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The origin and development of insular geometric letters

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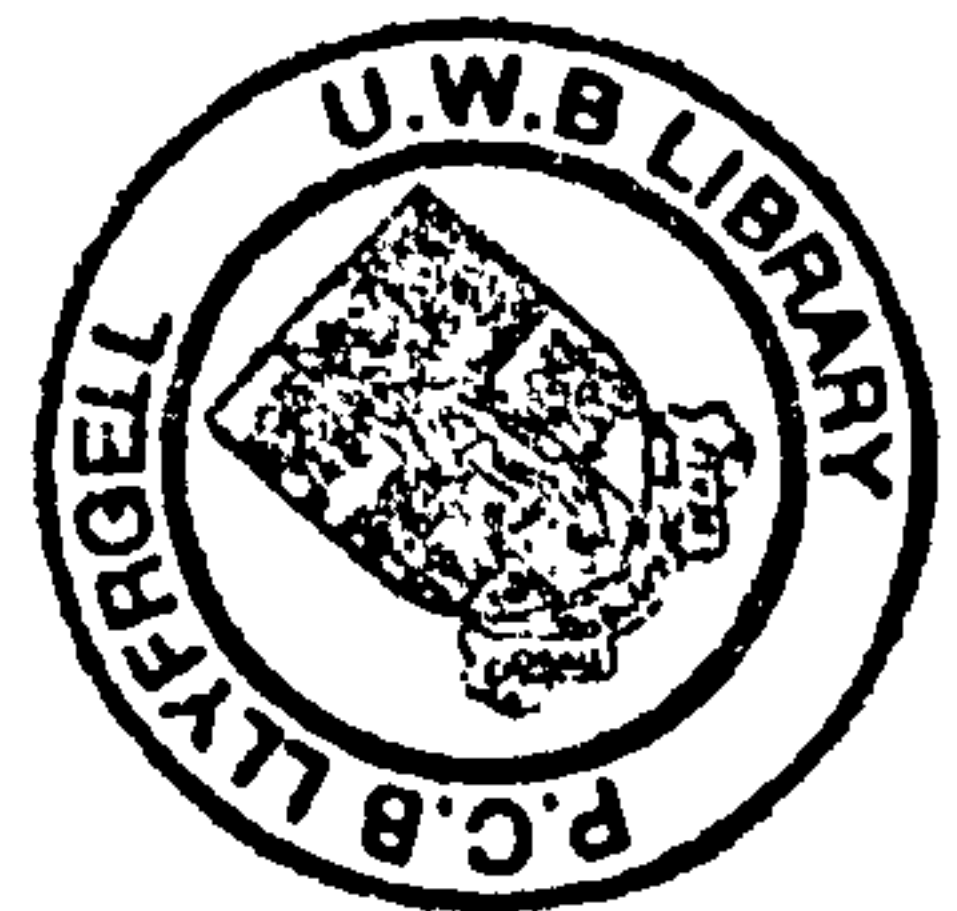
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**THE ORIGIN AND DEVELOPMENT OF
INSULAR GEOMETRIC LETTERS**

Thesis submitted for the degree of Doctor of Philosophy

at the University of Wales, Bangor, 2006



D. G. CHARLES-EDWARDS

UNIVERSITY OF WALES, BANGOR

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FOREWORD

This thesis started life as a short, illustrated dissertation on early Christian inscriptions in Wales for a lettering and graphics course at Newport College of Art in 1965. In 1995 I returned to research on the subject for an M. Phil. under the supervision of Miranda Aldhouse Green at the University of Wales, Newport, into which the Art College had been absorbed, and of John Higgitt at the University of Edinburgh. I was very grateful to UWCN to be awarded a bursary to enable me to undertake my M. Phil. Both my supervisors helped me to formulate and improve the ideas that had absorbed me since I was an art student.

In the early sixties as a pre-diploma student at Cardiff College of Art I was fortunate to come under the influence of the lettering historian J. C. Tarr and went on to specialise in lettering at Newport under Harry Meadows who had been a pupil of M. C. Oliver - a pupil of Edward Johnston's. I was again fortunate, working as a book designer in Ireland, to be befriended by René Hague, the son-in-law of Eric Gill, with whom I learned brush lettering on fabric and cut lettering in wood, using Gill's chisels. René Hague was at that time writing his memoir of David Jones and encouraged me to look closely at his inscriptional work. Both David Jones and J. C. Tarr were fascinated by the fate of the Roman alphabet in the Dark Ages. With Thomas Charles-Edwards from 1975 a shared interest has been the early Christian inscriptions of Britain and Ireland.

Very aware of the fact that there might be bonds between young apprentices and old masters, this thesis operates chronologically within the Group I and II time spans used by V. E. Nash-Williams. It is convenient that these spans are loosely defined; unless some new find with a specific dating fix appears, closer dating would seem speculative. The scribe of the manuscript known as the *Cathach* was of some age, with failing sight, but greatly venerated as a scribe. We know that apprentice scribes were youths with sharp sight. The scribe of the *Cathach*, who is writing in a primitive, prototype 'half-uncial', with many features unstabilised that would be stabilised later in canonical half-uncial, would have trained up young scribes in a version of his own hand. There might have been half a century discrepancy in their ages. In any

craft, this discrepancy in age between master and apprentice clearly blurs the edges of any layering of chronology based on stylistic features; in Britain and Ireland during the Group I period, additionally, there is the problem that for a period of time scripts could have fossilised or deteriorated in the event of a decrease in literacy and the circulation of books. Therefore it seemed prudent to remain within the looser chronology of Nash-Williams.

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ABBREVIATIONS

- ASNRI* E. Okasha, *Hand-List of Anglo-Saxon Non-Runic Inscriptions* (Cambridge, 1971).
- AU* *The Annals of Ulster, to A.D. 1131*, ed. S. MacAirt and G. MacNiocaill, vol. 1 (Dublin, 1983).
- BL* British Library.
- BN* Bibliothèque Nationale.
- CA-SSS* R. Cramp *et al.*, eds., *Corpus of Anglo-Saxon Stone Sculpture in England*, 4 vols. (Oxford, 1984-).
- CECISSWB* E. Okasha, *Corpus of Early Christian Inscribed Stones of South-West Britain* (London, 1993).
- CEMISSSW* M. Redknap, J. M. Lewis and N. Edwards, *A Corpus of Early Medieval Inscribed Stones and Stone Sculpture in Wales*, 3 vols. (forthcoming).
- CIIC* R. A. S. Macalister, *Corpus Inscriptionum Insularum Celticarum*, Vol. I (Dublin, 1945), Vol. II (Dublin, 1949).
- CIIL* G. Petrie, *Christian Inscriptions in the Irish Language*, Vol. I, ed. M. Stokes (Dublin, 1872).
- CIL* *Corpus Inscriptionum Latinarum, consilio et auctoritate Academiae Litterarum Regiae Borussicae editum* (Berlin, 1862-).
- CLA* E. A. Lowe, *Codices Latini Antiquiores*, 11 vols. (Oxford, 1934-66).
- CLN* Dúchas on-site catalogue of Clonmacnoise memorials: numbering.
- CMCS* *Cambridge Medieval Celtic Studies*.
- CMS* R. A. S. Macalister, *The Memorial Slabs of Clonmacnois, Kings County: with an Appendix on the Materials for a History of the monastery* (Dublin, 1909).
- DG* C. D. Verey, T. J. Brown and E. Coatsworth, eds., *The Durham Gospels* (Copenhagen, 1980).
- ECIM* E. Okasha and K. Forsyth, *Early Christian Inscriptions of Munster* (Cork, 2001).
- ECMS* J. R. Allen and J. A. Anderson, *The Early Christian Monuments of Scotland* (Edinburgh, 1903; 2nd edition Forfar, 1993).

- ECMW* V. E. Nash-Williams, *Early Christian Monuments of Wales* (Cardiff, 1950).
- EQCC* E. H. Alton and P. Meyer, eds., *Evangeliorum Quattuor Codex Cernanensis*, 3 vols. (Berne, 1950-1).
- EQCD* A. A. Luce, G. O. Simms, P. Meyer, L. Bieler, eds., *Evangeliorum quattuor Codex Durmachensis*, 2 vols. (Olten, 1960).
- EQCL* T. D. Kendrick *et al.*, eds., *Evangeliorum quattuor Codex Lindisfarnensis*, 2 vols. (Olten & Lausanne, 1956-1960).
- FCIMRG* W. Boppert, *Die frühchristlichen Inschriften des Mittelrheingebietes* (Mainz, 1971).
- GBA* F. Henry, 'Les débuts de la miniature irlandaise', *Gazette des Beaux Arts* (1950), pp. 5-34.
- GPBM* F. G. Kenyon and H. I. Bell, eds., *Greek Papyri in the British Museum*, 9 vols. (London, 1893-1974).
- HE* Bede, *Historia Ecclesiastica Gentis Anglorum*, ed. and transl. J. McClure and R. Collins (Oxford, 1994). [ST: HE.]
- HF* Gregory of Tours, *The History of the Franks*, transl. L. Thorpe (London, 1974).
- ICB* E. Huebner, *Inscriptiones Britanniae Christianae* (Berlin and London, 1876).
- ICG* E. F. Le Blant, *Inscriptions chrétiennes de la Gaule antérieures au viii^e siècle*, 2 vols. (Paris, 1856-65).
- IEMB* W. Davies, K. Lockyear, M. Handley, P. Kershaw, J. Graham-Campbell, J. T. Koch and G. Le Duc, eds., *The Inscriptions of Early Medieval Brittany* (Aberystwyth, 2000).
- IGLP* E. Maunde Thompson, *An Introduction to Greek and Latin Palaeography* (Oxford, 1912).
- IILE* A. E. Gordon, *Illustrated Introduction to Latin Epigraphy* (Berkeley and Los Angeles, 1983).
- IM* J. J. G. Alexander, *Insular Manuscripts: 6th to the 9th Century* (London, 1978)
- JRSAI* *Journal of the Royal Society of Antiquaries of Ireland.*
- LHEB* K. H. Jackson, *Language and History in Early Britain* (Edinburgh, 1953).

- LL* J. Gwenogvryn Evans with J. Rhŷs, eds., *The Text of the Book of Llan Dâv* (Oxford, 1893).
- LP* B. Bischoff, *Paläographie des römischen Altertums und des abendländischen Mittelalters* (Berlin, 1979). English translation: *Latin Palaeography: Antiquity and the Middle Ages*, by D. Ó Cróinín and D. Ganz (Cambridge, 1990).
- LW* J. O. Westwood, *Lapidarium Walliae* (Oxford, 1876-9).
- MC* P. M. C. Kermode, *Manx Crosses* (London, 1907; repr. Balgavies, 1994).
- MGH* *Monumenta Germaniae Historica* (Berlin, Hannover, Munich, 1819-).
- NMI* National Museum of Ireland.
- NMW* National Museum of Wales.
- P&S* S. Morison, *Politics and Script: Aspects of Authority and Freedom in the Development of Graeco-Latin Script from the Sixth Century BC* (Oxford, 1972).
- PRIA* *Proceedings of the Royal Irish Academy*.
- PSAS* *Proceedings of the Society of Antiquaries of Scotland*.
- PSP* J. O. Westwood, *Palaeographia Sacra Pictoria* (London, 1843-5).
- RCAHMS* *Royal Commission on the Ancient and Historical Manuscripts of Scotland*
- RIA* Royal Irish Academy.
- RIB I* R. G. Collingwood and R. P. Wright, *The Roman Inscriptions of Britain*, 11 vols. (Oxford, 1965).
- RIB II* S. S. Frere & R. S. O. Tomlin, eds., *The Roman Inscriptions of Britain, Vol. 2* (Stroud, 1995).
- RICG* H. I. Marrou, ed., *Recueil des Inscriptions Chrétiennes de la Gaule antérieures à la Renaissance carolingienne* (Paris, 1975-).
- RIG* P.-M. Duval, ed., *Recueil des inscriptions gauloises*, 4 vols. (Paris, 1985-).
- SSS* H. Jensen, *Sign, Symbol and Script* (London, 1970).
- TA* C. Courtois *et al.*, eds., *Tablettes Albertini, Actes privés de l'époque vandale* (Paris, 1953).

- TS* R. S. O. Tomlin, ed., *Tabellae Sulis: Roman Inscribed Tablets of Tin and Lead from the Sacred Spring at Bath* (Oxford, 1988).
- TCD* Trinity College, Dublin.
- VADW* J. T. Lang, *Viking-Age Decorated Wood: A Study of its Ornament and Style* (Dublin, 1988).
- VSH* C. Plummer, ed., *Vitae Sanctorum Hiberniae*, 2 vols. (Oxford, 1910).
- WIL* E. Johnston, *Writing & Illuminating, & Lettering* (London, 1906; repr. 1975).

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Appendix 1

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 - B. Lifting off the brush, as the stroke is pulled, to achieve a thinning 'tail'
 - C. Brushed letters on a poor-surfaced Pennant sandstone showing rolled entry into l and the effect of halting the stroke with the stock in full contact with the surface, at the finish of the bow of the e and the eg ligature bar, producing the clotting of paint that gives a lobed line end.

2. Light cursive letters written with a stylus in clay, showing the effect of stylus writing in wax. Looped entries are freely made.
 - A. Shows the ligaturing of 'e' and the square-footed turn out of the l which is a feature of Rustic written with a stylus.
 - B. Shows the extent to which curved strokes may be thrown with ease, in the b, and the ec ligature which we find transferred to stone in the period before the establishment of a canonical half-uncial.

3. Replica votive plaques cut in clay with a chip-carving knife. Once the clay was hard, it was possible to make foil impressions from the surface of the clay.

A. The **alpha** shows a different solution from the avoidance of a straight bar joining the diagonals.

B. The common solution of angle-bar **alpha** is shown in this example.

4. Rubbings of two examples of the letter I, cut in seasoned oak on vertical grain

A. With a stop at each end.

B. Without stops.

On a three-inch letter such as this, if the downstroke was not provided with stops, then the stroke ripped up the grain of the wood by about half an inch in each case.

5. Line endings knife-cut in wood.

A. Well-seasoned fine-grain pine showing the kind of pyramidal stop used by woodcarvers such as that found on the Lemanaghan bog staff.

2. Poor-quality softwood showing simple angled stops with a curved cut into the downstroke from each end.

6. Chip-carving techniques.

A. Lentoid bar chip-carving knife-cut in pine.

B. Angle-bar A chip-carving knife-cut in softwood.

7. Letter E shown

A. Cut in Quarella stone, to demonstrate the advantage of isolating the serifs from the secondary strokes.

B. Cut in pine down the grain, showing the sharpness of cut across the grain, and the relative softness down it.

8. Letter A shown

A. Knife-cut in steatite (Shetland soapstone), showing the clean detail possible without chisel work

B. A well-defined impression from the above in clay.

9. Rubbing from an Ogham inscription in Sutton stone, showing

A. The destruction of the arris, rendering the Ogham illegible when strokes are hammered right up to the edge.

B. An X-shaped Ogham character with the diagonals intersecting on the arris, showing similar destruction.

10. Experimental Ogham characters

A. In Sutton stone made by scoring rather than chiselling, resulting in less destruction of the arris.

B. Three Ogham strokes taken to the edge of an adamantine whinstone, made by violent chiselling. It was not possible to damage the arris.

11. Letters made using the bore and score technique, replicating the Brittany *Beladore* inscription

A. Isle of Man shaley slate. The surface of this stone makes it necessary to mark the ends of the letter-form first, to prevent slipping. Boring by drill or awl is an effective method of limiting the scores.

B. The same letters bored and scored in fine-quality Bethesda slate.

12. Letters cut with a round-end chisel in Bloomhill sandstone, from Clonmacnoise, showing the finish possible with a tool that is not sharp-edged.

