharp definitive lines. Both apinite and oolitic limestone are relatively fine grained stones more suitable for detailed carving than either granite or mica-schist. Apinite is much harder than oolitic limestone and as a result weathers much better. Oolitic limestone, however, is much easier to work with because of its softness. Unlike other building stones, it is soft enough to be cut with a saw (Pl. 4.12) Its use for mouldings and carved details, especially in the interiors of buildings where weathering could not affect it, was much favoured by Anglo-Norman stone masons. Another distinct advantage which oolitic limestone has over apinite is its lack of crystals. Although consisting mostly of evenly distributed
grains, quartz crystals can occur in apinite. When a stone is dressed for building, weathering can eventually cause crystals in outward-facing surfaces to fall out (Pl. 4.1).

Our present knowledge of the qualities of different building stones is based on modern scientific research and the accumulated experience of stonemasons throughout the past few hundred years. The buildings at Glendalough reveal, through their modes of construction, that the masons of the Early and Later Medieval periods were aware of some of these qualities. This awareness determined the choice of certain stones for particular parts of the building. Before turning to examine the patterns in stone use which this gave rise to we must first look in detail at stone use in one particular case which indicates clearly a lack of experience and knowledge in the use of building stone. The awareness of the advantages and disadvantages of using certain stones types in building appears to have developed through mistakes made in this earliest stage of stone construction at Glendalough.

EARLY STONE CONSTRUCTION AT GLENDALOUGH: THE CATHEDRAL

While the walls of the original stone cathedral at Glendalough survive up to a maximum height of only around 2 m, it was clearly a unique building in the valley. It is the only structure in Glendalough where large, rectangular blocks of stone, very closely fitted together in regular courses, were used (Pl. 4.4). It is also the sole stone building where only one type of stone, mica-schist, was used. While Leask and Barrow both noted constructional imperfections in this stage of the Cathedral, neither analysed it sufficiently to realise its true significance. The masonry, stone-use and constructional imperfections together indicate that the earliest Cathedral was in fact the earliest stone building in Glendalough. The only other structure which compares to it in terms of stone use is the enclosure at Temple-na Skellig. Here the dry-stone retaining walls are made up exclusively of mica-schist and quartz (which occur together in intrusions throughout the valley).

Random rubble masonry, consisting of stones of irregular size and shape mortared together, with spalls or small stones often used between larger stones, is the normal style in the walls of all other buildings in Glendalough. The builders of Phase 1 of the Cathedral used techniques more common in dry-stone than mortared construction. Not only are the large stones regularly cut and laid in straight courses; they often have a regular cut in one corner which fits perfectly into the adjoining stone. (Pl. 4.4). In mortared buildings such precision in the cutting of stones for walls is not necessary. The use of mortar and spalls at Trinity Church, for example, makes up for any gaps between stones that lie side by side or on top of one another. A detailed examination of the earliest masonry in the Cathedral revealed that, in most places, there was little or no space between the stones to take mortar. Where stones are cracked or badly weathered, nineteenth century restorers have pointed the masonry with cement. There was, however, little room for mortar in the original masonry. Small amounts may have been used in laying the blocks to even up slight irregularities in the surfaces of the stone. Where both surfaces did not fit
perfectly together, such use of mortar as a 'bedding' agent could prevent the stone from cracking. In many places, however, the stones are so perfectly laid together that the use of mortar as an 'adhesive agent' is extremely unlikely. While no authority on Glendalough's buildings has even hinted that the earliest Cathedral was a dry-stone structure, the evidence of the building itself suggests that it was.

A dry-stone rectangular structure on this scale, with walls of regular, carefully cut blocks as facings and a rubble fill, would be extremely unstable. This explains why so little of the original Cathedral survives. If the builders did succeed in finishing it in this style, the inherent weakness of their methods of construction account for the large scale collapse which followed. Despite their skill and patience in cutting large blocks of stone, the inexperience of the masons is apparent not only in their methods of construction but in their choice of stone. Granite, which like mica-schist, is locally available would have been far more suitable for use in the doorway, windows and antae of the Cathedral. It is used in all other pre-Romanesque churches in Glendalough. The fact that it was not used in the earliest phase of the Cathedral and the use that was made of the mica-schist indicate that the builders had a limited knowledge of the qualities of building stone. The original antae were built with enormous blocks of mica-schist, stacked one on top of one of the other. The natural layers of the stone were laid alternately in vertical and horizontal blocks. Pl. 4.5 shows how the south-west anta stands today, with vertical stones either cracked or weathered badly and the horizontal stones also cracked. The same faults are apparent in the earliest sections of the three other antae. In the higher, or later, sections of the antae, the builders had obviously learned from the earliest mistakes. Solid blocks of mica-schist are alternated with sections of masonry consisting of smaller stones mortared together. The stresses which cause large blocks of mica-schist to crack when laid on top of each other were thus reduced by the alternate sections of smaller masonry.

The use of a relieving arch over the lintel of the west door, an unusual feature in trabeate doorways of this period, is also due to the nature of the mica-schist (Pl. 4.3). It is no mere coincidence that St. Kevin's Church, the only other building in Glendalough which has a schist lintel in its west doorway, also has a relieving arch (Pl. 4.6). None of the granite lintels require this as they are stronger than those of mica-schist. The original west door lintel in the Cathedral probably cracked when the building collapsed, along with the top stones of the jambs. This explains why the architrave of the lower jambs does not continue into the upper stones, either inside or outside. The Phase 1 builders replaced the top stones of the jambs and replaced the lintel, again in mica-schist. The relieving arch, however, was built over the new lintel to prevent it from cracking again. A long slab of mica-schist, inserted above the new lintel and within the span of the relieving arch, may be the remains of the original lintel (Pl. 4.4).

Measurement of the stones used in constructing the Phase 1 stage of the Cathedral's west wall indicates that the height of the first three courses decreased from the ground up. At the base of the walls, the stones vary from 51 cm to 54 cm. This is their height above ground, and allowance must be made for a greater height when those parts of the stone below the ground are
considered. Second course stones vary from 33 cm to 47 cm, third course stones are around 31 cm. The fourth course is slightly higher, varying from 25 cm to 35 cm in height. While some stones go through two courses, these measurements give a general indication of the sizes to which blocks were cut for use in Phase 1. The north and south walls use higher blocks in their first two courses. Both walls have stones of up to 58 cm high in both courses. In the rubble masonry of the Phase 2 Of The Cathedral, the regularly cut stones of Phase 1 are easily spotted. Eighteen of these stones were located in later parts of the Cathedral. (Fig. 4.3)

Fifteen of the eighteen stones were within the 33-47 cm height, many of them being 40 cm. 33-47 cm, the height range of the second course stones in the west wall, would probably have been the height of third or fourth course stones in the north and south walls. These stones were not re-laid in their original positions after their collapse of the early Cathedral. They were interspersed amongst the Phase 2 rubble, most of them located on or near ground level. Thirteen of them were used in the sacristy rubble, most of them located on or near ground level. The fact that they weren't replaced in their original position by the Phase 2 builders, however, is most significant. It indicates that they, quite naturally, mistrusted the construction methods of the Phase 1 builders. As with the antae and the west door we can see the builders of Phase 2 learning from the mistakes which had been made by the predecessors.

This pattern of learning new and better methods of stone construction is apparent not only in Phase 2 of the Cathedral but in other structures at Glendalough. The masonry in all the walls of all the other surviving stone buildings is mortared, uncoursed rubble. Large, irregular blocks of stone were used occasionally, especially in St. Mary's, but are always on or near ground level. Mica-schist continued to be used in walls right up to the Transitional period, but generally in a much smaller form. The use of mortar meant that the necessity for cutting stones into regular, tight fitting or interlocking blocks had passed. The smaller pieces of mica-schist used with granite and, occasionally, quartz in constructing walls was also less liable to crack than the large blocks of the original Cathedral.

Table 4.1 shows, in summary, stone use in the pre-Romanesque structures at Glendalough. There are discernible patterns in stone use which suggest that, after Phase 1 of the Cathedral, granite became important as a building stone. Its use was restricted to certain parts of the buildings where stress and load bearing qualities were particularly important. The use of granite may have happened as a result of a new awareness of its quality as a building stone or the availability of better tools. Its general restriction to use in doorways, windows, quoins and arches, however, suggest that its hardness and the difficulty of working with it remained important factors. In terms of stone use, especially in the context of the newly acquired knowledge of granite, St. Kevin's Church represents a transition from Phase 1 of the Cathedral to the deliberate and accomplished use of granite in St. Mary's, Temple-na-Skellig, Reefert Church, Trinity Church, the Gatehouse and the round tower. All of the latter structures display a deliberate use of granite
which was based on specific knowledge of the qualities of that stone. At St. Kevin's Church, it is far from certain that this knowledge had been acquired.

STONE USE IN ST. KEVIN'S CHURCH

The original St. Kevin's Church, a single chamber structure with a stone roof incorporating a round tower, is unique not just at Glendalough but also amongst surviving pre-Romanesque churches in Ireland. While granite was used in the construction of St. Kevin's Church, it was used in a haphazard fashion which suggests the builders were not fully aware of its building qualities.

Nowhere is this more apparent than in the west door. While granite was used in the sill, relieving arch and door jambs, the lintel and about half the stones used in the door jambs were of mica-schist. The doorway looks like a copy of the rebuilt west doorway of the Cathedral. It could be argued that mica-schist was preferred to granite for the lintel because of the greater ease with which the protruding drip course, complete with holes for door jambs, could be cut. There is, however, no regular pattern to the use of granite in the door jambs. Granite was also used occasionally in the quoins but again in no regular pattern. The north west quoin has a single block of granite at its base, the south-west two blocks with a block of mica-schist in between c. 1 m from the ground. The head of the east window was carved from a single block of mica-schist on the exterior. It splays inwards to form an arch consisting of mica-schist and granite stones. The two smaller windows in the east wall have flat mica-schist heads, as do all of those in the round tower. Granite is sometimes used in the window jambs, but again its use is haphazard. In the second floor east window, for instance, a single block of granite was used in the base of the south jamb. All other stones in the jamb are mica-schist. These have weathered badly around the edges, while the granite has endured centuries of weathering very well.

The builders of St. Kevin's Church displayed only a slight awareness of the qualities of granite in using it for the central six of the eight stones which make up the west door's relieving arch (Pl. 4.6). Granite was available to them, and could have been used in the lintel, jambs, quoins and other places. Even if its availability was limited, its use could have been continued largely to the west door, as happened at Trinity Church. Many of the blocks that do appear in St. Kevin's are well dressed, so adequate tools and techniques were obviously available. From the evidence of the church itself, the builders of St. Kevin's did not have a sufficient knowledge of the qualities of granite as a building stone to use it in an effective manner.

The use of mica-schist at St. Kevin's, however, and the techniques of its construction were extremely effective. Uncoursed rubble masonry predominates in the walls. The exterior of the stone roof consists mostly of thin slabs of mica-schist, the natural beds laid horizontally, but at a slight angle to minimise weathering. Conspicuous by their very regularity, however, are seven
rectangular blocks which appear in the walls, quoins and west door jamb. They vary in height from 42 cm to 14 cm, and at least three of them have small, regular cuts in one corner. There was no reason why the builders of St. Kevin's, who used stones of varying shape and size which were not laid in regular courses, should cut stone in this manner. These stones can only be blocks used originally in Phase 1 of the Cathedral. The highest which appears at St. Kevin's (42cm) and another at 40 cm were the most common sizes used in the re-building of the Cathedral. In the Phase 1 Cathedral these formed the third and fourth course of the north and south walls. It has been observed how the courses of the original Cathedral generally decreased from ground level. The other stones at St. Kevin's, varying from 14 cm to 25 cm in height, would have come from courses above that of c.40 cm which had collapsed in the original Cathedral. A number of other stones in the walls of the enclosures around St. Kevin's, St. Ciaran's Church and within the walls of the latter building itself may also have come from the original Cathedral. These stones are difficult to identify positively, but one large ashlar with a 6 cm rebate matches perfectly the Phase 1 antae in the Cathedral. It is lying on the ground to the east of St. Kevin's Church.

The builders of St. Kevin's Church not only used some of the stone from the collapsed original Cathedral, they learned from the mistakes made in the construction of the latter. They copied the relieving arch technique and displayed a greater knowledge of the use of mica-schist as a building stone. The sophistication of their architectural knowledge is apparent in their use of a propping arch to support the stone roof and the incorporation into the building of a round tower. It is likely that in the wake of the Cathedral's collapse, more expert advice from within Ireland or abroad was sought. The result of this advice on stone construction was St. Kevin's Church. Despite the vastly improved knowledge of mica-schist construction and the great depth of architectural knowledge, however, the builders of St. Kevin's did not display a great knowledge of the uses to which granite could be put.

THE "GRANITE GROUP"

What is here referred to as the "granite group" of buildings at Glendalough consists of a number of churches, the round tower and the Gatehouse. They share one thing in common. To varying degrees the builders used large, dressed blocks of granite in a manner which leaves no doubt that they were aware of the stones building qualities and had the knowledge and techniques required to cut and work it into various shapes. The group can be sub-divided into four: (1) Single-chamber churches (St. Mary's and Temple-na-Skellig). (2) Churches with coeval nave-and-chancel (Reefert Church and Trinity Church.) (3) The Gatehouse. (4) The round tower. In (1) large, well dressed blocks of granite were used in trabeate doorways which had massive lintels. (Pl. 4.14). Windows of the first Phase do not survive in Temple-na-Skellig or St. Mary's, so we cannot state that granite was used in window heads. The quoins at Temple-na-Skellig are almost exclusively constructed of well dressed blocks of granite. At St. Mary's, a mixture of schist and
granite was used in the quoins, but all four have large granite blocks at the base, where stress was greatest on the stones. Neither doorway is devoid of features. The lintel at Temple-na-Skellig has a protruding drip course carved into the exterior face. St. Mary's has a saltire cross carved on the underside of the lintel, an architrave on the outer face and signs of an attempted architrave on the interior face.

The two churches which make up sub-group (2) are very similar in size and design. Both have similar doorways to the group (1) churches, Trinity's being undecorated, Reefert's showing signs of an attempted architrave on the exterior jambs. The chancel arch in both are identically constructed, using well cut granite blocks exclusively as voussoirs. It appears that more time was available to work the granite at Reefert. its projecting corbels are all of granite, as are its window heads and jambs and (with the exception of one block of mica-schist) its quoins. At Trinity, the west doorway has two blocks of mica-schist at the top of each jamb. All corbels and windows (heads and jambs) are of mica-schist and the quoins consist of both mica-schist and granite. Very little granite appears in the walls of Trinity Church. The later annexe has similar style windows to the earlier nave and chancel, with round heads carved in the solid out of mica-schist. One earlier window, in the south wall of the chancel, which has a triangular head may also have resulted from a shortage of time in completing the original structure. Two mica-schist slabs leaning together took less time for the builders than carving a round head in the solid. The later north door again used granite exclusively, on this occasion carved in smaller blocks with a round head rather than a flat lintel. This tendency away from the megalithic construction of the earlier trabeate doors towards the use of smaller blocks built into arched heads becomes more pronounced in the Romanesque period. Although lacking any attempt at an architrave, drip-course or decoration in its original west doorway, the east window at Trinity Church has a drip-course carved in the solid on the exterior surface.

Sub group 3, consisting solely of the Gatehouse, has two arches built exclusively in granite. As at Trinity Church, the quoins (here in the form of projecting antae) consist of a combination of schist and granite blocks, while the masonry is almost exclusively of schist.

Sub group 4, the round tower, has a doorway with a round granite head, carved in the solid, and a granite base. Only one small stone in the jambs is of mica-schist, the rest being of large blocks of granite, well squared on the interior. All other windows in the tower use flat lintels, only one of granite, the rest of mica-schist. These lintels were so small that granite was not essential. Most of the tower's masonry is uncoursed rubble, largely of mica-schist, but there are occasional bands of granite blocks. These bands of granite, more regularly constructed than the rest of the masonry, reduce the pressure on the masonry below them.

The deliberate and accomplished use of granite which distinguishes this group of buildings was a major advance in masonry at Glendalough. It required great expertise to distinguish the grain or alignment of granite and a lot of labour was required to cut it into the type of squared and dressed blocks which were used in the doorways and arches. It is obvious that the time, or perhaps the money to pay for the labour, was not always available. This is borne out.
by the comparison between granite use at Reefert and Trinity churches, identical in their architectural features but not in stone use. Even at Reefert and St. Mary's, carving begun in the jambs of the doorways was not completed. It has been shown that, in the later medieval period, funding for building projects was often difficult to secure. Building could be stopped for long periods because of lack of funding. A similar situation must have existed in the Early Medieval period. This would explain unfinished work in granite and other aspects of its use, as in the Trinity/Reefert comparison. In an ideal situation, where funding and time were available, granite would be used in all stress points of a building, as at Reefert. Where funding or time were short, the maximum possible use was made of granite, as at Trinity. In all of the granite group buildings, however, granite was used almost exclusively in doorways and exclusively in arches, where they occur. This implies not only an advancement in masonry skills, but an improved economic situation for the Glendalough ecclesiastical authorities who paid for them. Stone use also caused stylistic changes. Once granite lintels were introduced, the necessity for relieving arches disappeared.

There was also, however, a certain degree of stylistic continuity. The tendency to work in large stones, apparent in Phase 1 of the Cathedral, continued in the doorways of the granite group buildings. In addition, the carving of a number of features in a single stone or monolith did not disappear (Pl. 4.7 & Pl. 4.8). The large regular blocks of the early Cathedral were replaced by the use of mortared rubble, generally consisting of smaller stones. Large irregular blocks of stone were, however, still used in the walls of some of the buildings in the "granite group". Nowhere is this more pronounced than in St. Mary's, where numerous large stones are used in the lower sections of the west, north and south walls (Pl. 4.9). As the general tendency in the masonry of the period was towards the gradual use of smaller stones, St. Mary's could be the earliest of the "granite group" churches. The other single chamber church, Temple-na-Skeilig, may have been built around the same time. Reefert Church and Trinity Church clearly belong to a distinct period, with their coeval nave-and-chancel designs; the Gatehouse has similar arches and could belong to the same period. The round tower is difficult to place in sequence as its features are unique.

THE ROMANESQUE AND ROMANESQUE - GOTHIC TRANSITIONAL ERA

The full flowering of Romanesque architecture at Glendalough created new demands on the stonemasons working there. Neither the mica-schist or the granite found in the valley was suitable for the intricate designs carved in stone at St. Saviour's, the earliest Romanesque structure. Apinite was probably secured from near Rathdrum, a stone that does not appear in any of the structures listed in Table 4.1. Table 4.2 shows stone use in Romanesque and Transitional buildings. Mica-schist, granite and quartz continued in use for the rubble walls of all these structures. At St. Saviour's, apinite was used in the ornamented chancel arch and east window. The new "green-stone" was also used in arch and window mouldings and was cut into small blocks.
for door-jambs, window-jambs and quoins. A similar pattern of stone use must have been found in the original Priests’ House.\textsuperscript{28} As at St. Saviour’s, the voussoirs of the east window and its capitals were carved in apinite, and the small blocks were also used. Plain blocks of this stone are also found in the two-light east window of Temple-na-Skellig (Table 4.2).

The development of Romanesque architecture and the simultaneous use of this new green-stone caused enormous changes in stone working at Glendalough. Although the rubble masonry of walls remained virtually unchanged from the pre-Romanesque period, the tendency to work large stones for doorways, windows and even the quoins disappeared. To a lesser extent, so too did the carving into a single block of stone of a number of features. As well as the obvious change of highly ornamented arches, windows and doorways, this basic use of building stones which were much smaller than in previous structures is also significant. These were general features of Romanesque architecture, but their successful execution at Glendalough was facilitated by the suitability of apinite, as opposed to mica-schist or granite, for such work.

Stone carving in Romanesque style was accompanied by the use of different tools and techniques. In pre-Romanesque buildings most stones used in doorways, arches and, to a lesser extent, windows were hammer-dressed. This produced the type of pock-marked surface which can be found on the granite of the arches of the Gatehouse, Trinity Church, and Reefert Church, as well as in other places. Plain blocks of apinite, however, were dressed with a mason’s axe, producing diagonal lines on the surface of the stone. Examples of this type survive in all churches where apinite is used: St. Saviour’s Priory, the Priests’ House (Pl. 4.10), St. Mary’s Church and Temple-na-Skellig. Gouges were needed to carve mouldings, as well as a range of chisels for specialised carvings. It has been noted that, in England, tools used in the building trade varied little between Roman times and the nineteenth century. Salzman has written that “the most momentous change in the working of stone was the introduction of the use of the chisel not only for carving but, to a rapidly increasing extent, for dressing stones”.\textsuperscript{29} This occurred in the second half of the twelfth century, under Norman influence. In Ireland it was the introduction of Romanesque styles of carving and dressing stone, pre-dating the arrival of the Anglo-Normans, which caused significant changes in the mason’s tools which were used.

The new tools required by the masons of the Romanesque period, as opposed to their predecessors, was one of a number of factors which made Romanesque churches more expensive than earlier examples of similar size. The time and labour involved in carving the large number of intricately ornamented voussoirs and other stones at a church like St. Saviour’s was another factor. Also of great significance was the extra expense of transporting considerable quantities of apinite from the quarries probably near Rathdrum to Glendalough. All earlier structures in the valley used the local stone, keeping transport costs at a minimum. The fact that local schist, quartz and granite was still used in the walls of the later structures, however, indicates that the cost of apinite encouraged the builders to restrict its use.

Apinite was also used in the chancel, quoins, arch pillars, south window of the nave (interior and exterior) and east window (interior only) at St. Mary’s. A number of small blocks are
built into the south walls of the chancel. These were either dressed blocks in which mistakes were made by the original builders or, possibly, were built into the walls mistakenly by nineteenth century restorers. Another block of apinite, carved in the shape of a window sill, was placed on top of the nave’s south-west quoin. This is certainly the work of nineteenth century restorers as apinite was not in use at Glendalough at the time the original nave was built. Other than being chamfered, none of the apinite at St. Mary’s has either the mouldings or carved details found at St. Saviour’s and the Priests’ House. The use of Dundry limestone in the exterior of St. Mary’s in the east window and the bases of the north door suggests that the late twelfth-early thirteenth century changes at St. Mary’s took place over a considerable amount of time. There is no coherent style in the windows, doorways and chancel pillars. No trace whatsoever remains of the chancel’s arch and, in this, St. Mary’s is unique amongst Glendalough’s churches. All or some of the stones for collapsed arches at Reefert Church, St. Saviour’s Priory and the Cathedral were found and rebuilt by nineteenth century restorers. It is possible that the late twelfth/early thirteenth century rebuilding of St. Mary’s was never completed. What remains of it certainly indicates a rather haphazard and inconsistent approach on the part of the builders.

The Cathedral is the main building where Dundry limestone was used. The relative ease with which it could be carved made it more suitable than apinite for use in doorways, arches and windows. Dundry limestone was first used in Ireland at Christchurch c.1181 and was probably used at Glendalough in the succeeding decades. It may have been imported directly from Bristol via the ports of Wicklow or Arklow to Glendalough. Given the close relations that existed between the diocese of Glendalough and that of Dublin in the period c.1180- c.1216, it is also possible that Glendalough’s Dundry came from Bristol via Dublin. Whichever route was used, this stone could not have come cheaply to the bishop of Glendalough. Its use here indicates that, at a time when the very existence of Glendalough’s diocese was under threat, considerable resources were available for building.

A number of examples of fully or partly carved blocks of Dundry stored today in the visitor centre at Glendalough reveal interesting aspects of working with this stone. Two of these are blocks which were obviously abandoned because of mistakes made in carving the stone (Pl. 4.11 & Pl. 4.13). The stone would have been cut to this regular shape in the quarry and transported to Glendalough without any decoration. Saw marks can be seen on the unworked surfaces of the stone, showing the direction in which it was cut in the quarry (Pl. 4.12). Both stones were intended for use in the west-facing second order of the Cathedral’s chancel arch. There is a difference of 2 cm in the width of the stones, but the voussoirs used in the arch itself are not of uniform size. The stone in Pl. 4.11 was abandoned because of a crack in the point of one of the chevrons, that in Pl. 4.13 because the inner side of one of the chevrons was cut too deep.

Other pieces of Dundry which survive include stones from the voussoirs, chancel arch and north door of the Cathedral. Leask also noted the presence of three parts of a “three-quarter column” which he failed to identify. They match perfectly the second order of the Cathedral’s north door, where they formed a roll. These stones provide good examples of how
masons of the Romanesque/Gothic eras worked. Freestone blocks were cut to regular sizes in the quarry, transported to the building site and carved into various shapes and designs. Like a jigsaw puzzle consisting of many small pieces, carefully cut to be mortared together, this later work is in stark contrast to the megalithic masonry of the earlier churches at Glendalough.

**EVIDENCE OF DOOR HANGINGS**

Some authorities on Glendalough have noted, in passing, the presence of certain features in stone which indicate how doorways were hung at Glendalough. Only the doorways of the Cathedral (west and north), St. Kevin's Church (west), and St. Ciaran's Church (west and south) have, to date, been noted in this regard. In the course of the stone survey carried out recently at Glendalough by the present author, however, certain anomalies in the masonry of doorways which were never mentioned before were investigated. At Reefert (Pl. 4.14) and St. Mary's (Pl. 4.15) churches, one of the interior jambs is badly destroyed while the other is still in pristine condition. A similar type of destruction can be seen in the incomplete remains of the door-jambs at Temple-na-Skellig. This fact has been conveniently ignored by most authorities to date. If weathering was the cause of such destruction, it would not have taken place on one side of one jamb in these granite doorways, while all three other sides remained virtually unaltered by the centuries.

In order to understand this phenomenon, we must go back to 1875. When repairs were being undertaken by the Commissioners of Public Works in that year, the remains of St. Ciaran's Church was "found beneath a mound of earth and stones". In 1911-12, Cochrane noted that "portions of hanging irons still remain in the outer jambs of this (the south) doorway, and in the inner jambs of the west doorway". In both cases, the irons still remain today. They are inserted into rectangular holes cut out of the bottom stones of the door jambs in the manner illustrated in Fig. 4.4. The second stone of the door jamb, when laid on top of the base, seals the hole with iron in it. In the west doorway, the hole is c. 24 cm off the ground and begins 14 cm inwards from the edge of the jamb. It measures 2.5 cm in width and 3.5 cm in height. In the south door it is 16 cm from the plinth, 9 cm from the edge of the jambs and measures 2 cm x 3.5 cm, slightly smaller than in the west doorway.

The most important feature in this type of doorway is a stone cut in the manner of "stone A" in Fig. 4.4. A stone of precisely this type is found at Trinity Church in the interior of the west doorway, north jamb (Pl. 4.16). The hole measures 2 cm x 2.5 cm. It is 28 cm from the present ground level, and 10 cm from the edge of the jamb. The iron is gone from this hole, which is 9 cm deep. Only the lower sections of the doorways at St. Ciaran's survive, so we have no indication of irons higher up in the jambs. At Trinity Church, the top section of the second jamb stone, only c.25 cm from the underside of the lintel, was broken off. It was replaced and the area around it heavily cemented, presumably by restoration workers in 1875-76. It is difficult to gauge precisely
how far inwards from the edge of the jamb the break went, because of the cementing, but it was at least 10 cm. This would have originally been a stone of "A" type which was broken. It held the second door iron.

Writing of the Cathedral in 1873, Wilde noted that: "In many of the ruins in this locality, these bolt or hinge holes have been wantonly destroyed for the sake of the bits of iron they contain." This explains what probably happened to the top "A" stone at Trinity, the bottom "A" stone at Temple-na-Skellig and both "A" stones at Reefert and St. Mary's. At Temple-na-Skellig and Reefert, traces of the iron can still be seen on the stones. The holes which took them were located c.11 cm from the edge of the door jamb. At St. Mary's, the iron holes appear to have been somewhat closer to the edge of the jamb. St. Mary's is also different in that the door was hung from the south jamb as opposed to Temple-na-Skellig, Trinity and Reefert, where the doors were hung on the north side. There can be no doubt, however, that amongst the "granite group" churches, a fairly uniform system of hanging irons existed in the doorways. The same method was also used at St. Ciaran's, where the iron of the west door indicates that the hinge was of the type known as a "drop-hinge" (Fig. 4.5). The irons obviously survived at St. Ciaran's because, up to 1875, they were buried.

This type of hinge had been used in Britain since the Roman period. Despite this, the Cathedral and St. Kevin's Church show no evidence of having used drop-hinges inserted into stone. Evidence for door fixings in both cases is somewhat obscure because the doors were fixed into wooden jambs rather than directly into the stone. The Cathedral's west door has a sub-circular hole 10 cm in diameter by 12 cm deep cut into the underside of its lintel. This would have held a wooden post which ran flush with the stone jamb of the doorway. The doorway itself and the post may have been formed of one piece of wood, a further round section being inserted into the ground. Alternatively, door and post may have been separate, with hinges used to attach one to the other. The latter type of structure was envisaged by Leask at Gallarus oratory, where two projecting corbels with holes, he thought, held wooden door-posts. St. Kevin's Church had a similar feature, except the two holes are carved from the lintel's hood-mould. This is on the outside of the doorway at St. Kevin's, while at Gallarus it is inside.

The use of wooden door-jambs at the Cathedral and St. Kevin's meant that the doors were less secure than those fixed directly into the stone with drop-hinges. It is significant that the latter type of fixing is found in the "granite group" structures while the Cathedral and St. Kevin's, identified as earlier structures on the basis of stone use, use the more primitive wooden jambs. Evidence for door-fixings in the Romanesque and Transitional structures is lacking. Nineteenth century reconstruction of the later doorways did not retain the evidence of such features.
ANALYSIS OF STONE USE SURVEY

We must be careful not to over-emphasise the significance of stone use at Glendalough. It is clear, however, that the different stone types and the manner in which they were used have not been fully understood to date. How could Leask and other architectural historians and antiquarians understand the different factors which shaped Irish ecclesiastical buildings from the seventh to the thirteenth century when they hadn't even identified the basic stone types from which they were constructed? There can be no doubt that the building qualities of these different stones need to be understood before firm conclusions can be drawn about the styles and dating of the buildings in which they were used.

One of the most important facts to emerge from my detailed survey of stone use is that, at Glendalough, only stone available within the valley was used before the second half of the twelfth century. In these circumstances, the limited uses to which local stones could be put could determine architectural features. The relieving arches over the west doors of the Cathedral and St. Kevin's, for instance, are not necessarily evidence for a new stylistic departure or influences from England or Europe. They appear to be simply a practical device to compensate for the weakness of mica schist as a building stone. It is clear that, through the earliest Cathedral and the original single-chambered St. Kevin's Church, masons working at Glendalough learned of the weaknesses of mica-schist and how to minimise these. Once the strength of granite was realised and methods of working it were found, it was consistently used in doorways, arches and, to a lesser degree, windows, quoins and corbels. The use of granite was limited by the time and/or expense involved in working with this very hard stone. This is clear from the patterns of use observed within the "granite group". It is difficult to be specific about whether lack of time, expense or a combination of both caused the restriction of granite use in particular cases. In the cases of the partly carved architraves at Reefert Church and St. Mary's, however, it is likely that the hardness of this stone limited the execution of architectural decoration. It does not make sense, therefore, to consider that, in the earliest Irish stone churches, lack of decoration implies an earlier date.

Half-worked granite and restrictions on the use of this stone (as in Trinity compared to Reefert) point to lack of funding as a likely limitation on construction projects. The advent of the Romanesque style of architecture created new demands at Glendalough, and must have stretched finances even more than in the pre-Romanesque period. Perhaps it is an indicator of increased wealth that, for the first time, a new stone was sought outside the valley to suit the specific requirements of architectural design. First apinite was secured from the Rathdrum/Vale of Avoca area, later Dundry limestone was brought in from England. These new stones could not be secured and carved to such an unprecedented extent without the presence of favourable economic circumstances. The cost of transporting alone, first from Rathdrum/Vale of Avoca, then from England, was one which did not exist for pre-Romanesque structures. In addition, the cost of the labour, expertise and new tools required to carve detailed designs and mouldings would have been substantial. Indeed it has been suggested that the use of the mason's axe, evidenced in Romanesque buildings throughout Ireland, implies the arrival of foreign masons or the return of
Irish ones who had been trained abroad. Romanesque architecture, as well as providing evidence of European influence in Ireland, must have been supported by a vastly improved economic situation in twelfth-century Glendalough.

The "megalithic" and "monolithic" traditions of Irish stone builders were only gradually eclipsed by more refined methods of stone construction. Even after the massive ashlar style of the earliest Cathedral was abandoned for rubble masonry in walls, these traditions survived in window-heads, sills, doorways and arches. In the doorways and arches of the "granite group" buildings, there is no evidence of mortar being used as an adhesive agent. Just as in the masonry of the earliest Cathedral, the stones are so well cut and fitted together that mortar can only have been used as a "bedding" agent (in doorways). The arches of Trinity Church, Reefert Church and the Gatehouse are held together by the forces created within a properly radiated arch.

We should not underestimate the achievements of the stonemasons who built the structures in the "granite group". Even today granite is an extremely difficult stone with which to work. Carving it into huge blocks, perfectly squared, for use in doorways was a considerable achievement in technical terms. It also had its aesthetic appeal, providing a bold contrast in colour and finish to walls consisting of mostly dark mica-schist built of uncoursed rubble. Despite the sparsity of carved decoration, these early churches had an aesthetic appeal which echoed the more primitive architectural styles of pre-Christian Ireland.

**TERMS USED IN DOCUMENTARY SOURCES FOR STONE AND WOODEN CHURCHES**

While an analysis of stone-use can provide a sequence for the stone buildings at Glendalough, this evidence cannot be used for precise dating. Archaeological excavation has produced no direct evidence of construction dates for any pre-Romanesque Irish stone churches. As opposed to Armagh, Clonmacnois or other sites, specific documentary references to the construction or existence of stone buildings at Glendalough is entirely lacking. In order to establish a chronological framework for the stone structures studied here, we must consider them within the broader context of similar structures in Early Medieval Ireland as a whole. The main evidence available to us on when stone construction began at ecclesiastical sites comes through documentary sources. As the development of stone construction took place within a society where, initially, wood was the major material used in building, the evidence for structures in both types of material must be studied together.

The main Old and Middle Irish terms used to describe the church buildings in the Annals up to the eleventh century were dairthech and domliacc. The terms eclais and cell also appear for "church", but are not used in the specific sense of an individual church building. Eclais (from the Latin ecclesia) refers to the Christian church as an institution or a community of believers. Cell (from the Latin cella), which survives today as kil- or kill- in many place names, is used to
denote a monastic settlement as a whole, or a collection of ecclesiastical buildings. When recording an attack on a monastery or monasteries, the Annals generally use cell (or its variants), but in describing specific churches within the monastery, dairthech and domliacc are used.