A. Angular letters.

B. Serifed letters.

The bifurcated serif in B was made with no spalling at the junction with the bow of h. The angular letters of A were significantly easier and quicker to incise.

INTRODUCTION

1. Aims and Objectives

The angular or geometric display capitals found in the Lindisfarne Gospels, the Book of Kells and other manuscripts of the mid-seventh to the late eighth centuries are an aesthetic triumph of complete originality, created by highly-skilled Insular scribes. Their origins have been greatly disputed: suggestions have included Coptic, Byzantine, Greek and Runic scripts. At the other end of the scale, so far down in the aesthetic hierarchy of early British writing that they have hardly been considered important at all, are the mixed-alphabet early Christian memorial inscriptions of Wales: ugly and chaotic, inconsistent and apparently unstructured.

The degree of literacy that survived in Britain after the Roman withdrawal has long been a matter of abstract speculation. The questionable lettering of fifth- and sixth-century British memorials is of such a low standard, and displays such a variety of debasement, that it has been unthinkable to associate it with any Latinate *scrittura di base* — the common hand of a literate community. Neither can we associate it with the pen-forms of any imported Christian texts, Coptic or Continental.

It has hitherto been supposed that a small-scale formal majuscule must have co-existed with a rapid notational minuscule, and that the two began to be combined in the ‘mixed-alphabet’ inscriptions of the late sixth century. What models for these letter-forms might have survived in use in post-Roman society in Britain? This is a research question that may now be addressed practically, with reference to the Vindolanda and Bath tablets, which show informal hands in use from the second century into the fifth.

The lettering of post-Roman memorials in Britain represents the highest grade of letter-form that an educated elite employed in the service of an aristocracy. Its origins may be explicable in terms of adaptation of a quite basic writing system that had percolated into civilian society via its contacts with the Roman military. Most of these significant contacts would have been through two agencies: native British service as auxiliaries, and veteran intermarriage with British women.

In addressing the question of the origins of the alphabetical model that may have survived in use at these two points of Roman – British contact, this thesis will concentrate on low-grade or commonplace artefacts produced by craftsmen who had no contact with the high-grade calligraphy of the scriptorium. At the level of simple ownership marks and

mottoes, such craftsmen required a simplified, uninflected alphabet for applied lettering in ceramic, metal and wood. An attempt will be made to trace a connection between the angularised monoline letters of such low-grade productions and later developments in more ambitious display letters of the early seventh century onward: that is, to link the stylish geometrical capitals of Lindisfarne and Kells with the ugly and chaotic mixed-alphabet lettering of the earliest Christian memorial inscriptions of the fifth to the seventh centuries in Wales.

2. Methodology

The method of approach in this thesis is to apply practical knowledge, gained through replication of lettering techniques, to the analysis of letter-form. Training as a scribe and letter-cutter has enabled a new approach to be taken to the classification of cut letters, since it has been possible to replicate the ordinator's draft by brush on stone, preparatory to the letter-cutter's work. This has proved to be of use in the distinction that may be drawn between a minuscule and a majuscule body, and also in the classification of line-ends, which very rarely betray any connection with pen-forms.

An attempt will be made to compare and associate the lettering of memorials in Nash-Williams's *Early Christian Monuments of Wales* Group I of c. 400 to 600 AD with the applied lettering of the late Roman period catalogued in *The Roman Inscriptions of Britain* and with the tablet writing of the Vindolanda and Bath finds. Practical experiments by replication have been undertaken to establish precisely what effects different tools and materials had upon the emergence of a simplified alphabet which began to incorporate angularised minuscules in the sixth century.

3. Chapter Breakdown

Chapter 1 reviews previous research on Insular epigraphy and palaeography and attempts to trace the origin of an early British script system whose masters of the craft produced such poor monumental letters for the most important members of their society. The significance of early antiquarian records, and of modern-day appreciation of ancient writing that is non-calligraphic, is emphasised, as it has opened up the field of research. A process will be envisaged whereby a low-grade simplified minuscule was transformed into a high-grade display letter for large-scale use.

Chapter 2 (The Roman Legacy) examines the Roman script system as it operated in Britain, in its lower reaches. The large presence of a Roman veteran population is suggested as the likeliest source of the survival in Britain of applied Roman letter-form, e.g. military diplomata, tablets, metal military accoutrements, and ownership marks on vessels, weapons etc., all unrelated to high-grade scripts. Stress is laid upon the debasement of letters within the army in the Roman period itself.

Chapter 3 (Early Insular Manuscripts) discusses the earliest manuscript evidence surviving in the British Isles, which is contemporary with *ECMW* Group II (c. 600 to 800 AD), and attempts to relate it to British epigraphy of the Group I period. Six texts are analysed closely to establish, among other features, the exact proportions of majuscule to minuscule in them. It is suggested that a formal, canonical half-uncial did not appear until the late seventh century and that it is therefore not relevant to use the term 'half-uncial' as a benchmark for inscriptions of the Group I period (c. 400 to 600 AD). Early British script does not directly emulate a Continental half-uncial of the fifth century, but incorporates contractions and minuscule habits that can only have been acquired in the Late Roman period, through familiarity with New Roman Cursive. The importance of Tomlin's drawings and analyses of the New Roman Cursive Bath tablets, which may be late fourth or early fifth century, is emphasised.

Chapter 4 (Catamanus / Echodi Group I Inscriptions) examines the *Catamanus* inscription of c. 625 AD, the first that shows scribal knowledge of two grades of letter: angular display letters, and a minuscule. The method of applying and laying out the letters, and their cutting, is analysed, with a classification of the two kinds of script. It is shown that the letters were brushed onto the stone, producing a distinctive round entry into the strokes. The 'Lapis Echodi' inscription from Iona, a contemporary, is drawn in for comparison, to establish that Group I inscriptions – in being monoline, uninflected, yet so freely written that some letters ligature – have more in common with tablet writing than with broad-pen calligraphy. The work of John Higgitt on insular inscriptions is drawn into the thesis here.

Chapter 5 (Geometric Lettering in Metal) pursues theories first developed by Stanley Morison, who saw metal portabilia, including coins, as the prime route of transmission of graphic images. As smiths were the most valued of Insular craftsmen, and since metalwork has been shown to have influenced the decorative schemes of manuscripts, the proposition that it also had an influence on the evolution of display script is here examined. A connection is sought with epigraphy in stone, and with epigraphically related patterning, a subject first

treated by J. Romilly Allen. It is shown that *New Roman Cursive*-style tablet writing remained constant in style from the third to the fifth centuries, made angular and reduced to straight strokes through the limitations of the medium. This style is connected to the forms of the sixth-century minuscule letters that begin to displace capitals in the Ogham / Latin inscriptions of *ECMW* Group I. The simplification of form that employs squared lower-case a, b, d, e, g, m, n and s can be shown to have been abandoned by Anglo-Saxon sculptors of the ninth century, but to have been retained by letter-cutters in Celtic areas.

Chapter 6 (Geometric Lettering on Wood) speculates on the nature of insular letter-cutting in wood, of which few examples survive, and examines the better evidence surviving from Egypt from the fourth century onwards. Techniques of *champlevé* and chip-carving are shown to be related in the working of wood and metal. The peculiar difficulties of lettering in wood are shown to have an effect on line-endings and a more rigid horizontal layout. Ogham and Runic letter design are taken to be separate evolutions, though both originate in knife-cut forms on wood. Both the medium of wood and the medium of metal can be shown to have affected angularisation and simplification of form before Insular craftsmen applied themselves to advanced memorial-making in stone.

Chapter 7 (Geometric Lettering on Stone) aims to establish that an epigraphic alphabet of angular letter had already evolved in wood and metal before the period of *ECMW* Group II inscriptions, and that its style was not dependent upon any calligraphic inflected letter of trained scribes. The influence of stone types – the limitations of hard materials, some of which were laminated, and of tools which could not take a durable edge – predisposed the choice of simplified angular letter-form to be taken from the mixed-alphabet range that had evolved in the Group I period, a period during which craftsmen were far more familiar with wood and metal working than with stone.

Chapter 8 (Clonmacnoise Comparanda) discusses the major collection of inscriptions at Clonmacnoise. As comparanda they provide strong evidence that the finely-spaced scribal style of lettering and layout was well developed among the Irish at a time when the Welsh clung to the non-scribal and linear. An explanation is suggested for the Welsh preference for non-scribal forms, i.e. the alphabetical legacy (albeit low grade) inherited from the Roman period, that had not affected Ireland in the same way.

Chapter 9 (Geometric Lettering in 8th-Century Manuscripts) traces the appearance and evolution of geometric display capitals in Insular manuscripts, from their appearance in the Book of Durrow, through a period of stylistic purity in the eighth century, to a final period of

decadence in the ninth century. The survey of dateable manuscripts emphasises the chronological gap between manuscript use of geometric capitals c. 675 AD, contemporary with inscriptions of the Group II period, and the use of epigraphic angular forms of inscriptions from Group I, c. 400- 600 AD. Particular stress is laid upon a comparison between the use of geometric capitals in the Book of Kells and in the Lindisfarne Gospels, where, it is suggested, we see a clear difference between a Celtic and an Anglo-Saxon method of contrasting display letters with a text hand.

Chapter 10 discusses the use of geometric display capitals in inscriptions of the *ECMW* Group II and III periods, and compares these with similar examples from other Celtic areas. The tendencies in alphabetical choice in these inscriptions are compared with tendencies in contemporary Anglo-Saxon epigraphy. A listing of preferred letter-forms is given, with the conclusion that there were two schools of practice. In general, it is clearly the case that the Anglo-Saxon school is more canonical in adhering to Roman capitals, and the school of the Celtic areas is comparatively eccentric in the choice of angularised mixed-alphabet forms. Yet it is the Celtic areas which preserve longest the range of geometric capitals – found at their highest manifestation in eighth-century manuscripts – in a pure form.

Appendix I presents a range of experiments in different media, and Appendix II provides a listing of the inscriptions discussed or mentioned in the thesis.

Chapter 1

INSULAR EPIGRAPHY AND PALAEOGRAPHY: PREVIOUS RESEARCH

Increased specialisation and technical vocabularies have accentuated the divisions between disciplines of study, and decreased the likelihood of communication and fruitful interchange between them. Palaeography and its associated fields of epigraphy and calligraphy are closely related, but have not benefited of late from inter-disciplinary exchange: they remain in an anomalous area where study of Insular arts and crafts is beset by the most basic division between arts and sciences. No longer can polymaths like Petrie,¹ Reeves² or Westwood³ command this wide tripartite field. Researchers have become self-conscious and defensive about the combination of academic disciplines with practical crafts and visual arts, so that we can find practitioners of lettering such as Hans Meyer,⁴ a calligraphy tutor who was also a palaeographer, insisting that calligraphy is a 'science'.⁵ On the other hand the palaeographer William O'Sullivan, former Keeper of Manuscripts at Trinity College, Dublin, insisted that palaeography was an 'art – for science it is not', though he was suspicious of the aesthetic theories of art historians in regard to the dating of the earliest Insular manuscripts.⁶ With rare exceptions, mutual incomprehension between those trained as academics and those trained in

¹ George Petrie (1790-1866), antiquary and painter, RHA 1828, President RHA 1857; he published *Essay on the Antiquities of Tara* (Dublin, 1839) and *Ecclesiastical Architecture of Ireland* (Dublin, 1845). His *Christian Inscriptions in the Irish Language* (Dublin, 1872) was edited and published after his death by Margaret Stokes.

² William Reeves (1815-1892), antiquary and Bishop of Down, Connor and Dromore. He published *Acts of Archbishop Colton* in 1850, and *The Life of Saint Columba* in 1857.

³ John Obadiah Westwood (1805-1893), entomologist and palaeographer; first Hope Professor of Zoology at Oxford, 1861-93. He published *Palaeographia Sacra Pictoria* (London, 1843-5), *Facsimiles of Miniatures and Ornaments of Anglo-Saxon and Irish Manuscripts* (London, 1868), and *Lapidarium Walliae* (Oxford, 1876-9).

⁴ Hans Meyer, calligrapher and palaeographer, a pupil of Alfred Willmann, he was tutor in calligraphy at Zurich School of Arts and Crafts. He published *Die Schriftentwicklung* with the Graphis Press in Zurich in 1959.

⁵ H. Meyer, *Die Schriftentwicklung* (Zurich, 1959); English translation, *The Development of Writing* (Zurich, 1961), p. 3.

⁶ W. O'Sullivan, 'Manuscripts and Palaeography', in D. Ó Cróinín, ed., *A New History of Ireland*, Vol. I (Oxford, 2005), p. 511.

the visual arts traps them in two parallel ruts, unaware of each other's theories and practices.

Until recently there has been little practical understanding of the transformations of Insular letter-form under the influence of changes in tools and materials; predominantly they are understood to have taken place for aesthetic reasons. Such understanding as now exists has come from the field of archaeology and from those historians and archaeologists who are practical letterers themselves. Timothy O'Neill and Roger Tomlin, for example, have made an immense contribution.⁷

The aesthetic arguments of art historians naturally centre on the high-grade calligraphy of skilled scribes, with material of a lower aesthetic order being left out of consideration. However, modern study of finds of late Roman and Romano-British lettered material in metal, stone and wood, patently unrelated to any calligraphic letter-form, should open up discussion of applied letter-form. A non-calligraphic notational cursive, in the hands of smiths and metalworkers, must have been used in a distinctive craft tradition outwith the scriptorium. Michelle Brown's study of the small, loose minuscule letters used by the silversmith to identify component parts of the Derrynaflan paten has revealed what these letters may have looked like.⁸ Although the eighth- and ninth-century memorials of some Irish foundations, such as Clonmacnoise, graphically show co-operation between scribes and letter-cutters, we might question Nash-Williams's direct association of trained scribes with British monumental lettering in the post-Roman period, and the use of canonical high-grade scribal hands as comparanda in the building up of typology and chronology.⁹

In this chapter, preparing the ground for a practical analysis of the techniques and graphic practices of Insular letter-cutters, and of the possible origins of their alphabetic models, I shall first discuss the development of palaeographical studies, then the dependent fields of epigraphy and calligraphy. This will provide an historiographical setting and an account of the present state of research in the three related fields, before moving on in later chapters to the practical analysis of specific inscriptions. The aim of the analysis will be to provide a better understanding of the evolution and chronology of the inscriptions, and of the reduced

⁷ R. S. O. Tomlin, drawings for *The Roman Inscriptions of Britain*, Vol. 2 (Stroud, 1995); T. O'Neill, *The Irish Hand* (Dublin, 1984).

⁸ M. Brown, 'Paten and Purpose: the Derrynaflan Paten Inscriptions', in R. M. Spearman and J. Higgitt, eds., *The Age of Migrating Ideas* (Edinburgh, 1993), pp. 162-7.

⁹ V. E. Nash-Williams, *Early Christian Monuments of Wales* (Cardiff, 1950), p. 12.

range of scripts in the British Isles in the post-Roman period. The contribution of archaeology and art history will be related to the continuing debates over the relative inputs of Ireland and Northumbria to Insular art. Particular stress will be laid upon perceptions of the place of Wales in relation to this debate, when it was finally realised that it had one, and on the growing acknowledgment of the importance of an underlying British book arts tradition that was absorbed by Ireland before being carried to Northumbria via Iona. The useful umbrella term of 'Insular' has not only softened and blurred the edges of the initial collision between Anglo-Saxon and Celt, but has also distracted attention from the immediate post-Roman period, when the Welsh and the Irish went their own literate ways before this overt collision took place. From the same Roman-based alphabet the Welsh and the Irish developed variations as confident as did other peoples, such as the Franks, on the fringes of the shrinking Roman empire.

Palaeographical Studies

The first historians of this period were unable properly to make use of the evidence of manuscripts and inscriptions, as, for purely practical reasons, understanding of the mechanics of medieval penmanship was nil and terminology confused. The study of Insular palaeography was retarded for centuries by ignorance of the fact that the shape of the pen-nib had been radically altered in the early modern period. When the Italic hand evolved during the Renaissance there was a physical change in the nature of writing instruments. This hand used a fine nib compared to the broad-edge nibs of the preceding Gothic style; and, eventually, with the move to pointed pen and copperplate (where the thickness of the writing stroke is achieved by pressure rather than by movement of the edge of the pen itself), the very techniques of broad-pen writing were completely lost. As a keen scribe, William Morris himself made laborious drawn and filled versions of broad-pen letters. His hand-drawn motto '*si je puis*', compared with a broad-pen version, for example, shows this clearly (ILLUS. 1:1). The correct pen-techniques were not rediscovered until the end of the nineteenth century, by the calligrapher Edward Johnston, a disciple of William Morris and a protégé of W. R. Lethaby at the Central School of Art in London. Lethaby had a profound influence on the study of Irish half-uncial and its associated geometric display script in the British art

schools; he also published scholarly articles on the Ruthwell Cross and its 'Irish' alphabet.¹⁰ Johnston's *Writing & Illuminating, & Lettering* of 1906 began a revolution in the teaching of calligraphy and the study of manuscripts, with the revived foundational hand based on tenth-century English examples, particularly the psalter BM Harley MS 2904.¹¹ In the 1930s the archaeologist V. E. Nash-Williams and the philologist Kenneth Jackson were not unaware of Johnston's work. It is interesting to speculate on what effect the English 'round-hand' revival had on perceptions of its ancestor the Roman half-uncial hand when Jackson and Nash-Williams had to imagine the appearance of imported British manuscripts, of which we have no survivors. Johnston's work reintroduced broad-penned writing with a flattish pen-hold to modern scribes; the understanding of Group I written models requires a knowledge of the steep pen-holds of Rustic and minuscule.

In the nineteenth century and in the first half of the twentieth, the dominance in the British Isles of England and things Anglo-Saxon as the chief subject of historical interest had the consequence of making the study of things Celtic subsidiary; this had, also, a far-reaching effect on chronology. For, if the Northumbrian 'Golden Age' of learning and art was 'supreme in western civilisation',¹² then what was going on in the rest of the British Isles before and during this supremacy would be either contributory to or emulative of that 'Golden Age', and would thus be of lesser quality and interest. The temptation to date objects as 'outliers' in relation to Northumbrian, or supposed Northumbrian, examples has not been resisted. Here the Lindisfarne Gospels, in particular, have dominated attempts to construct a chronology; conversely there is a corresponding tendency among Irish scholars to downplay Northumbrian evidence in favour of the Celtic family of Gospels that includes the Book of Kells.¹³

On account of this initial Anglocentric nature of palaeographic studies, recognition that there had been a Celtic family of manuscripts pre-dating, then co-existing with, the

¹⁰ Lethaby's Irish alphabet was published in 'The Ruthwell Cross', *Burlington Magazine* XXI (June, 1912), pp. 145-146.

¹¹ E. Johnston, *Writing & Illuminating, & Lettering* (London, 1906; repr. 1975), fig. 172 and pl. VIII.

¹² T. D. Kendrick *Anglo-Saxon Art to AD 900* (London, 1938), p. 119.

¹³ This issue is discussed by David Dumville in Chapter 7, 'Geography and Script Style', of *A Palaeographer's Review: The Insular System of Scripts in the Early Middle Ages* (Osaka, 1999), pp. 103-10.

Anglo-Saxon exempla came very late. In his study of the languages of 'the original inhabitants of Great Britain', Edward Lhuyd was the first to rate inscriptional lettering as of equal importance to that of manuscripts, though his main interest was etymological.¹⁴

Specialised study of seventh- to ninth-century Insular manuscripts, which use some of the broadest and boldest pen-forms, was a latecomer in the field of palaeographical research, on account of its being perceived to be a dependant of English palaeography. Jean Mabillon included these manuscripts under the classification *Saxonica* in his *De Re Diplomatica* of 1681.¹⁵ Although the English antiquarian Humphrey Wanley was the first to recognise the regional character of the Insular script in his catalogue of the Harleian manuscripts in 1708, he continued in his belief that all Insular majuscule was Anglo-Saxon.¹⁶ He did not believe that the Macregol Gospels (MS Bodleian Auct. D. II. 19) were Irish.¹⁷ It was not until 1814 that Charles O'Connor of Belanagare reclaimed a number of such great Insular Gospels as Irish products, over-enthusiastically including the Lindisfarne Gospels.¹⁸ During the mid-nineteenth century a solid foundation of research for Ireland was laid by George Petrie, a reliable draughtsman, who published studies of Irish church architecture and inscriptions. Then began a scholarly dispute which has not yet ended.

On account of the demise of broad-pen use during the Renaissance, the first studies of the manuscript history of the British Isles were hampered by a basic misunderstanding of the pen techniques used by the scribes of the great Gospel books like those of Kells and Lindisfarne. The elaborate plates in major works like those of Astle,¹⁹ O'Connor²⁰ and

¹⁴ E. Lhuyd, *Archaeologia Britannica* (Oxford, 1707; IUP reprint, Dublin, 1971), Vol. I. Glossography.

¹⁵ J. Mabillon, *De Re Diplomatica* (second edition, Paris, 1709).

¹⁶ H. Wanley, *Antiqua Literaturae Septentrionalis* (Oxford, 1705).

¹⁷ J. Bately, M. P. Brown and J. Roberts, eds., *A Palaeographer's View: the selected writings of Julian Brown* (London, 1993), p. 98.

¹⁸ Charles O'Connor (1764-1828), antiquary and librarian; librarian at Stowe to the Duke of Buckingham, who possessed many important Irish MSS. He published a catalogue of the Stowe manuscripts in 1818. His major work, *Rerum Hibernicarum Scriptorum Veteres*, was published between 1814 and 1828.

¹⁹ T. Astle, *The Origin and Progress of Writing* (London, 1803).

²⁰ C. O'Connor, *Rerum Hibernicarum Scriptorum Veteres* (Buckingham, 1814-28).

Westwood²¹ represented the text hands, as William Morris himself would do, as laborious letter-forms drawn in outline and filled: there was no understanding that the texts' letters had been laid down in a broad, ribbon-like strip in a series of relatively simple and quick movements of a broad-edged pen. Petrie's drawings of the scribally assured inscriptions at Clonmacnoise are accurate, but typographic rather than calligraphic.²² It was a lack of understanding that prevailed into modern times: in Maunde Thompson's *Handbook of Greek and Latin Palaeography* of 1903, and in the offshoot *Introduction to Greek and Latin Palaeography* of 1912, the drawings and diagrams are in uninflected line. They are still in line in Bischoff's *Latin Palaeography* of 1990.

Although, as we have seen, the great teacher and calligrapher Edward Johnston propounded a revived broad-pen technique in his *Writing & Illuminating, & Lettering* of 1906, this was not understood and utilised by many palaeographers, apart from rare exceptions like Tomlin and O'Neill. Palaeographers such as Bischoff and Mallon tend not to demonstrate – by illustration – why and how a scribe's broad-pen letter is inflected, and their terminology, particularly in the case of the Continental persistence in referring to line inflection as 'colouring' or 'shading', remains confused; indeed the very words remain linked to the conception of a letter as drawn in outline and filled. Even in Meyer's excellent manual we find this description of the first Roman epigraphic scripts: 'The strokes were of equal thickness; there was no shading and no serif.'²³ Calligraphy and palaeography have much to learn from one another, but mutual understanding has still not been arrived at. For example, calligraphers tend to respond to and see only 'beautiful writing', and it is only lately that palaeographers such as Petrucci have made us understand that the 'ugly' scripts of the inexpert scribe are worth looking at, and, indeed, must be looked at.²⁴

The earliest Insular palaeography and epigraphy stands in the blind spot of the 'ugly'; the epigraphy pre-dates the palaeography, but Maunde Thompson did not look to it for evidence. Ironically, despite his brilliant analysis of the developing forms of New Roman

²¹ J. O. Westwood, *Palaeographia Sacra Pictoria* (London, 1843-5).

²² G. Petrie, *Christian Inscriptions in the Irish Language* (Dublin, 1872), Vol. I, ed. M. Stokes.

²³ Meyer, *Schriftentwicklung*, p. 8.

²⁴ A. Petrucci, *Writers and Readers in Medieval Italy* (New Haven and London, 1995), pp. 77-102.

Cursive, he failed to link these forms with any development in Irish script.²⁵ This ran counter to the theories of two earlier writers. Including the epigraphic evidence in their research, J. O. Westwood and Margaret Stokes²⁶ both saw informal Roman cursive at the root of peculiar Insular developments, but this judgement was subsequently obscured by palaeographers who were dazzled by the great Insular gospel books' grand script, their decoration and their aesthetic appeal. Academic arguments swung back and forth as to the originators of this aesthetic triumph: the Northumbrians or the Irish. With William O'Sullivan,²⁷ Daibhi Ó Cróinín has been in the forefront of a movement to restore understanding of the Irish perspective on Northumbria, which is missing in the analysis of T. Julian Brown.²⁸ The Welsh, Cornish and Bretons with their hopelessly unlovely inscriptions, though they were earlier than any manuscript survivors, were not thought relevant to these arguments. The underlying Hiberno-Cambrian tradition was overlaid and obscured by the debate over the relative influences of Ireland and Northumbria on Insular art.

The failure to connect the seemingly unrelated early and ugly lapidary lettering with the later established half-uncial manuscript forms rests upon two misconceptions that have been difficult to eradicate. Firstly, although by the 1940s archaeologists had revealed Roman contacts with Ireland, literacy seems to have been indelibly associated with Christianity and high-class manuscripts.²⁹ The possible consequences of early Roman contact on the

²⁵ E. M. Thompson, *An Introduction to Greek and Latin Palaeography* (Oxford, 1912), pp. 310-339; pp. 371-384.

²⁶ Margaret Stokes (1832-1900), art historian. She edited and illustrated Dunraven's *Notes on Irish Architecture* (1875-7); edited and published Petrie's *Christian Inscriptions in the Irish Language* (Dublin, 1872); and published the handbook *Early Christian Art in Ireland* (London, 1887). *The High Crosses of Ireland*, partly published in Dublin, 1898, was unfinished at her death.

²⁷ O'Sullivan, 'Manuscripts and Palaeography'; D. Ó Cróinín, 'Rath Melsigi, Willibrord, and the earliest Echternach manuscripts', *Peritia* III (1984), pp. 17-49.

²⁸ D. Ó Cróinín, 'Merovingian politics and Insular calligraphy: the historical background to the Book of Durrow and related manuscripts', in M. Ryan, ed., *Ireland and Insular Art, AD 500-1200* (Dublin, 1987), pp. 40-43; T. J. Brown, 'Northumbria and the Book of Kells', *Anglo-Saxon England*, i (1972), pp. 219-46.

²⁹ S. P. O'Riordain, 'Roman material in Ireland', *PRIA* Vol. 51 C (1947), pp. 35-82; J.D. Bateson, 'Roman material from Ireland', *PRIA* Vol. 73 C (1973), pp. 21-97; Bateson, 'Further finds of Roman material from Ireland', *PRIA* Vol. 76 C (1976), pp. 171-80; E.O'Brien, *Post-Roman Britain to Anglo-Saxon England: Burial Practices Reviewed* [B.A.R.

development of an Irish script system, Ogham, as well as on cursive minuscule, have not attracted a great deal of palaeographical research.³⁰ For long it had been thought that the Romans had comparatively little contact with Ireland, and that the Irish script system came through Wales *sans* cursive in the form of high-grade uncial or half-uncial Biblical texts. Secondly, it had been thought that Insular minuscule was developed from Continental half-uncial *after* Insular half-uncial had evolved; this would accord with the first script model being that of Christian manuscript books, as Maunde Thompson thought. It is unfortunate that this was the position subsequently taken by the most influential of modern palaeographers, E. A. Lowe. But, as we shall see below, this is now a palaeographical theory that does not hold.

It was E. A. Lowe in his introduction to *Codices Latini Antiquiores* who suggested that the Insular half-uncial is a modification of the Continental, 'singularly untouched by Roman cursive', and further remarked that

Majuscule came before minuscule, not only in rank but also in time. The second may be derived from the first, but not vice versa. This is an obvious point and hardly needs pressing. The attitude of Insular scribes confirms it ...³¹

As David Dumville comments: 'If the argument ... had been advanced by anyone but Lowe it would have been greeted with derision.'³² Moreover, there had been an earlier voice with a different opinion: W. M. Lindsay in his 'Irish Cursive Script' of 1913³³ had made a detailed plea for consideration of Roman cursive minuscules as an integral and early component of that Insular script variously described as 'literary cursive', 'cursive half-uncial', 'quarter-uncial' or 'pre-canonical' – the script that was to evolve into Insular half-

British Series 289] (Oxford, 1999); N. Edwards, *The Archaeology of Early Medieval Ireland* (London, 1990), pp. 1-5.

³⁰ A. Harvey, 'Early Literacy in Ireland: The evidence from Ogham', *CMCS* 14 (1987), pp. 1-15.

³¹ E. A. Lowe, *Codices Latini Antiquiores*, Vol. II (Oxford, 1971), p. xi.

³² Dumville, *A Palaeographer's Review*, p. 10.

³³ W. M. Lindsay, 'Irish Cursive Script', *Zeitschrift für celtische Philologie* 9 (1913), pp. 301-8.

uncial. But unfortunately the link with what the earliest scholars to work on Insular epigraphy, such as Stokes and Westwood, had concluded – that cursive writing co-existed with formal and interchanged with it – was not made and the insight was dropped.

However, some palaeographers since Lowe have begun to rethink the nature of the influences on the formation of Insular script in Ireland. In his *Paläographie des römischen Altertums und des abendländischen Mittelalters* of 1979, Bernhard Bischoff reformulated Lowe's theories and helpfully widened the field of reference by suggesting that the Christian mission also brought to Ireland informal scripts cloned from Italian models, but still

with 'e' ligatures and 't/i', through scripts with angular features, with the gradual introduction of alternative forms (uncial D, R, S and minuscule 'n') into half-uncial and (with the development of spatula shaped terminals) leading to an almost fully rounded type of the half uncial (without the ligatures of the cursive original).³⁴

Bischoff's theoretical progression can be applied to the actual progression from the script of the Springmount Bog Tablets to the script of TCD MS 55, known as Ussher I. (This progression will be discussed in detail in Chapter 3.) With reference to Ussher I, Maunde Thompson had already commented that

the writing bears a close resemblance to the Continental half-uncial hand but at the same time it has the distinct impress of its Irish nationality indicated generally in a certain angular treatment of some of the strokes which in the Roman half-uncial are round.³⁵

As Thompson showed, letters showing angularity were uncial N, triangular cursive g and p. With the addition of another angular feature, the triangular serif, Irish scribes had made something new and distinctive: *litterae scotticae*. In the 1940s the understanding began to grow, especially in Ireland, that the British Isles had already definitively adapted

³⁴ B. Bischoff, *Paläographie des römischen Altertums und des abendländischen Mittelalters* (Berlin, 1979); English translation by D. Ó Cróinín and D. Ganz, *Latin Palaeography: Antiquity and the Middle Ages* (Cambridge, 1990), p. 84.

³⁵ Maunde Thompson, *Introduction*, p. 372.

Continental forms in its own way, particularly in manuscripts, before the Anglo-Saxons in their turn adopted and adapted it in the mid-seventh century. As we shall see below, this was not an easy point for scholars like Dr Henry and Professor Bieler to establish, against the prevailing published opinions of Kendrick and Clapham.