Dairthech literally means house (tech) of oak (dair). Different interpretations of the use of dairthech have given rise to misunderstandings about the meaning of the word. The Old and Middle Irish dictionary describes it as "a penitentiary, oratory, prayer-house (originally of wood), the smallest of the sacred edifices used in Ireland, generally fifteen feet long and ten feet broad. Its value was ten heifers if thatched with rushes ten cows if with slates". This gives the impression that the dairthech, while originally a wooden structure, was not necessarily so, its main characteristic being its small size. This idea came from Petrie who, on the basis of entries from the Annals stated that:

As we know that the word daimhliag, which literally signifies a house of stone, became the Irish name for the larger churches, which were usually of this material, it is to the highest degree probable that in the same manner dairthech, literally a house of oak, would be applied to designate the smaller chapels or oratories of oak.

The physical remains of small stone churches at Glendalough, Clonmacnois and many other places around Ireland are positive proof that all stone churches were not large. While no comparable wooden structures survive, there is no documentary evidence to support the conclusions that a dairthech was necessarily of small size, or that the term was used to designate chapels, whether of wood or stone. Radford (1977) argued that Petrie's equation of the term dairthech with the Latin oratorium was misleading. He stated: "It is clear that the normal meaning of oratorium in the period under discussion was church. There is no implication of small size or special function. The distinction which Petrie noted between domliacc and dairthech is simply one of material."

Both Harbison and Hamlin have supported Radford's conclusion and, in addition, have pointed to written descriptions of wooden churches of considerable size and elaborate construction. The clearest and most impressive of these was first noted by Harbison and comes from the A-text of Hisperica Famina. It describes a dairthech in a monastic context which is probably that of 7th century Ireland. A brief reference in lines 62-63 asks:

Do you hew the sacred oaks with axes
in order to fashion square chapels with thick beams?

Bede (c.673-735) confirms that "after the Scots [i.e. Irish] manner" Finan, ordained bishop of Lindisfarne by the Irish, built a church at the episcopal see "not of stone, but of hewn oak, thatched with reeds." Bishop Eadbert later "removed the thatch, and covered both roof and walls
with sheets of lead". It is clear, however, that the basic material in the church at Lindisfame and the one described in *Hisperica Famina* was oak. *Hisperica Famina* goes on in lines 546-560. "About the chapel":

This wooden oratory is fashioned out of candle-shaped beams;  
It has sides joined by four-fold fastenings;  
the square foundations of the said temple give it stability,  
from which springs a solid beamwork of massive enclosure;  
It has a vaulted roof above;  
square beams are placed in the ornamented roof.  
It has a holy altar in the centre,  
on which the assembled Priest's celebrate mass.  
It has a single entrance from the western boundary,  
which is closed by a wooden door that seals the warmth.  
An assembly of planks comprise the extensive portico;  
there are four steeples at the top.  
The chapel contains innumerable objects, 
which I shall not struggle to unroll from my wheel of words.

While details such as the western portico and the four steeples cannot be confirmed archaeologically or from other written sources, the vaulted roof is found in stone at St. Kevin's Church, Glendalough and St. Columb's in Kells. What is most significant, however, is the overall impression of a solidly constructed wooden church "of massive enclosure". Despite the fact that the dictionary description of a *dairthech* specifies that "it is generally fifteen feet long and ten feet broad", the same law-tract from which these dimensions are taken allows for the construction of wooden churches which, without limits being laid down, are larger than this. We also have reference to "the *dairthech mór* (large or great wooden church) of Rathain Ua Suanaigh" (Rahan, Co. Offaly). Cogitosus' seventh-century description of the church at Kildare whose "ground-plan is large" and "rises to dizzy height" is not specified as being of wood or stone. The interior contained "three large oratories, divided from one another by walls of timber" and the main walls may also have been of wood. The *Hisperica Famina* description, supported by the laws and the reference to the *dairthech mór* at Rahan, leave no doubt, however, that a *dairthech* could be a very large and complex structure. *Dairthech*, in the Early Medieval period then, should be re-defined as a wooden, most usually oak, church which could be small or large. Despite the use of *tech*, literally "house", it is clear from references in the Annals that this was not a secular house but a church, all references to *dairthech* being confined to monastic or ecclesiastical sites.
Domliacc literally means house (dom or dam) of stone (liac or lia), and the dictionary defines it as "stone house, stone church." Surviving examples show that, as with the dairthech, there can be great variation in size. The only difference between domliacc and dairthech was the type of material used in constructing them and the use of these terms in the Annals can give us some indication of the relative importance of wooden and stone construction in Irish church buildings at different stages in the Early Medieval period.

One isolated reference in the *Annals of Ulster* in 814 and a considerable number from 1067 to 1200 indicate that tempul (from the Latin templum) also became significant as a term for a church building. Studies of the use of tempul in Irish place names in Counties Wicklow and Cork relate them to Anglo-Norman civil parishes and colonisation. The earliest recorded instance of tempul as the name of a specific church, however, comes from 1134 when the *Chronicum Scotorum* noted the "consecration of Tempail Cormaic in Caisel, by many nobles". The *Annals of Ulster* in 1157 refer to the consecration of tempaill na manach (literally "church of the monks"), the church of the new Cistercian monastery of Mellifont, Co. Louth. Both Cormac's Chapel and Mellifont were unique in twelfth-century Ireland. The church at Cashel was the earliest known example of the elaborately decorated Romanesque churches in Ireland and it displays many details of European influence. Its construction was among the first architectural expressions of the twelfth-century church reform movement in Ireland. A later stage of this reform saw the introduction of the major European monastic orders into Ireland. Mellifont was the first Cistercian house to be founded on Irish soil. With the exception of the 814 reference, the use of the term tempul as "church" in the *Annals of Ulster* is confined to the period 1067 onwards. The frequent use of tempul from the late 11th century and throughout the 12th century as denoting a church or churches at a named monastic site is likely to be associated with reform and the increase of European influence. The likelihood increases when we consider the usage in Cormac's Chapel and Mellifont.

Unlike the earlier terms dairthech and domliacc, tempul is a direct borrowing from Latin. This supports the concept of a greater European influence. In the pre-reform period, Irish monasticism retained its own rules, adopting none of rules of the major European orders until the late eleventh or twelfth century. Borrowings were made from Latin in this earlier period for the more general terms for "church" or "monastery" such as cell and eclais. In architectural terms, however, wooden and of stone churches were described in terms which evolved from the native language. The greater influence of Europe, and Rome in particular, in the Irish church from the twelfth century is reflected in its architecture and in the use of tempul in contemporary sources. As the Anglo-Norman invasion was associated with church reform and the consolidation of territorial diocesan structures, the relationship between tempul in place-names and areas of Anglo-Norman influence represents continuity with the pre-Norman period.

Even the much earlier reference to tempul at Kells may be due to non-native influence. Kells in the early ninth century was unique amongst Irish monasteries. Viking attacks on the
monastery of Iona (Scotland) caused the building of a "new monastery of Colum Cille" (*noue civitatis Columbae Cille*) in Kells, Co. Meath in 807. In 814, Cellach, abbot of Iona, resigned the office of Superior "when the building of the church (*tempil*) of Cenannas[Kells] was finished". This is the sole use in the *Annals of Ulster* of *tempul* before 1067 and the context is one where the outside influence of Iona exists. Kells was attacked in 904 and many were beheaded there around the oratory." The term used here is *oratorium*, but in 920 the *domliacc* of Kells is referred to. The *tempul* built in 814 may have been of stone, the same building being refereed to in 904 as *oratorium* and in 920 as *domliacc*. There is, however, no indication that *tempul* necessarily refers to a stone church. It appears to have become a general term for churches, whether built of stone or wood.

**STONE AND WOODEN BUILDING: A CHRONOLOGICAL FRAMEWORK**

A general consensus has emerged in the last decade that the Annals provide a broad chronological framework for dating the relative importance of wooden and stone churches. Hamlin and Edwards both agree with Harbison's conclusion of 1982: "From Annalistic entries, it would not be unreasonable to conclude that the erection of stone churches may have begun in earnest in a few of the larger monasteries in the 8th century, if not before, while it was only in the tenth century that the new building style was practised to any great extent in the smaller foundations." This comment, however, requires closer analysis. Although the first reference to a stone church (*oratorii lapidei*) in the Annals comes form 789 (at Armagh), the *Annals of Ulster* mention, in 725, the death of "Adchu of Dam Liacc". The place-name Dam liacc (Duleek, Co. Meath) is mentioned in Tirechán's *Life of St. Patrick*: "Domnach Sairigi iuxta Domum Liacc Cennani, id est lapidum". Tirechán wrote at least 100 years before the reference to *oratorio lapidei* in the *Annals of Ulster*. There was therefore a stone church at Duleek by the late seventh century, which was said in the later *Life of St. Mochua* to have been the first of its kind in Ireland. It is more than likely that the fact that a stone church was unusual in seventh century Ireland caused the term *domliacc* to become a place name. As the place name is confirmed in the *Annals of Ulster* from 724 onwards, we cannot doubt the existence of a stone church at Duleek in the late seventh century or earlier. There can therefore be little doubt that the construction of stone churches began in the seventh century.

It also important to remember that entries in the Annals are few and very short in the seventh and eighth centuries. Although in later centuries the building of churches was recorded as interesting in its own right, seventh and eighth century entries relating to church structures usually have a death or killing as the primary reason for recording them. The 789 entry relating to
the oratorio lapidei at Armagh reads: "A quarrel in Ard Macha, in which a man was killed in front of the stone oratory". 77 This stone oratory could have been standing for 100 years, and there would have been no indication of its existence had a man not been killed in its doorway. It certainly existed before 789, and the Annals did not record its construction. These and other limitations of the Annals should be borne in mind.

Despite the problems of using the Annals to date the earliest stone church in Ireland, a survey of references to dairthech, domliacc, and tempul in the period 750-1200 shows some interesting patterns. Table 4.3 is based on The Annals of Ulster, which became more broad ranging in the topics covered and more detailed as the centuries progress. In the 750-800 period, there are only two references, one to a dairthech,78 the other to a domliacc. 79 Both refer to killings in churches. The period 800-850 sees a sharp rise in the number of references to dairthech. Two of these 80 relate specifically to Viking attacks on monasteries. Another, which states that "Armagh was burned with its oratories (derthaihibh) and stone church (domliacc)" may have been a Viking attack, but this is not specified. This is the sole reference to a stone church in the 800-850 period, and it is interesting to note the presence of wooden churches with the stone church at Armagh. The two other references to dairthech in this period refer to a dispute over the abbacy of Kildare 81 and the freezing over of Upper and Lower Loch Eme, which allowed the materials for an oratory (Solaich daurthige) to be transported across the lakes 82.

The first Viking raid in Ireland was recorded in 795 when Recrhu was burned, a place formerly believed to be Lambay Island, Co. Dublin, but now generally regarded to be Rathlin Island, Co. Antrim. 63 In 802 Iona was attacked, 84 a further attack in 807 causing work to start on the nove civitatis at Kells which was completed in 814. 85 This peak in references to the dairthech in the 800-850 period, then, is partially explained by these early Viking raids, which account for at least two, and possibly three of the references. Both Kildare 86 and Clonmacnois 67 are noted as having wooden churches, Armagh being the only place where a domhliacc is recorded as well 68.

The period 850-900 has no references to a domliacc at any site, but an intensification of attacks at sites where wooden churches are recorded is evidenced. Of the seven entries in which a dairthech or derthaigibh (the plural form of dairthech which usually appears in the Annals) are mentioned, six are deliberate attacks. Four of these, at Lusk 89 (Co. Dublin), Duleek 90 (Co. Meath) and Armagh (two) 91 were carried out by the Vikings. One was carried out, in Leinster, by Irish kings. 92 An attack carried out at Trefen (Co. Meath) involved a combined Irish/Viking attack as part of a campaign against Mael Sechnaill 93.

The involvement of the Vikings in alliances with Irish kings against other Irish kings was to become more pronounced as the "foreigners" settled into the Irish political scene. It has been suggested by some historians that the Viking attacks on Irish monasteries were responsible for the increase in stone building and the construction of round towers. The more complex reality is
revealed, however in this period (850-900) when both the Irish and the Norse, separately or in alliances, were attacking the monasteries.

One of the references to wooden churches in this period is in 892 when there was "a great windstorm on the feast of St. Martin (11 Nov.) and it destroyed a large number of trees in the woods and carried away the oratories (na daurthaig) from their foundations and the houses also".94 After a century of Norse and Irish attacks on the monasteries95 an event such as this, which reveals the weakness of the dairthech in the face of extreme weather conditions, must have caused the churches and their secular patrons to consider the construction of more solid and secure buildings. It is hardly surprising, therefore that in the 900-950 period we find two references to a domliacc and from 950-1100 there is a steady rise in the references to stone churches (Table 4.3). The two references in the 950-1000 period are to "heathen" attacks at Kells and Tuilén,96 sites where stone churches were not mentioned previously. The sole reference to a domliacc in the 50 years from 950-1000 is to a fire caused by lightning at Armagh.97 It also contains one of only two references in this period to a dairthech, although reference to a combined Irish/Viking Norse attack on numerous churches (cille) in 95198 and an Uí Neill attack on the churches and forts (cille & dune) of Meath in 97199 provide evidence that the second half of the tenth century was by no means peaceful.

From 1000-1050 there are four references to stone churches, two at sites where a domliacc was not previously mentioned (Dorrow, Co. Offaly and Ardracan, Co. Meath).100 While the references to dairthech number six in the same period 101, the significant increase in references to the domliacc continues in the following fifty year period (1050-1100) when seven stone churches are mentioned. This coincides with a decline in references to the dairthech, only one being mentioned. There can be little doubt that in the period 1050-1100 the drop in references to dairthech is related to the rise in the number of stone churches. Out of a total of fifteen references to specific churches, only one is a dairthech, seven use domliacc and seven use the new term tempul. In the following period the overall number of references to specific churches declines from fifteen to ten; two dairthech,102 three domliacc103 and five tempul.104 The eleven references of the period 1150-1200 are all to tempul,105 an indication of how church reform and Anglo-Norman influence had affected both church architecture and the terms the annalists employed to describe the churches themselves.

The period 950-1000, when the rise of the term domliacc began, was significant for another reason. In 950, we find the first mention in the Annals of the clochthech (literally "bell-house").106 There is another reference to this type of structure in 1020,107 with three references in the 1050-1100 period108 and two from 1100 to 1150.109

The references in the Annals of Ulster to round towers, wooden churches and stone churches follow a discernible pattern. The dairthech was the most common form of church right up to 1050. Peak periods for references to wooden churches were 800-850, 850-900 and 1000-
The ratio of *dairthech:domliacc* references had, however, changed considerably by 1000-1050, when it was 6:4 compared to 7:0 in 850-900 and 5:1 in 750-800. By 1050-1100, the ratio was completely reversed at 1:7. This period also sees the highest number of references to the *clocthech* at three.  

The Irish tradition of building churches in wood or more particularly oak, faded only gradually in the period c.700-1200. We can assume that, before the building of the *domliacc* at Duleek in the seventh century, wood was the main material used in building churches. Despite the presence of a stone church at Duleek from this early date and one at Armagh from before 789, the number of references to stone churches did not rise above one or two until the first half of the eleventh century. Even in the twelfth century, when St. Bernard wrote his life of St. Malachy (Bishop of Down c.1124-48 and Archbishop of Armagh 1132-7), he described how the Irish saint built a church at Bangor (Co. Down) of polished boards, firmly and tightly fastened together. St. Bernard described it as "...an Irish work finely wrought". There was obviously a perception in Europe that wooden churches were still an Irish speciality. Malachy is later portrayed as an architectural innovator when, in 1140, he built a stone church like those he had seen abroad at Bangor, despite the opposition of the natives. St. Bernard, however, was somewhat mis-informed when he stated that this stone oratory was "...the first built in that land..." It may have been the first of a certain style of stone church to be built in Ireland, but the *domliacc* had been built in Ireland for centuries by Malachy’s time. There is, nonetheless, a considerable degree of truth in what St. Bernard wrote. For even if the *domliacc* had become more widespread in the period 1050-1100, this is about four hundred years after the first known stone church was built, and the *dairthech* was still a feature of Irish monasteries in the twelfth century.  

The graph in Table 4.3 shows that the development of the *domliacc* was sporadic in the Early Medieval period. This is in line with research in England which suggests that most churches there in the Anglo Saxon period were of wood, the Normans providing a major impetus to stone building after 1066. Nonetheless, we cannot ignore Bede’s distinction between stone churches and the church of hewn oak in the Irish manner. Neither can we ignore St. Bernard’s echo of Bede 400 hundred years later nor the evidence of the *Annals of Ulster*. The highly ornate high crosses, carved in Ireland throughout the eighth, ninth and tenth centuries, illustrate that highly skilled stone masons existed in Ireland whose craftsmanship did not find its way into churches until the advent of Romanesque architecture in the twelfth century. Stone churches were being built in Ireland at the same time as the high crosses, but the surviving examples show little or no sign of decorative carving. The Irish knew how to build a stone church from the seventh century, displayed a very high level of skill in stone carving in the crosses of the eighth to tenth century and, despite this, showed a persistence in constructing the *dairthech* throughout the Early Medieval period. Insufficient recognition of these contradictions has been made to date and no explanation has been offered.
A number of factors may have influenced Irish church building, including the availability of raw materials for construction, the economic resources to pay for these materials and the skills required to work them. One factor, however, which may have been of considerable significance, is the sacred regard in which trees were held in Ireland. The Romans never conquered Ireland and aspects of Celtic pre-Christian culture thus survived here longer than in Romanised Europe or Britain. Holy wells and sacred trees were two aspects of Ireland's pagan past which survived for centuries into the Christian era. The sacred tree (Bile) was still significant enough in eleventh and twelfth century Ireland to receive mention in the Annals. In 1056 "there came lightning which killed three people at Disert Tola (Dysart Tola, Co, Westmeath) and a student at Sord [Swords Co. Dublin], and it broke down the ancient tree (in Bile)". Swords was a monastery considered to have been founded by St. Columcille. In 1111 the Ulaid made an expedition to the fort of the Cenel Eoghain at Tullahogue (Co. Tyrone) "...and they cut down its [sacred] trees [a bileadh,]." It is an astonishing testament to the significance of sacred trees in the twelfth century that "a raid was made by Niall Ua Lochlainn and he carried of a thousand cows in revenge for them".

The fundamental importance of trees can also be seen in a law-text on trees, which classifies them in four groups: (a) Chieftain trees, (b) common trees, (c) shrub trees, (d) bramble trees. The alphabet in Old Irish consisted of 18 letters, the name of each letter being the name of a tree (Table 4.4). The first edition (1838) of the 6-inch Ordnance Survey map of Glendalough records the site of "St. Kevin's yew tree" within the city. From emblems of the cult of saints through the alphabet and the bile or sacred tree of pagan origin, trees of all classes were a central characteristic of Early Medieval society in Ireland. The many practical uses to which wood was put will be seen later, and practicality was undoubtedly a consideration in the construction of wooden churches. The veneration in which oaks were held since pre-Christian times must have added a uniquely Irish sanctity to the dairthech which used them as raw material. Nothing else can explain the question posed in Hisperica Famina:

Do you hew the sacred oaks with axes
in order to fashion square chapels with thick beams?

Heavy fines existed for the unauthorised cutting of trees in Early Medieval Ireland, but no more sacred uses could be found for an oak than the construction of a church. The endurance of a view of oak trees as sacrosanct in Ireland may have contributed to the continuous construction of the dairthech down to St. Malachy's time. It also explains the perceptions of Bede and St. Bernard that the form was particularly Irish.

The survey of the Annals of Ulster shows that the tenth century saw the beginnings of an increase in references to the domliacc which continues up to the twelfth century. The Viking raids combined with an even greater tendency for Irish kings, either alone or in alliance with the
Scandinavians, to attack monasteries made the domliacc a more practical choice than the dairthech. Whatever degree of veneration was associated with the use of oak as the main material for church building must have been lessened by the need for structures which would even partially survive the numerous burnings which were recorded in the sources. Although the dairthech continued to be built, the domliacc assumed an increasing significance in the tenth to twelfth century period. The clochtech, first mentioned in 950, also receives a greater mention in the eleventh and twelfth century. Some of the references show that these "bell-houses" were, like the domliacc, part of the greater need for security and protection. The fact that the clochtech was first mentioned at the time when stone-building was becoming more common casts considerable doubt on the existence of earlier wooden prototypes.

Archaeological excavations at stone churches, although limited in number, reveal that they were often preceded by wooden structures. This confirms the general pattern of references from the Annals of Ulster. Obviously the latter source has its limitations. Having been compiled at Armagh, it would naturally concentrate more on the city there and in other areas of special significance to its coarbs and bishops. Clonmacnois, for instance, is not mentioned as a site which has a domliacc. Yet we know from the Chronicum Scotorum that in 909 "the stone church (domliacc) of Cluain-muc-Nois was built by Flann, son of Maelchlainn and Colman Conaillech." Just as the Annals of Ulster contain considerable detail on the buildings at Armagh, so the Chronicum Scotorum, compiled at Clonmacnois, contains the occasional detail of structures within in its own city. None of the surviving Annals were compiled at Glendalough. Bearing this fact in mind and given the general picture of ecclesiastical buildings which emerges from the Annals of Ulster, we must turn to examine references from the Annals to buildings at Glendalough.
REFERENCES IN THE ANNALS TO STRUCTURES AT GLENDALOUGH

Of the numerous references to attacks, plunderings and fire at Glendalough, only four from the eighth century up to 1169 use specific terms for buildings. Two of these refer to dairthech (or its plural dairtighibh), one to templis (churches) and one to templu (churches) and tige (houses). There are no references to either domliacc or clocthech, despite the fact that Glendalough has one of the finest surviving collections of Early Medieval stone buildings in Ireland. This curious paradox can be explained by the fact that Glendalough produced no Annals of its own which have survived. Stone churches of different phases exist there and it is reasonable to presume that they fit into the chronological framework indicated by the survey of the Annals of Ulster and other sources. It is unlikely that Glendalough had a stone church before the first known example at Duleek or the eighth-century oratori lapedi of Armagh. The latter was the ecclesiastical capital of Ireland, the former traditionally the place where, no later than the late seventh century, the first domliacc was built. Considering these dates and the very primitive masonry of the first phase of Glendalough's earliest stone church, the Cathedral, there is no reason to doubt that this could have been built in the late seventh or eighth century. What is most relevant here, however, is that physical remains show that the domliacc was undoubtedly a structure of major significance at Glendalough, which also has an impressive clocthech; the dairthech, referred to at Glendalough as late as 1020, continued to exist as late as the eleventh century and possibly beyond; and, despite the sparsity of references from the Annals which relate specifically to the structures at Glendalough, there is no reason to doubt that the chronological parameters set by the use of the terms dairthech, domliacc, clocthech and templ in the Annals of Ulster apply also to Glendalough.

CONCLUSION

The Annals and other documentary sources provide both the architectural context and the chronological parameters within which the surviving stone structures at Glendalough must be viewed. If we combine this evidence with the results of the survey on stone use and the dating evidence for twelfth- and thirteenth-century buildings, a dating sequence can be established (Table 4.5). The study of early Irish church buildings has already been confused by different chronological sequences, mostly based on plans and typological features. This approach has done little to enlighten our knowledge of early Irish church buildings, and will do little to help establish a true chronology until some proven dating method emerges. The sequence of building proposed here is based on evidence provided by the builders themselves. In an era when
rectangular stone-building was an entirely new concept, there are bound to be mistakes, irregularities and lessons to be learned. In a country which was a network of small tóatha or kingdoms, local factors were bound to have a strong influence on building customs. Leask himself recognised that, amongst early Irish churches in mortared stone, local geology was a "potent factor". The results of the stone survey at Glendalough show that it is possible to distinguish a pattern in the way stone was used. This can provide a dating sequence, but the limitations of this method must be borne in mind. To attempt close dating (within decades or even centuries) would only add further confusion to an already confused debate. The building sequence and date-bands provided in Table 4.5 are the closest we can come to an honest dating system for Glendalough's remains, given the evidence available. Although more concise dates might be desirable, an obsession with dating can deflect attention away from other aspects of the history of building and architecture which are significant in themselves.

One of the most interesting details to emerge is the evidence of a dry-stone early Cathedral. While the "interlocking" character of much Early Medieval masonry was noted as early as the nineteenth-century by observers such as Petrie and Brash, it has never been seriously considered as indicative of dry-stone construction. In some other cases where large stones are carefully fitted together, they are not consistently cut as ashlars of the well-squared type which we find at Glendalough's Cathedral. At St. Mac Dara's Island, Co. Galway, for example, the masonry in the walls consists of large, irregular-shaped stones which are well fitted together. Mortar was used in this church, which is dated to the twelfth century by the style of its window mouldings. Temple Benen and Kilcananagh, both on the Aran Islands, are simple, pre-Romanesque churches which also use large stones, some of them well squared. In neither case, however, are the stones as consistently regular or as tightly fitted together as at Glendalough. Another Aran Islands church, however, does bear close comparison to Phase 1 of Glendalough's Cathedral. Although the west wall and the north window of Teglach Enda were rebuilt in later times, the east and north walls were described by Westropp as "...ancient, of large masonry, with little cement." Westropp's photograph of the church shows the antae of the east gable (there are none on the later west gable), and ashlars laid in regular courses throughout most of the east wall. The comparison with Glendalough is striking, and one wonders did both form part of an early group of stone churches in Ireland where well-fitted ashlars were used to compensate for the fact that mortar was not used as an adhesive agent. It should at least be considered that the beehive huts and boat-shaped oratories may not have been the only type of dry-stone building at Early Medieval ecclesiastical sites. The remains of the Phase 1 Cathedral at Glendalough do suggest that an attempt, however short-lived, was made to construct dry-stone rectangular churches on a larger scale and in a different style to the boat-shaped oratories.

Another topic which deserves more attention is the extent to which factors such as the restricted qualities of local stone, limited finances, pressure of time and inadequate tools could have played a role in determining the shape of Irish architecture, especially up to the twelfth century. The church reform movement of the late eleventh and twelfth centuries, the advent of
Romanesque architecture and the arrival of the Anglo-Normans all brought a greater degree of European influence to Ireland. This can be seen throughout the country in the appearance of new forms of church design, carving, stone-dressing and, linguistically, in the more widespread use of the term *tempul* for churches. While restricted finances and pressure of time would still have been limiting factors on the progress of architectural projects, changes are apparent in other areas. At Glendalough this is evident in the fact that more suitable building stone was acquired from outside the valley and a more sophisticated range of tools was obviously available. Before these developments of the Romanesque period, however, the limitations of working in local mica-schist and granite can be seen in a number of buildings.

It is clear from documentary sources that the stone remains of Ireland's monasteries and ecclesiastical cities are a mere skeleton of what once existed. Given the clearly marked preference for wood as a building material for much of the Early Medieval period, it is hardly surprising that the Irish had a reputation abroad as builders in wood. There was, however, a gradual change to stone from the 7th century onwards. We should be careful not to exaggerate Ireland's uniqueness in this regard, for a similar situation existed in Britain before 1066. The Christianisation of the pagan concept of sacred trees may explain why the *dairthech* continued to be built for so long after the *domliacc* is first evidenced. There is also a certain continuity between Christian and pre-Christian times in the methods of stone construction. Corbelled roofs, flat-lintelled doorways and the use of large boulders were all known to stonemasons in Ireland long before the first rectangular churches were built.

The gradual changes in the relative significance of timber and stone construction are mirrored in another source, the law-tracts concerning craftsmen and their work. It is to this source that we must now look with a view to establishing more about the builders themselves, their products in wood and stone and the economic value of those products.

**NOTES**

1. Leask, H.G., 1987, p.53 briefly discusses local geology as a factor in determining the style of early Irish churches. In Chapter VI (pp. 43-47), he outlines the influence of timber construction on building in stone. Brash, R.R., 1875, p.153 also makes interesting comments on the effects of local stone and the skills of local workmen on the styles of masonry which are found.

2. See Chapters 2 + 3. Where reconstruction casts any doubt on the originality of features, this is mentioned.


Wilkinson, G., 1845, p.202 notes that in Co. Carlow, where granite is commonly used in building,"...the solid rock is seldom quarried, most of the stone being produced from the numerous large detached boulders which cover the surface." The boulders, he says, vary in size "...to ten ton and upwards." Wilkinson employs the term "fields" as opposed to "quarries" to describe the places where these boulders (i.e. erratics) occur (p.202). In relation to Glendalough's "antient buildings" he notes the use of "rolled field stones of quartz and granite" (pp. 196-7), pointing to a similar use of erratics to that found in Co. Carlow.

Leask, H.G., 1911-12, p.70


ibid., p.20.


O.P.W., 1990, p.8


ibid., p.154.

Dr. Chris Stillman, Dept. of Geology, Trinity College, Dublin kindly examined the Glendalough green-stone and gave this identification. Apinite and dolerite can vary in colour. The stone at Glendalough is mostly green, some of it having a slightly brownish, some a slightly greyish tinge. Having noted the nature of apinite and dolerite, the stone is hereafter referred to as apinite.

*S.O.E.D.*, s.v. dolerite.

*Geological Survey*, based on O.S., 6-inch series (surveyed 1838, revised 1908), Co. Wicklow, Sheet 30, with geological notes added in 1943, shows that the closest intrusions of what the survey calls "greenstone" occur to the east of Rathdrum.


Dr. Patrick Wyse Jackson is an expert on building stone at the Dept. of Geology, T.C.D.. Prof. Stalley, Dept. of Art and Architecture, T.C.D., who has identified Dundry limestone at a number of Irish sites, was also consulted.


This stone survey was carried out from June 1993 to February 1994 with the assistance of funds from T.C.D. (Grace Lawless Lee fund).

Tomás O'Loughlinn, John Walters, B.Sc., Dr. Chris Stillman and Dr. Patrick Wyse-Jackson have all assisted in coming to terms with the different qualities of building stone.
Leask, H.G., 1987, p.71, states: "The lower parts of the walls (for about 6 feet in height in the west wall and half that in the side walls) is of large, squared and well fitted ashlar of mica-schist, very imposing in appearance. In reality this work belies its appearance; it is a relatively thin facing to a rubble core. Above these levels the masonry is rubble, well built and constructionally far sounder than the pseudo-ashlar work below".

Barrow, L, 1984, p.32 notes the relieving arch of the west door and the antae as possible signs of "a lack of experience in building in stone on this scale".

It is the only known pre-Romanesque church in Ireland to have a solid stone roof and a round tower built over its western gable. See Chapter 3 under ST. KEVIN'S KITCHEN, especially n. 238.

See chapter 3 above, under ST. KEVIN'S KITCHEN for rebuilding of east window as a chancel arch in the second phase.

Stalley, R., 1971 has discussed this problem in some detail and refers to the example of Boyle Abbey.(p.16) Here the building work spanned the Early and Late Medieval periods, beginning soon after 1161 and finishing not much after 1230

See Chapter 3 above. The Priests' House was largely reconstructed in the nineteenth century, but blocks of apinite cut in similar style to St. Saviour's can still be recognised.


Despite the fact that King John, in 1185, had clearly signalled the intention of uniting the diocese of Glendalough with that of Dublin, various charters and agreements in the period 1180 to 1216 (when the union finally took place) show that close relations existed between bishops and abbots at Glendalough and ecclesiastical officials in Dublin. See Chapter 3 under THE CATHEDRAL.

ibid, p. 51, nos. 81, 82 and 83.

Freestone describes blocks cut into basic, regular shapes in the quarry which can be worked in any direction at the building site. As opposed to stones which have a stratified structure, freestones do not have to be laid on a horizontal bedding plane. See Batten, M., 1966, p.124.

C.P.W., 1911-12, pp. 21-23.

ibid., p.16.

ibid., p.19.

ibid., p.18.

ibid., p.19.

Wilde, W., 1873, p.464.


The Latin term *oratorium*, "oratory", is also used, but only references which specify whether the *oratorium* is of wood or stone are referred to here.


*D.I.L.*, s.v. *cell*

This is based on a detailed survey of the use of these terms in *A.U.*, a.d. 431-1200. A full list of the references upon which this survey is based can be found in Appendix 3. Numerous examples of the use of *cell* could be cited, such as 835.11: "Mungairt [Mungret, Co. Limerick] and other churches(*cheall*) of larmumu were burned by the heathen." The use of *cell* in the phrase *tuatha & cella*, meaning "states and churches", is often found; see 839.7, 841.4 and 850.3 for examples. A variant on this is *cella & dune*, "churches and forts" as at 971.6 and 1084.5.

*D.I.L.*, s.v. *dairthech*

Petrie, G., 1845, p. 345.


Harbison, P., 1982, p.624 accepts *dairthech* (which he spells *duirtech*) simply as "the Old Irish word for a wooden church."

Hamlin, A., 1982, p.118 also accepts *dairthech* as "literally 'oak-house', meaning wooden church".


See Chapter 5, under **COSTING OF THE DAIRTHECH**.

Although Leask, H.G., 1987, p. 9, gives this as coming from *A.Tig.*, 747, this is incorrect. It comes from a poem reputedly written by a poet whose death is recorded in *A.Tig.*, under 747. The story in which the poem occurs is quoted in Petrie, G., 1845, pp. 353-4, from an MS. in the Bodleian Library, Oxford.

Translation from Bieler, L., 1963, p.28.

*D.I.L.*, s.v. *dom, dam.*

*P.N.*, VII, p.505.


*C.S.*, 1130 (*recté* 1134); See also *A.F.M.*, 1134.

*A.U.*, 1157.


*A.U.*, 807.4.

*A.U.*, 814.9.
The survey of the A.U. a.d. 413-1200 includes the word tempul. For details see Appendix 3.

Hamlin, A., 1982, p.19 states: "If we look to written sources for help in dating churches we find that they can provide a broad chronological framework, and I agree with Dr. Harbison's conclusions, that stone churches were found on a few important sites in the 8th and 9th centuries but were not commonly built until the 10th century, still the at important sites, increasing in the 11th and 12th centuries."


A.U., 789.8.

A.U., 725.1.

P.B.A., p.146. Translated (p. 147) as "Domnach Sairgi beside Dom Liac, that is the houses of stone, of Cianán."

V.S.H., II, p.187: "Interea sanctissimus vir Kyennanus...ecclesiam cepit Domino edificare lapideam; quia ante illum in Hibernia non fuit usus construendi ex lapidibus ecclesias."

A.U., 789.8.

A.U., 762.2.

A.U., 789.8.

A.U., 824.2 and 845.3.

A.U., 836.3.

A.U., 818.3.


A.U., 802.9.

See above, n. 65 and n. 66

A.U., 836.3.

A.U., 845.3.

A.U., 840.3.

A.U., 856.4.

A.U., 881.3.