The collision of these opposing theories has been immensely fruitful in subsequent discussion, but in the light of recent meticulous research, the crudity of these first exchanges between the opposing camps, which can only be described as pro- or anti-Irish, is at times startling to the present-day reader. In their study of Anglo-Saxon history and art, some writers had been unconsciously partisan, downgrading the history and art of the other inhabitants of the British Isles. It was a misconception of Sir Alfred Clapham's that by the seventh century the Irish had no art of their own, and that Insular art was the sole inspiration of the Northumbrians.³⁶ His theory was further developed by his disciple François Masai, who, according to Carl Nordenfalk, argued that 'Irish Christian art was not actually a creation of the Irish themselves, but of their English disciples in Northumbrian monasteries', and claimed all the great Insular gospel books for them.³⁷ T. Julian Brown in turn was influenced by Masai. Attached to this reductionist theory is the assumption that 'geometrical capitals' evolved in Northumbria from Anglo-Saxon Runes, and were used in conjunction with these Runes: examples outwith Northumbria were therefore analysed as 'outliers' and consequently as chronologically dependent.³⁸ Manuscripts were analysed on art-historical grounds and placed in a sequential relationship with the Lindisfarne Gospels, for long assumed to be securely dated c. 700 on account of its later colophon.

Two distinguished Continental scholars based in Ireland took a pro-Irish stance in their published reactions to the dismissive views of Clapham and Masai. The Director of Archaeological Studies at University College, Dublin, Dr. Françoise Henry, drew several manuscripts into her argument against their reductionist theory: the Atalan Codex (Milan,

³⁶ A. Clapham, 'Notes on the origins of Hiberno-Saxon art', *Antiquity* 8 (1934), pp. 43-57.

³⁷ F. Masai, *Essai sur les Origines de la Miniature dite Irlandaise* (Brussels, 1947); C. Nordenfalk, 'Before the Book of Durrow', *Acta Archaeologica* XVIII (1947), p. 143.

³⁸ E. Okasha, *Hand-List of Anglo-Saxon Non-Runic Inscriptions* (Cambridge, 1971), describes a wide range of geometric capitals as 'Anglo-Saxon Capitals' throughout; see also J. Higgitt, 'The Display Script of the Book of Kells and the Tradition of Insular Decorated Capitals', in F. O'Mahony, ed., *The Book of Kells* (Aldershot, 1994), p. 217.

Biblioteca Ambrosiana MS S. 45 Sup.), the Cathach (RIA MS 12 R 33), the Bangor Antiphonary (Milan, Biblioteca Ambrosiana MS C. 5. Inf.), and the gospel fragment Durham MS A. II. 10. Her *Irish Art in the Early Christian Period* of 1940 stressed the 'remarkable continuity' of Irish art and its clear influence on the arts of the early Christian period in Northumbria.³⁹ Following her lead, her colleague Professor Ludwig Bieler, Professor of Palaeography at University College, Dublin, wrote a seminal article on 'Insular palaeography: present state and problems' in 1949.⁴⁰ His later *Ireland: Harbinger of the Middle Ages*, published in 1963, was also influential in redressing the balance between the two elements in Hiberno-Saxon studies.⁴¹ Like Petrie, Stokes and Reeves in the previous century, Professor Bieler was aware of the place of cursive minuscule in the development of Irish epigraphy. But as no-one had yet satisfactorily explained how there might have been a minuscule hand in use and developing alongside the majuscule in Ireland, and as the existence of such a minuscule was contrary to the received opinion of E. A. Lowe in his introduction to *CLA* Volume ii, Bieler's observation, like theirs, went unheeded.

High-quality facsimile editions of the major Insular Gospel books opened up the field of comparative studies in Irish and English institutions. In his introduction to the facsimile of the Book of Durrow, *Evangeliorum quattuor Codex Durmachensis* of 1960, A. A. Luce made a sharper riposte to Clapham and Masai. He quoted Bede to stress the 'progressive' nature of Ireland in contrast to a 'backward' Northumbria at the time of Oswald, where the first Irish preacher sent c. 635 failed because the Northumbrians were 'uncivilized men of a stubborn and barbarous disposition'. He pointed out that the Book of Durrow, which, like anything else of note, was claimed by the Northumbrian party, could not have been produced at Lindisfarne, as before 664 it 'had no scriptorium capable of producing a gospel *de luxe*', and after 664 and the Synod of Whitby, no Northumbrian scriptorium could have produced a gospel illustrated with the Evangelist Matthew wearing a Celtic tonsure.⁴² The discovery of

³⁹ F. Henry, *Irish Art in the Early Christian Period to A.D. 800* (London, 1940; repr. 1965), p. 1.

⁴⁰ L. Bieler, 'Insular palaeography: present state and problems', *Scriptorium* 3 (1949), pp. 267-89.

⁴¹ L. Bieler, *Ireland: Harbinger of the Middle Ages* (London, 1963).

⁴² A. A. Luce, A. A. Luce, G. O. Simms, P. Meyer, L. Bieler, eds., *Evangeliorum quattuor Codex Durmachensis*, 2 vols. (Olten, 1960), p. 63.

the Derrynaflan hoard in 1980 confirmed Françoise Henry's belief that further Irish material like the Ardagh chalice, which had been claimed as a Northumbrian stray, would be found. The Ardagh and Derrynaflan chalices were displayed together at the British Museum exhibition *The Work of Angels* in 1989.⁴³

More recently, Daibhi Ó Cróinín has attacked the Anglocentric leanings of the editors of the facsimile volume of the *Evangeliorum Quattuor Codex Lindisfarnensis*,⁴⁴ and Nancy Netzer has questioned the persistent 'abuse' of evidence to fortify the same position.⁴⁵ The rock on which Northumbrian supremacy rests is the Lindisfarne Gospels, the later colophon of which has again been questioned by David Dumville, who flatly states: 'The evidence of Aldred's colophon is inadmissible'.⁴⁶ Dumville's refreshing views encourage further attempts to reassess the chronology in the Phase I development of Insular half-uncial.

The ancient mystery of how Irish half-uncial evolved in Ireland will only begin to be unravelled when the nature of the earliest evidence, the Springmount Bog tablets, has been more thoroughly analysed and the results brought to bear on the earliest manuscript survivors. What the tablets contain, pertaining to the influence of Roman cursive minuscule on that evolution, may allow a new insight into the formation of a post-Roman hierarchy of scripts in the British Isles, and help to explain the remarkably independent style of Britain's letter-cutters. With such short-sighted and partisan confusion existing in the world of Insular palaeography, it is not surprising that inscribed lettering of the earlier, plainer sort has remained outwith detailed discussion until fairly recently. Arguments tended to be over the authorship and 'nationality' of the most beautiful art works. The long-standing problem of determining the origins and development of Insular script, buried as it was in the 'ugly' and informal, has been little affected by epigraphic studies of inscriptional evidence. Yet such inscriptions date from much earlier periods than our first Insular manuscripts. The earliest

⁴³ R. L. S. Bruce-Mitford, *The Sutton Hoo Ship Burial*, Vol. III (London, 1983), pp. 265-80 and 290-5; S. Youngs, ed., *The Work of Angels: Masterpieces of Celtic Metalwork, 6th-9th Centuries AD* (London, 1989), pp. 130-33.

⁴⁴ Particularly R. L. S. Bruce-Mitford, 'Decoration and Miniatures', in T. D. Kendrick *et al.*, eds., *Evangeliorum quattuor Codex Lindisfarnensis*, Vol. 2 (Olten, 1960), pp. 109-260.

⁴⁵ D. Ó Cróinín, 'Pride and Prejudice', *Peritia* I (1982), pp. 352-62; N. Netzer, 'Style: A history of uses and abuses in Insular art', in M. Redknap *et al.*, eds., *Pattern and Purpose in Insular Art* (Oxford, 2001), pp. 169-77.

⁴⁶ Dumville, *A Palaeographer's Review*, p. 78.

Welsh epigraphic evidence, showing scribal practice *c.* 600, is most valuable, yet is rarely drawn into discussion, perhaps because it has proved difficult to relate its letter-forms to the later manuscripts, or to any clear protoforms of half-uncial.

Insular Epigraphy

When we turn to the subject of Insular epigraphy, the field of published material is smaller and less controversial. Edward Lhuyd (1660-1709), Keeper of the Ashmolean Museum in Oxford, was an assiduous recorder of the early Christian monuments of Wales.⁴⁷ A reliable draughtsman and recorder of inscriptions, he made many studies which were used for the 1695 edition of Camden's *Britannia*.⁴⁸ His drawings of now illegible inscriptions, such as Eliseg's pillar in Denbighshire, are invaluable. An ambitious attempt to provide an overview of the early Christian inscriptions of the British Isles in a comprehensive epigraphic survey was made in 1876 by Emil Hübner.⁴⁹ However, this was severely criticised by the new wave of researchers of the next century. Kenneth Jackson, for one, complained of the 'inaccurate illustrations' and 'readings sometimes badly mistaken'.⁵⁰

In Ireland, although some amateur antiquarians did notice individual inscriptions and realise their importance – for instance, Charles Vallancey (1721-1812) noted the 'alphabet' stone at Kilmalkedar, County Kerry,⁵¹ – serious and methodical study of Insular epigraphy begins with the work of George Petrie in his *Christian Inscriptions in the Irish Language* (1872). Petrie had been at work in Clonmacnoise as early as 1822 when he drew 143 inscriptions 'of which there are now but 86 remaining, the rest having been broken up and lost, or perhaps stolen by tourists ...', according to Margaret Stokes, the editor of *CIIL*, on the opening page of its prospectus. Petrie's Clonmacnoise drawings included some of the inscriptions excavated from the Nuns' Church by the antiquarian Henry O'Neill. Here in the *CIIL* footnotes we find an important overlap with the work of the palaeographer and

⁴⁷ Lhuyd, *Archaeologia Britannica*.

⁴⁸ W. Camden, *Britannia*, Gibson's edition (London, 1695).

⁴⁹ E. Hübner, *Inscriptiones Britanniae Christianae* (Berlin and London, 1876).

⁵⁰ K. H. Jackson, *Language and History in Early Britain* (Edinburgh, 1953), p. 149.

⁵¹ E. Okasha and K. Forsyth, *Early Christian Inscriptions of Munster* (Cork, 2001), Kilmalkedar 1, pp. 165-9.

epigrapher J. O. Westwood, who published the corpus of Welsh inscriptions, *Lapidarium Walliae*, between 1876 and 1879. Stokes noted that O'Neill's rubbings of the excavated stones at Clonmacnoise 'came into the possession' of Westwood in the course of his work in Ireland. Some of these are now in the Bodleian Library, Oxford.⁵²

This was an early, and good, sign of co-operation between scholars, many of them members of the Cambrian Archaeological Association. They recognised that Ireland and Wales shared a common heritage, and that their early inscriptions might benefit from being studied together. Unfortunately this good intent came to nothing, though, as we see below, Westwood, Stokes and William Reeves all stated clearly what they saw as the possible source of early Irish lapidary script: Roman minuscules. There was always the difficulty of the transmutation of letter-form as it was converted, and scaled up, for incision on hard surfaces. In the process, all inflection of line was lost: the early epigraphic letter-forms are monoline, simply linear, and thus are difficult to relate to inflected pen-forms. Although in 1903 Maunde Thompson's manual showed the earliest Roman cursive minuscules as strictly linear, simplified for tablet writing, their possible influence on the development of lettering on hard surfaces like metal, wood and stone, from the very outset of the adaptation of Roman lettering by Insular craftsmen, has been little investigated. ILLUS. 1:2 shows that many characteristics of their style of angular monoline reductionism were to re-appear in Insular geometric capitals, perhaps surviving in use on some medium that was perishable, such as wax tablets.

We may contrast with Lowe's statement that 'majuscule came before minuscule' (quoted above) the comment of Margaret Stokes on the Kilmalkedar inscription, which is among the earliest Irish early Christian inscriptions: she considered its script 'but a localised Roman minuscule'. Similarly, William Reeves, quoted by Margaret Stokes in *CIII*, described the lettering of the Kilnasaggart inscription as 'localised Roman, or as it is popularly called "the Irish character".'⁵³ Yet another element contributes to the unlikeness of the earliest Insular epigraphic lettering to Continental half-uncial. The earliest stratum in the epigraphic scripts of Ireland also contained angular forms, using an o body with a square or lozenge form, and indeed this was used in Ogham as an alternative o form in the *forfeda*.⁵⁴

⁵² Bodleian MSS. 31985-31989.

⁵³ M. Stokes, *Early Christian Art in Ireland* (Dublin, 1928), Part II, p. 2.

⁵⁴ D. McManus, *A Guide to Ogam* (Maynooth, 1997), §7, pp. 13-15.

Petrie wrote:

The occurrence of the diamond shaped 'o' among the letters points to the seventh century and before it. It occurs for instance on the stones of Dufthach [*sic*] at Killeen Cormac, and of Joseph at Roscommon – both being remains of the earliest period.⁵⁵

Showing a similar perceptiveness about the minuscule-influenced origins of early British scripts in his *Lapidarium Walliae*, Westwood commented on the Brancuf inscription at Baglan, Glamorgan, *ECMW* no. 191:

All the letters are minuscules to which the term Anglo-Saxon has ordinarily been applied, but which might with equal propriety be termed Irish or British, and which is found on many of the inscribed stones both of Ireland and Wales ...⁵⁶

Again, of the Grutne inscription at Margam, Glamorgan, *ECMW* no. 233, he wrote:

the letters are rude minuscules, mixed with uncials (such as the Benedictine authors of the *Nouveau Traite de Diplomatique* would have called semi-uncial) ... The letters are irregular in size and position in the lines and of a ruder character than those on the stone of Brancuf.⁵⁷

The Scottish inscriptions received equally careful examination of their letter-forms. In 1903 the Welsh engineer and editor of *Archaeologia Cambrensis*, J. Romilly Allen, collaborated with the Scottish antiquarian Joseph Anderson to publish *The Early Christian Monuments of Scotland*.⁵⁸ Illustrated with good line drawings and photographs, this set an excellent standard, as a systematic visual record, that was later emulated by Nash-Williams in his *corpus* of the Welsh inscriptions.

⁵⁵ *CIIL*, p. 16.

⁵⁶ Westwood, *LW*, p. 24.

⁵⁷ *Ibid.*, p. 25.

⁵⁸ J. R. Allen and J. A. Anderson, *The Early Christian Monuments of Scotland* (Edinburgh, 1903).

In the mid-twentieth century three great works appeared within ten years of each other, which opened up the epigraphic field in the British Isles, engendering continuing research and discussion. In 1945 and 1949 R. A. S. Macalister published the two volumes of his *Corpus Inscriptionum Insularum Celticarum*, which is still the principal *corpus*.⁵⁹ In 1950 V.E. Nash-Williams published *Early Christian Monuments of Wales*, and in 1953 Kenneth Jackson published *Language and History in Early Britain*. Primarily a linguist, Jackson was impressed by the researches of Nash-Williams, and was convinced by his arguments for the direct influence of Gaulish practice on Welsh inscriptions. He refers to the work of Nash-Williams frequently in his footnotes, having corresponded with him when *ECMW* was in preparation.⁶⁰

Because of some delay in the release of *ECMW*, or of the length of time that *LHEB* was in the press at Edinburgh, Jackson made his own chronological classification of the Welsh inscriptions based on letter-form. Like Nash-Williams, he was confident in associating the carved letters of the inscriptions with certain manuscript hands, and it is interesting to compare his groupings with those of Nash-Williams. His first group, of the 5th to 6th centuries, contains debased capitals 'with some vulgar and cursive forms'. His second, of the sixth century, consists of 'capitals with an increasing proportion of vulgar forms and especially also with the appearance of certain uncial and half-uncial letters derived from Gallic epigraphy, becoming commoner as the century went on.' His third group, formed by the end of the sixth and beginning of the seventh century, had 'fewer capitals and more of uncials and half uncials, but now also with a number of half-uncial letter forms evidently taken from manuscript writing.'⁶¹ These statements do not make one confident that either Jackson or Nash-Williams was perfectly familiar with manuscript forms or terminology, as a palaeographer would be. Certainly Jackson's comment that the *Catamanus* inscription, *ECMW* no. 13, was in 'almost pure manuscript half-uncials' is not a comment that any palaeographer would make now.⁶² As an effort that attempted to combine several disciplines,

⁵⁹ R. A. S. Macalister, *Corpus Inscriptionum Insularum Celticarum*, Vol. I (Dublin, 1945), Vol. II (Dublin, 1949). The Celtic Inscribed Stones Project (CISP) at UCL maintains an excellent website at <http://www.ud.ac.uk/archaeology/cisp/database> (November 2006).

⁶⁰ *LHEB*, p. x.

⁶¹ *Ibid.*, p. 159.

⁶² *Ibid.*, p. 160.

LHEB would have been better served if a palaeographer had been consulted, who would have provided a more precise definition of terminology, and would certainly have pointed Jackson away from a too direct reliance on manuscript sources.

Neither was there any consultation to acquire palaeographical exactitude in *ECMW*. It is remarkable that, when the archaeologist Nash-Williams published this work, the more open-minded and more wide-reaching palaeographical speculations of Westwood had long fallen by the wayside. In Nash-Williams's analysis the inscriptions were ordered chronologically according to their proportion of 'half-uncial' letters intruding into the earliest primitive capitals. He thought there had been a 'dark age' in Wales when the 'epigraphic habit' had died out, only to be revived by being reintroduced from Gaul.⁶³ His use of calligraphic manuscript letter-forms as comparanda, which involves an aesthetic over-appreciation of the serifless, rule-less and uninflected letters of the inscriptions, has delayed critical appreciation of the graphic origins of primitive Insular epigraphy. However, reconsideration and re-examination is now beginning to provide a new analysis. The availability of excellent photographic plates of comparative early Christian material, such as those in Gordon's *Illustrated Introduction to Latin Epigraphy*,⁶⁴ rather than the line drawings of earlier works, has led to palaeographers such as Pádraig O'Neill making the graphic link between the simple sans-serif of dry-point glosses and the earliest epigraphy.⁶⁵

There has been a reawakening of interest in Insular epigraphy. Mark Handley has recently published a clear argument in favour of the survival of epigraphic practice through Nash-Williams's 'dark age', making telling comparisons with informal early Christian epigraphy and showing that the Welsh were using 'a common stock of literate techniques shared with the Late Antique world'.⁶⁶ Carlo Tedeschi has published a revised typological analysis of the inscriptions grouped by Nash-Williams, paying great attention to details of letter construction, moving away from reliance on high-grade manuscript letters as

⁶³ *ECMW*, pp. 10-11.

⁶⁴ A. E. Gordon, *Illustrated Introduction to Latin Epigraphy* (Berkeley and Los Angeles, 1983).

⁶⁵ P. O'Neill, 'The earliest dry-point glosses in Codex Usserianus Primus', in T. Barnard, D. Ó Cróinín and K. Simms, eds., *A Miracle of Learning: Essays in honour of William O'Sullivan* (Aldershot, 1998), pp. 1-28; p. 3.

⁶⁶ M. A. Handley, 'The origins of Christian commemoration in late antique Britain', *Early Medieval Europe* 10.2 (2001), pp. 177-99.

comparanda, and recognising the significance of angular epigraphic letter-forms in the evolution of manuscript geometric capitals.⁶⁷

As Tedeschi has noticed, one of the overlooked chronological clues to early Welsh epigraphy is its use of geometric letters, even in the pre-600 bilingual Ogham / Latin inscriptions. Geometric capitals have been generally assumed to have evolved from Anglo-Saxon Runes in Northumbria, where the great majority of seventh- and eighth-century inscriptions in geometric capitals are, and the few Scottish and Irish examples have been taken to be 'outliers' (see above). The case of this alphabet is a prime instance of the kind of chronological confusion that arises when it is assumed that a type of letter-form was invented in one place and then imitated in another. If it is assumed that geometric capitals were invented in Northumbria where, some time after 635, the Irish imitated and adopted them and took them back to Ireland, some time after 664, then we are forced to date specifically Irish inscriptions with these letter-forms to the late seventh century, although we know that Anglo-Saxons were passing between Ireland and England long before.⁶⁸ There was a strong British presence in Ireland from the time of Patrick, and Anglo-Saxons resided there as students in large numbers.⁶⁹ The long-held and topsy-turvy nature of this confused thinking infected even Irish scholars like Macalister, who looked at more than one Irish inscription in geometric capitals and pronounced it to be 'Runic'.⁷⁰ Insular letter-cutters had an alphabet of angular letters suited to epigraphic use, and it is possible to show that it could have developed independently, from the remains of the post-Roman script system.

The prestige given to geometric capitals, as a display script, by Irish and Northumbrian scribes would suggest that they were understood as monumental, and were naturally to be used in that place where scribes of the non-Columban school would use

⁶⁷ C. Tedeschi, 'Some observations on the palaeography of early Christian inscriptions in Britain', in J. Higgitt, K. Forsyth and D. N. Parsons, eds., *Roman, Runes and Ogham* (Donington, 2001), pp. 16-25; idem, *Congeries Lapidum: Iscrizioni Britanniche dei secoli V-VII* (Pisa, 2005).

⁶⁸ T. M. Charles-Edwards, *Early Christian Ireland* (Cambridge, 2000), pp. 186-7, 336-7.

⁶⁹ T. M. Charles-Edwards, 'Britons in Ireland, c.550-800', in J. Carey, J. T. Koch and P.-Y. Lambert, eds., *Ildánach Ildírech: A Festschrift for Proinsias Mac Cana* (Andover, Mass., 1999), pp. 15-26.

⁷⁰ *CIIC*, Vol. II, p.101; J. Waddell and P. Holland, 'The Peakaun Site: Duignan's 1944 Investigations', *Tipperary Historical Journal* (1990), pp. 165-86, p. 179.

heavily inflected uncials or Roman capitals. David Dumville has described the role of Wearmouth-Jarrow in adhering to strict Roman practice, and avoiding the non-Roman.⁷¹ As Nicolette Gray has noticed, they are not pen-forms: she thought their invention lay outside the scriptorium, perhaps in the arts of textiles, or ceramics or moneying.⁷² To take into consideration the direct influence of craftsmen working in metal, wood and stone on developments in the scriptorium, rather than to see book arts as predominant, can only be beneficial. It should be possible to demonstrate, firstly, why monoline minuscules were adapted for epigraphic lettering by the British and Irish in the sixth century, and, secondly, how they were adopted and adapted by Insular scribes in the seventh century. Geometric capitals may provide a key to understanding the early epigraphy, a key that has not been provided by broad-pen calligraphy.

Calligraphy

When we turn to modern calligraphy, we find that it is above all the ornamental and monumental aspect of Insular book arts that have stimulated most interest, research and emulation by scribes. It was Edward Johnston who began the thorough study and analysis of historical text hands,⁷³ but this has remained the rather arcane practice of specialist arts and crafts courses and is not considered a necessary part of the education of art historians. They are attuned to the art, but not to the craft. Art historians have a tendency to respond to ornamental and display lettering and to be unresponsive, or completely blind, to plain text hands. This must in part explain the comparative lack of attention paid to more everyday 'ugly' objects like the Springmount Bog tablets and the early Christian inscriptions of Wales. They have been perceived as belonging to a class of visual objects that are neither beautiful nor worth studying.

In contrast, geometric capitals have been described by Nicolette Gray as being created by 'artists in the field of letter design ... [who designed] ... a new version of the capital alphabet based on verticals, rectangles and diagonals, in some cases completely excluding the

⁷¹ Dumville, *A Palaeographer's Review*, pp. 64-80.

⁷² N. Gray, *Lettering as Drawing* (Oxford, 1970), p. 25.

⁷³ *WIL*, pp. 202-232.

curve'.⁷⁴ Though it is now clear that there has been, from the very beginning, a persistent thread in both palaeography and epigraphy that acknowledges the presence of angular letter-forms, which deliberately eschew curves, in the pre-canonical manuscript half-uncial alphabet and among the earliest inscribed alphabets, yet no overall theory has emerged to explain this presence. But, from the appearance of angular letters on the pre-600 bilingual Ogham / Latin stones of those parts of Wales that were occupied by the Irish after the Roman withdrawal, it seems that they evolved there, or in Ireland, without the stimulus of contact with Rune-using Anglo-Saxons. Yet the 'geometric capitals' of the Lindisfarne Gospels, which is one of the earliest Insular books to use them systematically, so dominate perception of this alphabet that they are still called either 'Anglo-Saxon capitals' or 'Lindisfarne display letters' despite objections.⁷⁵ Although modern research is revising this perception, such objections were raised long ago and it is important to examine alternative origins in earlier 'barbarian' alphabets of angular letter-forms, such as the script used on papyrus protocols in the fifth to seventh centuries, or the lapidary alphabets used in Burgundy or the Rhineland at the same time.

The Welsh antiquary Lewis Morris, published posthumously in the *Cambrian Register* in 1795 on the dedicatory inscription in geometric capitals in the MacDurnan Gospels, seems to have been the first to object specifically to the transference in nomenclature from 'British' to 'Anglo-Saxon' as a misnomer:

[it is] written in the ancient British letter now commonly called the Saxon letter

I take the book to have belonged originally to the Britons, not only on account of the character (the same letter being to be seen on our ancient tomb stones in Wales, erected before the Saxons had the use of letters) ...⁷⁶

⁷⁴ Gray, *Lettering as Drawing*, p. 22.

⁷⁵ M. P. Brown, *A Guide to Western Historical Scripts from Antiquity to 1600* (London, 1993), pp. 50-51. The inclusiveness of the term is particularly evident throughout in Elisabeth Okasha's *Hand-List of Anglo-Saxon Non-Runic Inscriptions*, which uses 'Anglo-Saxon capitals' to cover a wide range of cut letter-forms. No distinction is drawn between those inscriptions that include boxed minuscules within a two-line capital design, and those that are composed in angular capitals alone.

⁷⁶ This theory was published a considerable time after Morris's death in 1765: *Cambrian Register*, 1795, i, pp. 358ff, quoted by Westwood in his commentary on the MacDurnan Gospels in *PSP*, p. 9.

Later, in his *Celtic Art in Pagan and Christian Times* of 1904, J. Romilly Allen made the same objection to the common use of a misnomer in a field of research that had assumed an Anglo-Saxon domination of the arts:

The style of art we are now dealing with was formerly, quite wrongly, called Runic, because some of the monuments on which characteristic forms of ornament occur bear Runic inscriptions. Later authorities have called the style Hiberno-Saxon, Kelto-Northumbrian, Celtic and Irish, but this is simply begging the whole question. The term we have chosen, namely early Christian, is scientifically correct, and does not commit us to the assumption of any unproved facts.⁷⁷

The distinctive angular capital letter-forms labelled above by Lewis Morris as 'ancient British' became a large feature in the controversy over the relative influence of Northumbria and Ireland in the formation of Insular style. If the chronology generally accepted still stands, then geometric capitals appear first in manuscripts in the Book of Durrow, c. 675, with the use of three letter-forms: N, A and Greek delta D. The Greek-looking A may be an angularised minuscule, like the N, and they are both used with gate M in North Wales in the *Catamanus* inscription at Llangadwaladr, Anglesey, which is usually dated to c. 625 (see Chapter 4 below). More disturbing for the Northumbrian 'Runic' argument is the prominent and elaborate appearance of geometric capitals in the Durham Gospels, Durham MS A. II. 17, which are bound in the Irish manner in quinions rather than quaternions, and written in the Irish manner in one column rather than two, and which T. J. Brown dates before the Lindisfarne Gospels.⁷⁸

Graphically impressive, these 'geometric capitals' have proved of great interest to art historians and calligraphers. Nicolette Gray describes them as 'sophisticated, skilful and highly organised' and, in another speculation on their possible origins, suggests that they were influenced by Irish contact with Egypt and Kufic script.⁷⁹ Here again, as in the case of non-calligraphic cursives being invisible in the search for the ancestors of Insular half-uncial, aesthetics has caused a narrowing of the field of enquiry, and a looking away from native

⁷⁷ J. R. Allen, *Celtic Art in Pagan and Christian Times* (London, 1904), p. 239.

⁷⁸ C. D. Verey and T. J. Brown, *The Durham Gospels* (Copenhagen, 1980).

⁷⁹ Gray, *Lettering as Drawing*, p. 22.

Insular craft practice. In Ireland, from the neolithic period, stone-carvers had contrasted spirals with lozenge forms, and were concerned with a balance between the curvilinear and the geometric. The kerbstones at Newgrange are patterned with contrasting spirals and lozenges (ILLUS. 1:3); and we see such designs on the Iron Age Turoe stone, County Galway (ILLUS. 1:4), where a symmetrical step pattern makes a base band around the pillar, on which rests another, but asymmetrical, curvilinear pattern.⁸⁰

Long before scriptoria were established, artificers in Ireland understood how to make a pattern with step-changes, using a parallel-sided ribbon which might be applied on the square or on the diagonal. This they could mass regularly in a chequer pattern. Precision in the width of the ribbon could be achieved with the use of lockable proportional compasses. This type of patterning shows a practical understanding which is precisely analogous to the ribbon laid down by the broad-edge pen: the majuscule hands used the edge of the pen square-on, and the minuscule hands, aiming for compression and speed, used it at the angle of 45 degrees. Hence the body of an uncial O inhabited a square space with a vertical axis, and the minuscule 'o' inhabited a lozenge-shaped space with an axis tilted to the left (ILLUS. 1:5).

Failure to comprehend the diversity of ingredients that went into the making of Insular scripts, and a blinkered fixation on the scribe and his broad pen in the scriptorium, working from the supposed model of Continental half-uncial, has led to a continuing proliferation of theories on the origins of Insular Christian manuscript art, predominantly art-historical and aesthetic. In Stanley Morison's important study, *Politics and Script*, the author, a typographer and not a practising scribe, takes the chief distinguishing feature of Insular script – the wedge serif – to be a feature chosen for aesthetic reasons, when there is a good case to be made for its invention for purely practical reasons.⁸¹ Despite several practical manuals in English by distinguished calligraphers, including Edward Johnston, Stanley Knight and Patricia Lovett, British palaeography in particular remains unmoved in its analytical methods. Germany has proved more receptive.⁸² The standard palaeographical

⁸⁰ Allen, *Celtic Art*, pp. 43-49; R. and V. Megaw, *Celtic Art from its beginnings to the Book of Kells* (London, 1990), pp. 208-10.

⁸¹ S. Morison, *Politics and Script* (Oxford, 1972), pp. 149-53; G. Charles-Edwards, 'The Springmount Bog Tablets', *Studia Celtica* XXXVI (2002), pp. 27-45.

⁸² A German translation of Johnston's *WIL* had been made by 1921.

reference work used in British art schools for calligraphers from the 1960s was *Die Schriftentwicklung / The Development of Writing* by Hans Meyer, a former pupil of Alfred Williman at the Zurich School of Art. Significantly, here calligraphy is referred to as ‘a science’, being measurable.⁸³ Meyer, like a medieval scribe, treats the edge of the pen itself as a measuring device, the writing lines and the spaces between them being multiples of the width of the nib. In his introduction he insists that ‘the tools and materials used in writing are major determinants of its form’.⁸⁴ In Meyer’s analysis, the shift from majuscules to minuscules was already happening in the course of the third century, when ‘minuscules were to become decisive in the further development of Western lettering’.⁸⁵ In other words, we should be prepared for the possibility that Britannia, and perhaps at least the eastern seaboard of her neighbour Hibernia, could have shared in this development of Roman handwriting, and that each could then have pursued her own course independently.