A.U., 869.6 records an attack on Armagh by Amlaib, the latter being the Irish for Olafr, a name found amongst the Scandinavian kings of York and Dublin; see Smyth, A.P., 1975-9, II, pp. 326 and 316. A.U., 895.6 for the other Viking attack of this period.

A.U., 874.4.

A.U., 850.3.
References to *cille* (from *cell*) which were attacked or plundered in the period 800-900 broaden the view of how serious and widespread these attacks really were. Attacks are recorded in *A.U.* at 832.2, 833.7, 835.11, 836.5, 837.3, 837.6, 839.7, 841.4 and 850.3. The attack of 833 was carried out by the king of Cashel, that of 850 by an Irish/Viking alliance. All other attacks were carried out by "the heathens".

*A.U.* 920.6.

*A.U.* 996.1.

See *A.U.*, 964.6 (for *dairthech*) and 951.3 (for *cille*).

*A.U.* 971.6.

*A.U.* 1008.11 (Kells, Co. Meath), 1019.10 (Durrow, Co. Offaly), 1020.4 (Armagh), 1031.2 (Ardbraccan, Co. Meath).

*A.U.* 1003.4 (Fems, Co. Wexford), 1020.1 (Kildare and Glendalough), 1028.9 (Slane, Co. Meath), 1031.5 (Cell Chomhair or Comber, Co. Down), 1042.1 (Killeshin, Co. Carlow).

*A.U.* 1106.2 and 1116.2.

*A.U.* 1115.7, 1125.1, 1126.11.

*A.U.* 1112.1, 1116.2, 1126.5, 1128.8, 1130.1.

*A.U.* 1155, 1157, 1162 (two references), 1164, 1173, 1179 (three references), 1196, 1197.

*A.U.* 950.7 at Slane.

*A.U.* 1020.4.

*A.U.* 1058.1, 1076.3, 1097.4.

*A.U.* 1121.6, 1121.9.

See above f.n. 108.

*Vita Mal.*, p.32.

ibid., pp. 77-78. See Chapter 2, under *TRINITY CHURCH* (including n. 196) for full quotes.

*A.F.M.*, 1167: "A church was erected at Clon-mic-Nois, in place of the Dertach, by Conchobhar Ua Ceallaigh and the Ui Maine."


*D.I.L.*, s.v. *bile*, where the meaning is given as "(large) tree; tree-trunk(?)...especially ancient or venerated tree."

*A.U.* 1056.9.


Compiled from *D.L.* where the first entry under each letter gives the name of the letter i.e. the tree by which the letter was named.

See *O.S.* 6-inch series, Co. Wicklow, Sheet 23, surveyed 1838.

See Chapter 5.

See f.n. 53 above.

Wooden structures have been uncovered beneath stone churches at Church Island, near Valentia, Co. Kerry (see O'Kelly, M.J., 1958, pp. 58-59); St. Vogue's Church, Carnsore, Co. Wexford (see O'Kelly, M.J., 1975, pp. 20-22); Reask, Co Kerry (see fanning, T., 1981, p. 86 and pp.154-155); St. Mel's Church, Ardagh, Co. Longford and Inishcaltra in Lough Derg, Co. Clare. For the last two sites, excavated by L. de Paor, see Harbison, P., 1982, pp. 628-9.

See *C.S.* 908 (recté 909).

*A.F.M.*, 835 (recté 836). For full details of this and all other annal entries concerning the buildings at Glendalough see Appendix 1.

*A.U.*, 1020.1.

*A.U.*, 1084.2 and *A.F.M.*, 1084.

*A.I.*, 1081.9.


See Harbison, P., 1990, pp. 97-98 for an up-to-date description. The upper part of the church, including the solid stone roof, was restored by the O.P.W. in 1975, but Harbison, 1990, has photographs of it before (Fig. 35) and after (Pl. IX and Fig.34) reconstruction.

Temple Benan, Inishmore, Aran Islands, Co. Galway is illustrated in Westropp, T.J., 1905, p.83 and in Champneys, A.C., 1910, Pl. XVIII. Many well-squared stones, one almost the full height of the wall, are used in this church.

Kilcananagh, Inismann, Aran Islands, Co. Galway is illustrated in Westropp, T.J., 1905, p. 89. Petrie, G., 1845, p. 189 notes that this church, which he calls Teampull Ceannanach, "has a block 18 feet long and 3 feet thick, which reaches across the whole external breadth of the church."

Teglach Enda, Inishmore, Aran Islands, Co. Galway is described in detail by Westropp, T.J., 1905, pp. 82-83.

Westropp, T.J., 1905, p. 84.
CHAPTER 5

The law-texts on craftsmen and their products, with special reference to the Early Medieval remains at Glendalough
LAW-TEXTS: INTRODUCTION

The early Irish law texts are a rich source of information on a wide variety of topics relating to Early, and even to Late Medieval Ireland. The bulk of these texts were, on the basis of linguistic evidence, written down in the 7th and 8th centuries. Later glosses and commentaries can provide considerable help in understanding the original laws. While they sometimes misrepresent the original texts or contain unreal distinctions each particular tract must be assessed in the context of the subject with which it deals.

Two major texts survive which deal with craftsmen and ecclesiastical buildings. One is a commentary on an original text which is missing. It details a complex system of costing various types and sizes of ecclesiastical buildings. While the original law is lacking, analysis of the text's structure in the context of knowledge gained from other sources does assist in distinguishing the core of the earlier missing section. The orthography of the surviving text clearly indicates that it comes from the Middle Irish period (10th - 12th centuries). This was a period when significant changes relating to the daithchech, the domliacc and the cloichech were taking place. It is with these three structures that the law deals.

The other major text deals with the status and skills required of sær. Kelly defined sær as "wright, builder, carpenter etc.... the craftsman who works mainly in wood." He also noted that sær "can also mean stone mason," but the broad range of meanings which the word has are undoubtedly associated with changes in craftsmanship which occurred in the 7th to 12th century period. The nature of these changes, their effect on the meaning of the word sær and the range of skills expected of an ollam or "master" sær became apparent when the text is examined in detail.

In chronological terms, the text, contained in the law-tract Uraicecht Becc, falls into two distinct sections. The original text is in Old Irish and dates from the 8th or 9th century. The entire tract has additional, later commentary which, in the sections which relate to the sær, date from the eleventh or twelfth century. Uraicecht Becc, or the "small primer", is one of the main Law-texts which deals with the subject of rank or status.

Status in early Irish society was determined by a person's "honour price" (lóg n-enech) (Table 5.1). It was reckoned by a system of currency in which the standard unit of value was the sét, which was equal to half a cow (bó) or three female slaves (cumal) (Table 5.2). The Irish society reflected in the law-tracts was strictly hierarchical. At the top were the nemed (literally holy, or sacred) or privileged class. It is as a lower appendage of this class that we find the sær. The dœrmemed or "base nemed" also included the physician, judge, blacksmith, coppersmith and harper. Belonging to this class placed the sær in a very important position in Early Ireland, and an ollam had
a status equivalent to an aire tuiseo, a high ranking lord, and higher than that of the highest grade of judge (brithem). It is perhaps difficult to understand, in present day terms, how a master "wright" or "builder" had a social standing higher than a judge or a physician (liaig). In reality, however, the "master builder" of Early Medieval Ireland fulfilled the functions of both craftsman and the architect of modern times. The law-texts mention only the sáer and knew no separate term for "architect". It appears that a similar situation existed in Ireland in the 13th century, when religious or administrative officials may have had some involvement in the design of religious buildings, but the process of design was generally left to a professional master mason. It was, then, partly due to the fact that he combined the functions of the modern architect and builder that the ollam sáer had such high status.

From Petrie (1845) up to more recent authors such as Ralegh-Radford (1977) 21 Harbison (1982) 20 and Leask (1987) 21 historians and archaeologists have referred to or quoted from one or both of these texts. Their full significance has never been fully realised, despite the attentions of such renowned scholars. Neither has the detail contained in the text been tested against other sources and the buildings and artefacts referred to. These laws deal with the work of those who built churches which still survive, relatively complete in the case of some stone examples, and as post-holes indicating plans in the case of wooden ones. Other samples of the sáer's work survive in high crosses and artefacts. It seems surprising that the validity of the law-texts has not been properly tested nor their potential fully explored. In addition, some interpretations of the text led to false perceptions and misunderstandings which have clouded considerably our view of Early Medieval craftsmanship and the fruits of the sáer's labours. Rather than dealing initially with the partial or mistaken interpretations which we have had to date, it is essential to go straight to the texts themselves. While they are complex in places they are worthy of detailed analysis for two reasons. Firstly certain misconceptions need to be cleared up. Secondly a strong argument can be made for the accuracy of the texts and the wealth of information they give us about the sáer in Early Medieval Ireland, how craftsmanship was organised, the relative importance of materials used in construction and the method of costing ecclesiastical buildings.

THE STATUS, ORGANISATION AND SKILLS OF THE SÁER

The ollam (or "master") sáer had, in the eighth to ninth centuries, an honour price of 20 séts (see Tables 5.2 & 5.3). While his high status in society can be partly explained by the fact that he was both "architect" and "builder", another major factor was involved. The ollam had to master many different skills before he would be raised to his title. From the 8th to the 9th century, these skills fell into four distinct areas, the ability to be: (a) An accurate builder of oaken houses durtai(i). (b) A builder of ships (long), barks (bairce), hide-covered boats (curach) and vessels (lestra) (c) A millwright (sáer muilind). (d) One skilled in yew-carving (ibroracht). A man who had any one of these skills had an honour price of 7 séts. If he accumulated two or three of these skills, his honour price
Craftsmen specialised in only one of these four areas must have existed, but the incentive of increased status for possessing more than one skill was considerable. The sáer who had all four skills would not, automatically, be considered an ollam. The later status was conferred upon him by the túath, a term which not only meant "petty-kingdom" but "body politic" as well. The appointment was made by the king of a túath, the king of a mór túath, the king of a province or the King of Ireland. According to the later commentary (10th-12th centuries), the appointment of an ollam by the king of a túath alone did not add to his status. In the original text, however, the honour price of an ollam as opposed to that of a sáer who has all four skills (15 sétts) is 20 sétts, and no distinction is made regarding the status of the king who confers the title. The fact that a sáer possessed the four skills made him eligible for the title of ollam, but the title itself and the 5 sét increase in honour-price came only with appointment by a king.

The distinction made in the later commentary between the title ollam as given by the king of a túath or by kings of higher status may reflect the changed circumstances of the 11th and 12th centuries. The latter century especially witnessed a greater concentration of power in the hands of overkings at the expense of petty or túath kings. In these circumstances, a decline in the status of titles conferred by túath kings would be expected. Another crucial difference exists between the earlier text and the later commentary. While the skills of the sáer in the former are concentrated almost exclusively around wood-work, the latter gives equal importance to stone-working skills. An ollam in the 11th - 12th centuries had two chief foundation skills, stone-building (clochsairse) and wood carpentering (crannsairse). The noblest works he must be able to carry out as an example of these skills were a stone church (domliacc) and a wooden church (dairthech). While the other three skills mentioned in the earlier text are still included, the domliacc is not the only new stone structure to be mentioned. Cashels (caisil) or stone enclosures and stepping-stones or paved roads (clochán) are also listed along with structures which could be of stone or wood. The latter included causeways (tóchair), crosses (crossa) and bridges (drochti). Also mentioned is uamairecht, possibly derived from uam, meaning a souterrain or cellar. Engraving (rindaigecht) and the ability to make a shield (sclath) and a chariot (carpat) are included amongst the skills expected of the ollam sáer. All three were listed as separate crafts carried out by craftsmen who were clearly distinct from the sáer and had lower status in the earlier law. The engraver, chariot-wright and shield-maker were, in the eighth - ninth century, listed with a group of craftsmen which included the house-carpenter (ailtire) and the embroiderer (gebeich). These had an honour-price of 3 sétts, a combination of any two of the five crafts increasing this to 5 sétts. The inclusion of tige slat or wicker-houses amongst the structures which the ollam sáer of the 11th - 12th century was expected to be able to build suggests that the skills of the house-carpenter (ailtire) also passed from the group of 5 lesser craftsmen into the sphere of the sáer.

The ollam sáer of the later period was required to have a far wider range of skills than previously. His honour price rose to 21 sétts, but this depended on the accumulation of a far greater
number of skills. Each individual skill had a value which was lower than previously, but one sixth of that value was added to the honour-price of the sáer as he acquired the various crafts. Table 5.3 shows how this system valued each skill and how this contributed to an increase in honour-price or status for the sáer. The changes in the way the honour-price was calculated probably resulted from the development of new areas of craftsmanship (mainly stone-working), combined with an increase in the number of craftsmen working in Ireland. A gradual increase in the number of stone churches being constructed is evidenced in the Annals in this period, and the law-text itself confirms this. An increase in the number of craftsmen of all specialities would explain why the honour price of the individual skills decreased and the road to becoming an ollam sáer became more difficult.

The fact that the ollam sáer of the 11th - 12th century period had to "be master of several branches of building in several different things" is acknowledged by the author of the law texts. This was obviously seen as a good reason to give the sáer a high honour price but, the author explains, he could not be given a higher status than an ollam poet, brehon or fear legind (a man learned in Latin). The domliacc and the dairthech were seen as the ultimate examples of the ollam's two foundation skills, stone masonry and wood-working, but only supervision over the other arts is expected of the master sáer. In order to supervise the other arts, the ollam must have been expected to have mastered them himself. The division in the later text, however, between "foundation" skills and supervision of the other arts did not exist in the earlier period. This is perfectly reasonable, given the far wider range of skills which the later ollam was required to possess. The earlier ollam was required to have mastery in four different areas and, presumably, had to continue to practise in all four areas. In later times, the wider range of skills could not reasonably be expected, in practice, of the ollam. Hence the division into "foundation" skills and those over which supervision was only required.

The list of objects and structures which the sáer produced is very comprehensive and we can test its accuracy by viewing it in the context of archaeological finds. It covers most of the field structures which archaeologists associate with the Early Medieval period. The domliacc can be seen in the form of churches at numerous sites around Ireland. Although it is a more rare survival archaeologically, examples of the dairthech literally "oak-house", have been excavated at Church Island near Valentia, Co. Kerry, Inisceiltra, Lough Derg, Co. Clare, and Ardagh, Co. Longford. Many crosses (crosa) survive in stone and although there may originally have been similar crosses in wood, these have not survived. It is interesting that in the law-text crosa or crosses are listed after rindaigech, "the craft or occupation of ... engraving, carving, decorative work." The stone high crosses which survive in Ireland are the most richly decorated stone monuments of the Early Medieval period. Mills have been excavated at Little Island, Co. Cork and remains survive at other sites, including Glendalough. Causeways (tóchair), if taken simply to mean "paved paths" have been uncovered in excavations at the Wicklow Gap (St. Kevin's Road) and Glendalough. Part of the cobbled path can still be seen around the Gatehouse at Glendalough, although this survived more extensively earlier in this century. Cashels (caisle) survive in many parts of Ireland
and traces of wattle-and-daub or wicker houses (tige slat) have been excavated at Glendalough and other sites. While stepping-stones (clochán) and bridges (drocht) from the Early Medieval period have not yet been identified or excavated, documentary sources occasionally refer to them. The Annals of Tigernach, for instance, record that in 1177, a flood "carried away the bridge and the mill of the town " of Glendalough. Although stone "beehive" huts, such as those at Skellig Michael, Co. Kerry and St. Kevin's Cell, Glendalough, are not specifically mentioned in the law-text, the skills required to build a domliacc may well include not just stone churches, but "beehive" huts and other stone houses. It appears that round towers were not being built at the time when this particular text was written, but a legal commentary of the 10th to 12th century mentions the cloidtech (bell-house) along with the dairthech and domliacc.

The details of the various wooden objects which the ollam sáer must be able to make can also be supported by archaeological finds from Early Medieval contexts. A notable aspect of the list in the law-text is that the first skill mentioned after the "foundation" skills is ibróracht. This is a general term for working in yew wood, either on buildings or other objects. Its use here suggests that wood-work of all kinds using yew was of particular significance in Early Medieval Ireland. This suggestion is, in fact, strongly supported by archaeological evidence. In a period which was largely aceramic in Ireland, many vessels and domestic utensils were made of wood. The vessels that survive show the different techniques were used. They could be stave-built, turned on a lathe or simply hollowed out. The construction of stave-built vessels is a highly skilled craft and quite a number of examples have been found in Ireland. Edwards noted that "a variety of woods were used, but oak, and more especially yew, seem to have been the most common." One example of a stave-built yew bucket was found at Ballinderry crannog, Co. Meath. Lathe-turned and hollowed out vessels made of yew have also been found as well as more unusual objects such as a gaming board and a wind instrument. All of these objects would be covered by the term ibróracht.

Referring to other wooden objects, the law-text later lists "the making of wooden vessels (crandlestra) i.e lans, dromlachs and vats of oak (dabcha darach) and smaller vessels besides (minlestair oilechena)." This was obviously intended to cover wooden vessels in general, but the particular mention of dabcha is of interest. Dabach is defined as "a large tub or vat with two handles (for ale, wine, mead, curds, oil, water or washing)." In another law-text, the dabach is said to be bigger than the other wooden vessel listed, the lan. These larger, multi-purpose vats are likely to have been strong, stave-built types, noted above as having been most commonly made of yew and, to a lesser extent, oak. As the law-text has already covered yew vessels under the heading ibróracht, the specification of oak as the usual wood used in the dabach is sufficient. The only two woods specifically mentioned in the law-text are yew and oak, the former being commonly found in all types of vessels and objects, the latter being also very common for stave-built vessels. The variety of woods found in smaller lathe-turned vessels and hollowed out vessels are covered, in the law, by the more general terms crandlestra ("wooden vessels") and minlestair oilechena (smaller vessels besides).
Specific examples of the three classes of boats which are mentioned, long, bärc and curach, have yet to be discovered in Early Medieval contexts, although the dug-out boats which have been discovered may have come under one of these terms. Also mentioned in the text are wooden shields, which have yet to be discovered archaeologically.

Petrie published the full text, with translation, of the later commentary on the honour-price of the sáer in 1845. He took significant points from the text relating to wooden and stone craftsmanship, but treated it as dealing with payments given to the sáer for the various items listed. Payment and value added to honour-price are two very different subjects, but the study of Early Irish law was only in its infancy in the mid nineteenth century. Neither was Petrie aware that this was a later commentary on an earlier text which still survives. He therefore missed the significance of the commentary as evidence of changes in craftsmanship. Petrie did, however, make one very perceptive comment relating to the word which appeared as coicthige in the text. He suggested that this should really be cloicthige (bell-houses, round towers), and indeed the version in the more recently edited Corpus Iuris Hibernici has cloichthech, meaning "bell-house". The builder of the cloichthech had an honour-price (for this skill alone) of 6 bó, the same as that for domliacc, dairthech (the two "foundation" skills), ibróracht and mill-building (two of the four major crafts of the earlier period). Furthermore, a commentary of the 10th to 12th centuries establishes firm links between dairthech, domliacc and cloichthech as the three major structures which the sáer constructed on ecclesiastical sites.

Overall, the law-text on the skills which the sáer must have to gain the title and honour-price of ollam reveals much about the buildings, vessels and other objects of the Early Medieval period which can be verified to a remarkable extent by archaeology. All of the major field monuments and excavated objects requiring wood or stone work which archaeologists associate with this period are mentioned in the text. Modern research has shown that the authors of the laws had a good knowledge of the subjects with which they dealt. Legal descriptions of brewing, trees and their economic values, and mill construction have all been proven to be accurate. The detailed classifications of rank within the various professions listed in Uraicecht Becc may represent an idealised scheme which was somewhat less strictly adhered to in reality. Nonetheless archaeological evidence proves that the text on the sáer presents a realistic and comprehensive picture of the work in stone and wood produced by the ollam and other less highly qualified craftsmen of this class.

The text also reflects, in the difference between its earlier and later sections, the major changes which occurred in craftsmanship between the 8th to 9th century period and the 11th to 12th century period. Although a stone church existed at Duleek as early as the seventh century, the Annals suggest that the domliacc only became widespread from about the 10th century onwards. This situation is reflected in the laws, where the 8th - 9th century section deals almost exclusively with the dairthech and other wooden products but by the 11th - 12th century, the domliacc has equal significance to the dairthech and other stone products are mentioned. There is no need to view the evidence of a 7th century domliacc at Duleek and one of the 8th century at Armagh as conflicting with
an 8th-9th century law text which does not include the stone church as a skill which the sáer has. The evidence of the Annals themselves suggests that Duleek and Armagh may have been rare in having stone churches so early and the law text confirms this. The process of a whole class learning stone-working skills in a society where wood-work was dominant would indeed be slow. By the time the results of stone craftsmanship, epitomised in the domliacc, became widespread, the law recognised this by including these skills in the 11th-12th century text. Stone churches may have existed at Duleek, Armagh and some other places in the 7th and 8th century but were not sufficiently established as part of the work of the sáer to be recognised in law until after the 8th - 9th century text was written. Even in the 11th - 12th centuries, the dairthech continued to merit significant mention in the Annals and this, in the laws, is reflected by the equal amounts which the wooden and stone church add to the sáer's honour price.

LAW TRACT ON COSTING OF BUILDINGS

The legal commentary which survives in T.C.D Ms H 3.17, col. 653 deals with the price (lóg) of the dairthech, the domliacc and the cloicthech.71 The 10th - 12th century period when the text was written saw, according to the Annals of Ulster72 an increase in the building of stone churches, a decline (from 1000) in wooden church construction, and mention for the first time (from 950) of the cloicthech.

The details contained in the text indicate that it was intended as a detailed and practical guide to the sáer on how to cost various classes of church buildings. These are costed on the basis of either a cow (bó) or a three year old heifer (samaisc, half the value of a bó) per foot. The term used for foot is traig. This is a standard unit of measurement in the law-texts as a whole. As with the Latin term pes, traig, in Old and Middle Irish, was both a unit of measurement and the "foot" of a human (or occasionally, an animal).72 There can be little doubt that the traig approximates to the foot of 12 inches in Imperial measure, but to what precise degree is difficult to ascertain. The short law-text which begins with the words Cis lir fodla tire? ("how many kinds of lands are there?") gives a breakdown of measurements in which the smallest unit is the gráinne: In this list, 3 grains (gráinne) is equal to a proper inch (ordlaic innraic); 6 inches is equal to a hand (dorn); and two hands are equal to a foot (traig).74 Lebar Aicle also gives an inch as equal to three grains. The unit of measurement between the inch and the foot is the palm (bas), but the foot is still equal to 12 inches, the palm being equal to four inches, the foot having 3 palms.75 Senchus Mór defines the grain (grainne) as "the length of the grain of barley which is used in the measure of the inch (ordlaich) in the root of each rush." Also mentioned is "the hand (dorn) of a lawful measurer i.e the hand of the person who measures it lawfully."76 Grain (grainne), inch (ordlaich), hand (dorn) and foot (traig) were obviously units of measurement which were fixed units of measurement. A system of 12 inches (ordlaige) to a foot (traig) applied, just as in Imperial measures. While we cannot be certain that the smallest unit,
the grainne was equal to 1/3 of an Imperial inch, the system as a whole would appear to give a foot which approximates closely to the Imperial foot. There may have been local or regional variations in these measures, but even in more recent times measurements can vary or change. The "hand", for instance, is still used as a unit of measurement in giving the height of horses. Until relatively recently it was equal to three inches, but is now equal to four.77 The "perch" is 5 1/2 yards in Standard Measure, but this varies locally.78 Called pertica in Late Latin, this was a common unit of length in the Later Medieval period and after and generally varied between 10 and 20 feet.79 In the absence of any evidence to the contrary, it is reasonable to assume that the traig of the Old and Middle Irish law-texts is, for practical use, the same as the Imperial foot.

Antiquarians and historians of the nineteenth and the present century simply accepted that the traig was equal to the imperial foot in dealing with this text on church buildings. Petrie (1845) 80, the de Paors (1964) 81, Raleigh-Radford (1977) 82, Harbison (1982) 83 and Leask (1987) 84 however, have all referred to or attempted to comprehend this text to a very limited extent. The text itself is divided into four distinct sections. The first gives details of how various types and sizes of dairthech are to be costed. The second gives a break-down of how this cost is to be divided between labour, materials and other factors. The third section gives the costing method of the domliacc based on a similar method to that used for the dairthech. The cloicthech, in the fourth section, is costed in relation to the domliacc.

The sequence in which these subjects are dealt with is significant in itself. The first two sections form a comprehensive text on both the method of costing, and the breakdown of how that cost is distributed, for the dairthech. This was the easiest of the three structures mentioned in the text to be built in Ireland. The system established for the dairthech was simply adapted when the two later structures, the domliacc and the clochthech become part of the work of the sáer.85

**COSTING OF THE DAIRTHECH**

The first section of the commentary deals with cost of the dairthech relative to its size and the type of roof it has. It states:

If it be a dairthech of fifteen feet (traigid), or less than that, that is fifteen feet in its length (fat) and ten feet in its breadth (lethef), a heifer (samaisco) for every foot of it in breadth, or every foot and a half in length; that is, when the roof (tuighe) is of rushes (aine): but if the roof be of slinn [shingles], it is a cow (bó) for every foot of it in breadth, or for every foot and a half of it in length. If it be more than fifteen feet, it is a heifer for [every] two-thirds of a foot in breadth, or for [every] foot in length; that is when the roof is of
rushes: if the roof be of shingles, a cow for [every] two-thirds of a foot of it in breadth, or for every foot in length. 86

This is the section of the text which was referred to by Leask. He observed:

The most usual proportion [in the simple, single-chamber stone churches] is the short oblong; that in which the length is seldom greater and is in some instances even less than one and a half times the breadth. The proportion, where it occurs, seems to be an indication of early date. In this connexion it is interesting and suggestive that the Brehon Law Tract, already referred to, dealing with the payment to the artificer for the construction of oratories and stone churches, specifically mentions dimensions of 15 feet and 10 feet, precisely the length-breadth proportion, of one and a half to one. The famous Gallarus oratory, though not precisely of these dimensions, approximates very closely to this proportion in the internal plan, as do many others, as will be seen. 87

The de Paors made similar comment on the text, noting it as "evidence to show that early Irish churches were governed on plan by a system of 'modules', such as frequently developed in a tradition of timber-frame buildings". 88 Radford and Harbison also refer to or quote from the text but to a very limited extent.

There is undoubtedly some relationship between the 15 foot by 10 foot mentioned in the law-text and the length: breadth proportion of 1.5:1 found in many early stone churches. The section dealing with the domliacc states that, with regards to its measurements, the same proportions apply as those given for the dairthech, so Leask and the de Paors could correctly point to the 10 foot by 15 foot measurements as significant in both stone and wooden churches. The text, however, deals primarily with the costing of these structures, the significance of dimensions being just one of a number of secondary factors. Harbison also quotes (in full) this section on the dairthech, but only insofar as "we can glean valuable information about the relative proportions and the roofing of wooden churches" from it. 89 Again, no attempt was made to interpret the text in its primary meaning.

The meaning of the text as a system of costing the dairthech is very clear and is summarised in Table 5.4. If the length: breadth proportion was always 1.5:1, there would be no necessity to include a costing for both length and breadth. As the proportions of stone churches show, there was variance. The little excavation evidence we have of wooden churches illustrates that their proportions could also vary outside 1.5:1. If a sáer, therefore, was constructing a dairthech (with rush roof) of 14 feet by 8 3/4 feet (1.6 :1), the cost would be 9 1/3 samaisc calculated on the length. Calculated on the breadth, it would be only 8 3/4 samaisc. The law had to allow room for a building that wasn't proportioned 1.5 :1. So in this case, presumably, the greater proportion of length :
breadth meant that the costing was made on the length. This gives the price of 9 1/3 samaisc. The latter price would apply to a 1.5 : 1 building i.e. it would have to be just over 13 foot long by 8 3/4 feet wide. In a similar way, a church proportioned 1.4 : 1 would be charged on the breadth, as it is below 1.5 on the length.

A dairthech of 15 feet or less in length with a shingle, as opposed to a thatched (rush) roof, would cost double the price, a bó instead of a samaisc for every foot and a half in length and every foot in breadth. Slínn in Old and Middle Irish meant "a shingle" a thin piece of material, probably wood, having parallel sides and one end thicker than the other. The use of shingles as opposed to rushes in the roof of a dairthech would account for some difference in the price. The raw material for shingles would be more expensive and their production was probably more labour intensive. The difference in roof type, however, is not great enough to account for a doubling of the price. The shingle-roof dairthech must also have had a more solidly constructed superstructure than that of the thatched dairthech.

A dairthech with a thatched roof of more than 15 feet in length was more expensive per foot. It cost a samaisc for every foot (instead of every foot and a half) in length, or for every 2/3 of a foot (instead of every foot) in breadth. Whether costed on length or breadth, then, it proved to be a third more expensive than the dairthech of 15 feet or less in length. Similarly, the dairthech with shingle roof cost a third more if it was over 15 feet long.

THE COSTING OF THE DOMLIACC

The next section of the Tract deals with the domliacc or stone church:

The domliacc: if its covering be of shingles, it is the same price as the corresponding dairthech. If its covering be of rushes, the proportion which stone [ciocht] bears to wood is the proportion of full price that shall be for it; and the proportion which wood [crann] bears to stone is the proportion of half price that shall be for it; and these proportions will be distributed according to the rule applied to the dairthech.

The costing of the domliacc with shingle roof being the same as that of the dairthech is straightforward. The costing of a domliacc with a rush roof is based on the proportion of wood work to stone work. Stone work is to be charged at "full" price i.e. of dairthech with shingle roof and wood work at "half" price i.e. of dairthech with rush roof. That "these proportions will be distributed according to the rule applied to the dairthech" indicated that the same distinctions on measurements apply. Table 5.5 summarises the costing system of the domliacc.
There are a number of aspects in the costing of the *domliacc* which, at first sight, appear curious. The law clearly states that, with a shingle roof, it is the same price as a *dairthech*. Given the greater durability and capacity to survive fire which a stone building has, we would expect it to cost more. The quarrying and transport of stone would also appear to be more labour intensive, and hence more expensive, than the felling and transport of timber. There are a number of factors, however, which can explain the apparent oddness of this law.

There are three major factors which are important in costing buildings: (a) The intensity of labour required which, in turn, can depend on the tools and other equipment which are available; (b) The cost and availability of the materials required; (c) The degree of the skill required of the master craftsman. The early stone churches in Glendalough were made with stone which is immediately available in the locality. Transport over long distances was not necessary. While the quarrying of stone would appear to be more labour intensive than the felling of trees, this cannot be too readily assumed. Oak trees for a *dairthech* would have to be felled, stripped, split and squared. Available evidence of the tools which were used indicates that saws were a lot smaller than what is available in modern times. The masonry of the early churches at Glendalough is dressed only in doorways, windows and chancel arches and stone is frequently left in massive irregular shaped blocks. We have no comparable examples of wooden churches, but they may well have been more subtly crafted and better finished than their stone counterparts. With regard to factor (a), then, it is far from certain that stone-work was more labour intensive than wood-work.

Wood was in great demand in Early Medieval Ireland for buildings and a wide range of household and other objects. One Old Irish law-text details the strict classification of trees into four classes, each with its own economic values. While there are no comparable indicators of the economic value of stone, it must have been less in demand as a building material before the *domliacc* became widespread. It is possible, then, that the cost of wood before that time was as great, or even greater, than the cost of stone. Early Medieval builders, certainly on the evidence of stone, generally made use of materials that were available locally. At Glendalough, for instance, the granite and schist of the valley itself were used. Even when a stone more suited to detailed carving was sought it was secured from a source that was reasonably close. Unlike the Anglo-Normans in Ireland, who would secure a stone suited to their requirements from as far away as Dundry (near Bristol, England), the Irish masons for the most part made use of whatever was available in the locality where they were building. The lack of surviving wooden churches means that the situation with regard to the use of local or non-local wood is more difficult to assess. It is noteworthy, however, that in the Iron Age and Early Medieval period, stone forts were more commonly built in the western half of the country, where stone was more readily available, than in the eastern half, where earthen forts predominate. With regard to factor (b), then, availability of materials seems to be closely related to locality, thus effectively eliminating transport as a cause of difference between stone and wood. Wood may have been generally in greater demand than stone before the spread of stone-building in the 11th and 12th century. It would therefore be dangerous to assume that, as in modern times, materials for stone-building were more expensive than for wooden structures.
The final factor which determined the cost of buildings, the skill required of the sáer, can be assessed by reference to Uraicecht Becc. The later sections of the latter were written within the same period as the text on the costing of buildings. Stone-working and wood-working are the two foundation skills required of the sáer, and both have an equal value in terms of honour-price. Factor (c), the skills required of the craftsman, would not cause any price difference between the domliacc and the dairthech as both stone and wood-working skills were viewed as equal.

What this brief examination of cost factors illustrates is that there is sufficient evidence from the Early Medieval period to allow us to discard the modern notion that stone buildings are necessarily more expensive than their wooden counterparts. The law-text is direct in stating that the domliacc with shingle roof is equal in price to the dairthech. Given the extent to which the texts on the honour price of the sáer can be confirmed by archaeological evidence and the knowledge which the authors of the law exhibit on other technical subjects, this statement must be accepted as being true.

The system used to cost the domliacc with thatched roof is different. The stone-work is to be costed at "full" price, which is the same as the price of the domliacc or (dairthech) with a shingle roof. The wood-work is to be costed at "half-price" which is the same as the cost of a dairthech with thatched roof. There is only one possible way to interpret this which makes sense in the context of the text as a whole. Stone-work (i.e walls and gable) in both the thatched and shingle-roof domliacc was the same. The two different types of dairthech, however, differ in the wood-work of the walls and gables and the type of roof they had. The simplest way to express this is to consider two types of wood-work. Wood-work (1) is used in the thatched dairthech and is lighter and less expensive than wood work (2), used in the shingle-roof dairthech. Stone-work in the walls and gables of both roof types in the domliacc is the same. Therefore:

"full" price = wood work (2) = stone work
"Half" price = wood work (1)

A domliacc with thatched roof, therefore, had walls and gables equal in price to wood-work (2), and had to be charged at full price. The wood-work in the roof and the roof itself were, however, the same as wood-work (1) (that of the thatched dairthech) and had to be costed at "half price".

The same rule for the proportion of breadth to width and the same additional cost of 1/3 for churches over 15 feet long applies to all 4 types mentioned in the text: The domliacc with shingle roof is the same price as the corresponding dairthech; of the domliacc with rush roof it is said that "these proportions will be distributed according to the rule applied to the dairthech."