Making use of an understanding of the craft practice of lettering, this thesis will put forward a detailed technical survey of the practical difficulties that faced Insular scribes when – perhaps towards the close of the sixth century – they had to learn to write on the rough, napped surface of Insular-produced vellum. It will suggest that the geometric display letter was a late arrival in that craft towards the end of the seventh century, and was sourced from crafts in other media. The influence of Stanley Morison in identifying coinage as that source will be counterbalanced.⁸⁶ A further analysis of the restrictions placed upon craftsmen in metal and wood, when they wished to place letters upon their work in these media, will hope to show that the ‘determinants’ of display Insular letter-form were not so much novel introductions from foreign arts and crafts as artful adaptations of familiar letter-forms in informal use.

Archaeology and Art History

Many of the disputes that have raged between theories have been settled by the arrival of archaeological discoveries which provide factual evidence and firmer ranges of dates.

⁸³ Meyer, *The Development of Writing*, p. 3.

⁸⁴ *Ibid.*, p. 5.

⁸⁵ *Ibid.*, p. 5.

⁸⁶ Morison, *Politics and Script*, pp. 153-9.

When the Derrynaflan hoard was restored and shown at the British Museum in the 1989 exhibition 'The Work of Angels', it triggered a thorough reappraisal of the Celtic metalwork of the 6th to the 9th centuries.⁸⁷ The decoration of Celtic metalwork had long been used by art historians such as Françoise Henry and George Henderson to evaluate the diverse origins of the decorative schemes of gospel books.⁸⁸ Dr Henry made a careful distinction between Anglo-Saxon and Irish metalwork of the Insular style, and stressed distinctive Celtic practice, such as the deliberate juxtaposition of curvilinear and geometric. Professor Henderson's special contribution with regard to metalwork and script has been to acknowledge the coming together of two strands, epigraphic and calligraphic, in the invention of Insular display letters. He and his wife Isobel Henderson have written an up-to-date study of Pictish art that takes account of recent finds and research.⁸⁹

Similarly, as a consequence of such recent archaeological finds, William O'Sullivan has commented on the profound significance of now knowing how the Romano-British wrote: in a range of formal Rustic capitals, and in informal Old Roman Cursive.⁹⁰ The discovery of the Vindolanda tablets and the Bath *defixiones* might suggest that Latin-using mainland Britain could have preserved at least part of the Roman script system in the fifth century: this system included informal hands, so that there may have been a varied input of lower-class scripts into Ireland from Britain as well as those introduced by the missions of Palladius or Patrick, and possibly even before any mission took place.⁹¹ This has made it less necessary to tie post-Roman developments in writing and epigraphy in the British Isles to the imported half-uncial manuscripts from the Continent. Some of the Bath tablets do suggest that the type of rapidly-written fourth- or fifth-century Roman capitals called 'Rustic', written with a steep cursive pen-hold, and spread through the agency of the army, may have

⁸⁷ Youngs, *Work of Angels*.

⁸⁸ Henry, *Irish Art*; G. Henderson, *From Durrrow to Kells: The Insular Gospel-Books, 650-800 AD* (London, 1987).

⁸⁹ G. and I. Henderson, *The Art of the Picts: Sculpture and Metalwork in Early Medieval Scotland* (London, 2004).

⁹⁰ O'Sullivan, 'Manuscripts and Palaeography', p. 517.

⁹¹ A. K. Bowman and J. D. Thomas, *Vindolanda: The Latin Writing Tablets* (London, 1983); R. S. O. Tomlin, ed., *Tabellae Sulis: Roman Inscribed Tablets of Tin and Lead from the Sacred Spring at Bath* (Oxford, 1988).

been the intermediary missing link between formal Roman monumental capitals and the informal mixed-alphabet inscriptions of sixth-century Wales. The elongation of form in bows which is characteristic of minuscule and Rustic writing is shown in ILLUS. 1:5. The late Group I *Saturninus* stone from Anglesey (*ECMW* no. 32), dated to c. 530, has round-bowed curves on the square plan, whereas *ECMW* no. 35, early Group II (transitional, c. 550-650), has bowed curves on the oblong plan.

Towards the end of the Roman period in Britain, Roman coins and ingots, such as those found in the Ballinrees and Balline hoards, came into Ireland as booty from raids, or possibly as payment for auxiliary troops. From recent archaeological discoveries it seems increasingly likely that Roman trading posts also existed on the eastern coast of Ireland, which makes it more probable that some of the Irish encountered cursive Roman scripts through peaceful contact with Britain, through trade and perhaps through direct dealings with the army as auxiliaries.⁹² Ragnall Ó Floinn's revised dating of the Ogham-inscribed votive deposited, contemporaneously with Roman coinage, at Newgrange provides crucial evidence here.⁹³

Such a connection between Britain and Ireland in this period would make it easier to explain the informal but skilled script of our earliest Insular manuscript evidence: the Springmount Bog wax tablets, which are dateable to the mid sixth century. It is commonly believed that when Patrick was captured during an Irish raid on Britain in the fifth century, and taken into servitude in Ireland, he introduced Roman writing to the island. This leaves out of consideration the earlier mission of Palladius (which indicated that Christian contacts between Britain and Ireland existed c. 429), the certainty of trade contacts with Roman Britain, and the difficulty in classifying the remarkable loose and informal script of the tablets.⁹⁴ There is current discussion by historians of the possibility that 'Irish Christianity may have been fostered in royal communities which had seen long-term contact with Roman-British customs'.⁹⁵

⁹² Edwards, *Archaeology of Early Medieval Ireland*, pp. 1-5; Charles-Edwards, *Early Christian Ireland*, pp. 156-8.

⁹³ R. Ó Floinn, 'The Newgrange shrine re-considered' (forthcoming).

⁹⁴ Charles-Edwards, *Early Christian Ireland*, pp. 202-14.

⁹⁵ C. Swift, *Ogam Stones and the Earliest Irish Christians* (Maynooth, 1997), p. 23.

As artefacts, the Springmount Bog tablets give important evidence on the high standard of minute and precise woodworking. Such tablets were commonly made of yew, but unfortunately the molecular structure of these examples has deformed very badly, and a precise identification of the wood is impossible.⁹⁶ If the wood is indeed yew, then a dendrochronological dating will also be impossible at the present time. The tablets were found in 1913, and are now in the National Museum of Ireland, but no satisfactory account of them has as yet been published because of the difficulty of reading them, and of using their all-important evidence.⁹⁷ Written with a stylus in literary cursive or quarter-uncial, the script is described by David Dumville as 'not to be classified without a great deal of discussion, which it has not yet received'.⁹⁸ It pre-dates the established Insular use of a triangular serif, and instead uses the looped entry into ascenders that we see in the manuscript fragment Ussher I (TCD MS 55), although there are what appear to be a few curious attempts at a triangular serif.⁹⁹ This informal written *ductus*, taken over into a different craft by inscribers on stone, gives us a new key to understanding of the epigraphy that lies outside the sphere of influence of the monastic scriptorium. It is a confident demotic expression unconstrained by the need to copy, or to follow a model. For all its informality, its characters may still be measured precisely and its stroke patterns tabulated. On a small scale the scribe in his writing was making a series of repeat patterns that may be analysed in the same way as decorative repeat patterns which are carved, chased or painted.

In the case of repeat patterns, the technical combination of art history with archaeology has given valuable results, from the time of J. R. Allen's diagrammatical and gridded analyses of interlace patterns to the present day with the work of Nancy Edwards and Jacques Guilmain.¹⁰⁰ Like the sculptor, the smith or the illuminator, the scribe was trained to

⁹⁶ R. Ó Floinn, pers. comm.

⁹⁷ E. C. R. Armstrong and R. A. S. Macalister, 'Wooden book with leaves indented and waxed found near Springmount Bog, Co. Antrim', *JRSAI* 50 (1920), pp. 160-6.

⁹⁸ Dumville, *A Palaeographer's Review*, p. 33.

⁹⁹ G. Charles-Edwards, 'The Springmount Bog Tablets', p. 31.

¹⁰⁰ N. Edwards, 'Some observations on the layout and construction of ornament in early Christian Irish sculpture', in F. H. Thompson, ed., *Studies in Medieval Sculpture* (London, 1983), pp. 3-17; idem, *Archaeology of Early Medieval Ireland*, p. 171; J. Guilmain, 'An Analysis of some Ornamental Patterns in Hiberno-Saxon Manuscript Illumination in Relation to their Mediterranean Origins', in Spearman and Higgitt, *Age of Migrating Ideas*,

work in a grid, using precise measures. Comparative tables of the depths and widths hammered out by smiths making *repoussé* patterns in metal, and of the depths and widths punched out by letter-cutters on stone, who used punch and mallet techniques, should show some relationship between the two. The width of a scribe's writing line was a multiple of the width of his pen edge; his whole page was divided using measurements that were multiples of his writing line. Niamh Whitfield, in a study of the design of the Hunterston brooch, has suggested that all craftsmen would have shared a similar system of measuring units.¹⁰¹ If it can be confirmed that this was the case, then measured enlargements of letter-form, both penned and inscribed, and comparisons of writing lines and interlinear space, should help understanding of the strange transformation that seems to have taken place in the transition between handwritten exemplar and carved inscription. The theories of the calligrapher Hans Meyer on the transformation of shape wrought by transference from one medium to another are vitally relevant to this.

Conclusion

As we have seen, recent research, and re-examined old research, is beginning to change rooted misconceptions about the nature of the Insular world, and particularly in a curious case of lost identity, that of British script. A different picture is emerging of the interconnectedness of Wales and Ireland in the sixth and seventh centuries, and of the nature of the interaction between British and Anglo-Saxon in mixed areas of population.¹⁰² Much more attention has been paid to what Susan Youngs called 'interesting questions about the relationships between the Irish, the native British and the Anglo-Saxons',¹⁰³ and new conclusions may be drawn from the increasingly rewarding work of archaeologists, most

pp. 92-103.

¹⁰¹ N. Whitfield, 'Design and units of measure on the Hunterston brooch', in J. Hawkes and S. Mills, eds., *Northumbria's Golden Age* (Stroud, 1999), pp. 296-314.

¹⁰² T. M. Charles-Edwards, *Early Irish and Welsh Kinship* (Oxford, 1993); idem, *Early Christian Ireland*; R. Sharpe, 'Martyrs and local saints in Late Antique Britain', in A. Thacker and R. Sharpe, eds., *Local Saints and Local Churches in the Early Medieval West* (Oxford, 2002), pp. 75-154.

¹⁰³ Youngs, *Work of Angels*, p. 41.

importantly with regard to the art of metalworking.¹⁰⁴ For there to be any forward movement in the use of epigraphic evidence, it is important to study the art of stoneworking, seen in the application of lettering to stone, alongside the arts of metalworking and woodworking which preceded it and must have influenced it. It is, unfortunately, still the case that the letter-forms of the early Christian inscriptions evade analysis and appreciation, with many reacting to them negatively: Kenneth Dark observed, ‘the form of the letters gives little help, for they have been crudely fashioned with a pick’.¹⁰⁵ Kenneth Jackson referred to the epigraphy of the post-Roman period, included in Nash-Williams’s Group I inscriptions, as ‘miserable and corrupt’, and sought to link it with the *inscriptiones Christianae* of Gaul.¹⁰⁶ Nash-Williams himself connected the epigraphy of his Group II inscriptions with the trained scribal practice of monastic scriptoria. Neither of these connections can be followed up with complete success. British letter-cutters were executing inscriptions that are not obviously Gaulish in the first case, and not obviously designed by scribes in the second. Yet within the Nash-Williams Group II monuments we find a body of inscriptions that employs a system of mixed-alphabet two-line layouts; it is non-scribal, and it is peculiar to Britain.

To use a different range of comparanda for early British epigraphic lettering and to shift the emphasis from comparison with high-grade manuscripts of Christian texts to comparison with common writing preserved on tablets – in sgraffito, minuscule marginalia and dry-point glosses – should make better sense of its unusual evolution. It will also release its chronology from strict reliance on its degree of emulation of canonical scripts, thus encouraging a reconsideration of what style of writing, and memorialising, had been created by the British before they evangelised in Ireland in the fifth and sixth century. Palaeography, epigraphy and calligraphy can be made to work together to this end.

¹⁰⁴ R. Ó Floinn, ‘Patrons and Politics: Art, Artefact and Methodology’, in Redknap *et al.*, eds., *Pattern and Purpose*, pp. 1-14; idem, *Irish Shrines and Reliquaries of the Middle Ages* (Dublin, 1994).

¹⁰⁵ K. R. Dark, ‘Epigraphic, Art-Historical and Historical Approaches to the Chronology of Class I Inscribed Stones’, in N. Edwards and A. Lane, eds., *The Early Church in Wales and the West* (Oxford, 1992), p. 51.

¹⁰⁶ *LHEB*, p. 162.

Chapter 2

THE ROMAN SCRIPT SYSTEM IN BRITAIN AND THE NATURE OF ITS LEGACY

This chapter aims to demonstrate the complexity of the Roman script system, to establish that this system in its entirety was in use in Britain during the Roman period, and to examine the informal grades of writing in this system which may have survived there after the Roman withdrawal. Analysis of script forms will be used to examine the possibility that, when Roman letter-forms were transferred to inscriptions on stone in the immediate post-Roman period, the models were not high-grade inscriptional or calligraphic bookhand letters, but less formal letters which may have been written quite freely by those Romano-British, like Patrick himself, who had a working knowledge of Latin. As we have no identifiable manuscripts that were produced in Britain during the late Roman and post-Roman period, the epigraphic material that does survive is difficult to connect with lettering that has inherited anything from high-quality Roman models. ILLUS. 2:1 shows a table of scripts, written by Hans Meyer, which is used to illustrate the more important hands.¹

Roman hands in circulation throughout the Roman world

First-century Roman square capitals or *Quadrata* (ILLUS. 2:1B) were written with a broad-edged reed or quill held nearly parallel to the writing line; this was an instrument which could only be used with formal deliberation, and which produced bold, majuscule letters having an O with a vertical axis. Its downstrokes have maximum thickness in bold contrast to its horizontals, which are thin. As this instrument could not be used on stone, the lapidary square capitals (ILLUS. 2:1A), on a larger scale, were written with a brush.² At the bottom of the hierarchy of scripts was a rapidly-written cursive of almost total illegibility to modern-day readers on account of its eccentric ligaturing (ILLUS. 2:2).

At the same time, for less formal writing, a majuscule *Old Roman Cursive* (ILLUS. 2:1C) evolved from the *Quadrata* to facilitate quicker writing: this was written with a narrower, or pointed, reed that encouraged ligaturing and reduced the contrast of thick and thin strokes. By the second century, ascenders and descenders had distinguished the Old

¹ Meyer, *Schriftentwicklung*, pp. 11-12.

² G. C. Susini, *Il lapicida romano: introduzione all' epigrafia latina* (Bologna, 1966); English translation, *The Roman Stonecutter: an introduction to Latin epigraphy*, transl. A. M. Dabrowski, ed. E. Badian (Oxford, 1973), p. 31.

Roman Cursive yet further from the original *Quadrata* model. Out of the majuscule cursive came a minuscule form called *New Roman Cursive* (ILLUS 2:1D).