This is the most comprehensive and logical interpretation that can be made of the law-tract. While it is complex and difficult to understand in parts, the way it is written allows for many different types of structure. Differences in plan, size, materials used, roofing and labour required are all allowed for. The complexity of its language was necessary to allow for the variety of combinations in these factors which the sáer might have to work with. One notable aspect of the tract is that, while the size and length: breadth proportions of the churches might change, the plan of all the basic
structures is very simple with no chancel, aisles, apses or transepts. This concurs with architectural evidence which indicates that early Irish churches only began to develop beyond the basic box-like structure in the 12th century. At Glendalough, all of the later chancels added to earlier single-chamber structures belong to the Romanesque or Transitional phases. The undecorated coeval nave and chancel churches at Trinity and Reelford are unusual. Most coeval and nave-and-chancel churches recognised to date are decorated in Romanesque or Gothic style. These two Glendalough churches belong to a period of transition from the single-chamber structures of earlier centuries to be decorated, nave-and-chancel churches of the twelfth and later centuries. They belong to the end of the 10th-12th century period to which the costing tract refers. They are, however, exceptions to the general single-chamber church which, according to the law-text and surviving architectural remains, was the normal type in the Early Medieval period.

PRACTICAL APPLICATION OF THE COSTING SYSTEM TO STONE CHURCHES AT GLENDALOUGH

It is now possible to use these texts to cost buildings which survive from the period when it was written. While some of the buildings at Glendalough may pre-date the Middle Irish period (10th to 12th centuries), the application of these guidelines on costing to them will give a reasonable indication of their price. Trinity Church was described by O'Donovan before its reconstruction as "the most perfect specimen of an ancient Irish damhliag that I have yet seen, and I have seen many.”

Comparison of descriptions and drawings of the church before and after reconstruction indicate that its original nave-and-chancel survive largely intact since it was originally built. The precise height of the walls can still be seen, and the pitches of its roof. These other details are required in order to give its cost with a thatched roof.

External measurements of length and breadth must be used because internal measurements do not include the full extent of the stone-work in the walls. Nave and chancel, because of differences in size and proportion of length:breadth, must be costed separately. The chancel, however, is costed at the rate for "over 15 feet long" churches. While the chancel itself is under 15 feet in length, it is part of a church which is over 15 feet.

Appendix 4 gives the details of how the cost of Trinity Church would be calculated and summarises the comparative costs of a structure of its size in different materials:97 (1) In wood, with thatched roof, 29 bó; (2) in stone, with thatched roof, 51 bó; (3) in wood, with shingle roof, 59 bó; and (4) in stone, with shingle roof, 59 bó. With a costing system like this it is unlikely that ecclesiastical establishments would pay a sáer to build (3) instead of (4). The implications of the law-tract, then, are of great interest. The development of stone building in Early Medieval Ireland may well have meant that stone churches gradually replaced wooden churches in the larger types. At the above rates, the stone church with shingle roof [(4)] is clearly the best value. The wooden church with
thatched roof of the same size does, at half the cost, seem reasonably priced as well. The fact that either type of stone church could be re-built if burned down made them considerably more attractive.

The _Annals of Ulster_ indicate that in the 10th to 12th century period, stone churches became more common. By the twelfth century, the term _dairthech_ fell out of use. The reason may well be the way these buildings were costed. The costing system indicated by the law-tract is positively encouraging stone building over wooden building. The larger monasteries which the Annals generally refer to could afford the more costly buildings. With a system of legal costing which discouraged the building of _dairthech_, it is not surprising that the term fell into disuse in the Annals. That this happened at the same time as the _domliacc_ became more common may be due to the positive discrimination in favour of this form over the _dairthech_ which is apparent in the law-tract.

Other buildings at Glendalough can be costed using this same law-tract. The cost will represent the value of the buildings in the 10th - 12th century period even if they were built before them. Table 5.6 gives these values, assuming all buildings had shingle roofs. Their value or cost with thatched roofs would be 15.7% less.

**THE COSTING OF THE CLOICTHECH**

After giving the method of calculating the price of a _domliacc_, the law-tract goes on to say:

The _cloicthech_: its base to be measured; this to be measured again with the base of the _domliacc_ for determining its proportions; and the excess of the length and breadth of the _domliacc_ over it i.e over the measurement of the _cloicthech_, that is to be measured against the height of the _cloicthech_; and if there should be an excess i.e. in the height of the _cloicthech_ compared with the _domliacc_ which is the same price as it, the corresponding payment is to be paid for the _cloicthech_.

Petrie attempted to use this section of the law to calculate the height of the round tower in Glendalough. When he visited it in the 1840's, the cap of the tower was gone. He believed the tower to be 110 feet high without its cap. By the method he used to interpret the law, he calculated that the height of the tower in relation to the cathedral should be 132 feet. Petrie concluded:

And such, we may believe, was about the original height of the structure; for, to its present height of 110 feet should be added from fifteen to eighteen feet for its conical roof, now wanting, and perhaps a few feet at its base, which was concealed by the accumulation of earth around it.
Petrie's method was to: (a) double the length and breadth of the nave of the Cathedral at Glendalough, believing that a chancel did not exist originally; (b) taking "base" in the law-tract to mean "perimeter", he subtracted the circumference of the tower from the figure for the Cathedral; (c)"(a)" gave him 184 feet, from which he subtracted (b), 52 feet, giving him 132 feet as the "prescribed" height of the tower.

We now know that the original height of the round tower at Glendalough was about 100 feet. There is no conceivable way that the tower could have been as high as 132 feet, unless the extra 32 feet collapsed in the Early Medieval period. This is highly unlikely. In any case, the law-tract was intended to be used to give the cost of the round tower relative to the domliacc. It was not intended to "prescribe" a height for the tower. This is apparent in the last section of the paragraph which relates to the cloicthech; an allowance is made for the cloicthech being higher than its proportionate height measured in relation to the domliacc and a proportionate excess in charge is to be made. It is clear, therefore, that the method Petrie was using was wrong. His interpretation does not withstand practical application to the structures at Glendalough.

A crucial element in our understanding of this law is the term used for "base". In the case of both the cloicthech and the domliacc the word used is ictar, which simply means "lower part". The text itself clearly states that, in the case of the domliacc, ictar means its length and breadth. In the case of the cloicthech, it is impossible to say whether "circumference" or "diameter" is the intended meaning of the word ictar. In applying the costing guidelines for the cloicthech to the round tower at Glendalough, therefore, it is necessary to use both, giving two possible prices.

Sticking closely with the text Appendix 4 shows the method of calculating the cost of the cloicthech at Glendalough, as proportioned to the Cathedral, taking ictar to mean "diameter". This gives a price of 74 bó for the tower. If a similar procedure is followed taking the ictar of the tower as meaning "circumference", as Petrie did, the height of the tower as proportioned to the Cathedral would be 38 feet, the total cost of the 100 foot tower 145 bó. This would make the tower almost three times as expensive as the Cathedral. Petrie arrived at 132 feet for the height of his "proportioned" tower because he subtracted its circumference from the length and breadth of the Cathedral doubled. The law-tract clearly states "the excess of the length and breadth of the domliacc" and does not mention doubling this.

There is a considerable difference in the price of the round tower using the "circumference" as opposed to the "diameter" method. When we consider the practical difficulties which the builders of these towers must have encountered, and the skillful way in which they overcame these, it is perhaps not unreasonable to consider the higher price to be likely. The cloicthech, for which we only have documentary evidence from the tenth century, was a relatively new and architecturally complex structure compared to the domliacc, which had been built in Ireland since the 7th century. Factors such as these could account for a price of 145 bó for the round tower as opposed to 55 bó for the single-chamber Cathedral.
The most reliable account we have of the round tower which was added to Trinity Church suggests that it was about 60 feet high. Calculating its cost on the same basis as the Cathedral-round tower system (see Appendix 4) gives a cost of 59 bó (using the "diameter" method) or 87 bó (using the "circumference" method).

St. Kevin's Church is exceptional amongst early Irish churches in having a stone roof and a round tower incorporated into the roof at the west end. It is the only known pre-Romanesque Irish church which incorporates both of these features. The law-tract gives no indication of prices for stone-roofed churches or for churches where the bell-tower is incorporated into the roof of the main building. The law-tract therefore supports the conclusion, also evident from surviving remains, that a structure such as St. Kevin's Church was an exception amongst Early Medieval churches. It is difficult to estimate, from this law-tract on buildings, what the cost of St. Kevin's would have been. The combination of materials and structures is so unique, and the skills required so specialised that a costing system other than examined above would have to be used.

**BREAKDOWN OF COSTS**

Immediately after giving the system of costing the dairthech, the law on building sets out how this cost is to be paid out for craftsmanship, materials, food, labour and other variable factors (Table 5.7). The fact that this comes immediately after the outline of the costing system for a dairthech and before that for the domliacc and the cloicthech indicates that the original text dealt only with dairthech. A costing system for the two later structures was later added on, based on the same system used for the dairthech. While the earlier text is missing, it clearly dealt only with the costing and breakdown of payment for the dairthech. The later addition of the domliacc and cloicthech is similar to the later inclusion in Uraicecht Becc of stone-working skills, the earlier text dealing only with wood-work.

Uraicecht Becc also mentions the blacksmith (gobae), the silversmith (cerdt) and the coppersmith (umaide) and gives details of their work. All three had an honour-price of 8 sêts, considerably lower than that of the ollam sâer. The blacksmith sometimes had a role to play in building projects and, when he was required, received 1/6 of the cost paid out for the building. This is only 1/2 of what the sâer (who received 1/3 of the total cost) received from the work on a building, but this is approximately in line with their respective honour-prices (21:8 sêts). In any case, the work of a sâer on a building would be far more than that of a smith. The smiths were not always required. Where they were needed was in cases where hinges, locks or other fittings of iron were being used. As we have seen, this was not always the case in the churches at Glendalough.

Provision is also made for cases where land was required. Many of the monasteries or ecclesiastical cities which were having new buildings constructed obviously owned the sites, but provision is nonetheless made for cases where the site must be purchased. The overall price of the building does not increase in these circumstances, but less payment is available for materials.
Similarly, if a smith was required, less was available for food and labour. The 1/3 of the price which the sáer received did not change in any of these circumstances and it was presumably considered to be part of his job that he would manage a shortfall in the amounts available for materials, food or labour if these shortfalls should arise. Obviously, this could result ultimately in a more poorly constructed building, but variations in the standards of building at Glendalough are apparent.

"Food" must refer to the food provided for the sáer and others working on the project. Labour would be a wage for workmen, as opposed to the sáer or smith. Monks may have made up some of the labourers who worked on construction projects in the monasteries. They would, perhaps, put their "wages" back into the monastery, in line with their vows of poverty. The fact that payment of labour or wages is allowed for does not rule out the involvement of monks in building. It does, however, provide interesting evidence that some, or possibly all, of the labour used in the building of churches or round towers was paid labour brought in by the sáer from outside the monastery. In many cases, there may have been a mixture of both paid and monastic labour.

THE VALIDITY OF THE COSTING TEXT

While the costing system represented in the law-tract may provide a guide to costing in ideal circumstances, it is certainly clear that the author knew his subject. An ideal system may not always have been used, but there are no reasons to doubt that this text realistically represents the cost and costing system of ecclesiastical buildings in Early Medieval Ireland. In the breakdown of costs, all factors are allowed for, including craftsmanship, materials, labour, blacksmiths and site purchase. The "proportional" system used is similar to that still in use amongst builders today. A modern builders manual gives the proportion of costs for Labour : Material as 1:2 for a carpenter, 2:1 for a joiner, 1:1 for a smith and 3:1 for a mason. Taking "Labour" (not distinguished from craftsmanship in the modern manual) as both the third for craftsmanship and the third for food and labour in Table 5.7 (a), the proportion of labour : material in the law-texts is 2:1, with a slight variation in circumstances (d). This is for both stone and wooden buildings. While the greater intensity of labour required for masonry in the modern system (as opposed to carpentry and joinery) is not distinguished in the Early Medieval system, the 2:1 proportion for both is a reasonable average. It is noteworthy that, while Early Medieval Irish churches have some finely dressed stonework around doorways and windows, the use of uncoursed rubble elsewhere is an almost universal characteristic. The fact that a modern builder would allow a 3:1 proportion for a building which has dressed work throughout is significant. The modern stone building would, in these circumstances, require a greater intensity of labour than its earlier Medieval counterpart.

The system of arriving at a price for the three types of structures detailed in the law-tract is comprehensive and ingenious. It is deliberately structured to allow for variations in size, proportions and materials. While there are no sources against which we can directly check the validity of the prices arrived at by applying the costing system to Glendalough's buildings, this system certainly
makes practical sense. As with other early Irish legal documents, the author displays a sound technical knowledge of the subject. It is possible to arrive at some indication of the relative accuracy of the prices by viewing them in the context of the value of buildings today and, more importantly, the Early Medieval Irish economy.

THE VALUE OF GLENDALOUGH'S BUILDINGS IN MODERN AND EARLY MEDIEVAL TERMS

A system of unit values for various types of cattle still applies in Ireland today. It is astoundingly close to the value system of Early Medieval times. As in earlier times, 1 unit in this system is represented by a milch cow. A two-year old heifer would, like the samaisc of the early times, be worth one half of a unit, although the one unit milch cow is normally valued without her calf. The bó of Early Medieval times usually came with her calf.

The price of a milch-cow with calf can vary greatly in modern markets. It would sell for up to IR £2,000, but IR £1,000 would be an average figure. In modern terms, then, the single-chamber Cathedral at Glendalough would cost IR£55,000 to build, the round tower IR£74,000 or IR£145,000. Temple-na-Skellig IR£30,000. This may seem very little when we consider that the restoration of a medieval cathedral can run into six-figure sums. Restoration, however, is a specialised and expensive business. More significantly, these early Irish churches, and even the Cathedral at Glendalough, are closer in size to the average modern dwelling-house rather than the average modern church or cathedral. It is in these terms the values should be viewed. While numerous arguments could be made about how currency fluctuation, cost of materials and other factors could distort a comparison like this, the price-range of IR £30,000 to IR £59,000 for churches the size of an average modern dwelling house is reasonably acceptable.

The Early Medieval currency system in Ireland was complex, based on sēts and cattle (see Table 5.2). Despite the use of silver evidenced in the law-tract, and the use of coins by the Vikings (from the early 10th century) and by the Anglo-Normans in Ireland, cattle continued to be the normal currency amongst the Irish into the Late Medieval period. While the value of cattle must have fluctuated against silver and the cumal, prices reckoned in cattle nonetheless give us some indication of relative values within the Irish system. The annual rent of a bóaire, a strong or prosperous farmer, was 1 milch cow (bó). In order to build the smallest of the stone churches at Glendalough, Temple-na-Skellig, the monastery would have to have the equivalent of the annual rent of 30 prosperous farmers. The relative economic wealth and security of any organisation which could undertake a project at this cost is considerable. This is supported by other indications of the value of a bó. In the Annals of Ulster, for instance, the first visitation of the coarb of St. Patrick of (Armagh) to Cenél Eogain is recorded. He brought away "his full due" in tribute which was "a bó for every six persons". Glendalough no doubt received some form of tribute within its sphere of influence, although it must be remembered that Armagh held the primacy of Ireland at the time.
Even if Glendalough were receiving dues at the rate of Armagh, the value of 180 contributions would be required to build Temple-na-Skellig.

If we take the cost of constructing all the buildings listed in Table 5.8 and assume that they were all in use c.1150, their total value would be 447 bó. The value of the buildings at that time would be the equivalent of the annual rent of 447 bóaire (prosperous farmers). The diocese of Glendalough covered most of county Wicklow, and parts of Dublin, Carlow and Wexford counties at that time. The value of the buildings suggest control over considerable economic resources which, viewed in the context of Glendalough's size as a diocese, is hardly surprising. This was a settlement of great economic, as well as religious, significance. Much of the resources of the ecclesiastical city went into construction projects and there can be no doubt that Glendalough and other settlements of its type were major patrons of the sáer in the Early Medieval period.

CONCLUSION

Harbison mentions an oral tradition at Glendalough which involves St. Kevin and "his master mason". The idea of Glendalough having its own master mason in the sixth century is somewhat anachronistic. The church, nonetheless, played a vital role in the development of craftsmanship in Ireland in the period c.431-1200, and Glendalough might well have had its own master mason in the later centuries. The law-tracts illustrate that craftsmanship and the church were inextricably bound together. In the 6th to 9th century period, the building of wooden churches was one of the fundamental skills of the sáer. By the 10th to 12th century period, this and the stone church were seen as the ultimate expressions of his craft. The demands of the church for more durable, less flammable stone structures and their ability to pay for them provided a major stimulus to stone masons from around the time of Viking attacks on Ireland. A need for greater security in the ninth, tenth and eleventh century accounts not only for the increased number of stone churches but also for the construction of a Gatehouse and stone walls at Glendalough. While we might rightly doubt the presence of a master mason in Glendalough in the sixth century, more reliable evidence points to a close association between the monasteries and the sáer. A 10th to 12th century decorated gravestlab at Clonmacnois is inscribed with the words "Ór do Tuathal sáer", "A prayer for Tuathal sáer". This Tuathal was either a resident craftsman in Clonmacnois or held in very high regard by that ecclesiastical city. He would otherwise have not been buried there with a gravestlab comparable to one of royalty or a prominent religious person. References to particular craftsmen are rare in the Annals but the death of "Mael Brigte Ua Brolchain, chief artificer of Ireland (primshaer Erenn)" is recorded in 1029. In 1097 his son, also Mael Brigte, was described in his obit as "son of the wright Ua Brolchain, noble bishop of Cell Dara and of the province of Laigin (Leinster)." The later (11th - 12th century) commentary of Uricecht Becc mentions the conferring of Ollam status by the church.

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on various types of craftsmen, including the sæer. The sons of master craftsmen became bishops; the church patronised and conferred master status on the craftsmen; and the latter were responsible for the most fundamental and enduring legacy of the ecclesiastical cities to today's landscape, the stone churches, round towers and Gatehouse which remain at Glendalough and other sites. The early text (8th - 9th century) of *Uraicecht Becc* recognises that, in order to maintain the status granted by virtue of an art or craft, it is not necessary for that person to practice that art or craft within the tūath to which he belongs or for its benefit. He can ply his labour in any tūath or church. The sæer, then, was not only a member of a well organised, professional, high-ranking class, but was also allowed a high degree of mobility which was denied to many in Early Irish society. Craftsmen could travel freely and work in any kingdom, in any church or monastery's jurisdiction. The law-texts thus confirm suggestions by art historians that the work of a master mason can be recognised in different parts of Ireland. Stylistic links have been noted, for instance, between the carvings at St. Saviours, Glendalough and Baltinglass Abbey, the latter being worked with Jerpoint with a mason whom Stalley called "The Baltinglass master".

It would perhaps be inappropriate to speak of "guilds" in Early Medieval Ireland. The sæer depicted in the law-tracts, however, was part of a class organised on a graded basis with a legally defined status and rights. The organisation portrayed in the law-tracts should not be viewed as merely an idealised scheme. The sæer who accumulated specific skills rose accordingly in status, right up to ollam or even to the Primshaer Erenn evidenced in the Annals. These were men of great skill whose contribution to pre-Norman Irish civilisation is still viewed with admiration or even wonder. Their skills, as we can see at Glendalough, were expensive and one of the few sections of society who could afford them were the ecclesiastical cities. If the law-tracts reflect the organisation of the sæer and their buildings and high crosses display their skills, their relationship with the ecclesiastical cities and the monasteries affords us glimpses of the economic power which supported them. This relationship typifies the civilising influence which Glendalough and other ecclesiastical cities exerted on pre-Norman Irish society. While the buildings have left a reminder of this in the present-day landscape, the law-tracts have provided us with an understanding of the organisation and technicalities which produced them. The buildings may not be as decorative nor the organisation as sophisticated as in Norman England, Classical Rome or Greece. They are, however, the products of a unique Irish civilisation whose very heart was the ecclesiastical city. It is to Glendalough's history and development as a centre of civilisation that we must now turn.

NOTES

2. ibid., p. 251
The manuscript is in the library at Trinity College Dublin, MS number H 3.17. The text has been printed in *C.I.H.* 2099.23 - 2100.10. Petrie, G., 1845, pp. 364-6 has also published the text, with translation.

Pers. comm., L. Breatnach.

See Chapter 4.

Full text, with later commentary and glosses, published and translated in *A.L.* V. 90.30 - 94.18 and 102.24 -114.26 = *C.I.H.* 1612.4 - 1613.8 and 1615.22 - 1618.40 (the main sections which deal with the *sáer*). E. Mac Neill, however, published a translation of the earliest parts of *Uraicecht Becc* in 1923; McNeill, E., 1923, pp. 272-81.

Kelly, F., 1988, p. 61.

ibid., p. 61, f.n. 171.

See n. 7 above.

Although Mac Neill, E., 1923, p. 271, suggested a date around the late 7th century for the earliest sections of *Uraicecht Becc*, L. Breatnach (pers. comm.) is of the opinion that sometime in the 8th or 9th century is more accurate.

Pers. comm, L. Breatnach.

Lóg n-enech literally means "the price of face." The major offences for which it had to be paid included murder, satire, serious injury, refusal of hospitality, theft, violation of protection. See Kelly, F., 1988, p.8 and *C.I.H.* 779.5 - 7 and 1123.22 - 4 for original sources.

From Kelly, F., 1988, p. xxiii.

ibid., p.9.


Petrie, G., 1845, pp. 346-7 and 364-6.


See n. 43 - n. 45 below.


*C.I.H.* 1615.27 - 9 = *A.L.* V 104.1 - 2 = Mac Neill, E., 1923, p. 279. *Lestra* is explained in later commentary as domestic vessels or, more specifically, as mugs (*iána*), tubs (*dromlacha*) and kees (*dabca*), *A.L.* V 104.5 - 6.

Kelly, F., 1988, p. 61.
In his introduction to *Uraiceht Becc*, Mac Neill, E., 1923, p. 279 notes that: "In the early law-tracts, *tuath* means this body politic [consisting of the freeman] and the rendering "territory" of the official translation is misleading."

"... almost exclusively" because horizontal mills from the 7th century are known to have stone wheels. See Rynne, C., 1992, pp. 22 - 4.
C.I.H. 1612.33-5 = A.L. V 92.31 - 94.2. Later commentary likewise describes the *ollam* as "the builder of the stone-church and wooden oratory". (C.I.H. 1618.35 = A.L. V 114.17 - 8)
C.I.H. 1613.1 - 6 = A.L. V 94.10 - 16. *Clochán* only later acquired the meaning "beehive hut." In Old and Middle Irish it meant "paved road or causeway" (*D.I.L.* s.v. *clochán*), translated as "stepping-stones" in A.L. V 95.17.
C.I.H. 1612.31 - 3 = A.L. V 92.29 - 31 (93.38 - 41 for translation.
C.I.H. 1612.33 - 6 = A.L. V 92.31 - 94.3.
O'Kelly, M. J., 1958, pp. 58-9. This was discovered underneath a stone oratory the wooden structure being indicated by six post-holes which were reconstructed to give an oratory 2 metres wide and 3 metres or more long. The excavator suggested a date c. 750 for the stone oratory.
Unpublished by the excavator but some details published by Harbison, P., 1982, p. 628, from a lecture delivered at UCD in 1980. The excavator, de Paor, uncovered traces of a rectangular building c. 8m x 5m, oriented east - west.
Also excavated by de Paor and as yet unpublished. See Harbison, P., 1982, p. 628. Another structure of wood, excavated beneath the stone church at St. Vogue at Carnsore Co. Wexford, was very small measuring only 2.25m x 1.5m. O'Kelly, M. J., 1975, pp. 20-2.

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D.I.L. s.v. *rindaigecht.* Stalley, R., 1991, under "Construction of the crosses" notes the use of techniques of jointing in the stone crosses which are more common in carpentry. This suggests the possibility that wooden crosses existed before those in stone.

See Stalley, R., 1991, for a brief, up to date account.


See below, Chapter 6.

See below, Chapter 6.

See above, Chapter 3.

See above, Chapter 2.

A.T., 1177.

See above under LAW-TRACT ON COST OF BUILDINGS.

D.I.L. s.v. *ibróchart.*


Hencken, H., 1936, pp. 103-239.


An example of this is a small, hollowed out yew bucket found in the river Glide, near Annagassan, Co. Louth: see Rafferty, J., 1956, pp. 395-8.

Found at Ballinderry crannog 1: see Hencken, H., 1936, pp. 103-239.


D.I.L. s.v. *dabach,* where individual references to these many uses of the *dabach* can be found.

C.I.H. 384.14 = A.L. I 170.3 - 5.

Edwards, N., 1990, p. 78 notes: "Dug out boats are a relatively common discovery. Almost complete examples were found on Lagore and Ballinderry 2 crannogs and a small fragment on Ballinderry 1. In all upwards of 170 dug-out boats have been recorded from Ireland..."

Petrie, G., 1845, 346-7.

C.I.H. 2277.25.

Căin Aicilline gives a full account of the proper method of preparing malt from barley. This has been confirmed by modern brewers. See C.I.H. 481.9 - 30; also Binchy, D.A., 1981, pp. 3-6.

C.I.H. 78.15 - 79.9 = A.L. IV 146.18 - 148.2. Most native trees are included "...and the arrangement - on economic grounds - into four groups of seven shows an accurate knowledge of the value of each kind of tree." (Kelly, F., 1988, p. 239)

See above, under **LAW TEXTS: INTRODUCTION** for dating of text.

See above, Chapter 4.

*D.I.L.* s.v. *traig*.


*C.I.H.* 463.13 and 23 = *A.L.* II 252.9 - 10 and 253.11 - 12 for translation.

*S.O.E.D.* s.v. *hand*.

ibid. s.v. *perch*.


Entries from *A.U.* referred to in Chapter 4 above, support the sequence of development of Irish church buildings indicated by the law-tract. The *dairthech* is exclusively referred to up to 724 and after that date up to the tenth or eleventh century, references are more numerous than they are to the *domhiacc*. The latter is first mentioned in 724, the *cloichthech* being referred to for the first time in 950.

Translation from Petrie, G., 1845, p. 365.


*D.I.L.* s.v. *sliinn*.

Petrie, G., 1845, p. 365 for translation, which has been slightly improved upon here.

This seems to be the only way to interpret the text, as the costs of the *dairthech* with shingled roof compared to that with rush roof are the only figures within the text which give a full : half -price proportion.

pers. comm., R. Stalley.


See above Chapter 4.

*O.S.L.* fol. 488, letter dated 1840.

See Appendix 4, sections (i) - (iv).
This is a new translation of the text which is loosely based on Petrie, G. 1845, pp. 365-6. For Middle Irish text, see C.I.H. 2099.23 - 2100.10.

Petrie, G., 1845, p. 366.

See Chapter 3 above, under ROUND TOWER.

See Appendix 4, section (v).

See Chapter 4 above.

See Appendix 4, section (vi).


C.I.H. 1613.12 = A.L. V 95.21.

Fowler's, n.d., p.668 (carpenter and joiner); p. 672 (smith); p. 665 (mason).

This information has been supplied to me by Mr. H. Cullen, a cattle and sheep farmer at Cullentragh, Co, Wicklow. The prices which follow were calculated before the B.S.E. crisis.

Kelly, F., 1988, p. 113.

ibid., p. 30.

A.U., 1106.4.

This is a reasonable assumption as the stone buildings are unlikely to have lain idle or abandoned at a time when wooden buildings also existed at Glendalough. The stone structures would be safer and more secure.


A.U., 1029.7.

ibid., 1097.5.


This was in line with other members of the learned classes, who were entitled to travel freely. The ordinary freeman stayed within his own tūath and normally did not have any rights outside it. He could only travel on certain occasions, such as to go on pilgrimage, to an ṓenach or on military service.

CHAPTER 6

Conclusion: The city of Glendalough and other settlements in their historical context
INTRODUCTION

The Early and Later Medieval remains in Glendalough valley have, in some details, been misunderstood. While archaeological excavation might yet provide more information on the nature and the datings of the valley's settlements, studies in other areas can also advance our knowledge. Careful analysis of the records of Glendalough's remains before reconstruction, for example, can elucidate points such as whether or not the Gatehouse had a tower and the type of scaffolding used to construct the round tower. Comparison of carvings and mouldings to dated examples from other places assist with dating Romanesque and later architectural styles more closely than had previously been done. Although pre-Romanesque architectural styles cannot be used in the same way for datings, a date sequence can be established by studying stone use. The latter study also indicates that in the twelfth century a desire to include the elaborate carvings of Romanesque style in church buildings led to the pursuit of more suitable stone from outside the valley.

The masons and carpenters who constructed Glendalough's buildings held a high status in Early Medieval Ireland. We can see the range of skills they possessed; their methods of costing buildings; and we can get some indication of the economic costs of constructing churches and round towers. In understanding the crucial role which the sáer played in literally making settlements such as Glendalough, some sense of the connections which existed between the Church and the secular world of Early Medieval Ireland emerges. The structures which survive to-day testify not only to the skills of the sáer but also to the highly organised and civilised society in which he lived. They symbolise religious belief and idealism, the economic wealth of the Church which paid for them and the secular political power which often supported that Church.

Architectural and archaeological remains are, in essence, multi-faceted survivals of both the age which produced them and the age which restored and often changed them. We must learn to look at these survivals from more than one perspective if we are to fully understand them. While the academic specialisation of our times tends towards a situation where a host of different specialists would separately study the various subjects studied here, much is to be gained by attempting to break with the limitations imposed by this system. It has, indeed, been central to this work that an inter-disciplinary approach be adopted in order to fully realise the multi-faceted nature of Glendalough's remains. The first stage, separating the survivals of the Medieval period from those of the nineteenth century, has been crucial in clearing the view of what is really Medieval. Having subsequently studied the medieval remains from different perspectives, they must finally be viewed within the contexts of Glendalough's settlement as a whole, the Irish society in which it existed and the broader civilisation of Medieval Europe. It is in these contexts also that the appropriate term should be sought to describe Glendalough's settlements. At a time when a plethora of terms have been thrown up from the waves of debate about the nature of urbanism in Early Medieval Ireland, it is vital that a balanced historical view be established.
CIVITAS AND CITY: AN EXAMINATION OF TERMS

There has been a tendency in recent decades to create new terms to classify the larger ecclesiastical settlements of Early Medieval Ireland. The most recent survey of the archaeology of the period provides a good example. Here Edwards discusses sites such as Armagh, Clonmacnois and Glendalough under the heading of "Large ecclesiastical sites" which she also describes as "proto-urban complexes," "important monasteries" and "larger monasteries." Other authors use terms such as "pre-urban centres" (de Paor), "incipient towns" (de Paor and Simms) and "monastic towns" (Ó Corrúin and Doherty). While some authors such as Smyth have used the word "city," this term is generally avoided or considered unacceptable. Aalen, for instance, argues that even the largest monastic centres "...cannot properly be described as urban." He does not accept that these settlements were cities and even states that they "...were not towns in any modern sense."

The latter statement points to the very heart of the problem. Many cities of the late twentieth century are vast, densely populated areas which serve a large number of functions. Most people in the present day would associate cities with populations numbered in millions, complex municipal institutions and a wide range of industrial, commercial, cultural and other activities. In this context it is difficult to accept that a settlement such as Glendalough could be called a "city".

The position of a historical geographer such as Aalen is indeed understandable. Looking at urban development as a historical process which has led to the growth of the towns and cities that we know today, these Early Medieval settlements were certainly small beginnings. It is in this context that terms such as "proto-urban complexes" are found to be useful. These settlements were "protean" in the sense that they were the first stage in a long process which ultimately led to what modern definitions would classify as towns or cities. It is, however, the duty of the medieval historian to study these settlements within the context of the medieval society which produced them. The projection of a modern concept of urbanism onto a period of history which was so different to our own seems such a fundamental error for a historian that it is surprising to find any medievalist giving credence to the jargon of recent years.

Describing Irish society in the eleventh and twelfth centuries, Ó Corrúin wrote: "Irish monastic scholars, working in the great secularised monasteries of the eleventh century, had elaborated fully the concept of a high-king or king of all-Ireland; they even projected it backwards, into the immemorial past, after the fashion of many historians, who see in the past the institutions of the present." There is perhaps a danger today that Irish university scholars, working in the great complex cities of the twentieth century, might elaborate a concept of the city which they project backwards into the Early Medieval past, seeing in that past the "protean" form of the cities of the present. As medievalists we should at least be wary of writing the type of "pseudo-history" which we have criticised in Early Medieval scholarship. It is therefore essential to look beyond our modern
language and examine closely the origins and development of the Medieval terms which were used to describe settlements such as Glendalough.

With the arrival of Christianity in Ireland came Latin, the language which the Roman Church used right across Europe. In Classical times the standard Latin word for "city" was urbs,\textsuperscript{18} from which the English adjective "urban" is derived.\textsuperscript{19} "City" came into Modern English through the Middle English cite, which was derived from the Old French cité, ultimately derived from the Latin civitas.\textsuperscript{20} In Classical Latin, civitas encompassed the meanings "citizenship, state, commonwealth, community."\textsuperscript{21} Derived from civis, "citizen", civitas at that time did not refer to a particular settlement but rather to a body of citizens.\textsuperscript{22} Thus Roman writers described the tribes of Gaul as civitates.\textsuperscript{23} Changes gradually occurred in the use of the word civitas. In Roman Britain, for instance, there were different classes of towns, one of which was the cantonal capital of the civitas, the latter meaning "administrative region".\textsuperscript{24} The civitas in this sense, as an administrative subdivision of the province, was found all over the Roman Empire.\textsuperscript{25}

With the gradual Christianisation of the Roman Empire from the time of the emperor Constantine (306-337),\textsuperscript{26} civitas came to mean "diocese" and was commonly used throughout the Middle Ages to describe the capital of the diocese.\textsuperscript{27} The normal way to translate this into English is "the see of a bishopric" or simply "city".\textsuperscript{28} The city as both urbs and civitas features prominently in texts of the seventh and eighth centuries relating to the church such as Cogitosus's \textit{Vita S. Brigitiae} and the \textit{Liber Angeli}.\textsuperscript{30} In these sources it refers to the cities of Kildare and Armagh, both founded in the fifth century. Armagh was probably founded as a cathedral church by St. Patrick while Kildare was founded as a double monastery of monks and nuns by St. Brigid.\textsuperscript{32} Glendalough is also referred to as a civitas in the \textit{Vita} of St. Kevin.\textsuperscript{33} The use of the term civitas in all of these cases was obviously linked to their being cathedral cities, important monasteries or both.