Fourth-century square capitals evolved into two fifth-century book-script hands: Rustic (ILLUS. 2:1E) and Roman Uncial (ILLUS. 2:1F). Rustic capitals, formal in comparison to *ORC* and *NRC*, had the same aim as these cursive hands, to increase speed of writing: but this they achieved by altering their broad pen-angle from the flat pen-hold of *Quadrata*, to *c.* sixty degrees; this slanted pen-hold gives a page of Rustic capitals its distinctive cast of thin downstrokes, broad horizontals, and an O with its axis off the vertical. Roman uncial capitals are more formal and widely spaced, with a pen-angle of about twenty degrees. Their offshoot lower-case hand, fifth-century Roman half-uncial (ILLUS. 2:1G), with its flattish broad-edge pen-hold, makes formal and inflected the minuscule that had originally been cursive and uninflected, giving it a stateliness that is as impressive as that of the first-century square capitals or *Quadrata*.

If major importation of manuscripts began in the fifth century, then the first Christian manuscripts to come into the British Isles may have been written in uncials (ILLUS 2:1F) – which do not seem to have found favour – or half-uncials (ILLUS 2:1G), on Continental vellum or papyrus. However, before this, earlier and less formal hands used by the Roman army and its administrators seem to have had an effect on the dissemination of script among those British that became Romanised. The scripts recorded in *The Roman Inscriptions of Britain*,³ by A. K. Bowman in his work on the Vindolanda tablets,⁴ and by R. S. O. Tomlin in his work on the Bath curse tablets⁵ suggest a possible channel by which more informal and cursive hands might have taken root before this type of manuscript – the Christian Gospel or service book – was introduced (ILLUS. 2:2 and 2:3).

Interaction between the Roman army and the native British population, through auxiliary service, trade, and the domestic supplies-cum-servicing of the civilian settlements that gathered around military establishments, is evidenced in these scripts. Excavations at the legionary base of the Second Augusta at Caerleon, Monmouthshire, have provided further evidence; some legionaries here retired from the army and remained in Wales, having settled

³ R. G. Collingwood and R. P. Wright, *The Roman Inscriptions of Britain* (Oxford, 1965).

⁴ A. K. Bowman, *Life and Letters on the Roman Frontier* (London, 1994).

⁵ Tomlin, *Tabellae Sulis*.

and married British women.⁶ The effects of the intermarriage of Roman and Briton over three centuries cannot have evaporated in just a few generations. Michael Fulford has written:

Each year the legion [the Second Augusta based at Caerleon] discharged two hundred or so veterans ... too little account has been given to the steady stream of veterans released from the army. Along with his savings, each soldier received land and/or a donative of 3000 *denarii* on retirement ... In general we can be sure that ... the proportion of veterans settling in Britain would have increased.⁷

At Caerleon, the tombstone of a retired veteran, the centenarian Julius Valens,⁸ was used by A. R. Burn as an example to illustrate the attractiveness of legionary bases like Caerleon, York and Chester to retired soldiers:

Inscriptions from all three show us discharged soldiers settling down close to the barracks in which they had served rather than returning to a home they had not seen for twenty years. Even soldiers who were still serving often married and had children, though the marriages of serving soldiers were not officially recognised until the time of Severus. Even after that time women were not permitted within the sacred precincts of the camp, and had to live outside. Thus the legionary fortress became the nucleus of a town, with a population of discharged soldiers and their families, soldiers' wives, children and slaves, and numerous traders and other civilians serving the forces.⁹

The discovery of an early-second-century Roman will from a high moorland farm near the fort of Tomen-y-mur in north Wales indicates that veterans did not only settle in the rich farmlands of the south.¹⁰ In a direct line of inheritance, examples of Roman lettering on

⁶ See, for instance, *RIB* nos. 359, 360, 363.

⁷ M. G. Fulford, *The Second Augustan Legion in the West of Britain* (Cardiff, 1996), p. 9.

⁸ *RIB* no. 363.

⁹ A. R. Burn, *The Romans in Britain: An Anthology of Inscriptions* (Oxford, 1969), pp. 59-60.

¹⁰ R. S. O. Tomlin, 'A Roman will from north Wales', *Archaeologia Cambrensis* 150 (2001), pp. 143-56.

military diplomata, portabilia, personal jewellery and inscribed military gear would have been in circulation as models of applied lettering on metal. They show that artificers adapted letter-form to suit their tools and materials, producing letter-forms that are at a remove from handwriting. The Roman road system with its prominent milestones would have continued in use, the milestone pillars also providing a model of sorts for memorials. In southern Wales, in the more Romanised territory of the Silures and the Demetae, the inscriptional lettering of these milestones was not of a high standard, and they may have provided a low-grade model for post-Roman practice (ILLUS. 2:4).¹¹

Compression of curves, the flattening of arcs, and the eventual angularisation of forms that in calligraphy were curvilinear, are to be seen in Roman inscriptions in Britain from the second century. An early-second-century limestone altar from York,¹² presumably by a military mason of the Ninth Hispana legion, shows clear incised upper and lower rules for the main inscription in a tall Rustic-style capital, but with a possibly postscript addition in smaller, sparer capitals that use the double vertical cursive form of E and bar-less A. Unlike the main inscription, where the letters are inflected, the lower-grade 'footnote', though between rules, is monoline with no inflections; we also find such lower-grade monoline inscriptions by masons on works near legionary bases like Caerleon.¹³ In Wales and on the borders, where we have many examples of the tall Rustic capital being used at Caerleon and Chester, we see that the compression encourages the ligaturing of letters, and the cutting of the O as a lentoid or lozenge shape (ILLUS. 2:5).¹⁴ This simplification of letter-form is to be seen also in metal objects, portabilia like votives and *defixiones*, that have survived at Romano-British temple sites. Discussed in detail in Chapter 6, the conversion from a curvilinear uncial letter-form to an angular approximation is very clear in those early Christian objects that show the Greek symbols for alpha and omega.

The important excavations of Philip Barker and Graham Webster at Wroxeter have revealed the existence of a first-century legionary base superseded by a town during the second to fourth centuries, with, surviving into the fifth century, a possible 'town centre' having post-Roman timber buildings which replicated, Barker suggested, essentially classical

¹¹ See, for instance, *RIB* nos. 2253, 2255.

¹² *RIB* no. 395.

¹³ See, for instance, *RIB* nos. 358, 374, 395.

¹⁴ *RIB* nos. 334, 482.

models.¹⁵ The subsequent geophysical survey of the 180-acre site on the banks of the Severn, once the fourth largest Roman town after London, Corinium Dobunorum (Cirencester) and Verulamium (St Albans), has caused a revision of the theory to explain why the site was half empty. It had been thought that the planning of the town had been too ambitious, and that there was at Wroxeter active British resistance to Roman culture. On the contrary, the site has now been shown to include artisans' houses, tanneries, workshops and a cattle market; it appears that the town's industry was based round cattle-slaughtering, tanning, and the by-product crafting of bones.¹⁶ In the second century Wroxeter was a town of more than 5,000 people, supported by native settlements outside its walls that used Roman artefacts; mercantile and military interaction between native and Roman must have included written records and communications from the outset. From Wroxeter comes a late-fifth-century debased Roman-letter memorial (ILLUS. 2:6) to an Irishman, CUNORIX MAQUI COLINE, described as a possible *foederatus* by Wright and Jackson but perhaps instead a merchant: for the Severn provided a major trading route, described by Gildas as 'a splendid river' and once 'an arm of the sea along which luxuries used to be brought by ship'.¹⁷

If it was the case that the British first practically encountered and adapted Roman script in the form of the heavily-inflected uncials or half-uncials of fourth- or fifth-century Christian manuscripts (ILLUS. 2:1F and G), then the writing instrument that they would first have used, and become familiar with, would have been a broad-edged pen. In writing uncials the most comfortable writing angle for this instrument would have been a flat pen-hold, which inhibits the use of the pen for fast writing. Yet our earliest epigraphic evidence suggests that the British were familiar with uninflected cursive writing and ligaturing by the time they set about developing their own version of Continental half-uncial in the sixth century; in other words they were already familiar with the stylus as a writing instrument, and the wax tablet as a writing support. The memorial to Cunorix at Wroxeter uses debased capitals with the N and A showing cursive traits, traits which are to be seen in Nash-Williams's Group I stones of the

¹⁵ P. Barker, *The Baths Basilica at Wroxeter* (London, 1997); G. Webster, *The Legionary Fortress at Wroxeter* (London, 2002); C. Thomas, *Christianity in Roman Britain* (London, 1981), p. 154.

¹⁶ A. David, *Report on the Wroxeter Hinterland Project* (English Heritage, forthcoming).

¹⁷ R. P. Wright and K. H. Jackson, 'A late inscription from Wroxeter', *The Antiquaries' Journal* 48 (1968), pp. 295-300; M. Winterbottom, *Gildas: The Ruin of Britain and other documents* (London, 1978), p. 16.

fifth to the seventh centuries. Failure to comprehend this lost facet of informal British script development prevents an understanding of Britain's earliest epigraphy. Attempts to replicate large letters on undressed stone have shown that the tools and paint with which this could have been carried out were incapable of providing anything resembling formal pen letters, with a line that could inflect from thin to thick. (See Appendix 1 no.1.)¹⁸

The early Christian inscriptions of Wales in the fifth to the eighth centuries preserve historic letter-forms that should give us valuable evidence for a period from which we have no Welsh manuscript survivors, but this evidence has been most difficult to analyse. The concept of cut V-section display lettering for grand formal use, to which early British Christians must have been accustomed on Roman buildings and memorials, is quite alien to these inscriptions: they do not adapt a version of Roman monumental letter-form, but rather use a curious combination and adaptation of more informal alphabets. It is clear that the craft skills of the Roman stone-cutter, and more specifically the allied skills of the smith in repeatedly tempering and mechanically sharpening the broad edge of his lettering chisels, ceased with their departure from Wales with the Roman army. The method of tempering fire-sharpened lettering chisels did not change until the popularisation of tungsten-tips in the nineteen-sixties, when it was all but abandoned.¹⁹ It may be that much of the lettering of post-Roman memorials was carried out in reduced circumstances, where in many cases one man alone travelled to an isolated site to work on one stone. With no workshop or smith to fire-sharpen chisels, such a workman would utilise an effective method of marking the stone using the instruments that he carried himself, used as punches rather than edged chisels.

Even before the Roman withdrawal, building-stones showed poor-quality lettering, as for example in the sandstone dedication slab from Ravenscar, Yorkshire, dateable to c. 400,²⁰ or in the so-called 'quarry inscriptions'.²¹ Here we find a relapse by military masons into informal and do-it-yourself methods of pock-marking letters on stone, utilising allied craft

¹⁸ G. Charles-Edwards, 'The Epigraphy of Wales, 500-1000, examined in a wider Insular context: the interchange between written and inscribed letters' (unpublished M. Phil thesis, University of Wales, Newport, 2000), pp. 20-49.

¹⁹ When the lighthouse foundation at Skerryvore, near Tiree, was being excavated into the skerry bedrock in 1839, a smith was installed on the rock, with a permanently fired hearth, to fire-sharpen chisels that were blunting after a few strokes in the Lewissian gneiss.

²⁰ *RIB* no. 721.

²¹ *RIB* nos. 1946-1952.

skills in the absence of a letter-cutter in stone or a blacksmith, with specialised skills in sharpening edged chisels. We might speculate that these allied crafts came in any case from metalworking. Repeated striking of a point or punch to recess an area is a very different method, producing a much rougher finish, from that used by the trained letter-cutter, who makes a V-section inflected line with an edged chisel. *RIB* describes inscriptions in metal, made by the repeated punching of dots to form a simple linear letter-shape, as ‘graffito in punched dots’.²² But the same technique could be used to outline a letter and produce a more formal effect. For example, an ambitious inscription, with a **Chi-rho** and **alpha** and **omega**, on a silver flask from the Traprain Law treasure in East Lothian, is described as ‘capitals formed by double lines of punched dots’.²³ This simple repetitive technique would naturally be used by any metal worker who was accustomed to working in *repoussé*, to form raised areas in decorative patterning, or in beating out vessels from the flat sheet (ILLUS. 2:7).

A more specialised technique of the metalworker lay in engraving with a graving tool, with which he could incise linear pattern or figurative work. In contrast to the relatively simple system of punching dots, in which the punch was held vertically, and the head was struck with a mallet, the graving tool requires a great deal more skill. The graver, in the present day having a wooden ‘mushroom’ end to protect the palm, is held at an acute angle to the piece and pushed into the metal with some force by hand. In lettering long straight strokes it is easy to overshoot the intended bounds of the letter-form, and so as to restrict the stroke to its proper bounds, strong ‘stops’ analogous to the serif of the scribe, but constructed quite differently and for a different reason, were cut in at the top and bottom of the long straight stroke before it was made. As some of the *RIB* inscriptions on metal are complex and entwined with patterns, we must assume that the engraver, like the ordinator on stone, laid out the lettering and decoration he was to engrave with an erasable marker on the metal, before beginning to cut. We see the technique very clearly in the military diplomata,²⁴ as in the example from Stannington, Yorkshire (ILLUS. 2:8), where the graver’s ‘stops’ or horizontal bars, increasing in width as the sharpened edge is pushed down into the metal, have the same appearance as cuneiform wedges. A more lightly cut downstroke, pushed parallel to the workpiece, joins the horizontal ‘stops’. ILLUS. 5:7 and 5:9 show the graver angle 1, acute,

²² See, for instance, *RIB* nos. 2414.15, 2414.38, 2415.4, 2415.27 and 2425.2.

²³ *RIB* no. 2414.20.

²⁴ *RIB* no. 2401.6.

and 2, almost flat.

The same danger, of overshooting the intended cut, was present for the craftsman who cut letters or symbols in wood, but it was further complicated by the ease with which the structure of that material reacted to a V incision, by ripping along the grain. In the cutting of wood we find that the 'stops' are more emphatic. In the crude reference numbers illustrated in *RIB*, which were cut by carpenters into building beams, the carpenter has made a horizontal cut into the wood at the top and bottom of the stroke before taking out the straight downstroke that links them with a rough V section. He made first a right and then a left 45-degree angled cut, as in chip-carving (ILLUS. 2:9),²⁵ but smaller, sharp-ended marks could have been made with a U- or V-section gouge.²⁶ So, when we analyse epigraphic letter-form, it should be taken into account that, though the original model alphabet may have been written with a broad-edged pen, or with a stylus, further differences of letter-form are introduced by the type of craftsman creating the inscription, whose knowledge may not be of stoneworking, but of working in wood or metal.²⁷

The variety of letter-forms found in low- to middle-grade Roman inscriptions in Britain contains unusual letter shapes that have been little studied, particularly in the more coarsely cut and laid-out building stones, quarry inscriptions, tablets and altars of amateur standards of production. This variety is found throughout Roman Britain, as, for example, in the rough inscriptions of the Second Augusta Legion and of the Twentieth Valeria Victrix, both of which legions had strong bases in Wales, and also served, sometimes alongside one another, on the construction of Hadrian's Wall. These rough inscriptions include some that record interaction between Roman and Celt on the renovation of the Wall. The tribes involved were the Durotriges, whose building stone reads: 'The canton of the Durotriges of Lendinae (built this)', and the Catuvellauni: 'From the tribe of the Catuvellauni Tossodio (built this)'; the

²⁵ *RIB* no. 2444.18.

²⁶ See, for instance, *RIB* nos. 2444.6 and 2444.8.