Entries from the \textit{Annals of Ulster} and other sources, however, indicate that civitas was also used of places which were not cathedral cities or monasteries. The year 784, for example, saw "the coming of the relics of Erc's son to the city of Tailtiu (\textit{ad civitatem Tailten})."\textsuperscript{34} Teltown, Co. Meath, was the site of a pagan cemetery named after the goddess Tailtiu and is described as civitas because of the annual fair or Óenach which was held there.\textsuperscript{35} The term was also used of other places of assembly such as Tara, Co. Meath,\textsuperscript{36} as was its Irish equivalent cathair.\textsuperscript{37} A similar range of meanings did, however, apply to the use of the word civitas in Medieval sources throughout Europe, where it could be used with the meaning "fortified uninhabited place" or "castle".\textsuperscript{38} In Europe as in Ireland, therefore, we cannot translate all cases of civitas as "diocesan see" or "city". There are a number of reasons, however, for arguing that "ecclesiastical city" or simply "city" is the most appropriate term in English for the largest monasteries and diocesan sees of Early Medieval Ireland. Their size must be considered as relative to the society which produced them and not as a diminutive, protean sign of the growth of a modern urban settlement. Their role in the economic, social, cultural and political life of the time must also be assessed. Aspects of a very significant
Christian philosophy, centred on the city as an ideal creation, were crucial to the development of spiritual, monastic and urban life in the Early Medieval period. The modern "proto-urban complex", "incipient town", "monastic town" and other similar terms cannot possibly capture the enormous role which places such as Glendalough played as centres of Christian civilisation in Medieval Ireland. The remains of Glendalough today are a skeleton which needs to be fleshed out. It is not possible to appreciate fully the nature and significance of its city and other settlements without examining, in the context of Ireland and of Europe, the numerous factors which shaped its growth and development.

THE HEAVENLY CITY; CHRISTIAN IDEALISM AND THE ORIGINS OF GLENDALOUGH

The decline of the Roman Empire was intricately bound to a decline in the urban network around which it had been built.39 Only three years after the Goths sacked Rome itself in 410, St. Augustine of Hippo began to work on his book De Civitate Dei or The City of God.40 While this work had profound and far-reaching effects on Western thought for centuries after it was written, it also influenced the whole concept of the city in the Early Medieval period. In contrasting the God-centred, devout city of God with the self-centred, pagan city, St. Augustine established a metaphor for the Christian way of life which was to be given physical expression in the Middle Ages. As monasticism spread across Europe from North Africa in the fifth and sixth centuries, every monastery strove, in a sense, to be a city of God.41 "This is the most glorious city of God;" wrote Augustine, "this is the city which knows and worships one God: she is celebrated by the holy angels, who invite us to their society, and desire us to become fellow-citizens with them in this city..."42 The city of God became both the ideal Christian way of life and the monastic or diocesan city through which that way of life was nurtured and spread. St. Augustine, therefore, could be said to have simultaneously laid the foundations of Christian thought and pointed the way towards a new concept of urbanism in the wake of the decline of the ancient Roman Empire.

The urban historian Mumford has acknowledged the extent to which the concept of a Heavenly City, particularly as developed by St. Augustine of Hippo and St. Benedict of Nursia, created a new urban ideal after the collapse of Rome.43 In a work remarkable for a deep understanding of the city at different times in history, Mumford compares the ideals of brotherhood and community life in the concept of the Medieval city to similar characteristics in the ancient Greek polis (πόλις).44 He also remarks45 as have other historians,46 on the vital role which monasteries played in the development of new urban centres throughout Medieval Europe. In Ireland this led to the establishment, from the fifth century, of the concept of the city as a diocesan see and, more especially in the sixth century, a monastic community. Even if these cities were only small settlements at this time, the concept of the city as the physical expression of an ordered, Christian, community life took root and would eventually grow. By the seventh century, Cogitosus, writing of fifth-century Kildare, asked "...if it is possible to call city (civitas) that which is enclosed by no circle of
walls?" There was obviously a perception in seventh-century Ireland that a city was normally walled, but despite this Cogitosus continues: "Since innumerable people come together within it and acquiring the name city (civitas) because of its throngs this is a very great metropolitan city (maxima haec civitas et metropolitana est)." The use of the term "metropolitan" must be viewed in the context of a dispute with Armagh over ecclesiastical jurisdiction. Cogitosus, however, uses the term civitas no less than five times in this short passage and factors other than its ecclesiastical status and the "throngs" which gather there are cited in support of its being a city; the treasures of kings are kept there; it has reached "a peak of decorum"; and it is also described as a "city of refuge" (sed civitas est refugii). This represents a concept of the city which has a number of distinct defining elements. Even though it is not possible to pinpoint the population, physical size and layout of Kildare at this time, Cogitosus' s words indicate that the concept of the city was firmly established in Ireland at the time he wrote, shortly after the middle of the seventh century.

In the case of Glendalough, we are not so fortunate as to have a source as early as the seventh century from which to trace its origins and early development. The death of its founder, St. Kevin, is recorded in 618 and 622, but the surviving hagiographical works date from considerably later. While the Irish and Latin lives of St. Kevin contain much material which is based in legend and tradition, they do convey a sense of the factors which were significant in the founding of Glendalough. The *Vita* in particular has much material which relates to the early history of the settlement. It has been used by a number of historians to trace the early settlement history of the valley and cannot, therefore, be ignored. Taking the death of St. Kevin as occurring in either 618 or 622, it is reasonable to assume that the events in the *Vita* which took place at Glendalough can be assigned to the second half of the sixth century and the first two decades of the seventh century.

The sixth and seventh centuries in Ireland saw an unprecedented flourishing of monasticism. St. Comgall (Bangor), St. Finian (Clonard), St. Enda (Aran Islands), St. Ciaran (Clonmacnois) and St. Kevin (Glendalough) all founded monasteries in this period which would grow and develop in succeeding centuries. Influences from Britain, Gaul and Egypt are recognised as highly significant in the development of monasticism in Ireland at this time. Indeed at Glendalough, the survival of the place-name *Disert Chaomhghin* is indicative of the influence of the North African Desert Fathers. The place-name element *disert* is found at a number of early monastic centres in Ireland, and a desire for the solitude of desert places is central to the *Vita* of St. Kevin. Born of a noble family, the young Kevin was sent to the monastery of Eoghan, Lochanus and Eanna to be educated. Wandering alone one day through desert places (*per deserta locus solus*) he came upon the valley which, the *Vita* says, is sometimes called *Gleand De* in Irish or alternatively *Gleand da Loch*. After living a most strict life for some time, Kevin is brought back from the *valle deserta* of Glendalough to the monastery of Eoghan, Lochanus and Eanna.

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This is the first reported contact which St. Kevin had with Glendalough, and a number of interesting points emerge. The *Vita* clearly describes Glendalough and the surrounding area as a deserted place. It is likely that, as the *Vita* implies, the area around Glendalough was uninhabited or sparsely settled. Price has argued convincingly that, on the basis of prehistoric settlement patterns and, in Early Medieval times, the number of hermitages or saints' cells, the area between Glendalough and the sea was far less densely inhabited than the district to the west of the Wicklow Mountains. This was a major factor in attracting St. Kevin and other aspiring hermits to the area in the earliest centuries of Christianity.

Although there is no evidence that Glendalough was inhabited before St. Kevin arrived there, the valley may have had some religious significance in pre-Christian times. The first mention of Glendalough in the *Vita* says that in Irish it was called *Gleand De*. O'Donovan translated this as "The Valley of Demons" but this appears to be somewhat inaccurate. *Inber nDeae* was the mouth or estuary of the river *Deae* (*Aba Deae*), which flowed through *Gleand Deae* or *Gleand De*, the earlier name for Glendalough. The *Annals of Ulster* record that, in 836, Kildare was plundered by the "heathens from *Inber Dea*" and the name is also found in the Tripartite Life of St. Patrick. It appears to be the same place-name element as the geographer Ptolemy's *Dévā*, which he uses of the river Dee in Scotland. Price has pointed out that the Dee in Scotland has been identified, along with *Deon* (in Aberdeen and the river Don) as the name of a river goddess. He goes on to argue that the river Avonmore was called *Abha Dea*, that it rose in Glendalough (*Gleand De*) and flowed into the sea at Arklow (*Inber Dea*). The river which flows out of Lough Dan, to-day called the Cloghoge River, joins the river which flows through Glendalough (thereafter the Avonmore) just south of the village of Laragh. Price argues that the name of the river goddess *Deon* or *Deathan* is also preserved in the place-name Lough Dan, which he translates as "*Loch Dean*". The argument is perfectly plausible, the river goddess's name being also found in *Ban-Dea*, an early name for the river Shannon. It is likely that while the author of the *Vita* of St. Kevin noted the name *Gleand De*, it was renamed *Gleand da Loch* in Christian times because of the association of the earlier name with the pagan river goddess. At other sites in Early Medieval Ireland such as Armagh and Kildare associations with pre-Christian goddesses are known to have existed. These associations suggest, at Glendalough as at other sites, that the Church in Early Medieval Ireland could quite easily adapt a pre-Christian cult or site to suit Christian purposes. Indeed the boundaries between Christian and pre-Christian beliefs may not have been very clearly drawn.

This conjecture is borne out by the next important event recorded in the *Vita* of St. Kevin, his ordination as a priest. This was carried out by a bishop named *Lugaid*. Lug was the Celtic sun-god and Plummer noted that it was "...in accordance with the pre-eminence of the Celtic Sun and Fire God that the solar should be the most prominent mythological influence in Celtic hagiology." Many Irish saints have names with solar associations or have dealings with persons bearing such names. Thus the sun-god Lug is reflected not only in the name Lugaid in the *Vita* of St. Kevin but in a bishop
of the same name who ordained St. Comgall; in the Vita of St. Molua, where Comgall is said to have had fifty monks, all named Lugaid; and in the lives of St. Cainnech, St. Molua and St. Fechin. The mixture of pre-Christian and Christian elements of religious belief was, therefore, a marked factor in the foundation and early development of many Early Medieval ecclesiastical settlements, including Glendalough.

Before returning to the valley of the two lakes, St. Kevin left the monastery of Eogan, Lochanus and Eanna and built his own cell at a place called Cluayn Duach. Here he gathered some monks around him but eventually decided to leave again for the place where, as a youth, he had lived as a hermit; for, the Vita tells us, he had entertained a predilection for solitude from the very beginning. Like St. Anthony in the desert, however, St. Kevin's desire for solitude was thwarted by the disciples who followed him. In the lower part of the valley where two rivers meet, he founded a great monastery (magnum monasterium). Many flocked to him in this place, where he made monks of them. Many monasteries and cells (monasteria et cella) throughout Leinster were founded under St. Kevin and there were many monks in many places who were under his administration. He then retired to the solitude of the Upper Lake, where he built a small dwelling (mansiunculam) and lived there for seven years. In this time he also built an oratory (oratoriolum) of twigs (ex virgis) on the northern side of the lake and dwelt in a cave (spelunce), presumably that known as St. Kevin's Bed. An angel visited St. Kevin, who initially refused appeals to move to the place where his resurrection would be, to the east of the Lower Lake (in oriente minoris stagni). The angel predicted that a great city (civitas) would come into being there. Despite his initial resistance, St. Kevin eventually summoned the chief of the district, called Dimma. With his help, the monastery was transferred to the place where St. Kevin prophesied that his city (civitas) would grow and his resurrection would be. The valley, which was owned by Dimma and his sons, was granted by him to St. Kevin forever.

Price has argued that the entire story of the transferring of St. Kevin's monastery from the Upper to the Lower part of the valley is a later interpolation. It was, he says, written to justify an expansion of the original settlement at the Upper Lake which necessitated, after the time of St. Kevin, the removal to the larger site where the Cathedral and round tower still stand today. Barrow has refuted this, arguing that the Vita should be taken literally. There is nothing in the archaeological or architectural evidence to fully support either of these viewpoints. Price built much of his argument around the beliefs that the oldest building in Glendalough was St. Kevin's Cell beside Reefert Church; that this and other "primitive buildings" at the site compared to sites such as Killabuonia, Skellig Michael and Inishmurray, which he dated to the sixth or seventh centuries; and that none of the churches in the city belong to a date "...prior to the end of the seventh century at the earliest." St. Kevin's Cell, however, is the only such "primitive building" or beehive cell at Reefert Church and others may have existed at the site of the city. It is impossible to be sure of the dates of any of the pre-Romanesque buildings at Glendalough, but the Cathedral, located within the city,
has the most primitive type of masonry in its earliest phase. The earliest stone church was, despite Price's argument, within the city and not at Reefert Church. As many of the stone churches may have been preceded by wooden structures, however, even this point proves nothing with regard to the precise site of the earliest settlement in St. Kevin's time.

While the physical remains cannot be used to support or refute either side of the argument about the site of the *magnum monasterium* or *civitas* founded by St. Kevin, Price's treatment of the *Vita* seems more convincing overall. Perhaps the most significant points come from within the *Vita* itself. Price argues that, as St. Kevin had already founded the *magnum monasterium* in the lower valley, it was unnecessary for the angel to direct him to it. There is clearly confusion in the *Vita* itself and, as Price points out, the account of the talk with the angel and the movement to the site of the prophesied *civitas* is an important part of the text. Barrow states that Price "...fails to justify so drastic a rewriting of the Latin Life...", but the expansion of the settlement at the Upper Lake and the desire to credit St. Kevin with the foundation of the city at the site to which it was later moved seem sufficient grounds. Barrow argues that the first mentioned site is where the two rivers meet (the site around the Cathedral) and that the second story, concerning St. Kevin's place of resurrection and the *civitas*, refers to Our Lady's Church. This ignores the fact that both churches were located within the city.

The controversy surrounding the use of the *Vita* to trace the early settlement history of Glendalough illustrates the confusion which the source itself creates. It does, however, throw considerable light on the factors which led to the foundation of the settlement. The original attraction of the place was that it was a *deserta loca*, which may already have had a pre-Christian religious significance. It fulfilled, as such, the eremetic instincts of the young St. Kevin. Like St. Anthony in Egypt and St. Martin in Gaul, however, Kevin's desire for solitude was frustrated by the constant attention of disciples and he eventually founded a *monasterium* in Glendalough. The author of the *Vita* does not claim of Glendalough, as Cogitosus does of Kildare, that it became a city (*civitas*) in the founder-saint's lifetime. In the *Vita* of St. Kevin it is prophesied, first by an angel and then by St. Kevin himself, that a city will grow at Glendalough. There are, however, no claims to the status of city or nothing like the description of a city which is found in Cogitosus. Abbots and bishops are recorded at Glendalough from the time of St. Kevin, but there is no evidence that its status was comparable to that of Kildare until c.800.

All of the basic elements which one would expect to find in the *Vita* of a saint who aspired to the creation of a Heavenly City on earth are to be found in the *Vita* of St. Kevin: The ascetic lifestyle, the founding of a Christian community, the miraculous signs that this man was chosen by God and the prophecies of a city growing around the *magnum monasterium*. Other aspects of the *Vita*, particularly those which show an intermingling of pagan and Christian elements, could be seen as essentially Irish. That sense, however, of community, which was to inspire the growth of many urban settlements in the Middle Ages, is a European phenomenon. Although Glendalough's
settlement may have been nothing more than a monastery at the time of St. Kevin, it was the monasteries which provided the stimulus and the lead in the urban renewal of Medieval Europe. The concept of a city embraced ritual and religious elements which were of fundamental significance to Medieval man. This aspect of the city in Early Medieval Ireland has been brilliantly analysed by Doherty, who has traced the development of the city concept to a combination of native Irish and Biblical/Christian sources. The Heavenly City could, and in many cases did, remain a simple monastery. It could also act as a powerful magnet, attracting not just those wishing to become monks or clerics but pilgrims and paupers, kings and prostitutes, traders and murderers.

Glendalough and other monastic or cathedral settlements in Ireland grew beyond the purely religious idea of the Heavenly City. They became cities which, though small by modern standards, played a central role in the political, economic, educational and artistic life of the island. It was the religious element which, in Ireland and in Europe, bound all the other elements together. The City of God as an ideal place and an ideal way of life was the starting point for all of these developments. It was from these ideals that Glendalough and other Irish cities grew. Although Glendalough may have developed into a more complex settlement at a later stage than Kildare or Armagh, the basic concepts of community and the City of God were there in its origins as recounted in the Vita of St. Kevin.

THE GROWTH OF GLENDALOUGH, ITS SIZE AND LAYOUT

It is not until c.800 that we find evidence that Glendalough was one of the more significant ecclesiastical cities in Ireland. Oengus of Tallaght, writing in the prologue of his Martyrology, celebrated the demise of pagan cult or tribal centres and the victorious emergence of Christian centres in their place. Tara's burgh (borg) has been superseded by Armagh; Rathcroghan by the city (cathair) of Clonmacnois; the burgh of Aillenn by Kildare; and the rath of Becc by Ferns. Glendalough is also included, in a verse which relates the demise of Emain Macha, the ancient capital of Ulster:

Emain's burgh (borg) it hath vanished
Save that its stones remain;

The rūam of the west of the worlds multitudinous Glendalough.

The term rūam, derived from the Latin Roma or Rome, developed from the practice of giving greater status to Irish Christian cemeteries by claiming that soil had been carried from Rome to be spread upon them. As well as being the Irish for the city of Rome itself, the word could also mean "burial-place, cemetery" and "a monastic settlement or 'city'". It is clearly in the latter sense that Oengus uses the term in this passage, for he goes on to celebrate the ascendancy of Armagh, Clonmacnois, Kildare, Ferns and Glendalough collectively with the words:

The old cities (senchatraig) of the pagans.
wherein ownership has been acquired by long use,
they are waste without worship,
like Lugaid's House-site.
The cells that have
been taken by pairs and by trios,
they are Romes with multitudes,
with hundreds, with thousands.\(^{114}\)

Despite the triumphal tone of Oengus, this passage undoubtedly contains an element of truth. After over 300 years of Christianity, it cannot be doubted that the pagan cult centres were waning in significance. Places like Glendalough, which began as monasteries with cells "taken by pairs and trios" had grown into relatively large, populous cities. The Cities of God had triumphed over the old cities of the pagans. The inclusion of Glendalough with Armagh and other important ecclesiastical cities such as Clonmacnois and Kildare is of great significance. It indicates that Glendalough was amongst the five most important cities in Ireland c.800.

The populations of these cities are impossible to calculate as there are no sources available which give accurate figures. Henry argued for a population numbered in thousands at Armagh, based on evidence from the *Annals of Ulster*. She pointed out that as two raids in the ninth century saw 1,000 people killed (868) and 710 people captured (895), "...one must not be afraid of exaggerating in estimating a minimum of 3,000 or 4,000 inhabitants as the ninth-century population."\(^{115}\) There is no reason to disagree with this as an estimate. Indeed Henry could have found additional support for a population numbered in thousands by referring to Oengus's "...Romes with multitudes, with hundreds, with thousands." Although Glendalough's population is unlikely to have exceeded that of Armagh, we can reasonably assume that it was numbered in thousands at the start of the ninth century. Given Oengus's description and Henry's estimate for Armagh, a figure of 1,000 to 2,000 inhabitants is possible. This may seem tiny for a city, certainly by modern standards. The great historian of the city, Mumford, however, has noted how many ancient Greek cities, famed in history, never had more than 3,000 or 4,000 inhabitants.\(^{116}\) Medieval urban centres could be small and are estimated to have had a population of between 2,000 and 20,000 people.\(^{117}\) It is within this context that the size of the Early Medieval ecclesiastical cities of Ireland should be viewed.

While population figures can only be estimated, it is somewhat easier to pinpoint and compare the area enclosed by the ditches or walls of various cities.\(^{176}\) Glendalough's outer enclosure delineates an area which, although only about half the size of Armagh is a good deal larger than Kildare. It must be remembered that Glendalough's city was but one of a number of settlements scattered along the valley.\(^{118}\) Nonetheless it does compare with the size of other prominent Irish ecclesiastical cities of the Early Medieval period. It also compares favourably with the pre-Norman walls of Dublin, which enclose an area only slightly larger than Glendalough.\(^{119}\) Fig. 6.1 also shows the area of the Ile-de-la-Cité, Paris. Although the city of Paris had extended to the north and south of its urban core on this island by the end of the fourteenth century, it was confined within this area in the late ninth century. About one third of the area of the island, mostly around the edges, was not built
upon or enclosed, even in the fourteenth century. This gives some indication of how a major Medieval European city compares in size to the Irish examples. Even the Paris of the late ninth century probably covered a larger area than any of the Early Medieval Irish cities. Cashel and Armagh at the end of the Early Medieval period, however, enclosed an area almost as large as late ninth-century Paris. It is impossible, from available evidence, to compare Glendalough or the other ecclesiastical cities with Dublin or Paris on the basis of the density of settlement within these enclosed areas. These areas themselves, however, do give some indication of comparative sizes which is revealing for the lack of any great differences which it shows. If some of the cities shown on Fig. 6.1 are only half or a third the size of others, similar proportions of difference are to be found amongst the cities of Europe today. The marking out of these enclosures certainly had a ritual significance which, as Doherty has illustrated, went back to pre-Christian times. They also marked off the area of sanctuary within which both people and property could find protection. In Ireland the right of sanctuary was recognised in the laws and the concept of the "city of refuge" derived from both native and Biblical/Christian sources. In the eighth century, canon law stated that "there ought to be two or three termini around a holy place." What follows is interesting not only for what it tells us about layout, but also for the picture which it paints of a diverse population. The first terminus enclosed the area called santissimus, a "holy of holies" at the centre of the site where only priests or women clerics were allowed to go. Into the second area were admitted "the crowds of common people not much given to wickedness." In the third area, called sanctus, were "men who have been guilty of homicide, adulterers and prostitutes." The termini or enclosures therefore served the additional function, certainly from the eighth century, of separating the various elements of the population from each other. Doherty has argued that by the seventh or eighth century a basic standard plan had been established for the Irish civitates. This is supported by field evidence studied by Herity and Swan. The former's examination of selected monastic sites has established that the oratory, cross-slab and founder's tomb are laid out in a standard plan in both the eastern and western halves of the country. Swan's work illustrates that, in a slightly later period, the main church, the round tower and the market cross or market square are features which recur in similar patterns at the major ecclesiastical sites, including Glendalough. (Fig. 3.3) While Stalley rightly points out the lack of classical principles of planning, it is obvious that a considerable degree of thought was given to planning and layout. The nature of the early Irish monasteries and ecclesiastical cities can be largely explained by the way in which they developed. Planners did not sit down and plan these places as Roman planners would have done for colonial towns and cities or the Cistercians would have done for their monasteries. The Irish ecclesiastical cities grew very gradually in a society which had not been touched by Roman urbanisation. The island was segmented politically and therefore lacked the unity and financial resources necessary for the undertaking of large-scale, well-planned urban or monastic settlements. Hence we find features such as a number of small churches instead of one large, imposing building at even the largest ecclesiastical cities. The work of Herity and Swan,
however, does illustrate that, within these confines, the Irish planners still established some degree of uniformity.

The stone remains at Glendalough and other sites give very little indication of the internal layout of the city. The Cathedral and round tower dominate the central enclosure, their doorways facing each other across what may initially have been a green area or square. The location of the round tower to the north-east or the south-east of the cathedral or main church is found at many sites, including Armagh, Kells, Kildare, Downpatrick, Clonmacnois and Glendalough (Fig. 6.2). This allowed, in each case, for an open space or square in front of the cathedral/main church which was delimited on one corner by the round tower. At Glendalough cemetery, with the mortuary chapel called The Priests' House, was also located within the central enclosure. The outer enclosure has the remains of a number of other churches, but no trace of the dwellings, kitchens, guest-houses, scriptoria, workshops and other buildings which must have existed. There is no indication of what the street-plan was like, but Henry's excavations at Temple-na Skellig do show that a network of stone paths existed. A similar type of cobbled street-system must also have existed within the city. Examples of large stones forming roads leading to and from the city have been excavated near the river to the south-east (leading to St. Saviour's Priory) and at the Wicklow Gap. It is likely that the very similar traces of cobbling inside the Gatehouse are Early Medieval in date. One documentary source which mentions both streets and alleys is found in the law texts. Heptad no. 64 refers to the city (cathair) in general in a passage on the "likely" and "unlikely" places where one would find a waif or stray child:

The likely places of a city are its floors (a hurlar), its graveyards (reilgi) and its principal paths (a primsraitl) and every place which is frequented by everybody. Its unlikely places are its alleys (a cula), its gardens (a garrda) and its retired places (a mada dlamra). The distinction between primsraitl and cula is interesting, suggesting a complex web of streets of different sizes. It is also significant that gardens are mentioned as being within the city and the reference to "retired places" might suggest areas of the city, other than the churches, which were reserved for quiet prayer or contemplation. Not all areas of the city, apparently, were built upon or covered by streets.

While much may yet be discovered about the details of internal layout by archaeological excavations in the ecclesiastical cities, much can also be learned from field-work and documentary sources. In terms of size and layout, Glendalough was of comparative significance to the other ecclesiastical cities of Ireland and, on the eve of the Anglo-Norman invasion, to Dublin. Although small by modern standards, the differences between the Irish and European cities in terms of size was no more remarkable than it is today. It is apparent that, by the time some form of standard plan was developing c.800, the monasteries had attracted a more diverse population than simply monks and clerics. It is at this point that we can identify the beginnings of growth beyond a mere monastic or diocesan settlement. This growth must have been stimulated by economic factors and was also
helped by the interest shown in the cities by secular rulers. It also involved artistic and educational activities and all of these factors combined to make these cities the centres of a pre-Norman Christian civilisation in Ireland which was both distinct from and part of the broader European civilisation of the Early Medieval period.

ECONOMIC AND POLITICAL FACTORS IN GLENDALOUGH’S GROWTH AS A CITY

Given the paucity of documentary evidence which is available on the subject, it is not possible to trace Glendalough’s economic development in any great detail. It is, however, possible to sketch an outline and to read certain aspects of the city’s economy from the remains themselves. A valle deserta in the middle of the Wicklow mountains hardly seems the ideal place for a prosperous settlement to grow. There can be no doubt, however, that as Ryan suggested, the organisation and discipline imposed within the monasteries, allied to the fact that monks were not supposed to personally profit from the fruits of their labour, meant that the monastery could naturally build up an economic surplus. The role of monasteries in many aspects of agricultural and economic development has been recognised in Europe from the fifth century onwards. In the draining of fens, the building of bridges and the development of labour-saving devices, the contribution of the monasteries was a crucial one.

This can be seen most directly at Glendalough in the survival of three granite mill-stones. The horizontal water-mill, which must have been one of the commonest features of the Early Medieval landscape, was a device which made the grinding of corn considerably less time-consuming. In early Irish law, exceptions to the normal law against making cuttings in the landscape were made in the case of specific construction projects. Fines were not imposed on those who made cuttings for carriage at the construction of a mill, a church, a shrine and a king’s dún or fort. It is highly significant that the mill is listed here amongst the main ecclesiastical and secular buildings of the time. It is a good indicator of how important and widespread the mill must have been in Early Medieval Ireland. Excavated examples of horizontal water-mills in Ireland provide a date-span for construction from 630 to c.926. Although no mill-sites have been excavated at Glendalough, timbers from a recently discovered mill at Newcastle, Co. Wicklow were dated by dendrochronology to c.744. Glendalough was ideally situated to exploit water supplies for milling, with the city surrounded on three sides by rivers and fast flowing streams at the upper valley and in Glendasan. The horizontal water-mill must have attracted corn-growers to the area and provided Glendalough with additional revenue. Although the surviving mill-wheels at Glendalough cannot be precisely dated, there can be little doubt that they come from medieval mills. The Annals of Tigernach record that in 1177 the mill at Glendalough, along with the bridge, was swept away in a great flood.

Dairying and the farming of animals other than cows must also have been important in Glendalough's economy. The reputation of Glendalough as a religious and spiritual centre was
also a major factor in the development of its economy. The claim in the *Vita* of St. Kevin that many monks in many places were under his administration may well have had some degree of truth. 

Certainly by the early twelfth century Glendalough's diocese covered a very large area, and the city's rights in this area must have evolved over the previous centuries. (Fig. 6.2) There are simply no sources before the Synod of Rathbreasail (1111) which define clearly the extent of Glendalough's sphere of control. There is evidence, from the eighth century, that Glendalough took part in the widespread practice of taking the founder-saint's relics on tour. This practice appears to have developed initially as a protection against evil and misfortune but became a great source of income for the various churches. The *Annals of Ulster* record a "...taking on tour of the relics of Caemgein [Kevin] and of Mo-Chua moccu Lugedon [of Clondalkin]" in 790. While this is the only such relict-tour recorded involving Glendalough, there can be little doubt that others took place. A commentary on the law-tracts, dating from a slightly later period, indicates that tithes, first-fruit and alms were paid as the relics were carried around. By the twelfth century the great relic-tours organised by the church of Armagh were highly organised for the collection of tribute. The *Annals of Ulster* even give the exact amount expected of each person. This practice had evolved through centuries of custom and all the main churches or ecclesiastical cities are likely to have used relic-tours as a means of collecting revenue.

The visits of pilgrims to Glendalough was also a major source of revenue. It was claimed that St. Kevin visited Rome and received authority from the pope for a pilgrimage to Glendalough "in perpetuity". It was also claimed that "...the indulgence and the profit be the same to anyone who should make seven pilgrimages to Glendalough as to one who should make one pilgrimage to Rome." Kevin brought the soil of Rome back to Glendalough which, along with Lough Derg, Croagh Patrick and Monaincha, became "...one of the four chief pilgrimages of Erin henceforth". There is no evidence that St. Kevin ever visited Rome, but Glendalough did become one of the main pilgrimage centres in Ireland, the death of a pilgrim being mentioned as early as 951. It is the second place in Ireland to be mentioned in the Annals as a pilgrimage place, Clonmacnois being recorded as such in 606. Most entries relating to pilgrims in the Annals record their deaths, and such entries are found (after 951) for Glendalough in 1030, 1056, 1098 and 1122. The pilgrim who died at Glendalough in 1030 was the king of Uí Cheannsealaigh and the mother of Muirchertach Ua Briain (king of Munster, 1086-1119) also died there in 1098. There can be little doubt that, with such important and wealthy people visiting Glendalough, considerable patronage or material benefits came with them.

The building of St. Kevin's Road, a major pilgrim route between West Wicklow and Glendalough, suggests that large number of pilgrims visited the city. This trail of pilgrims would have brought certain economic benefits through both trade and donations to the church. Glendalough, along with Clonmacnois and Ferns, was also distinguished as a burial-place for royalty. This subject has already been examined in some detail, but in an economic context, the
privilege of being buried in such a place would have brought some benefit in the form of a grant, donation or burial fee.

The social, religious and economic aspects of relic-tours, pilgrimage and burial all played a role in Glendalough's growth. Another aspect of the city's organisation which was of major economic significance was the presence on its lands of manaig or "monastic tenants". Edwards notes that one law tract, *Córtus Bescna*, states that the church is entitled to first-born, first-fruits and tithes from its members, in this context the manaig. These monastic tenants appear to have formed a genuine social and economic class within the monasteries, playing a crucial role in their economic organisation.

In the later centuries of the Early Medieval period, some of the ecclesiastical cities developed as important centres of trade. At Glendalough and other sites (Fig. 3.3) market-places can be found, usually outside the city's walls or enclosures. The survival of a market cross often gives some indication of the date of these market-places. At Glendalough the market cross was originally located outside the Gatehouse on the opposite side of the river. It has been dated to the twelfth century on the basis of the style of its sculpture. The presence of a large number of bullaun stones in the area around the market-cross strongly suggests that a secular village may have grown up around the market-place. Although the precise function of bullaun stones has not been definitively identified they were clearly used for some kind of grinding activity. They may, in fact, have been used for the grinding of a number of different things, including herbs, corn and other foodstuffs. It has also been suggested that the crushing of mineral ores is another possible function. This does seem likely when we consider that one of the richest mineral veins in Ireland passes through Glendalough. The valley and surrounding area also contains the largest concentration of identified bullaun stones anywhere in Ireland. Evidence of iron ore smelting dated to the thirteenth to fourteenth century period was discovered at a site just east of the market cross. It is possible that an industrial or manufacturing area adjoined the market place, but there is no direct evidence of this for Early Medieval Glendalough.

There is a growing body of archaeological evidence which points towards the significance of manufacturing and craftsmanship at the ecclesiastical cities. At Clonmacnois, for instance, Manning has recently reported the discovery of evidence for a variety of trades and crafts, "...including antler-working or comb-making and iron-, bronze-, silver- and gold-working." Written sources suggest that at Glendalough's Óenach or fair, the security of all who attended was guaranteed by the ecclesiastical and, possibly, the secular authorities. The discovery of two coin hoards (tenth and thirteenth centuries) at Glendalough also provides evidence of trade. Despite many gaps in the evidence, there can be little doubt that Glendalough, certainly by the early twelfth century and possibly even earlier, was a major trading centre. Both Price and Smyth have suggested that Glendalough may have grown partially as a result of its location near the prehistoric mountain pass/trading route which led from the port of Arklow into the central plains of Ireland.
The surviving buildings at Glendalough are themselves an indicator of wealth, especially when viewed in terms of their cost, the equivalent of the annual rent of 30 large farmers for one of the smallest surviving churches, Temple-na-Skellig. It is not difficult to see the variety of sources from which this wealth could come. The production of an economic surplus at the ecclesiastical cities attracted the interest of not just the Vikings but local dynastic families as well. Political interference in ecclesiastical offices at Glendalough is discernible from as early as the eighth century. Right down to the end of the Early Medieval period and beyond, various dynasties sought to control the most important ecclesiastical offices at Glendalough. Mac Shamhráin has studied these developments, noting that the ecclesiastical cities (which he refers to as "proto-towns") proved attractive to secular rulers not just as a sources of revenue. They could also be valuable as centres of recruitment and as locations for billeting troops. This political dimension brought the ecclesiastical cities right into the very centre of the power struggles and wars of Early Medieval Ireland.

The first recorded burning occurred at Glendalough in the 775. No specific attackers are mentioned and it is possible that this was not a deliberate burning. The first recorded attack, in 819, was part of a general "laying waste of Laigin by Aed, son of Niall i.e. the land of Cualu as far as Glendalough." Even before the first Viking attack on Glendalough in 834, it had been laid waste by the Irish. Lucas's excellent analysis of the burning and plundering of the monasteries illustrates that this conforms with the general pattern for the whole country, the Irish attacking churches and monasteries before, during and after the Viking period. Of all the burnings, plunderings and killings at Glendalough recorded in the Annals before the Anglo-Norman invasion, five were carried out by the Vikings, six by the Irish and there are seven incidents which are recorded simply as burnings. The five Viking attacks are concentrated in the period 834-1020 while the Irish attacks span a longer period, from 819 to 1128. It was the wealth and political significance of Glendalough that made it a worthwhile target for the Vikings and the Irish alike. Looking at the issue in the broader context of the whole island, Lucas stated: "The equal of guilt of the Irish and the Norse in the plundering and burning of churches suggest the desirability of a new appraisal of the whole compass of Norse-Irish relations." The record of attacks on a city such as Glendalough can also be viewed in another way. It underlines the fact that, before the Vikings arrived in Ireland and built their towns and cities, the main centres of wealth and power were the monasteries and ecclesiastical cities. The vast number of Viking attacks which are recorded on ecclesiastical, as opposed to secular, sites surely suggests that this was where the wealth and power of both ecclesiastical and secular society was concentrated. The continuation of Irish attacks on Glendalough after the Viking attacks had ceased indicates that the ecclesiastical city continued to be an important part of Irish politics which was far from being destroyed by the foreigners.

Glendalough may, indeed, have ultimately benefited from the Vikings. The twelfth century market cross displays a Scandinavian artistic influence in the use of Umes-style motifs, and there can be little doubt that that the Vikings provided an enormous stimulus to trade. The Irish word for
market, margad, is ultimately derived from Old Norse, as are many other words relating to coinage, clothing, navigation and fishing. The evidence of the Annals must lead us also to question the idea that round towers were built as a protection from Viking attacks. This evidence suggests that a more generally violent society in Ireland, in which the Irish were just as capable of attacks as the Vikings, created a need for secure buildings. Clonmacnois and Durrow were two of the Cities of God which had fought major battles before the Vikings had even set foot on the shores of Ireland. The increasing political importance of these cities had indeed brought them a long way from the ideal Heavenly Cities, the centres of brotherhood and dedication to God for which they were founded. Nonetheless, the ecclesiastical cities produced, at various stages, works of great art and craftsmanship. They served as centres of education and a highly organised society which, in many respects, was no less violent than many parts of Europe. If the civitas of the Middle Ages and our modern words city and civilisation share common linguistic roots, it is fair to say that the ecclesiastical cities of Ireland were, in every sense, the centres of pre-Norman Irish civilisation. The role that they played in this regard was enormous, and we must briefly examine various aspects of this subject as it relates to both Ireland as a whole and Glendalough in particular.

CIVITAS AND CIVILISATION

It is perfectly reasonable to say that more than any other institution the city has provided the critical mass which produces civilisation and that it has fostered innovation better than any other environment so far. In the city the surpluses of wealth produced by agriculture made possible other things characteristic of civilised life. They provided for the upkeep of a priestly class which elaborated a complex religious structure, leading to the construction of great buildings with more than merely economic functions, and eventually the writing down of literature. Much bigger resources than in earlier times were thus allocated to something other than immediate consumption and this meant a storing of enterprise and experience in new forms. The accumulated culture gradually became a more effective instrument for changing the world. These words, written by Roberts in describing the earliest cities and civilisations of the world, could have been written of the Irish ecclesiastical cities. In Early Medieval Ireland these cities played precisely the type of civilising role which Roberts describes in a different place and time. It was in Clonmacnois, Armagh, Glendalough and other ecclesiastical cities that the earliest Irish literature was written down. Even if the Iron Age and other periods had produced some remarkable monuments
and craftsmanship, it was only in Early Medieval times that writing was introduced. The ecclesiastical cities embraced every aspect of urbanism and civilised life which Roberts describes and were the first settlements in Ireland to do so. The complex, multi-dimensional role which these cities played has been appreciated by only a few historians. Some would still have us believe that early Irish society was, as Binchy described it, "...tribal, rural, hierarchical and familiar" throughout the Early Medieval period. This may have been true at the start of the period. Early Irish society did not, however, remain static from the fifth to the twelfth centuries. Certainly to describe it as "rural" throughout the entire period is to ignore the growth of the ecclesiastical cities from their small beginnings to cosmopolitan centres which influenced, and were influenced by, Britain and continental Europe.

The *civitas* as a centre of civilisation is a subject which has received little attention from Irish scholars. Although many aspects of the subject have been well studied, Armagh, Clonmacnois, Glendalough and other major settlements are rarely described as centres of civilisation. This may well be related to the fact that it has become so popular, almost essential, for archaeologists and historians to translate *civitas* by any term other than "city". In this sense the language which is used may prevent the opening of the mind to the concept of the *civitas* as a centre of civilisation. If the *civitates* are conceived of as simply "monastic towns", "large ecclesiastical settlements" or some protean form of a greater urban development which happened in later periods, our perception of them is limited. Civilisations flourish in cities and not in monastic, incipient or protean towns. We seriously need to ask ourselves, as historians, whether or not the debate on cities (or "cities") has reached a dead end. The obsession with devising an acceptable term may be in danger of simply clouding the historical role which the places themselves played.

The ancient Greek city of Mycenae consisted of a walled area which was somewhat smaller than Glendalough's city but gave its name to an entire civilisation. On the other hand one of the great capitals of the Indus civilisation, Mohenjo-Daro, covered fifty times the area of Mycenae as early as the third millennium B.C. The size or population of a city is really relative to the place and time in which it existed. Perhaps Irish scholars could learn something from Mumford's assertion that: "Contrary to the convictions of census statisticians, it is art, culture, and political purpose, not numbers, that define a city." Irish art of the Early Medieval period has long been acknowledged as amongst the richest and most unique in Europe. Ireland excelled in the production of manuscripts, metalwork and stone crosses. It is perhaps no coincidence that one of the scholars who has contributed most to this subject, Henry, is quite happy to call settlements such as Armagh and Glendalough cities. Glendalough's market cross is amongst the most elaborately carved in the country, but unfortunately nothing as elaborate as the earlier scripture crosses like Clonmacnois or Durrow survive. There is a substantial collection of smaller crosses and graveslabs but the fact that many of these were carved in the local mica-schist has meant that most of the decorative work has weathered away. There is no surviving metalwork, although the wealth of minerals in this part of the Wicklow
Mountains must have been exploited in the Early Medieval period. In terms of manuscripts, we know from Keating that one of the "chief books" of Ireland, the *Book of Glendalough*, survived in the seventeenth century. It has been argued that the famous manuscript Rawlinson B. 502 was produced by the Glendalough scriptorium. While this has not been definitively established, we still know from Keating that a great manuscript was produced at Glendalough. Fragments of one manuscript which does survive have been dated to the time of abbot Tuathal Ua Cathail, who died c.1106. It consists of two leaves of vellum, written in Irish minuscule, which come from two different treatises. One of the decorated capitals has a rare type of iris leaf motif, ending in double spirals. The occurrence of a similar motif in the *Drummond Missal* led Henry and Marsh-Micheli to identify this manuscript as another product of the Glendalough scriptorium. It was written some time after 1061 and is a small volume containing 109 folios written in Irish minuscule with majuscule forms in some parts of the text. It has a calendar, a post-Carolingian missal, a poem in the form of a dialogue between St. Kevin and St. Ciaran of Saighir and a commemoration of Saints Martin, Patrick, Nicholas and Kevin. There are a number of poems in Irish in the margins.

The manuscript fragments of c.1106, sometimes referred to as "The Glendalough Schoolbooks", throw considerable light on the standard of education in the early twelfth century. One comes from the *Ars Grammatica*, attributed to Clemens Scottus. The other is a fragment of the *De Abaco* of Gerbert of Aurillac, a mathematical treatise. Henry and Marsh-Micheli have pointed out that these manuscripts, along with a slightly later text of Boetius, show that the standard of teaching in the Irish schools was very much on a par with that of the Continental schools of the time. In terms of education, Glendalough was no intellectual backwater. It is also relevant to point out that both Clemens and Gerbert had connections with Irish monasteries in Europe. Gerbert had been abbot of Bobbio, the Italian monastery founded in the seventh century by St. Columbanus. Clemens was an Irish monk who taught in Europe in the ninth century and died at Würzburg in Germany. This not only recalls the great contribution to European learning which was made by Irishmen from the sixth century onwards; it also shows that the Irish ecclesiastical cities were involved in a two-way communication with European centres of learning. This link with Europe may have varied in its intensity and significance throughout the Early Medieval period. The links, however, were as strong as ever in the first half of the twelfth century. Just a few years before the Anglo-Norman invasion, Gilla-na-naemh Laignech died (c.1160) as head of the *Schottenklöster* or Irish monastery in Würzburg. He had formerly been bishop of Glendalough. The ties between Würzburg and Glendalough must have been strong at this time if a high-ranking ecclesiastic could move from one place to the other. This particular connection was just part of a greater link between Ireland and Germany. Research on the memoria of the German Skottenklöster has shown that, c.1000-1300, a substantial number of Irish kings and ecclesiastics, many involved in the church reform movement, had contacts with Germany. It was undoubtedly connections like this which kept the Irish schools up to date with educational developments in Europe.
Glendalough must have been a centre of learning from its initial foundation, given the nature of the correlation between monasticism and education. The first direct evidence that exists for a *fer léiginn*, however, comes from the tenth century. *Fer léiginn*, literally "man of learning", was the term which was used for the head of a monastic school. The deaths of four such heads of the Glendalough school are recorded between 932 and 1106. Definite evidence for the school therefore spans almost three hundred years. In many respects these schools were the forerunners of the universities which developed later in the Middle Ages. In that sense it could be said that Glendalough was amongst the university cities of its time.

If there is a single achievement which captures the scale of manpower and the level of organisation which Glendalough could command, it is the construction of St. Kevin's Road. This pilgrim road connected Glendalough with Hollywood and traversed one of the highest mountain passes in Ireland, the Wicklow Gap. Although no definite date for the construction of the road itself has yet emerged, there can be little doubt that it was built in the Early Medieval period. Crosses, slabs and churches of Early Medieval date still exist at many places along or close to the route of the road. These remains indicate not only the time in which the road was constructed but also its primary function as a route for pilgrims. Excavations were carried out c. 1972 when the Electricity Supply Board's hydro-electric power station was being constructed at Turlough Hill. Two sections of the road which were uncovered at that time can still be seen. The road was about 3m wide, consisting of rude paving in which some slabs were considerably larger than others. Although wide enough to accommodate wheeled vehicles, the irregularity of the surface would seem to preclude this.

The excavators of St. Kevin's Road calculated that 25 men working on its construction would be unlikely to build more than ten metres in a day. Working a six-day week for eight months a year, the 17.7km of the road from Glendalough to Valleymount would take 9 years to complete. The confidence, manpower, economic resources and organisation which such a large-scale and long-term project required were enormous. It could only be undertaken by a civilised and powerful community such as that which existed at Glendalough.

The type of organisation which went into the construction of St. Kevin's Road was similar, in many respects, to that required to build the churches, towers, Gatehouse and walls of the city. These projects illustrate not only the organisational and economic power of Glendalough. They also underline its importance as a centre of public life. St. Kevin's Road must have brought thousands of pilgrims to the valley, people who shared, however briefly, in the simple beauties of its architecture; who walked among its streets and market-place; who visited the tombs of its founder and other holy men. Within its churches and towers, local rulers would have kept their valuables or treasures for safe-keeping. Powerful kings and men of learning visited on pilgrimage, sometimes from provinces other than Leinster. Saints from Britain and the kingdom of the Franks were commemorated, they themselves or their followers having travelled to settle in Glendalough. An important centre of study with its own *scriptorium*, Glendalough was also a major patron of craftsmen. It survived the
period of inter-monastery battles and lived through the Viking attacks to absorb less negative aspects of their culture. If we define the city as a centre of civilisation, there can be no doubt that Glendalough was indeed a city. Certainly in the eleventh and twelfth centuries there is evidence that Glendalough had a highly developed culture typical of pre-Norman Irish civilisation in other ecclesiastical cities.

Pre-Norman Irish civilisation had much in common with the European civilisation of the time. Both were essentially Christian, the Church being of central importance in all aspects of life. Irish civilisation was, however, distinct in a number of ways. In manuscripts and metalwork, Ireland produced a vibrant and unique combination of Christian and pre-Christian motifs. Fantastic and imaginative literary works such as the *Navigatio Brendani* also had a distinct style, this particular work being enormously popular in Europe. The great scholar of Early Irish literature, Meyer, wrote of the nature poems that they "...occupy a unique position in the literature of the world." Both he and Carney have compared these short, impressionistic poems in style, spirit and form to Japanese lyrics. Irishmen contributed significantly to the culture and learning of Early Medieval Europe. The German scholar, Bieler, wrote of this subject under the title *Ireland: Harbinger of the Middle Ages*. More recently Cahill has written the story of *How the Irish saved civilisation*. While the latter title may convey a slightly overstated impression of the truth, the British archaeologist Powell has put it more succinctly. He describes "...a responsive outburst of native excellence, both in the literary and manual arts, that assured for Early Christian Ireland a special position in the history of European civilisation."

In terms of architecture, certain buildings in the ecclesiastical cities do display signs of influence from outside Ireland. The very simple, rectangular form of the churches was itself part of the influx of Christian influences from Britain and Europe. The western annexe of Trinity Church, Glendalough, has Anglo-Saxon parallels. The unique St. Kevin's Church, with its western tower incorporated into the roof, may also have been influenced by what Irishmen saw abroad. Although the detached round tower was uniquely Irish in its form and popularity, it too could have developed as a result of the travels of Irishmen to mainland Europe. In both Italy and Germany there were examples of towers which may have provided the inspiration for those found in Ireland. Although these small and tentative connections with Europe must be recognised, Irish ecclesiastical architecture did remain outside the European mainstream until the twelfth century. This is, however, consistent with the nature of pre-Norman Irish civilisation and the type of polity which sustained it. Ireland consisted of a network of small *tuatha* or kingdoms and provinces which constantly struggled with each other for supremacy. There was no central government and no single ruler or dynasty could effectively unite and govern the whole island. In these circumstances the cities were bound to be small and the architecture unsophisticated by comparison with Europe. Ireland was not part of the Carolingian or Ottonian Empires to which most of the major developments in European architecture were tied. The resources of Irish church builders were more restricted and their needs were more humble than their counterparts in the Empire.
By the twelfth century, the nature of the Irish polity had changed considerably. Provincial kings such as the O'Briens of Munster and the O'Connors of Connaght became more powerful than they had been before and established considerable authority over their sub-kings. They patronised art and architecture, supported church reform and the establishment of a new diocesan structure and built new castles and bridges. These developments meant that, in a number of cases, the ecclesiastical cities also became secular capitals. Evidence of this phenomenon, symbolised by the existence of both church and fortress at the same site, can be found at Ferns (Co. Wexford), Tuam (Co. Galway), Durrow (Co. Offaly), Derry and possibly Clonmacnois, (Co. Offaly).

The advent of Romanesque architecture coincided with these developments. Unlike the architectural and artistic revivals of Carolingian and Ottonian times, the Romanesque revival was not dictated by political motives. It was part of a wider church reform movement rather than a particular political programme for Empire and therefore transcended political boundaries. The new, progressive Irish kings supported both church reform and Romanesque architecture. In terms of architecture, Ireland moved closer to Europe in the twelfth century than it had been at any time during the Early Medieval period. This was but one aspect of a process which embraced all aspects of society. Pre-Norman Irish civilisation had begun to change and the cities of Ireland played a role in that change. Ultimately, however, the weakness of the Irish polity caused the downfall of this civilisation. Despite the centralising or feudal tendencies evident in the kingship of the twelfth century, Ireland did not unite under a stable monarchy. The struggle for dominance over the whole island produced ambitious kings whose powers did not match their desire for supremacy. This fact, in the person of Dermot Mc Murrough, ultimately brought the Anglo-Normans to Ireland.

The weakness of the ecclesiastical cities, however, was also crucial. For it was in the name of church reform that Henry II claimed Ireland. In the absence of a stable central monarchy, many church leaders accepted the Anglo-Normans. Pre-Norman civilisation as it had evolved since the fifth century began to go into decline.

One of the main complaints of the reform movement in Ireland was the extent to which ecclesiastical offices were hereditary or controlled by secular powers. At Glendalough this can be seen in the control which the Ui Muiredaig held over the office of abbot in the period preceding the Anglo-Norman invasion. While there is no evidence that this dynasty built a fortress at Glendalough in the twelfth century, the ecclesiastical city was nonetheless an important economic and political centre on the eve of the invasion. The Ui Muiredaig continued to hold the abbacy of Glendalough well into the thirteenth century and the construction of new buildings after 1169 shows that the city did not go into immediate decline. The Anglo-Normans, however, eventually removed Glendalough's power-base by establishing control over the abbacy and taking away its diocesan status. The Archbishop of Tuam, an Anglo-Norman supporter, gave false testimony at the Fourth Lateran Council (1215) in order to secure papal approval for the union of the dioceses of Glendalough and Dublin. This illustrates clearly the importance of Glendalough and the Anglo-Normans' desperation to establish control over it. In reality the medieval archdiocese of Dublin grew
at the expense of Glendalough. The latter city as a centre of civilisation went into decline under the impact of a civilisation which was more effectively organised, that of the Anglo-Normans. The wealth of written material which the new colonisers produced on Ireland does, however, provide an interesting insight into the whole question of the urban status of centres such as Glendalough.

AN OUTSIDE VIEW OF THE QUESTION OF URBAN STATUS

Two sources which are central to the history of the Anglo-Norman invasion of Ireland can both provide crucial evidence of how the Irish urban centres were seen by contemporaries from outside Ireland. The *ExDuonatio Hibemica* and the Old French poem known as *The Song of Dermot and the Earl* both provide considerable insight into the subject. The author of the *Expuqnatia*, Giraldus Cambrensis, visited Ireland in 1183 and 1185. He was a highly educated and well-travelled churchman who was not only familiar with the major cities of Britain, but had also studied in Paris from 1167 to 1182. The terms he employs in describing the larger Irish settlements, whether Viking, monastic or diocesan in origin, are therefore of great significance. Unlike the Annals and other Irish sources, Giraldus gives us a genuinely European perspective on the status of these settlements.

In the *Expuqnatio*, the Viking-founded settlements of Dublin, Waterford and Limerick are, with only one exception, described as *urbs*, the usual Latin term for "city". The term *civitas*, most commonly used in Medieval Latin to refer to a "cathedral city", is used in the description of the Church Council which was held in the city of Cashel (in *civitate Cassila*) in 1172. This term also appears at the beginning of Giraldus' description of John de Courcy's battle at the city of Downpatrick (*Dunensem civitatem*). These are the only two instances where the term *civitas* is used, both applying to places which became cathedral cities at the Synod of Rathbreasil (1111) and were confirmed as such at the Synod of Kells (1152). On one occasion Giraldus uses *Theumiam Metropolim* to describe "the metropolitan city of Tuam." Tuam had become a metropolis, the chief see in an ecclesiastical province, at the Synod of Kells in 1152. The fact that *metropolis* is used of Tuam and *civitas* is used of Cashel, also a provincial see suggests that for Giraldus the terms were interchangeable.

Further evidence from the *Expuqnatio* shows that cathedral cities are frequently described by the use of the more general term *urbs*. Despite the fact that the first term used to describe the city of Downpatrick in the battle description is *civitas*, there are four other instances in the chapter where Down is described as *urbs*. Armagh and Cork, a metropolitan and a diocesan see respectively, are also referred to by the use of the term *urbs*. Giraldus again uses this term in describing how the "...men of Connacht set fire to the cities and villages (*urbibus et villis*) in all parts of the province." As there were no Viking cities in Connacht, the cities referred to here can only be the cathedral cities of Clonfert, Kilmacduagh, Roscommon, Mayo, Achonry and perhaps Cong and Ardcarn.
latter two were designated as diocesan sees at the Synod of Rathbreasil (1111), but did not retain
their status at the Synod of Kells (1152).  

The evidence of the *Expugnatio* shows that Giraldus sometimes distinguishes a cathedral or
metropolitan city by using *civitas* or *metropolis*. The usual Latin word for "city", *urbs*, is nonetheless
the one he most frequently uses. *Urbs* is used to describe all Irish cities, whatever their origin was.
The only city which is described as *urbs* and was not a cathedral city in Giraldus' time is the Viking-
founded Wexford. Glendalough is mentioned only once in the *Expugnatio*, in a context where a
descriptive noun such as *urbs* or *civitas* is not necessary. As Giraldus uses both *civitas* and
*urbs* to describe settlements of the same ecclesiastical status as Glendalough, the latter would certainly have
been included amongst those places in Ireland which the Welshman saw as cities.

*The Song of Dermot and the Earl* was written by a French-speaking author to whom a pre-
exisiting poem was supplied by Morice Regan, the secretary of Dermot Mc Murrough. This Old
French poem did not distinguish between *civitas*, *metropolis* and *urbs* in the way Giraldus did. The
standard French word for "city", *cité* (or *cite* as it appears in Orpen's text) is used throughout. Dublin,
Wexford, Waterford, Limerick, Cashel, Leihlin and Ferns, where much of the
action takes place, are all mentioned as cities. *Cité* is used invariably of all these places except
Wexford, which on two occasions is mentioned as *la uille*. Orpen translated this as "the town".
There are, however, four instances of Wexford being called *la cite*. The only other place
mentioned as a *uille* is St. Mullins, Co. Carlow. This was the site of a monastery founded in the
seventh century which never had diocesan status. This is a significant point as Ferns, Cashel, and
Leihlin, the only places described as cities which were not Viking in origin, were part of the twelfth-
century diocesan structure. Although Ferns had been a monastic and diocesan settlement since its
foundation around the seventh century, is it primarily as the secular capital of king Dermot Mc
Murrough that it is mentioned. Glendalough is mentioned, but as in Giraldus no descriptive noun is
used to describe its settlement. It is nonetheless significant that it is mentioned in a purely political
context:

He [Mc Murrough] wished to march to Glendalough,
He would plunder O'Toole
For having disdained to parley with him.
The O'Tooles or Ui Muiredaig have already been noted as the dynasty which controlled the abbacy of
Glendalough. It is here portrayed as the centre of O'Toole power, much in the same way as Ferns
was the centre of Mc Murrough power. Mc Murrough and his Anglo-Norman allies marched on
Glendalough fully prepared to do battle, but achieved their objective "...without receiving or giving a
blow."

Secular and ecclesiastical politics were inextricably bound together in pre-Norman Ireland. There can be no doubt that, by the time of the Anglo-Norman invasion, the diocesan, metropolitan
and Viking-founded cities were where the real political power lay. In many senses the differences
between cities which were founded as ecclesiastical settlements and those founded by the Vikings had faded. The political and commercial aspects of the original Viking foundations were, in the twelfth century, also important in the ecclesiastical cities. The Vikings had been Christianised and their foundations at Limerick, Waterford and Dublin were all cathedral cities in the twelfth century.

The evidence of the Expugnatio and The Song support these conclusions. They also illustrate most potently that men who knew well the greatest cities in contemporary Europe did not hesitate to call places such as Ferns, Cashel, Downpatrick and, implicitly, Glendalough by the name of cities. As a medieval historian one can only comment that The Medieval City was smaller than our modern cities and recall Mumford. It was most certainly art, culture and political purpose which defined the city in Early Medieval Ireland. This was as true for Cogitosus writing in the seventh century as it was for Giraldus Cambrensis in the twelfth.
CONCLUSION

In the summer of 1993 a local historian, Conor O’Brien, took the present author to see the remains of the Medieval church settlement at Rosahane, Co. Wicklow. Located in a sparsely inhabited area of the Wicklow mountains, this church would originally have been on the border of the diocese of Glendalough. The outline of a church can barely be made out in the centre of the enclosure. Some stones which lie within the enclosure obviously came from a window of Medieval date. Conor O’Brien has since informed the present author that, on a subsequent visit to the site, he could find no trace of the stones which made up the windows. Loose stones have a tendency to disappear and, especially in our time, can be sold off for large sums of money if they have any historical significance. The scant remains at Rosahane today emphasise the enormous significance of restoration. The works carried out at Glendalough in the nineteenth century have prevented its remains from suffering the same fate as those at Rosahane.

While it is important to recognise this fact, it must also be admitted that the restoration works obscured some details of the buildings. The considerable confusion which arises from this can be sorted out by detailed analysis of the buildings themselves and the various accounts of them which exist. Such an analysis is an absolutely essential prerequisite to interpretation. In cases such as the round tower and the "Priests' House", misinterpretations have arisen because this analysis was not carried out.

The research carried out for Chapters 2 and 3 also gives some impression of what did not survive through restoration. This should make us wary of accepting that what we see at Glendalough today was all that was built in stone in the Medieval period. There may, for instance, have been many more beehive cells like St. Kevin's Cell and buildings which the restorers did not recognise as churches may not have been restored. Even some buildings which were recognised as churches by O'Donovan before the restorations have disappeared. It is not possible to argue positively from this evidence that Glendalough originally had many beehive cells and domestic buildings made of stone. We should, however, open our minds to this possibility and not accept too readily that every building other than what we see today must have been wooden.

What does remain at Glendalough indicates that the Medieval remains consist of far more than just the enclosed area of the city. The number of stone buildings which survive outside the city, studied in Chapter 2, is almost as great as the number which survive within it. Glendalough therefore consisted of a number of settlements, of which the city was just one. This point is, in fact, recognised in the Annals which record in 1163: "Gleann-dá-locha do loscadh im Cré Chiaráin, im Cré Chaoimhgin ocus im reccies an dá Sinchell." O'Donovan used this entry to identify the buildings now known as St. Kevin's Kitchen/Church and St. Ciaran's Church. The terms used, however, suggest that it is distinct settlements or monasteries within the valley which are referred to rather than specific buildings. The term cró is often used of a "hut" or "cell", but has a broad application, the basic
meaning being "enclosure, enclosed space".\textsuperscript{307} Reiclès or reccles is likewise a term with a wide range of meanings, including "oratory", "cell" and "monastery".\textsuperscript{308} It is, however, evident from other sources that Cró Chaoimhgin was, in the twelfth century, the name of the settlement around Reefert Church and therefore a distinct settlement to that at the city.\textsuperscript{309} A more accurate translation of the 1163 entry than that given by O'Donovan\textsuperscript{310} would thus read: "Glendalough was burned, including the enclosure of St. Kevin, the enclosure of St. Ciaran and the monastery of the two Sinchells."

Far too little attention has been paid to the unique nature of Glendalough's Medieval settlements. No other site of an ecclesiastical city has so many pre-Norman stone remains outside the main area of the city. Glendalough's city itself grew into a complex urban settlement throughout the Early Medieval period. The valley also, however, retained the Civitas Dei or the ideal, monastic City of God in its original form outside the walls of the city area. The area around the Upper Lake, Disert Chaoimhgin, thus remained a hermitage as the city in the lower valley developed beyond the concept of the civitas as an ideal Christian community. Glendalough's valley thus contained the civitas in its ideal and more developed forms throughout the Early Medieval period.

The \textit{Vita} and \textit{Bethada} of St. Kevin can provide some help in understanding the valley's settlement history, especially when used in conjunction with other sources. The dating of Early Medieval ecclesiastical buildings, however, remains a problem which cannot be adequately resolved by the study of hagiographical sources. The energies expended by historians on fruitless arguments about the concise datings of church buildings could be better spent in more constructive work. In this context, the detailed stone survey of Glendalough's remains in Chapter 4 is presented as a more positive contribution than additional, inconclusive theorising about concise dating. The patterns which emerge do not only provide a dating sequence for the buildings. They also illustrate the craftsman learning his way with new methods of stone construction. Viewed in a broader context, the relative significance to the sáer of working in wood and stone can be seen to have changed throughout the period. The law-texts on the sáer and the work he produced present a remarkably accurate picture when compared with other written sources and the physical remains of his work. In addition, the law-texts reflect changes in the relative significance of stonework at precisely the same time as other sources show an increase in stone construction at ecclesiastical sites.

The work of the sáer, spectacularly exemplified in Glendalough's remains, serves to emphasise how the construction of buildings brought the ecclesiastical city into a close relationship with a broader Irish society. The churches and round towers came at a considerable cost which only a wealthy and well-organised establishment could afford. The remains at Glendalough are not simply quaint architectural remnants which are primitive and insignificant when compared with what was being built in Europe at the time. They are the product of a high-ranking class of Early Medieval Irish society which only the most economically powerful organisations could afford. They are an essential proof that the Church was, economically and politically, a central force in Early Medieval Ireland. No secular site of the Early Medieval period has produced anything remotely resembling Glendalough's stone remains. The explanation for this may well be that many secular rulers, aware of the power of
the Church, established their bases in the ecclesiastical cities. This was certainly the case in the eleventh and twelfth centuries.

In terms of architecture and the relative significance of wooden and stone construction, Ireland’s situation was similar to Britain, Scandinavia and that part of Northern Europe in general which lay outside the Holy Roman Empire. If the ecclesiastical cities were smaller than those of the Empire, this reflects the type of society in which they had developed. Christianity did give Ireland her first urban centres and scholars are beginning to recognise the complexity of the ecclesiastical cities. Graham has recently written that "...if it can be shown that some [ecclesiastical] enclosures were remodelled in the eleventh and twelfth centuries as urban defences, then a major difficulty in establishing the concept of the early medieval Irish town is circumvented." He continues: "As things now stand, one crucial element in what Carter called the medieval urbanising catalyst of temple, market and fortress was apparently absent." Looking closely at Glendalough’s Gatehouse and the evidence for city walls adjoining it, it is difficult to accept that the "fortress" element of the "urbanising catalyst" is absent at Glendalough.

Graham’s work does begin to encompass the complexity of the issues at the heart of the debate on urban status in Early Medieval Ireland. He points to the possibility that monasteries and diocesan sees may not have provided the only core around which urban settlements developed. Secular towns could also have existed. There is most certainly a case for identifying ecclesiastical, Viking or Hibemo-Norse and other secular urban settlements as distinct types. A number of aspects in Graham’s approach, however, ignore crucial elements. In addition to ignoring the evidence of fortification at Glendalough, he insists, like so many others, on avoiding the use of the word "city". In the light of the evidence from Giraldus’s *Expugnatio*, this appears to be decidedly unhistorical. It also seems somewhat absurd that, should evidence of urban defences emerge, "...a major difficulty in establishing the concept of the early medieval Irish town is circumvented." It is not the work of the historian to establish the concept of the early medieval Irish town. What Graham was referring to, the ecclesiastical cities, were an established, historical reality. The people who knew or lived in these places saw them as something which, for the reasons outlined above, are best described in modern English as "cities". In terms of etymology and semantics, no other word can capture the essence of these settlements the way "city" can. Their religious, political, economic and civilising roles cannot be captured by the word "town". The very presumption that an historian can establish the concept of the early medieval town indicates, to this author at least, the extent to which certain historians have taken leave of their senses. The imposition of modern terms and modern concepts of what constituted urbanism in the Medieval period has turned the entire subject into a pseudo-historical farce. The best term to describe this debate would be "pseudo-historical proto-urban farce", although it is doubtful that this term would achieve any more consensus among historians than the plethora of terms which the debate itself has thrown up.

Of all the subjects which remain to be resolved in the history and archaeology of Glendalough and similar ecclesiastical cities, the most hotly-debated at the moment is the question of what to call them. There is no sign of any consensus emerging. The list of terms simply grows, with
Graham adding yet another to those discussed earlier, "town at monastery."\(^{315}\) At this stage the debate is doing more to confuse than to elucidate our understanding of these places. It has become entangled with the semantics of English words which have particular connotations in modern usage and has as much to do with linguistics as history. The city of Early Medieval times was different to the city of Modern times. It is difficult to see why so many historians cannot accept this as the basic starting point. Viking/Hibero-Norse cities and ecclesiastical cities can be easily distinguished and the changing roles of religion, trade and secular politics at different stages can be identified in each individual case.

The medieval historian must surely look at this question in medieval terms. Sometimes in history, a leap of the imagination is necessary to bring us face-to-face with the problems we seek to resolve. Imagine standing at the gates of Glendalough on a market day in 1160 with Laurence O'Toole, the abbot. A group of medieval historians try to explain to the abbot that he does not live in a city but in a proto-urban ceremonial complex or an incipient town. Abbot Laurence could rightly argue that there was nothing incipient or protean about Glendalough, that it had, in fact, begun to develop over 500 years ago. He would also, surely, ask did medieval historians not grasp the fact that a cathedral was central to the definition of a city in twelfth-century Ireland. He would point to the bustling market on the opposite side of the river, the churches and towers within the walls of the city and the numerous other settlements to the east and west. This alone would be sufficient for Laurence. Imagine about 25 years later, the same group of medieval historians trying to convince Giraldus Cambrensis not to call Cashel, Downpatrick, Armagh or Glendalough "cities" in his book on the invasion of Ireland. They try to convince him that the Latin equivalent of "proto-urban settlement" or "proto-town" would be far more appropriate. Giraldus, no doubt, would be dumbfounded. He would probably answer that he was well-educated, having studied in one of the greatest cities in Europe, and knew what he was talking about. He would not hesitate to use civitas or urbs of any Irish city in his work on the invasion.

It may not be normal practice to indulge in such imaginary leaps in a historical thesis. It does, however, underline the absurdity of the "pseudo-historical proto-urban farce". It also brings the historian face-to-face with medieval people, who did view these places as cities. The remains of Glendalough may not have a particularly urban appearance to-day. When they are viewed in the context of their own era, however, they can be appreciated for what they were, the most important buildings in a small city. Such small cities were typical of Early Medieval Ireland, and even their size tells us much about the society in which they flourished. A most basic duty of every historian is to understand the differences between his own time and the period which he is studying. Medieval cities must be understood in a medieval context. As a historian, the present author could not stand at the gates of Glendalough and tell Laurence O'Toole or Giraldus Cambrensis that this was not a city. It would involve too much explanation about the nature of cities and society in our own time and would be fundamentally unhistorical.
NOTES

1. See Chapters 2 and 3.
2. See Chapter 3.
3. See Chapters 2 and 3.
4. See Chapter 4.
5. See Chapter 5.
6. Ibid.
8. Ibid., p. 100.
10. Ibid., p. 100.
11. de Paor, L., 1976, p. 29.
16. Ibid., pp. 103-4.
18. L.D., s.v. city.
19. S.O.E.D., s.v. urban.
20. Ibid., s.v. city.
21. L.D., s.v. civitas.
23. Piggot, S., 1968, p. 41, where civitates in this context is translated as "tribes". See also Williams, R., 1983, p. 56.
27. M.L.L., s.v. civitas.
28. Ibid.
29. Connolly dates Cogitosus' text at "not much later than about 650"; Cog., p. 11. In the passage analysed below, under **THE HEAVENLY CITY; RELIGIOUS IDEALISM AND THE**
ORIGINS OF GLENDALOUGH, the term civitas is used to describe Kildare on five occasions; see f.n. 47 - f.n. 50 below.

The Liber Angelii was written in the seventh or eighth century. There are differences of opinion on a closer dating which are discussed by Hughes, K., 1966, p. 275. In describing Armagh, the Liber Angelii uses urbs on all but one occasion, when civitas is used.


ibid., pp. 82-3.

Glendalough is mentioned as a civitas in the Vita seven times; pp. 245 (twice), 247 (twice), 251 and 253. Civitas is also used in the Vita of Clonmacnois (p. 248) and Dublin (p. 249).

A.U., 784.9.

A.U., 873.6 records that: "The fair of Tailtiu (Oenach Tailtiu) was not held, although there was no just or worthy reason for this - something which we have not known [to happen] from ancient times." Other ninth-century entries in A.U., 878.7, 888.10 and 889.4 record that the denach did not happen. These entries indicate that the fair was normally held annually.

P.B.A., in Muirichú's Life of Patrick, p. 97, line 16, et omnis civitas Temoria.

D.I.L., s.v. cathair and Fel. Oeng., Prologue, lines 177-205, where Rathcroghan and Tara are listed amongst the "old cities of the pagans" (senchathraig na ngente; line 205).

M.L.L., s.v. civitas.

Mumford, L., 1961, pp. 292-7 describes this process.

C.D., p. 31.

Braunfels, W., 1972, p. 8, writes generally of monasticism that: "Every good monastery strives to embody the Civitas Dei."

C.D., p. 331.

Mumford, L., 1961, p. 285, where monasticism is described as a "formative influence".

ibid..

ibid., pp. 286-7.


The Latin text of this passage is based on a ninth-century manuscript critically edited against other pre-eleventh-century manuscripts. The ninth-century manuscript is at Rheims, Bibliothèque de la ville, MS. 296 [ E 381]. Doherty, C., 1985, pp. 55-6 quotes the whole passage, which was made available to him by J.-M. Picard, with a translation.


ibid., p. 56, describes this passage as a "...riposte to the claims of Armagh set out on the Liber Angelii. For the Liber Angelii and Armagh see Hughes, K., 1966, pp. 275-6.

Mc Cone, K., 1982, followed by Doherty, C., 1985, p. 55, gives a date shortly after the middle of the seventh century. For an alternative view of the dating see Sharp, R., 1982.

A.U., 818.3.

ibid., 622.5.

See Ryan, J., 1931, pp. 117-32 for a detailed account.


Vita, p. 236.

ibid, p. 237. "Gleand De, modo autem dicitur Gleand da Loch."

ibid., p.238.


D.I.L., s.v. 2Dea, Deae.

O.S.L., fol. 438.

A.U., 836.5.

D.I.L., s.v. 2Dea, Deae.

ibid.

P.N., I, p. 30.

ibid..

D.I.L., s.v. 2Dea, Deae.

Emain Macha, the Irish name for Armagh literally means "the twins of Macha" and is named after a pre-Christian war-fertility goddess; Smyth, D., 1988, p. 93. It features prominently in early Irish tradition as the seat of the kings of Ulster and the province's ancient capital. Excavations have shown that the site, now called Navan Fort, is a multi-period one; Mallory, J.P. and Mac Neill, T.E., J.P., 1991, pp. 116-123 and pp. 146-50.

The Christian St. Brigid was preceded by a fertility goddess of the same name. The feast-day of the Christian saint falls on 1 February, the same day as Imbolc, the pagan Spring festival; Smyth, D, 1988, pp. 25-6.

Vita, p. 239.

B.N.E., p. cxxxvi.

ibid., p. cxxxvi for full references.


Vita, p. 241.
ibid.
ibid.
ibid.
ibid., p. 242.
ibid., p. 244.
ibid., p. 245-6.
ibid., p. 246.
ibid., p. 247.
ibid.
Barrow, L., 1984, pp. 11-12.
Price, L., 1940, p. 264.
ibid., p. 266.
ibid., p. 276.
See Chapter 2, under **REEFERT CHURCH AND ITS ENVIRONS** and Chapter 3, under **CONCLUSION**.
See Chapter 4, under **EARLY STONE CONSTRUCTION AT GLENDALOUGH: THE CATHEDRAL**.
Price, L., 1940, p. 269.
ibid.
Barrow, L., 1984, p. 19
ibid..
See Chapter 3.
Vita, pp. 245 and 247.
See Mac Shamhráin, A.S., 1989, which shows that ten abbots or abbot-bishops are recorded for Glendalough from St. Kevin's time up to the year 800. (pp. 79-82) In the same period there are references to five men who were titled episcop or bishop, in addition to those recorded as abbot-bishops. (pp. 88-89)
The first indication of Glendalough's high status comes from *Fel. Oeng.* c.800. See below under **THE GROWTH OF GLENDALOUGH: ITS SIZE AND LAYOUT**.
St. Kevin's ascetic lifestyle is emphasised throughout the *Vita*. When he first went to Glendalough, he lived in the hollow of a tree near the lake "and remained there for some time leading a most strict life." (*et mansit ibi quodam tempore in vita angustissima.*) (p. 237) He lived on a diet of water and herbs (p. 237). After founding the *magnum monasterium* in the lower part of the valley (p. 241), he went to the upper valley alone where he lived for seven
years "in continual fasting and watching, without a fire, without a house (in ieiuniis et vigiliis continuis, sine igne et sine tecto) (p. 242).

Vita, p. 241.

Numerous miracles occur in the Vita, and the author states that at an early stage in his life, "the lord performed many miracles through him which we omit writing here" (alia plura miracula per cum a Deo, qui hic non scribimus) (p. 235).

Vita, pp. 245 and 247.

See Braunfels, W., 1972, pp. 175-200, where numerous examples of the monastic contribution to urbanism are dealt with, including Paris (p. 176), Cologne (pp. 178-9) and St. Gallen (pp. 180-182). Braunfels also details how the size of a town in Early Medieval Europe can be computed from the number of monasteries in or around it, giving Rome (with 54 monasteries), Paris (17) and Ravenna (16) as the "chief places of the West." (p. 21) See also Mumford, L., 1966, pp. 282-7.

Doherty, C., 1985, especially pp. 47-50. Doherty notes (p. 47) that: "The fusion of Biblical, Christian and native ideas is such that it is often difficult to separate the various components."

See below under THE GROWTH OF GLENDALOUGH: ITS SIZE AND LAYOUT.


ibid., lines 177-80.

ibid., p. 25, lines 189-92.

ibid., lines 197-200.

ibid., p. 24, lines 193-6.

D.I.L., s.v. rúam.


D.I.L., s.v. rúam.

Fel. Oeng., p. 26, lines 205-212.


ibid., p. 78, where Mumford suggests that: "Probably the normal size of an early city was close to what we would now call a neighbourhood unit: five thousand souls or less."

See Chapter 2.


ibid., p. 4.

Doherty, C., 1985, p. 54.
ibid., pp. 47-52.

*Kan.*, p. 175, f.n. (e), lines 25-31 for the original Latin, which is translated in *Doherty, C.*, 1985, p. 59.

*Doherty, C.*, 1985, p. 59 for translation. While the Latin text in *Kan.*, p. 175, f.n (e) does not mention "prostitutes", only *laicos homicidas* and *aduiteros*, the Latin text on which Doherty based his translation (Doherty, C., 1985, p. 58) does list *laicos homicidas adulteros meretricesque*, translated by Doherty (ibid., p. 59) as "men who have been guilty of homicide, adulterers and prostitutes".


See Chapter 3, under **ENCLOSURES AND GATEHOUSE**.

*C.I.H. 57.4 - 6. = A.L. V, 326.30 - 2.*

*Ryan, J.*, 1931, p. 245.


They can be seen today at St. Saviour's Priory, inserted into the south wall of the chancel; at Trinity Church, badly broken into a number of fragments which are usually in the chancel of the church; and at St. Kevin's Church, leaning against the wall of the nave.

*C.I.H. 204.16 - 19 = A.L. IV 154.19 - 23.*

*Edwards, N.*, 1990, p.64.

"Horizontal Water-mill at Newcastle", typescript by Revd. Canon Robert Jennings, sent by him to the present author. It included a dendrochronological report from Queen's University, Belfast.

*A Tíg.*, 1177.


*Vita*, p. 241.

At the Synod of Rathbreasail (1111) Glendalough's territory was defined as extending "from Grianóg to Begerin and from Nass to Lambay." (*Keating Hist.*, III, p. 306) Grianóg is near Ratoath, Co. Meath. (Gwynn, A., 1992, p. 185) Although Begerin is the name of an island in Wexford harbour, it is more likely in this case to refer to a place identified by Price as being south of Arklow; *P.N.* VII, p. 488. This comprised the area which later became part of the diocese of Glendalough and Dublin.

A.U., 790.5.


A.U., 1106.4, for example, shows that a bó for every six persons was the normal amount due to Armagh in Cenél Eogain. Another entry in this year gives the exact amounts due to Armagh in Munster (1106.6).


*A.F.M.*, 951 (recté 953).

ibid., 606 (recté 610).

*A.L.C.*, 1030, also in *A.U.*, 1030.7.

*A.F.M.*, 1056.

ibid., 1098.

ibid., 1122.

*A.L.C.*, 1030 reads "Tadhg Ua Lorcain, king of Úi Ceinnsealaigh, died on his pilgrimage to Glendalough."

*A.F.M.*, 1098 reads "Dearbhforgaill, daughter of Tadhg Mac Gillapatrick, and mother of Muirchertach and Tadhg Ua Briain, died at Gleann-da-Locha."

See Price, L., 1940 for details of crosses, slabs and churches along the route and *D.H.R.*, 1972, pp. 37-3 for excavations of a section of the road.

See *V.S.H.*, vol. I, p. cx, f.n. 7.

See Chapter 2, under REEFERT CHURCH AND ITS ENVIRONS.


See Doherty, C., 1980, for a good account of this process.

*O.S.L.*, fol. 487.

Henry, F. and Marsh-Michelli, G.L., 1962, p.120.

Henry, F., 1967, p. 45 suggests that there was a lay village "to the north of the enclosure beyond the stream." She refers to Price, L., 1959, p. 161, who remarks that many of the Glendalough bullaun stones are in this area. The bullaun stones occur in an area which did adjoin the market place, suggesting the possibility that a lay village developed here around food production and trade.


Manning, C., 1995, p. 44, where it is also noted that "...evidence for domestic activities such as the drying and grinding of corn has also been found."

_Betha C. II_, vol. I, pp. 144-5 = vol. II, p. 140, states that at St. Kevin's fair, "no fight may be dared at this fair, nor challenge of wrong nor of rights, no quarrel, nor theft nor rapine, but going and coming in security." Doherty, C., 1980, pp. 83-4 points out that similar prohibitions are made in a text on the _óenach Caemáin_, which states that peace is guaranteed by the king of Leinster, Patrick, Brigid, Kevin and Columcille.

Dolley, R.H.M., 1960 gives details of the tenth-century Anglo-Saxon coin-hoard from Glendalough. A coin-hoard was discovered at St. Mary's Church, Glendalough c.1981 which consisted of pennies, halfpennies and quarter pennies of the long cross coinage of Henry III, minted c. 1247-72; pers. comm., M. Kenny, National Museum. The latter hoard is in the National Museum.

Price, L., 1959, pp. 250-1 examines evidence of prehistoric trading routes across the Wicklow Mountains, one leading from Wicklow to the plains of Kildare via Glendalough and the Wicklow Gap.

Smyth, A.P., 1994, p. 56. See Chapter 5 above, under THE VALUE OF GLENDALOUGH'S BUILDINGS IN EARLY MEDIEVAL TERMS and Table 5.9 for the economic values of the other buildings at Glendalough.

Mac Shamhráin, A.S., 1989, p. 79.

Mac Shamhráin, A.S., 1993 shows how the Ui Muiredaig or O'Toole dynasty struggled to control the abbacy of Glendalough from the eleventh to the thirteenth century.

See n. 177 and n. 178, as well as Mac Shamhráin, A.S., 1994.


ibid.

ibid.


See Appendix 1.

ibid.


Henry, F. and Marsh-Michelli, G.L., 1962, p. 120.


Examples include _pinginn_, "penny" and _scilling_, "shilling"; Greene, D., 1976, p. 79.

Examples include _scuird_, "shirt, tunic, cloak", _cnaipe_, "button" and _bróg_, which in modern Irish means "shoe", but earlier meant "hose, trousers": Greene, D., 1976, p. 79.
Examples include *ancaire*, "anchor"; *bád*, "boat" and *stíur*, "rudder"; Greene, D., 1976, p. 79.
Examples include *dórú*, "fishing line", *tros*, "cod" and *langa*, "ling"; Greene, D., 1976, p. 79.
See Chapter 3, under *THE ROUND TOWER*.

*A.U.*, 760.8 records a battle between Clonmacnois and Birr; and at 764.6 the death of 200 of the community of Durrow in a battle with Clonmacnois.

The word *civilisation* has had a complex linguistic evolution in English since the seventeenth century; see Williams, R., 1976, pp. 57-60. It is derived from the sixteenth-century French *civilizer*, ultimately derived from the Latin *civis*, "citizen"; see *S.O.E.D*, s.v. *civilisation*.


Kelly, F., 1988, p. 3, for example, quotes this from Binchy and goes on to look at early Irish society headings suggested by the latter, including "Rural Character" (p. 6).

Mumford, L., 1966, p. 77 gives the size of the walled area of Mycenae, in its time the richest settlement in Greece, as no more than 12 acres or 52,884 m$^2$. Glendalough’s outer enclosure contains an area of c. 80,000 m$^2$. The Mycenaen Epoch lasted from c. 2500-1150 B.C.; see Kinder, H. and Hilgemann, W., 1978, Vol I, p. 47.


ibid., p. 149.


Henry, F., 1967, p. 43 calls both Kells and Armagh cities and titles Fig. 5, p. 44 "Plan of the 'city' of Glendalough.

See Richardson, H. and Scarry, J., pp. 34-5.


*Keating Hist.*, I, p. 78; see also III, p. 32.

O’Riain, P., 1981, argues that Rawlinson B502 is *The Book of Glendalough*.

Henry, F., and Marsh-Michelli, G.L., 1962 p. 136 would only say that there was a definite connection with Leinster, and possibly Meath. Smyth, A.P., 1982, pp. 103-4 argues for a Kildare origin but acknowledges that agreement may never be reached on the precise origin of the manuscript.

Notes in the manuscript describe the illness and death of a certain TuathaS, who has been identified as the abbot of Glendalough whose death is recorded in *A.U.*, 1106; see Henry, F. and Marsh-Michelli, G.N., 1962, p. 120.

ibid., pp. 120-1 for a description of the manuscript, called Egerton MS. 3323, folios 16 and 18 in the library of the British Museum.

ibid., pp. 121-3. The "Drummond Missal" is now in the Pierpont Morgan Library, New York.

ibid., p. 122.
The poem in the form of a dialogue between St. Kevin and St. Ciaran of Saighir has been translated by Oskamp, H., 1977, pp. 82-91, as well as in Forbes, G.H., 1882, p. xxi.

These poems have been published, with translations, by Forbes, G.H., 1882, pp. xx. See also Robinson, F.N., 1948.

Bieler, L. and Biscoff, B., 1956, wrote of them as "Schulbücher aus Glendalough", literally "Schoolbooks from Glendalough". Since then, they are often referred to by a similar term, such as "The 'school-book of Glendalough" (N.H.I., VIII, p. 57) or "the textbooks used at Glendalough" (Lydon, J.F., 1972, p. 23).

Henry, F. and Marsh-Michelli, G.N., 1962, p. 120.

ibid..

ibid., and on the Boetius manuscript see p. 144.

ibid., p. 120, and for the foundation of Bobbio see Bieler, L., 1963, p. 91.

Henry, F., and Marsh-Michelli, G.N., 1962, p. 120, f.n. 4.

A.F.M., 1085 records the death of "Gilla na Naemh Laighen, noble bishop of Glendalough, and afterwards head of the Irish monks of Würzburg...on the seventh of the ides of April." The date must be misplaced, as the Schottenklöster at Würzburg was not founded until c. 1134; see O'Riain-Raedel, D., 1984, p. 393. Mac Shamhrain, A.S., 1989, p. 91, pus the date of his death at c. 1160; see n. 223 below.

Gilla na naemh Laignech was present at he Synod of Kells (1152) as bishop of Glendalough; Pont. Hib., I, p.171. Mac Shamhrain, A.S., 1989, p. 91, points out that the see became vacant in 1157, the probable date at which the former bishop departed for Würzburg, where he died c.1160.


D.I.L., s.v. léiginn gives a wide range of meanings, including "learning, doctrine". The term was originally used of Latin ecclesiastical learning as opposed to native forms.

See Mac Shamhrain, A.S., 1989, pp. 93-4. The deaths are recorded in 932 (A.F.M., s.a. 930 and A.Clon., s.a. 927), 966 (A.F.M., s.a. 964) and 1106 (A.I.). In addition to these, An Ferléiginn Ua Fothadain is named ain A.F.M. as father of the senóir Disirt Chaoimgin, Eochaid, whose death is recorded in 1108.

The university as we know it today originated in the thirteenth century when the friars formalised the structure of study in the renowned schools of Paris, Oxford, Bologna and Salemo; see Keen, M., 1968, pp. 149-50. Its predecessors in Ireland were the schools in the ecclesiastical settlements such as Glendalough.

See Price, L., 1940, pp. 256-63.

D.H.R., 1972, pp. 37-8 for excavation report. The report describes the excavations as 'recent' but does not give the exact date. No author or archaeologist is mentioned.

ibid., p. 37.
ibid., p. 38.

See Chapter 5.

_Vita_, p. 257 records a Sancto Mochorog, Brittone living to the east of Glendalough's city; _Fel. Oeng._, p. 221 notes a Cellach in Disert Cellaig, south-east of Glendalough. It calls him "Cellach the Saxon from Glendalough"; see Chapter 2, under TRINITY CHURCH. _Litanies_, p. 56 lists Cellach Sax with Affinus(Franc) sacart as Saints of Glendalough. Entries from these sources may not literally indicate the presence of these Saxon and Frankish saints, but could mean that Saxon or Frankish followers brought their cults to Glendalough; pers. comm., A.S. Mac Shamhráin.


Harbison, P., 1991, p. 41 notes that the _Navagatio Brendani_ survives in at least 120 manuscript versions in libraries around Europe. Throughout the Medieval period it was translated into a number of vernacular languages, including English, French, Dutch, German, Italian, French and Norse.

Meyer, K., 1913, p. xii.


Cahill, T., 1995.


Rectangular stone buildings on such a widespread scale are unknown in Ireland before the Early Medieval period.

See Chapter 2, under TRINITY CHURCH.

Henry, F., 1970, p. 151 compares St. Kevin's, and other churches which use a stone vault to support a stone roof, to late tenth-century Pyrenean, Catalonian and Provençal churches. In Germany a large number of churches of the tenth to twelfth centuries had incorporated round towers: W. H. Long, field-trip, 1995. Henry, 1970, p. 152 also suggests that the idea of incorporating round towers into the fabric of the church may also have been influenced by what Irishmen had seen abroad."

Henry, 1967, pp. 55-6 compares the Irish round towers to northern Italian examples, and suggests that the former were probably an imitation of the latter, which first began to appear in the ninth century.

For Germany see f.n. 243 above. Conant, K.J., 1979, p.71, describes the Irish round towers, in a European context, as Transitional (from Primitive to Romanesque) in style and states: "It is likely that the beginnings go back to Carolingian date." He does not, however, suggest any particular origin or inspiration for the Irish round tower, but described it as "the most poetic of the Celtic architectural creations." (p. 71)
Byrne, F.J., 1973, Chapter 12, gives a good account of the high-kingship of Ireland, especially p. 270, where he emphasises that no high-king ever exercised governmental authority over the whole of the island.

Conant, K.J., 1979, illustrates how architecture was tied to politics in Europe. Chapter 2 studies "the Carolingian Romanesque" (pp. 43-68), Chapter 6 "the Ottonian Romanesque" (pp. 121-130) and architecture under "the Salian or Franconian Emperors" (pp. 131-3). Irish pre-Romanesque architecture is studied under the heading "Pre-Romanesque architecture in the north, outside the Empire" (pp. 69-86), and Conant notes that outside the area of strong contact with the Empire/Roman architecture, "...the resources available for building were smaller, the problems simpler, and the results less spectacular." (p. 69)


ibid., pp. 270-1. For excellent, brief account of these kings, see O'Corráin, D., 1972, pp. 142-73.


Zamecki, G., 1989, p. 11.

Muirchertach O'Brien of Munster, for example, presided over reformist church Synods and handed over the Rock of Cashel to the Church. Cormac's Chapel, regarded as the first truly Romanesque style church in Ireland, was subsequently built on the Rock; see O'Corráin, D., 1972, pp.142-50 for the career of Muirchertach; Gwynn, A., 1992, pp. 155-92 for the synods of Cashel (1101) and Rathbreasail (1111); and Leask, H.G. and Wheeler, H.A., n.d., for the Rock of Cashel.


McMurrough's seeking assistance from Henry II of England, the most direct cause of the initial Anglo-Norman arrivals, was caused by his inability to secure sufficient support within Ireland to help him to gain the high-kingship. See Byrne, F.J., pp. 272-3 for McMurrough's ambitions and the Irish forces which were against him.

See Exp., Book 2, Chapter 5 for what Giraldus terms the "privileges" granted to Henry II by popes Adrian and Alexander III. For comment on these documents and the general significance of church reform in the invasion, see Watt, J., 1972, pp. 28-40.


ibid. and also AN OUTSIDE VIEW OF THE QUESTION OF URBAN STATUS in this Chapter, where a section of the Song which relates to the question of Glendalough's political importance is examined.

See Chapter 3 above.
The last abbot was Tadhc Ua Túathail, who appears with the title "abbot of Glendalough" in a document dated 1228-55; *Alen's Reg.* p. 76. By the time of Archbishop Fulk, who took office in 1256, the monastery of Glendalough had been replaced by a priory subject to the Church of the Holy Trinity, Dublin; Mac Shamhráin, A.S., 1989, p. 88.

The union was confirmed by Innocent III on February 25, 1216; *Alen's Reg.*, p. 38 and *Pont. Hib.*, I, pp. 171-2. The text of the Archbishop of Tuam's testimony is given in *Pont. Hib.*, I, p. 172; *Alen's Reg.*, pp. 40-1; and Gwynn, 1992, pp. 266-7. The latter (pp. 266-70) has analysed the text in great detail and has shown clearly that it contains, as Gwynn put it, "serious errors of fact" (p. 269).

*Top.*, pp. 3-4.

ibid., pp. 1-2.

The one exception is in the case of one reference to Dublin, which describes it as *regni caput* or "the capital of the kingdom"; *Exp.* Book 1, Chapter 20, line 15. (In this and all subsequent references to the *Exp.*, the numbers refer to Book, Chapter and line.) All other cases of references to Dublin use *urbs*; 1.12.17, 1.17.1, 1.17.3, 1.17.6, 1.17.16, 1.17.19, 1.17.23, 1.21.4, 1.21.11, 1.21.24, 1.22.9, and 2.19.13. For Waterford see 1.16.16, 1.16.24, 1.16.29 and 2.3.26. For Limerick see 2.14.23, 2.14.27, 2.14.29 (two references), 2.14.30, 2.14.33, 2.17.70, 2.17.74 and 2.17.76.

*Exp.*, 1.35.9.

ibid., 2.17.15-16.

Watt, J., 1972, p. 25 has mapped the diocesan centres established at the Council or Synod of Rathbreasail (1111) and modified at the Council of Kells (1152). Down as established as a diocesan see in 1111 and confirmed as such in 1152. Cashel was a metropolitan see from 1111; ibid., pp. 24 and 25.

*Exp.*, 2.19.23.


ibid..

*Exp.*, 2.17.22, 2.17.28, 2.17.33 and 2.17.36. Downpatrick is also described in 2.17.22 as *urbem Dunensem*.


*Exp.*, 2.25.19 for Armagh and 2.20.10 for Cork.

ibid., 2.19.17-18.

These were all diocesan centres established in 1111 or 1152; see Watt, J., 1972, pp. 25 and 26. The metropolitan see of the province, Tuam, is treated separately in Giraldus's passage. The ecclesiastical province of Tuam corresponds roughly to the province of Connacht.

ibid., p. 25.

*Exp.*, 1.28.3 and 2.3.15.
ibid., 1.17.2-6 describes how Dermot Mac Murrough, with his Anglo-Norman allies, approached Dublin from the south. It mentions that he came per de vexa montium de Glindelachen (1.17.15), translated by Martin as "by way of the flanking slopes of the hills of Glendalough."

*Song*, pp. xx-xxiv. Orpen argues (p. xxiv) "...that this pre-existing poem was written long before 1225 and probably soon after Strongbow's death in 1176.

In this and all subsequent references to the *Song*, the numbers refer to lines: 1555-6, 1623, 1624, 1627, 1639, 1640, 1644, 1659, 1665, 1668, 1682, 1692, 1697. 1702, 1706, 710, 1715, 1723, 1762, 1860, 1872, 1963, 1965, 2209, 2271, 2318, 2322, 2331, 2334, 346, 2358, 2373, 2377, 2382, 2465, 2653, 2658 and 2700.

ibid., 487, 1086, 2022, 2738.

ibid., 1368, 1379-80, 1507, 1510, 1516, 1521, 1565, 2211, 2614, 2625, 2633, 2924 and 3011.

ibid., 2661.

ibid., 806-7.

ibid., 161, 517, 519, 816, 825, 1055, 2158, 2167 and 2742.

ibid., 486 (p. 36) and 1774 (p. 130).

ibid., 486 (p. 37) and 1774 (p. 131).

See f.n. 281 above.

*Song*, 1104.


Watt, J., 1972, p. 25.

Gwynn, A. and Hadcock, R.N., 1970, pp. 78-80. It is obvious from the many references to *Fernes la cite* (see f.n. 286) or simply *Fernes* in the *Song* that its significance was erved from the fact that it was the secular capital of Dermot Mc Murrough.

*Song*, 887-9.


Watt, J., 1972, p. 25.

Rosahane is located in the present-day parish of Ballinacor, barony of Ballinacor South.

*P.N.* II, pp. 62-3.


Chapter 3, under ROUND TOWER.

ibid., under CEMETARY AND PRIESTS' HOUSE.

ibid., under CONCLUSION.

ibid., under ST. CIARAN'S CHURCH AND TWO UNNAMED CHURCHES.

*A.F.M.*, 1163 (p. 1150).

ibid., p. 1150, f.n. w and f.n. x.
D.I.L., s.v. cró.
ibid., s.v. réicléas.

Chapter 2, under REEFERT CHURCH AND ITS ENVIRONS.

A.F.M., 1163 (p. 1151).

Conant, K.J., 1979, pp. 69-88 treats these areas as one group, noting (p. 69) that there are certain common characteristics in terms of architecture.

Graham, B.J., 1993, pp. 36-7.

See Chapter 3, under ENCLOSURES AND GATEHOUSE.


ibid., p. 37.
APPENDIX 1

BURNINGS, PLUNDERINGS AND KILLINGS AT GLENDALOUGH TO 1169: A COMPREHENSIVE LIST OF ENTRIES COMPiled FROM THE ANNALS

INTRODUCTION

The incorrect editing of the earliest published editions of the various Annals has led to considerable confusion about dating. An excellent article was written on the subject in 1941 (Walsh, P., 1941), which dealt with the problem of dating and provided charts for the correction of dates in most of the published Annals. Despite this, the works of Lucas, A.T., 1961 (p. 261) and Barrow, L., 1984, (p.31) contain a number of wrong dates for annal entries which relate to Glendalough. Leask, H.G., Glendalough, (pp.6-7) also makes similar mistakes, most of which have come from the early published editions of the Annals.

A comprehensive list of entries from the Annals themselves, with all dates corrected, is essential. In compiling this list, full use has been made of Walsh's 1941 article and the new (1983) edition of A.U (up to 1131), with its rectified dates. In the case of A.Clon, which was not dealt with in Walsh's article, datings have been checked by comparing events under the year in which they are recorded in A.Clon, with events recorded in the 1983 edition of A.U. AU dates in the "Date recorded" column refer to the original edition (1887-1901). The reason for this is that it is easier to trace the references given by Leask, Barrow and Lucas to AU through the older edition as the newer one was not available to them.

In cases where more than one source records the same event, the source which gives the most comprehensive account of that event is the one which is quoted. Any differences in the information given is noted. The "Analysis" column show how events have been classified into three areas:

(i). B = Burnings where no person or persons are mentioned as being responsible. These could be accidental burnings;
(ii. Vik. = Burnings, plunderings or killings carried out by the Vikings; and
(iii. Ir. = Burnings, plunderings or killings carried out by the Irish.

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<table>
<thead>
<tr>
<th>ANALYSIS</th>
<th>Correct date</th>
<th>Date recorded with source</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.1</td>
<td>775</td>
<td>770 A.F.M</td>
<td>“Armagh, Kildare, Glendalough and Inishboyne were burned” (A.F.M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>774 A.U</td>
<td></td>
</tr>
<tr>
<td>IR.1</td>
<td>819</td>
<td>816 A. Clon</td>
<td>“The laying waste of Laigin by Aed son of Niall, i.e. the land of Cuala as far as Glenn da Locha” (A.U)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>817 A.F.M</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>818 A.U</td>
<td>A.F.M has “Aedh Oirdnidhe”.</td>
</tr>
<tr>
<td>VIK.1</td>
<td>834</td>
<td>830 A. Clon</td>
<td>“The plundering of Glendalough, Slane and Finnabair-abha by the foreigners”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>833 A.F.M</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>834 A.U</td>
<td></td>
</tr>
<tr>
<td>VIK.2</td>
<td>836</td>
<td>833 A. Clon</td>
<td>“Cluain Mór Maedog was burned on Christmas night by the foreigners, and a great number was slain by them and prisoners were carried off. The (wooden) oratory [derthech] of Glendalough was also burned by them” (A.F.M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>835 A.F.M</td>
<td></td>
</tr>
<tr>
<td>VIK.3</td>
<td>890</td>
<td>886 A.F.M</td>
<td>“The plundering of Ard Brecan, domnaig Patraicc, Tuilen and Glendalough by the foreigners.”</td>
</tr>
<tr>
<td>VIK.4</td>
<td>983</td>
<td>977 A. Clon</td>
<td>“Glendalough was plundered by the foreigners of Dublin” (A.T)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>981 C.S.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>982 A.F.M</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>982 A.T.</td>
<td></td>
</tr>
<tr>
<td>IR.2</td>
<td>984</td>
<td>983 A.F.M</td>
<td>“The three sons of Cerball, son of Lorcan, plundered the Termon of Caemhghin of Glendalough ; and the three were killed before night through the miracles of God and Caemhghin. (A.F.M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>983 A.T.</td>
<td></td>
</tr>
<tr>
<td>IR.3</td>
<td>1013</td>
<td>1012 A.U</td>
<td>“Murdered son of Brian made a great raid into Laigin, plundered the land to Glenn dá Locha and Cell Maignenn, burned the whole country and took great spoils and countless captives” (A.F.M)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1012 A.F.M</td>
<td></td>
</tr>
<tr>
<td>IR.4</td>
<td>1015</td>
<td>1008 A. Clon</td>
<td>“O' Neill went with a great armye of Meathmen to Leinster, spolyed wasted and destroyed all that province all along to Glendalogha and killed some of their gentry”.</td>
</tr>
<tr>
<td>B.2</td>
<td>1017</td>
<td>1017 A.U</td>
<td>“The greater part of Glenn dá Locha was burned”.</td>
</tr>
<tr>
<td>VIK.5</td>
<td>1020</td>
<td>1013 A. Clon</td>
<td>“All Glenn dá Locha was burned with its oratories 212</td>
</tr>
</tbody>
</table>
Domhnall Ua Feargaile, lord of Fortuatha-Laighean, was slain by the son of Tuathal, son of Fiachra in Tearmann Caemhghín. (A.F.M) A.U says he "was killed by his own people".

Glenn dá Locha was burned, both churches and houses [eter templu ocus tige]. (A.I.)

Cell Dara and Glenn dá Locha and Cluain Dolcán were burned. (A.U)

Glenn dá Locha with its churches [cum suis templis] was burned. (A.U)

"Durrow, Kells Cluain Eraird, Glendalough, Fobhar, Lismore, Cluain Bronaig and Cluain Eoair were all burned" (A.F.M) (A.F.M) says "Leinstermen" instead of Úi Muiredaig.

Gilla Pátraic son of Tuathal, successor of Coemghein, was killed by Úi Muiredaig in the middle of Glenn dá Locha. (A.U)

Glendalough was burned, together with Cro Chiarain and Cro Caemhghín and the church of the two Sinchells. (A.F.M)
APPENDIX 2

THE RESTORATION OF THE EAST WINDOW OF THE CATHEDRAL AND THE MISSING CAPITALS'

The east window of the Cathedral as it stands today is only a partial restoration. The only comment made on the restoration, in C.P.W., 1876-77, pp. 70-1, simply stated that: "The east window has been partially restored." The chevron-decorated arch on the interior of the window is badly decayed in some places and the engaged shafts from which it rises are incomplete. The stones which form the capitals of these engaged shafts are certainly not the originals.

Colles, 1870, p. 195, states that "...there are lying about the church a number of carved stones of the Romanesque east window (of which nothing is now left standing but a portion of the southern pilaster)." These stones were obviously used a few years later by the C.P.W. to reconstruct most of the engaged shafts and the arch. No capitals were found and Colles, one of the most reliable sources on the remains of Glendalough before reconstruction, does not mention that he saw any capitals. A drawing which purports to show the "capitals of pillars of the east window" does, however, survive in the volume of Beranger drawings in the Royal Irish Academy (3. C. 30). It is illustrated in Fig. 3.12 a, and consists of a combination of floral, animal and human figures. Both O' Donovan (O.S.L., fol. 456-7) and Barrow (1984, pp. 32-3) cast considerable doubt over the authenticity of the drawings. The most convincing evidence against the Beranger capitals being genuine is a drawing reproduced in O.S.L., fol. 458, titled: "Inside view of the eastern window of the Cathedral of Glendalough, as drawn originally, about the year 1780, by an Italian artist for Col. Burton Conyngham. Copied by W. Wakeman, junior." It is reproduced in Fig. 3.12 b. This shows both the engaged shafts and the arch of the window as complete, including the chevrons, but Beranger's capitals are not there. The springer of the arch on the southern side is decorated with chevrons, which may have terminated in scrolls like the springer on the northern side today (Pl. 3.33). These details are so high above the ground that they are difficult to see with the naked eye. Pl. 3.33 was taken with a zoom lens, which would not have been available to the artist who drew the window "...about the year 1780." It is, therefore, possible that the springer of the arch on both sides stood directly on top of the pilasters, the chevrons terminating in scrolls serving, in effect, as the 'capital'. Fig. 3.12 b does show the springer on the southern side resting directly on the pilaster and the artist may simply have been unable to see the scroll detail. The northern springer in this drawing shows no carved detail but, again, the detail may not have been visible to the artist.
The drawing in Fig. 3.12 b comes from the same group (Bigari, Beranger and Conyngham) who visited Glendalough in 1779. Indeed Fig. 3.12 a and b were probably drawn during this same trip to Glendalough, the former by Beranger, the latter by Bigari. The drawing in Fig. 3.12 b seems far more realistic than that published by Petrie (1845, p. 445), which shows a perfect east window, including Beranger's supposed capitals. Petrie presented his drawing as "...a tolerable memorial" of the window, but it is apparent from his own comments (p. 445) that this "memorial" was pieced together from the 1779 drawings and Petrie's own sketches made some years previously. It cannot, therefore, be taken as a confirmation of the accuracy of Beranger's 'capital', for it simply incorporates the latter into what is essentially a composite of various drawings done by different people at different times.

It is difficult to reconcile Beranger's drawing of the 'capital' with the drawing, evidently made on the same trip, of the complete window in which no such capitals exist. While one might not agree entirely with Barrow (1984, caption on Pl. 6 b) that the 'capital' drawing "...may owe something to Beranger's imagination", the evidence suggests that the east window of the Cathedral did not have such a capital. Beranger drew what he believed to be the capitals of the east window, but the stone which he drew could have belonged somewhere else. Unfortunately, the stone no longer exists.
APPENDIX 3

A FULL LIST OF REFERENCES IN THE ANNALS OF ULSTER, 750-1200 A.D., TO dairthech, domliacc AND tempull, AS USED IN THE COMPILATION OF TABLE. 4.3.

The references are grouped in the fifty year periods which were used in Table 4.3

Dairthech

762.2  The killing of bishop Éthigemb by a priest in the oratory (i ndertaigh) of Cell Dara.

818.2  There was abnormal ice and much snow from the Epiphany to Shrovetide. The Bóinn and other rivers were crossed dry-footed; lakes likewise. Herds and hunting parties were on Loch nEchach, [and] wild deer were hunted. The materials for an oratory (solaich daurthige) were afterwards brought by a large company (?) from the land of Connacht over Upper and Lower Loch Erne into Tír Crimthainn; and other unusual things were done on the frost and hail.

824.2  The heathens plundered Bennchor at Airtiu (?), and destroyed the oratory (a derthagl) and took the relics of Comgall from their shrine.

836.3  The oratory (in dairthige) of Cell Dara was seized by Feidlimid by force of arms from Forannán, abbot of Ard Macha, and the congregation of Patrick; and they were disrespectfully blockaded.

840.3  Ard Macha was burned with its oratories and stone church (cona derthach ocus a doim liacc).

845.3  There was an encampment of foreigners i.e. under Tuirgéis on Loch Ri, and they plundered Connacht and Mide, and burned Cluain Moccu Nbis with its oratories (cona dertaigibh), and Cluain Ferta Bréainn, and Tir dá Glas and Lothra and other monasteries.

850.3  Cinead sin of Conaing, king of Cianacht, rebelled against Mael Sechnaill with the support of the foreigners...and the oratory (derthach) of Treóit, with seventy people in it, was burned by him.

856.4  The oratory (derthech) of Lusca was burned by the Norsemen.

869.6  Ard Macha was plundered by Amláib and burned with its oratories (cona dertaigibh). Ten hundred were carried off or killed, and great rapine also committed.

874.4  Aed son of Niall led an army to Laigin and they profaned Cell Ausili, and other churches (cealla) were burned with their oratories (cona dertaigibh).
881.3 The oratory (dertach) of Cianán was destroyed by the foreigners and many people were taken from it. Afterwards Barith, a great despot of the Norseman, was killed by [St.] Ciannán.

892.2 A great windstorm on the feast of St. Martin [11 Nov], and it destroyed a large number of trees in the woods and carried away the oratories (na daurthaigh) from their foundations, and the houses also.

895.3 Ard Macha was plundered by the foreigners of áth Cliath i.e. by Glún larainn, and they took away seven hundred and ten persons into captivity.

Alas, O holy Patrick
That your prayers did not protect [it]
[When] the foreigners with their axes
Were smiting your oratory (do dherthaigh)

964.6 Cell Dara was plundered by the foreigners, but was compassionated with a wonderful kindness through Niall ua Eruilb, almost all the clerics being ransomed for the honour of God: with his own silver Niall ransomed of them as many as would fill St. Brigit’s house and the oratory (in dertagh).

996.1 Lightning struck Ard Macha and it did not leave unburnt an oratory (dertach), stone church (dam liac), vestibule or wooden sanctuary.

1003.4 Aed son of Echthigern was killed in the oratory (indairthaigh) of Fearna Mór Maedoc.

1020.1 Cell Dara was burned with its oratory (cona dairtigh). All Glenn dá Locha was also burned with its oratories (cona dairtighibh).

1028.9 The oratory (dertach) of Sláine fell down.

1031.5 Eoghaid’s son led an expedition into Ui Echech, burned Cell Chomair and its oratory (cona dairtigh), killed four clerics and killed four captives.

1042.1 Fema Mór Maedóc was burned by Donnchad son of Brian. Glenn Uisen was burned by the son of Mael na mBó and the oratory (in dairtech) broken down and a hundred people slain and four hundred taken out in revenge.

1060.3 Leithglenn was completely burned, except for the oratory (in dertach).

1106.2 Disert Diarmata with its oak church (cona dertaigh) was burned.

1116.2 Corcach Mór of Mumu and Imlech Ibair, the oak-house (dairtech) of Mael Ísu Ua Broicháin and part of Lis Mór, Achadh Bó of Cainnech [and] Cluain Iraird was burned.

Domliacc

789.8 A quarrel in Ard Macha, in which a man was killed in front of the stone oratory. [Although
the term used for 'stone oratory' here is oratorii lapidei, it has been included in the compilation of Table. 4.3 as, like domliacc, it distinguishes the main material used in construction from that used in a dairthech.]

840.3 Ard Macha was burned with its oratories and stone church (cona der[t]ighibh ocus a doimliacc).

920.6 The stone church (domliac) of Cenannas was broken down by the heathens and a large number suffered violent death in it. The stone church (domliac) of Tuilen was burned on the same day.

996.1 Lightning struck Ard Macha and it did not leave unburnt an oratory (dertach), stone church, (damliac) vestibule or wooden sanctuary.

1008.11 The Great Gospel book of Colum Cille was wickedly stolen by night from the western sacristy in the great stone church (i ndaim liac moir) of Cenannas...

1019.10 The stone church (damh liac) of Dermag was broken down by Muirchertach ua Carraig in an attack on Mael Mund, king of Fer Chell, and the latter was forcibly taken from it and put to death.

1020.4 All Ard Macha was completely burned on the third of the kalends of June [30 May], the Monday before Whitsun, i.e. the great stone church (in dam liac mor) with its lead roof and the bell-house with its bells and the Saball [church] and the Tóae [church] and the abbots chariot and the old preaching chair.

1031.2 Ard Brecan was plundered by the foreigners of āth Cliath. Two hundred people were burned in the stone church (isin daim liac) and [another] two hundred were taken away in captivity.

1050.2 Cell Dara was burned with its stone church (cona daim liag).

1051.2 The son of Buatán son of Brec was killed in the stone church (i ndam liac) of Les Mór by Mael Sechnaill ua Bric.

1058.1 Imlech Ibair was burned completely, both stone church (daimliac) and bell-tower.

1060.2 Cenannas was completely burned, including its stone church (cona domliac).

1089.1 Lusca was burned, and nine score persons were burned in its stone church (ina daimliac), by the men of Mumu.

1090.3 The stone church (daimhliac) of the Fort was burned, with a hundred houses around it.

1099.9 The stone church (daimhliac) of Ard Sratha was burned by Fir na Cráibhe against Uí Fhiachrach.
1115.7 The stone church (damhliacc) of Ard Brecán, with many people, was burned by the men of Mumu, and many churches (cealla) besides in [the territory of] the men of Brega.

1125.1 The fifth of the Ides [9th] of January [fell] on Friday and the first [of the moon], and it is then that its protecting ridge was raised on the great stone church (in damliac mor) of Ard Macha, having been completely covered with shingles by Cellach, successor of Patrick, in the hundred and thirteenth year since it had a complete shingle roof.

1126.11 The stone church (damhliac) of the oratory of Paul and Peter (reigiesa Poil ocus Pedair),
that was made by Ímar ua hAedacán, was consecrated by Cellach, successor of Patrick, on the twelfth of the Kalends of November [21 Oct].

Tempull

814.9 Cellach, abbot of Í, when the building of the church (constructione templi) of Cenannas was finished, resigned the office of superior...

1067.3 Cell Dara with its church (cona tempall) was burned.

1074.3 Ard Macha was burned on the tuesday after Mayday [6 May] with all its churches (conaulibh templaibh) and bells, both the Ráith and the Third.

1081.5 Corcach with its churches (cona templaibh) and Cell da Lua were destroyed by fire.

1084.2 Glenn dá Locha with its churches (cum suis templis) was burned.

1092.5 The Ráith of Ard Macha with its church (cona tempull) was burned...

1095.2 Cenannas with its churches (cona templaibh), Dermagh with its books, Ard Sratha with its church (cona tempall) and many other churches (celia) were burned.

1112.1 The ráith of Ard Macha with its church (cona tempull) was burned on the tenth of the Kalends of April [23 March] and two stretches of the Trian Masan and a third stretch of Trian Mór.

1116.2 Cell dá Lua with its church (cona tempoll) was burned.

1126.5 Corcach Mór of Mumu with its church (cona tempull) was burned.

1128.8 the burning of Áth Truim with its churches (cona thempluibh), and a number [of people] suffered martyrdom there.

1130.1 Sord of Colum Cille with its church (cona theampall) and many halidoms was burned.

1155 The door of the church (dorus tempall) of Daire was made by the successor of Colum Cille, namely, by Flaithbertach Ua Brolchain.

1157 The successor of Patrick (namely, the archbishop of Ireland) consecrated the church of the monks (tempaill na manach) in the presence of the clergy of Ireland, that is, of the Legate
and of Ua Osein and of Grenne and of other bishops and in the presence of many of the laity, around Ua Lochlainn, that is, around the king of Ireland and Donnchad Ua Cerbaill and Tigernan Ua Ruairc.

1162 Total separation of the houses from the churches (o templuib) of Daire was made by the successor of Colum Cille (namely Flaithbertach) and the king of Ireland, that is, by Muirchertach Ua Lochlainn; where were demolished eighty houses or somethong more. And the stone wall of the Centre was likewise built by the successor of Colum Cille and malediction pronounced on him who should come over it forever.

1162 Imlech Ibhair with its church (cona templi) was burned.

1164 The great church (teampall mor) of Daire was built by the successor of Colum Cille, that is, by Flaithbertach, son of the bishop Ua Brolchain and by the community of Colum Cille and by Muirchertach Ua Lochlainn, arch-king of Ireland. And the top stone of that great church (in tempall mór), wherein there are ninety feet (in length) was completed within the space of forty days.

1173 Muiredach Ua Cobhthaigh, bishop of Cenel-Eogan and of all the North of Ireland...after consecrating churches (tempall) and cemeteries...sent forth his spirit into heaven.

1179 Peace was made by Donnchadh Ua Cairella[í]n and by all Clann-Dirmata with the Cenel-Moein and Ua Galmredhaigh...in the centre of the church (i lar tempall) of Ard Sratha.

1179 Ard Macha was burned for the greater part; that is, all the houses of Canons Regular (na huile reiclesa) and all the churches (ocus na huile teampall) that were in it, save the houses of the Canons Regular of Brigit (reicles Brigit) and the church of the relics (tempoll na Ferta).

1196 The house of the Canons Regular of Paul and Peter (Reicles Poil ocus Petair) [in Armagh] with its churches (cona templi) and a large portion of the close was burned.

1197 Mac Giolla Eidich of the Ciannachta robbed the great altar of the great church (tempoill mór) of Daire of Colum Cille...

Notes on the compilation of Table. 4.3

For the purposes of Table 4.3, the following points should be noted:

(i) In the cases of the entries which refer to Ard Macha in 840.3 and 996.1, one reference in each case has been included under both dairthech and domliacc.

(ii) The entry of 1020.1 refers to dairtighibh in two different places and is therefore counted as two references.

(iii) The entry of 920.6 refers to a domliacc at Cenannas and another at Tuilen and is therefore counted as two entries.

(iv) The entry of 1095.2 is counted as two entries under tempull as it refers to two different places.

(v) The entry of 1162 refers twice to the teampall mor of Daire, but is counted as only one reference.
The second entry of 1179, which refers to Ard Macha, has been counted as two references under *tempull* as *tempoll na Ferta* is clearly distinct from the *huile teampaill* which were burned.
APPENDIX 4:

COSTING TABLES FOR TRINITY CHURCH AND THE ROUND TOWER

(i) Calculating the cost of Trinity Church with a shingle roof

(a) Establish the length:breadth proportions in the nave to decide on which side to cost the building. Two feet is added to the length of the walls to allow for the protrusion of the corbels which carried the roof timbers.

Length: breadth = 36 feet : 23 feet
= 1.5 : 1

As the length: breadth proportions is the "standard" 1.5 : 1, it can be costed on either length or breadth.

(b) The rate which applies is 1 6 for every foot in length = 36 6. This is the cost of the nave.

(c) Establish length: breadth proportions in the chancel, adding one foot to the wall length to allow for the corbel which carried the roof timbers at the western end.

Length: breadth = 15 feet : 15 feet
= 1 : 1

As the breadth is proportionately wider than in the standard 1.5:1 ratio, the chancel must be costed on its breadth.

(d) The rate which applies is 1 6 for every 2/3 of a foot in breadth.

Therefore cost = 15 x 32 x 1 6 = 22.5 6

(e) Add together the cost of nave and chancel: 36 6 (nave) + 23 6 (chancel) = 59 6

The total cost of Trinity church, without its later round tower, was 59 6. That is, with shingle roof.

(ii) Calculating the proportion of stone:woodwork in the nave and chancel of Trinity Church.

6(a) NAIVE : Stone work

Length 2 x 34 ft. * and 10 ft high walls
= 2 x 340 ft. sq.

= 680 ft. sq. for foundations (2x) 2 ft. x 34 ft
= 2 x 68 ft. sq.

= 136 ft. sq

Breadth  2 x 23 ft. * long and 10 ft high
= 2 x 230 ft. sq. wall
= 460 ft. sq. for foundations (2x) 2 ft. x 23 ft
= 12 x 46 ft. sq.

= 92 ft. sq.

Gables  Above 10 ft. wall, 17 ft gable x 2
= 391 ft  divided by2
= 195.5 ft. sq.  195.5 ft. sq

Total stone-work = 680 + 136 +460+ 992 + 195.5 = 1563.5 sq. ft

TOTAL STONE (to nearest foot)
= 1563.5 sq. ft

* This is the external measurement of the wall

6 (b) NAVE : Wood-work

Roof: Two sides @ 2.1 ft high
Length = 34 ft + 2 ft for corbels carrying roof beams.* = 36 ft.
(2x) 21 ft. x 36 ft. = 2 x 756 ft. sq.
Total wood - work = 1512 ft. sq.

* All 4 corbels are just under 1 foot in their projection beyond the walls. This is the additional length, rounded off to the nearest foot, which the corbels added to the roof length.

6 (c)Nave: Proportion of stone : wood
7 (d) Chancel : Stone - work

**Length**

2 x 14 ft. long and 8 ft. high walls

- = 2 x 112 ft. sq.
- = 224 ft. sq

For foundations (2x) 14 ft. x 2 ft.

- = 2 x 28 ft. sq
- = 56 ft. sq

**Breadth**

2 x 15 ft. long and 8 ft. high walls

- = 2 x 120 ft. sq
- = 240 ft. sq

For foundations (2x) 15 ft. x 2 ft.

- = 2 x 30 ft. sq
- = 60 ft. sq

Total Stone work

- = 224 + 56 + 240 + 60 + 82.5
- = 662.5 ft. sq
- = 662 ft. sq

Total Stone (to nearest foot)

- = 662 ft. sq

6 (e) Chancel: Wood - work

Roof: Two sides @ 14 ft. high

Length = 14 ft. + 1 ft for corbel

- (2 x) 14 ft. x 15 ft
- = 2 x 210 ft. sq

Total wood work = 420 ft. sq

6 (f) Chancel : Proportion of stone : wood

Stone : wood

- 662 : 420 sq. ft
- (662 + 420) 1.58 : 1 = 1.6 : 1

(iii) Calculating the cost of Trinity Church with a shingle roof
The method for calculating the cost with a thatched roof is more complex. It necessitates calculating, firstly, the proportion which stone-work bears to wood-work in the nave and in the chancel. This table shows the method by which this is done. Doors and window frames have not been included in the wood-work, but their inclusion would only slightly affect the proportions. Having calculated the proportion of stone work: to wood-work in (ii) above, the following is the procedure for costing:

(a) The nave is proportioned stone:wood = 1:1.
Stone-work to be charges as 'full' - price;
wood-work as 'half-price;
Full-price is the price for a domliacc / dairthech over 15 feet long with shingle roof = 1 bó for every foot in length.
Half-price is the price for a domliacc / dairthech over 15 feet long with rush roof= 1 samaisc (=1/2 bó) for every foot in length.

(b) If wood-work at half price = 1 unit
Then stone work at full price = 2 units
Length to be divided into 3 units to allow for the difference in price between wood work and stone work. 36 feet / 3 = each unit is 12 feet

(c) Wood-work: 1 unit = 12 feet @ 1 samaisc per foot
= 12 x 1 samaisc
= 12 samaisc
Cost of wood-work
= 6 bó

(d) Stone-work: 2 units = 24 feet @ 1 bó per foot
Cost of stone-work
= 24 bó.

(e) Total cost of nave = 24 bó (stone) + 6 bó (wood)
= 30 bó.

(f) The chancel is proportioned stone : wood = 1.6 : 1
Charged on breadth, as proportionately wider.
Full price, charged on breadth for same class of building as (a) above = 1 bó for every 2/3 foot.
Half price = 1 samaisc for every 2/3 foot.

(g) Wood-work at half price = 1 unit x 1 = 1 unit
Stone-work at full price = 2 units x 1.6 = 3.2 units
Breadth to be divided into 4.2 units to allow for difference in price between wood work and stone work.

Breadth = 15 feet / 4.2 = 3.57 feet in 1 unit.

(h) Wood-work: 1 unit

= 3.7 feet @ 1 samaisc for every 2/3 foot
= 3.7 x 3 samaisc / 2
= 5.55 samaisc
= 6 samaisc (to nearest samaisc)
= 3 bó

(i) Stone-work: 3.2 units x 3.7 feet = 11.84 feet

11.84 feet @ 1 bó for every 2/3 foot
= 11.84 x 3 bó / 2
= 17.76 bó
= 18 bó (to nearest bó)

(j) Total value of chancel

= 3 bó (wood) + 18 bó (stone)
= 21 bó

(k) Total value of church, with rush roof

= (e) VALUE OF NAIVE + (j) VALUE OF CHANCEL
= 30 bó + 21 bó
= 51 bó

(iv) Differences in cost of Trinity Church with different materials

The difference in cost between Trinity Church with a shingle roof and Trinity Church with a thatched roof is 59 bó - 51 bó = 8 bó.

The church, therefore, would cost 15.7% more with a shingle roof.

If Trinity Church were a dairthech, it would cost 59 bó with a shingle roof, 29 bó with a thatched roof.

The comparative costs for a structure this size with different materials would, in summary be:

Wood, with thatched roof : 29 bó
(2) Stone, with thatched roof :
3 Stone, with thatched roof :
4 Stone, with thatched roof :

(4) Stone, with thatched roof :

59 bó

(v) Calculating the cost of the round tower in the ecclesiastical city

Taking ictar to mean "diameter":

Cloicthech: its base to be measured (16 feet in diameter) with the base of the domliacc (54 feet 10 inches length, 36 feet 3 inches breadth.)
The excess of the length + breadth (54' 10" + 36' 3" = 90' 1") of the domliacc over the measurement of the cloicthech (16') is 74 feet, "which is to be measured against the height of the cloicthech."
A 74 foot high cloicthech, then, would cost the same as the Cathedral i.e. 55 bó. This is a rate of .74 bó per foot (55 / 74 = .74). This is a case where there is "an excess in the height of the cloicthech compared to the domliacc which is the same price as it." Therefore, the corresponding excess of price must be paid for the cloicthech. The excess is 100 feet (the height of the surviving tower) less 74 feet i.e. 26 feet. The corresponding excess of price would be 26 x .74 bó = 19 bó. Added to the 55 bó charge for the other 74 feet, the total cost of the tower works out at 74 bó.

(vi) Calculating the cost of the round tower at Trinity Church
Total length (nave and chancel) =34 + 14 feet =48 feet
Width (of nave) =23 feet
Total of length and breadth =71 feet

Diameter of tower =9 feet 4" (or 9 feet)

71 - 9 = 62 feet as height of a tower proportioned to the church and of the same price.

Cost of church = 59 bó
Cost of a tower proportioned to it = 59 bó (62 foot tower).

The size of the tower proportioned to the church is, at 62 feet, very close to the reported height in the nineteenth century of "about 60 feet". The cost, therefore, of the tower at Trinity Church was 59 bó, the same as the cost of the church itself, if calculated using the "diameter" method. If calculated by the "circumference" method, a 62 feet high tower would cost 87 bó.
Leask, H.G., 1987, p. 60 noted that:

Earlier in this chapter the short internal length-breadth proportion of about one and a half or less to one has been noted as a probable indication of their early date. In the description of the examples which follow it will be referred to again, with the implication that an increase in the ratio connotes later dating. It is certainly noteworthy that the structures which look most archaic are generally of the shortest proportion.

Throughout his analysis of pre-Romanesque churches, Leask uses the law-tract in this way to date buildings. Of Kiltiemane church, Co. Galway, for instance, he states (p.67):

Conceivably the church could belong to the eighth century, but a date quite a century later, if not more, would be more acceptable. The length-breadth ratio of nearly 2 to 1 points in the same direction.

In a similar fashion he argues (p. 68) that the Cathedral at Clonmacnois may not be as early as the simplicity of its plan suggests, purely on the basis that the length : breadth proportion is 2 : 1.

The basis of Leask's system of using these proportions for dating was fallacious. As we have seen, the text deals primarily with costings and the significance of dimensions is just one of a number of secondary factors. Different proportions of length : breadth are allowed for, although a church was cheaper if the 1.5 : 1 ratio was adhered to. The table below shows the length : breadth ratio of all churches mentioned by Leask. Out of 40 churches, only 11 have the 1.5 : 1 proportion; 8 have a proportion of less than 1.5 : 1 and 21 have a proportion greater than 1.5 : 1. As all of these proportions are allowed for in the law-tract, a variance on 1.5 : 1 meaning simply a slightly greater cost. There is nothing in the text itself to support Leask's method of dating. His use of the law-tract in combination with plans and typological features to date early Irish churches is vague and misleading.
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<td>TEAMPULL DHIARMIDA, L. REE</td>
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<td>TEAMPULL CHIARAIN, CLONMACNOIS, CO. OFFALY</td>
<td>12’6” x 8’</td>
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<td>TEAMPULL MACDUACH, INISHMORE, CO. GALWAY</td>
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<td>Kiltiernane, Co. Galway</td>
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<td>Cathedral, Glenalough</td>
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<td>SINGLE - CHAMBER NO ANTAE</td>
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<td>TEAMPULL BENEB, INISHMORE, CO. GALWAY</td>
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<td>KILLUTA, CO. LIMERICK</td>
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<td>KILGObNET, INISHEER</td>
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<td>KILEENMER, CO. CORK</td>
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<td>REEFERT CHURCH, GLENDALOUGH, CO. WICKLOW</td>
<td>(NAVE) 29' 6&quot; X 17' 5&quot;</td>
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<td>GALLARUS ORATORY, CO. KERRY</td>
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LENGTH : BREADTH OF CHURCHES MENTIONED BY LEASK
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A. Ir. | Archaeology Ireland
B.A.R.: | British Archaeological Report
C.B.A.: | Council for British Archaeology
I.E.R. | Irish Ecclesiastical Report
I.H.S. | Irish Historical Studies
J.C.H.A.S. | Journal of the Cork Historical and Archaeological Society
J.G.F.H.S. | Journal of the Glendalough Folklore and Historical Society
J.R.H.A.A.I | Journal of the Royal Historical and Archaeological Association of Ireland
J.R.S.A.I. | Journal of the Royal Society of Antiquaries of Ireland
Med. Arch. | Medieval Archaeology
O.P.W. | Office of Public Works publications
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GLOSSARY OF ARCHITECTURAL TERMS

ABACUS: A flat slab forming the top of a capital. See Pl. 3.31.

ANGLE FILLETS: see under FILLETS, ANGLE.

ANTA: (plural ANTAE): A term borrowed from classical architecture which, in an Irish context, is used to describe a pilaster-like projection of the side walls of a building to the east or the west. Antae supported the roof-timbers of the building, thus extending the roof itself beyond the gables. See pl. 4.5.

ARCHITRAVE: A moulding around a doorway or window opening. See Pl. 3.14.

ARRIS: A sharp edge where two surfaces meet at an angle.

ARRIS ROLL: A ROLL which occurs along a sharp edge where two surfaces meet.

ASHLAR: Masonry of blocks of hewn stone with straight edges. The term can also be used to describe an individual stone of this type. Formerly often called Cyclopean masonry. See Pl. 4.4.

AUMBRY: A cupboard or niche within a wall in which sacred vessels were stored. See Pl. 3.35.

BARGE-BOARDS: Boards placed along the gable end of a roof to cover and protect the roof members.

BARREL VAULT: A ceiling of stone consisting, in effect, of a continuous semicircular arch. See Fig. 3.19.

BOSS: Square or round projecting ornament. See Pl. 4.5.
CAPITAL: Head or crowning feature of a column or pilaster. See Fig. 2.34.

CENTREING: A temporary structure, usually made of timber, used to support an arch during construction.

CENTRIPETAL CHEVRON: see under CHEVRON, CENTRIPETAL.

CHAMFER: The narrow plane formed when an ARRIS of wood or stone is cut away, usually at an angle of 45°.

CHANCEL: The east arm, or that part of the east end of a church, set apart for the use of officiating clergy, except in cathedral or monastic churches. See Fig. 3.9.

CHEVRON: A three-dimensional V-shaped motif used in series to decorate a moulding. See Pl. 3.32.

CHEVRON, CENTRIPETAL: Chevrons pointing towards the narrow end of the VOUSSOIR. See Pl. 3.32.

CHEVRON, STEPPED CENTRIFUGAL: Similar chevrons carved on different planes on the same face of an ORDER, pointing toward the wider end of the VOUSSOIR. See Pl. 3.33.

COURSED MASONRY: Masonry in which the stones are laid in regular layers.

CORBEL: A stone which projects from a wall in order to support roof-timbers, floors or arches. See Pl. 2.36.

CORBELLING TECHNIQUE: A technique of construction which, in Ireland, was used as early as the Bronze Age by the builders of Newgrange, Dowth and other passage tombs. It involves laying courses of stones in such a way that each course projects...
inwards beyond the course below it. In a circular structure such as the chamber of Newgrange, the walls gradually rise to a centre which can be roofed with a single stone. In a rectangular building such as St. Kevin's Church, the two sides of the roof meet at the apex, which is finished off with a single course of stones. In the latter case, the corbelled roof is supported by a BARREL VAULT, creating a small chamber between the top of the vault and the apex of the corbelled roof. See Fig. 3.19.

DRIP-COURSE: See under MOULDING, HOOD.

FILLET: A narrow flat band, running down a shaft or along a ROLL MOULDING or separating larger curved mouldings in a base.

FILLETES, ANGLE: FILLETS in the angle between two plains e.g. between the ORDERS of an arch. See Fig. 3.11.

FILLETED ROLLS: see under ROLL-AND-FILLET.

FLUTED PILASTERS: Pilasters which have a series of concave channels, their common edges sharp (ARRIS) or blunt (FILLET).

FREESTONE: any fine-grained stone that can be cut and worked in any direction without breaking

GOTHIC: A style of architecture that was used in Western Europe from the twelfth to the sixteenth centuries, characterised by the pointed arch, the lancet the ribbed vault and the flying buttress. Although there are no examples of the fully developed Gothic style at Glendalough, there are buildings of ROMANESQUE TO GOTHIC TRANSITIONAL style which display some elements of Early Gothic architecture.

GOUGED ROLLS: see under ROLLS, GOUGED.
<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOOD MOULDING</td>
<td>see under MOULDING, HOOD.</td>
</tr>
<tr>
<td>IMPOSTS</td>
<td>Horizontal moulding at the springing of an arch, sometimes used instead of a CAPITAL.</td>
</tr>
<tr>
<td>KEELED MOULDING</td>
<td>see under MOULDING, KEELED.</td>
</tr>
<tr>
<td>KEY PATTERN</td>
<td>Also called ‘Greek key’ or ‘fret’. A classical running ornament formed of interlocking right angles. In Ireland, it was used on a number of stone crosses and slabs of Early Medieval date and in some Later Medieval churches. See Pls. 3.19 - 3.22.</td>
</tr>
<tr>
<td>KEYSTONE</td>
<td>Central stone in an arch or vault.</td>
</tr>
<tr>
<td>LINTEL</td>
<td>A horizontal stone or timber beam over an opening. See Pl. 4.6.</td>
</tr>
<tr>
<td>LANCET, DOUBLE</td>
<td>A tall and narrow two-light window with a pointed head, commonly found in early Gothic architecture.</td>
</tr>
<tr>
<td>MOULDING</td>
<td>An ornament of continuous section.</td>
</tr>
<tr>
<td>MOULDING, HOOD</td>
<td>The projecting moulding above a window, door or arch, sometimes known as a ‘label’ or ‘drip-course’. See Pl. 2.29.</td>
</tr>
<tr>
<td>MOULDING, KEELED</td>
<td>A moulding with a pointed rather than a circular profile which resembles the cross-section through the keel of a boat. See Pl. 3.48.</td>
</tr>
<tr>
<td>MULLION</td>
<td>The slender, vertical member between the lights of a window opening. See Figs. 2.4 and 2.5.</td>
</tr>
<tr>
<td>NAVE</td>
<td>The body of a church which is west of the chancel. It is often flanked by aisles, although no examples of this kind are found in Glendalough. See Fig. 3.9.</td>
</tr>
</tbody>
</table>
ORDER: An upright structural member formally related to others such as a complete column or pilaster, including the base, shaft and capital. In medieval architecture the term refers especially to one of a series of recessed arches and jambs forming a splayed opening. See PI. 2.56.

PEDIMENT: A formalised gable of low pitch, also used over porticoes, doors and windows. See PI. 3.47.

PISCINA: A basin, provided with a drain, used for washing the sacred vessels; generally set into the wall, floor or window sill south of an altar. See PI. 3.35.

PLINTH: A projecting block beneath a column, or projecting courses at the foot of a wall.

POINTING: The act or process of repairing or finishing joints in masonry with mortar.

PRE-ROMANESQUE: In Ireland, the style of architecture which preceded the Romanesque style. It is characterised by buildings which are generally, but not necessarily, small in scale, have little or no carved ornament and are simple in plan. The majority of surviving churches are single-chamber structures with trabeate doorways and small, single-light windows.

PUTLOCK or PUTLOG HOLES: Holes in the wall, often still discernible, to receive putlocks, the short, horizontal poles on which rested scaffolding boards. Their presence indicates that putlock scaffolding built into the walls was used to construct a building rather than a free-standing scaffold. The Cathedral, the round tower, St. Kevin's Church and St. Saviour's Priory all provide examples at Glendalough. The manner in which
restorers of the 1870s filled in all but one of the putlock holes in the round tower suggests that putlock holes, obscured in restioration works, may originally have existed in other medieval buildings at Glendalough.

QUIRK:
Deeply incised groove running between mouldings.

QUOINS:
The angles of a building or the dressed stones that form them. See Pl. 3.34.

RELIEVING ARCH:
An arch constructed over the lintel of a doorway to relieve the pressure created by the wall above it. See Pl. 4.6.

ROLL-AND-FILLET OR FILLETED ROLLS:
ROLLS or ROLL MOULDINGS with a single axial FILLET. See Fig. 3.11.

ROLLS OR ROLL MOULDINGS:
A plain moulding of circular section which can be shallow or plain. See Fig. 3.11.

ROLLS, GOUGED:
A plain hollow of circular or semi-circular section which, at Glendalough, is carved on both sides of a FILLETED ROLL. See Fig. 3.11.

ROMANESQUE:
The style which precedes Gothic and is characterised by the round arch, thick masonry walls, chevron and other ornaments. This style, found in southern and western Europe from the ninth to the twelfth century, only began to develop in Ireland in the twelfth century. The arches of the Gatehouse, Reefert Church and Trinity Church at Glendalough could be considered Romanesque. The lack of any ornaments and the use of TRABEATE DOORWAYS in the two churches, however, are more characteristic of the PRE-ROMANESQUE style and St. Saviour's Priory is considered to be the first truly Romanesque style church in Glendalough.
ROMANESQUE-GOTHIC TRANSITIONAL: A term used to describe a style which displays a mixture of characteristics of both the Romanesque and Gothic styles as exemplified, for instance, in the final phase of Glendalough's Cathedral.

ROOD-BEAM: A beam which bears a crucifix and is set at the entrance to the chancel of a church.

ROOD-SCREEN: A screen separating the NAVE from the CHANCEL of a church, above which was the rood or crucifix.

ROOF TRUSS: A rigid framework of timbers which is placed laterally across the building to carry the longitudinal roof-timbers which support the common rafters.

SALTIRE CROSS: A diagonal cross, like the cross of St. Andrew. See Fig. 3.8 a.

SCALLOPS: Decoration found on capitals in which convex, cone-like motifs rise to form a series of upturned semi-circles at the top. Much favoured in ROMANESQUE architecture. See Fig. 2.35.

SCALLOPS, TRUMPETED: A decoration found on capitals which is similar to SCALLOPS, but differs in that the cone-like motifs are not convex or flat but are concave, curving outwards as they rise. See PI. 3.31.

SHINGLES: A thin rectangular tile, especially one made of wood, that is laid with others in overlapping rows to cover a roof. In the Old and Middle Irish law-texts, the term sliun is used.

SOFFIT: The underside of an arch or lintel.

SPALLS: Small stones or splinters of stones packed into a masonry joint.
SPRING or SPRINGING: The point at which an arch or vault rises from its supports.

SPRINGER: The first stone of an arch above the SPRING.

STEPPED CENTRIFUGAL CHEVRON: see under CHEVRON, STEPPED CENTRIFUGAL

STOP-CHAMFER: A chamfer which is terminated by a square, bevelled (cut at a slope) or ornamented 'stop' at the point where the angle again becomes square.

STRING-COURSE: A horizontal course projecting from a wall, usually moulded. See Pl. 3.34.

TRABEATE DOORWAY: A doorway built with posts and a LINTEL rather than with an arch. See Pl. 2.18.

TRUMPETED SCALLOPS: see under SCALLOPS, TRUMPETED.

UNCOURSED MASONRY: Masonry in which the stones are not laid in regular courses.

URNES: A Scandinavian style of animal ornament of the eleventh and twelfth centuries, so named after the decoration of the stave church at Urnes in Norway and characterised by highly attenuated beasts and thin, circular coils.

VOUSSOIR: Each of the wedge-shaped stones forming an arch. See Pl. 3.49.