²⁷ In Chapter 3, ILLUS. 3:6, a categorisation of inscribed letter-form is made according to its line endings (as if they were strap-endings), as one of the major determinants of the appearance of a letter is the approach stroke into the head of the downstroke. In Insular manuscript half-uncial this evolved into the distinctive triangular wedge-shaped serif. But symmetrical serifs are not a refinement found in the decayed late-Roman inscriptions, nor in the inscriptions of the post-Roman period.

latter is a stone dateable to AD 369.²⁸

Late-Roman to post-Roman

Charles Thomas has written about the overlap of late-Roman and post-Roman inscriptional practice, with particular emphasis on Maryport, Cumbria (which had a rare inscribed Constantinian **Chi-rho**, now lost²⁹), and its possible influence on the inscribed monuments of Kirkmadrine and Whithorn, which were in view across the Solway Firth.³⁰

Charles Thomas's understanding, like Nash-Williams's, is that the change from simple debased Roman capitals, such as we see in the Kirkmadrine stones of c. AD 500, to more ambitious inscriptions with angle-bar A, lozenge O and fish-tail serifs, is explained by a cessation of Romano-British commemoration and the fresh introduction of Gaulish practices. However, as it is clear that these so-called 'Gaulish' practices existed in Britain during the Roman period itself, there is no need to envisage, as Nash-Williams did, a hiatus during which either Christianity or the epigraphic habit died out. Mark Handley has made this point, by including Britain in a widespread Late Antique general decline in memorial production, and further suggests that the beginnings of Romano-British Christian commemoration could be pushed back to c. 350. He is convinced of a coincidence of Roman and Romano-British Christian commemoration at this time.³¹

Angle-bar A is outstanding, and is taken as a diagnostic letter, among the supposedly alien 'Gaulish' letters in early medieval inscriptions. Greek angle-bar A occurs among other kinds of A in a Greek inscription from Chester,³² and is used there also for Latin inscriptions.³³ Further north it appears, for example, at Ilkley,³⁴ on a building stone from Hadrian's Wall, of

²⁸ *RIB* nos. 1672: *c(ivitas) Dur(o)tr(i)g(um)/ [L]endin(i)e(n)sis*, and 1962: *civitate Cat/uuellaun/orum Toss/[o]dio*.

²⁹ *RIB* no. 856.

³⁰ C. Thomas, *Whithorn's Christian Beginnings: First Whithorn Lecture* (Whithorn, 1992).

³¹ Handley, 'The origins of Christian commemoration'.

³² *RIB* no. 461.

³³ *RIB* no. 497.

³⁴ *RIB* no. 639.

the early second century,³⁵ and, further north again, on middle-grade commemorative tablets from the Antonine Wall, of the mid-second-century.³⁶ But there are many more of what we might call prototype forms of angle-bar A. It is seen frequently in the sgraffito inscriptions on *terra sigillata*, of which 822 out of 879 surviving examples are indications of ownership.³⁷ It is possible to see how it evolved as an alternative A form, as the letter exists in *RIB* in a variety of guises (ILLUS. 2:10). On rough stone, and being inscribed roughly, the Rustic-proportioned tall A was often left – like its manuscript model – with no bar at all, as, in adding one, it is easy to spoil the letter and create a pit by accident. An interesting solution to the possible difficulties of reading the barless A, especially in conjunction with V and M, was to tap in a distinguishing notch at the base of the letter, between its downstrokes. This creates a lozenge-shaped blank (ILLUS 2:10B and C).³⁸ In another, larger variation of this distinguishing mark, a stroke was added to the left diagonal.³⁹ The notched-base A was used not only on rough building-stones, but also on four dressed-stone altars.⁴⁰ At Maryport itself we find the notched-base Rustic A on a lavishly decorated altar, a manuscript Greek A on a Greek dedication slab and many narrow, bar-less As of Rustic proportions.⁴¹ The finely-cut Constantinian Chi-rho is on a sepulchral plaque.⁴² Here at Maryport, also, possible post-Roman use of the phrase *vixit annos* is seen in debased capitals.⁴³ The lozenge O, its construction often associated with angle-bar A, occurs on two examples from Hadrian's Wall, both of which are building stones.⁴⁴ There is no reason, therefore, to associate these letters with post-Roman Gaulish introductions, and the prevalence of Greek and of rapidly-written

³⁵ *RIB* no. 1847.

³⁶ See, for instance, *RIB* nos. 2197, 2198, 2199, 2206 and 2208.

³⁷ *RIB* Vol. II, fascicule 7, p. 7.

³⁸ See, for instance, *RIB* nos. 998, 1010, 1556, 1565, 1570, 1653, 1656, 1664, 1859, 1868, 1034 and 2001.

³⁹ See, for instance, *RIB* nos. 1062 and 2029.

⁴⁰ *RIB* nos. 1329, 1776, 1874 and 2118.

⁴¹ *RIB* nos. 216 and 808.

⁴² *RIB* no. 856.

⁴³ *RIB* no. 862 and 863.

⁴⁴ *RIB* nos. 1360 and 1930.

letters like Rustic capitals had evidently influenced epigraphy in Britain before the end of the Roman period. Why then should it be necessary to search for imported bookscript models for fifth- and sixth-century Insular letter-cutting, when the earliest post-Roman epigraphy appears to be continuing in the same vein?

Writing of early Christian inscriptions in general, Petrucci sees the abandonment of classical models for monumental inscriptions as a deliberate choice, with the purpose of establishing a new non-classical style of alphabet in 'a new and extremely lively complex of signs ... deliberately laid out in a chaotic fashion'.⁴⁵ But, independently of the Christian tradition, and during the late empire, extraordinary choices were being made by letter-cutters who cut formal inscriptions using a mixture of alphabets. Comparison of some of these may clarify the curiously informal, if not absolutely chaotic, design options that were chosen by the makers of Group I inscriptions in Wales and in the south west of Britain. The abandonment of classical letter-cutting in Roman capitals happened all over the empire, even in Rome itself, where, on early Christian inscriptions, we see cursive features, and line endings that are seemingly borrowed from metalwork. For example, the inscription to Calumniosus of AD 471 (ILLUS. 2:11)⁴⁶ shows the almost complete discarding of the classical carved serif; what we see instead is a cruder and simpler two-stroke fishtail. Much stranger local retrogressions in letter-cutting took place earlier in Greece. For example, on the Preamble to Diocletian's Edict on Prices of AD 301 from Platea (ILLUS. 2:12), we see, not monumental lettering, but a documentary hand on stone. Mallon and Marichal, the French palaeographers, and Hans Meyer, the German scribe and lettering historian, have lamented the inhibiting effects of specialisation, and of a general fixation on high-grade scripts that neglects the merely documentary, such as that which we see in the Platea inscription.⁴⁷ Earlier than those of the Welsh Group I monuments but clearly an ancestor of them, the Preamble is an inscription on marble, 1.3 m. by 0.8 m., about 4 ft 4 in by 2 ft 7 in.⁴⁸ There is a significant overall cast to the letter-strokes on this monument given by the minuscule ss. In an important article, Robert

⁴⁵ A. Petrucci, *Writing the Dead. Death and Writing Strategies in the Western Tradition* (Stanford, 1998), p. 26.

⁴⁶ Gordon, *IILE*, no. 99.

⁴⁷ J. Mallon, *Paléographie romaine* (Madrid, 1952), pp. 58-60; R. Marichal, *Les graffites de La Graufesenque* (Paris, 1988), p. vii; J. Mallon, R. Marichal and C. Perrat, *L'écriture latine de la capitale romaine à la minuscule* (Paris, 1939); Meyer, *Schriftentwicklung*.

⁴⁸ Gordon, *IILE*, no. 81.

Marichal has argued convincingly that the model for this cut form was written on papyrus in a hand reflecting the style of the Imperial Chancery at that time.⁴⁹ He stresses the importance, as a graphic model available to the provincial scribe, of Imperial rescripts: the responses sent out to provinces in answer to pleas.

Although none has survived, a complete dearth of Imperial or Papal models of current documentary writing in Britain during the period c. 400-600 is very unlikely. From the writings of Patrick in the fifth century, and of Gildas in the first half of the sixth, we know that the ability to compose complex texts in Latin was not lost in Britain; the ability to write in some kind of formal hand still existed in 446 when a written plea was sent from the Britons to Aetius. This is quoted by Gildas.⁵⁰ Especially after the Roman empire began to fall apart economically, inscriptional lettering in the provinces developed its own 'national' characteristics dependent on current models and adaptation to local circumstances. The Platea inscription, from the beginning of the fourth century, suggests that some inscriptional letter-cutters in these provinces were already taking an independent non-classical line. Abandoning capitals, they have dropped down a grade or two in the hierarchy of written scripts, from formal inscribed letters to informal written ones, and are comfortable with mixing alphabets. Because of the presence of mixed alphabets, the present-day epigrapher needs a precise system of script identification. The importance of precise palaeographical terminology, and a method by which majuscule and minuscule letters may be distinguished from one another, is crucial, when much of our evidence is presented in a non-standardised fashion, and many inscriptions, now lost, have to be analysed from antiquarian drawings of varying quality.

Assessing the influence of written models on letter-cutting in Group I

We have mixed alphabets in the Ogham / Latin inscriptions of Group I, and we also have a confusion about them, created by the vague palaeographical terminology of Nash-Williams and Jackson. Despite or because of their graphic simplicity, philology, more than palaeography and epigraphy, has played a large part in their assessment. Indeed, the inter-relationship of Nash-Williams's palaeographical judgements with the philological judgements of Jackson has created an illusion of firm chronology which is less solid than it seems.

⁴⁹ R. Marichal, 'L'écriture latine de la chancellerie impériale', *Aegyptus* 32 (1952), pp. 336-350.

⁵⁰ M. Winterbottom, *Gildas: The Ruin of Britain and other documents* (London, 1978), p. 23, Section 20.

An example of the kind of confusion thus created is to be found in a grouping of three stones in from Llandeilo and Maenclochog in Pembrokeshire which seem to give a remarkable example of a three-generational sequence (ILLUS. 2:13). They appear to record one *Cavetus*, his sons *Coimagnus* and *Andagellus*, and his grandson *Curcagnus*.⁵¹ Philologists have doubted this identification, on account of Kenneth Jackson's conviction that the son of Andagellus named on no. 345 could not be the son of the Andagellus named on no. 313. His reason was that no. 313 is cut with an angle-bar A and the inscription for his supposed son Curcagnus is not. Apart from this difference the inscriptions are similar in alphabetical style. Influenced by Nash-Williams, Jackson believed that the angle-bar A was an introduction from Gaul that could only have been cut fifty years after the debased Roman A with a straight bar. But, as we have seen above, angle-bar A had been used in Britain during the Roman period. We see from the Water Newton hoard, which includes silver leaf-shaped votive plaques, that the Greek alpha, in conjunction with an omega, was used in Roman Britain in the Greek angle-bar fashion.⁵² The letter-form is convenient for engravers and letter-cutters, as it avoids the danger of accidentally lifting out the surface area held within the acute-angled top of the A (ILLUS. 2:14). It seems to have survived in epigraphic use in eastern Gaul, as, from the early sixth century, inscriptional lozenge O was used there with angle-bar A.⁵³ Three other Ogham / Latin memorials in south-west Wales, *ECMW* nos. 160, 346 and 352 (now lost), use a Greek sigma, so that, clearly, there was familiarity with Greek letters other than simply alpha and omega. There is no technical difficulty with the use of Greek angle-bar A in fifth- and sixth-century Wales, as a survival from the Roman period.

It is important, then, to acknowledge that Group I mixed-alphabet compositions like those of the 'family group' discussed above do not emanate from a scriptorium but rather show the influence of a discernible Roman tradition of applied letter-form and the survival of an absolutely minimal form of 'common writing'. The danger of assuming that epigraphic practice must reflect a pre-existing scriptorium practice has been emphasised by Mark Handley in the case of the angular Luxeuil-style decorative capitals found, for instance, in BN MS. lat. 9427, which include angle-bar A and lozenge O: 'it should be clear, then, that the script that

⁵¹ *ECMW* nos. 313, 314 and 345.

⁵² *RIB* nos. 2431.1-11.

⁵³ M. A. Handley, *Death, Society and Culture: Inscriptions and Epitaphs in Gaul and Spain, A.D. 300-750* [B.A.R. International Series 1135] (Oxford, 2003), p. 33.

has come to be labelled “Luxeuil decorative capitals” actually pre-dates the evidence for a scriptorium at Luxeuil, and indeed, even the foundation of the monastery.’⁵⁴ Later we shall see that the same imposition of manuscript-based evaluation has distorted understanding of the origins of the Insular geometric capital alphabet.

The transition from handwritten to cut form, and the accuracy of recording

Until recently, a major difficulty has hampered the analysis and identification of problematical letter-forms, whether Roman or early Christian: the accuracy of their recording. The various corpora have published drawings from rubbings, sketches and photographs, and some of these subjective methods have produced dubious, or imprecise, results. Modern high-quality photography is causing us to question the precision of judgement of those who made illustrations for the earlier epigraphic corpora of the British Isles, using exclusively rubbings and drawings made on site. An example might be made of a photograph by Mick Sharp of the *Justinus* inscription at Penmachno, Caernarfonshire (ILLUS. 2:15).⁵⁵ In this photograph we can see the nature of the left and right strokes of the boxed O in line 3, written fluently with a very steep Rustic-style hold on the writing instrument, which has given the angled axis to the letter, rather than the vertical axis of formal monumental letters. The stroke sequences of the C and the S are also clear. In the finish of the horizontal stroke to the T in line 2 we can see that the cutter has followed the tailing-away of the stroke precisely. In other words, this is not a crudely-written inscription; it is written freely, and with little concern for a regular layout, but the letter-forms are written by a letterer who is confident and competent. This is not clear either from Nash-Williams’s photograph or from his figure. Rather than ‘debased’ monumental capitals, we should think of them as cursive written capitals of the order used by military scribes for headings, which have been upgraded and scaled up. Rather than calligraphy, with elaborate line endings, this is notational writing on a large scale.

Arising out of the same variety of methods in recording, we can also see that two scholars like Macalister and Nash-Williams could present different versions of the same inscription. This occurred in the case of the bilingual Ogham / Latin inscription to

⁵⁴ *Ibid.*

⁵⁵ *ECMW* no. 104, fig. 184 and pl. VIII; photograph by Mick Sharp, pl. 14, in C. J. Arnold and J. L. Davies, *Roman and Early Medieval Wales* (Stroud, 2000).

Trenegussus at Cilgerran, Pembrokeshire (ILLUS. 2:16).⁵⁶ This illustrates the dangers of approaching an inscription of this kind with too narrow a conception of its script varieties. *ECMW* describes the inscription as ‘mixed Roman capitals and half-uncials’, classifying the S, T and H as half-uncial while the S and H are angular minuscules, and the T has a non-half-uncial horizontal foot in the manner of a Rustic capital. Macalister noted the foot on the opening T, and in his drawing treats the U, N, T and C as boxed in the manner of the later scribal geometric capitals. This inscription, pre-600, is a reminder that Latin-using Irish and Welsh craftsmen in Wales were mixing minuscules and cursive capitals, without serifs, in their monumental inscriptions of the sixth century, if not of the fifth.

Ogham inscriptions in Wales

The following select list gives those Ogham inscriptions in Wales, contemporary with *ECMW* Group I Latin inscriptions, which show transitional features such as debased capitals and mixed-alphabet forms. There are also a few Ogham-only inscriptions in Wales, which may predate the Ogham / Latin inscriptions, and are of tremendous palaeographical importance. The bilingual inscriptions give evidence of fifth- and sixth-century Ogham-using Irish speakers using Latin and capital and minuscule scripts, but until recently these have been of more interest to philologists. Of the twenty-two Ogham / Latin survivors, eight show a breaking-away from classical habits of layout and letter proportion, and use non-Roman or minuscule letters. The majority of these inscriptions are in Pembrokeshire and Breconshire, heartlands of the post-Roman Irish settlements in Wales.

Ogham-only inscriptions

- | | | |
|----|---------------------|------------------------------------|
| 1. | <i>ECMW</i> no. 74 | Ystradfellte, Breconshire |
| 2. | <i>ECMW</i> no. 110 | Llanarth, Cardiganshire (possible) |
| 3. | <i>ECMW</i> no. 150 | Llandawke, Carmarthenshire |
| 4. | <i>ECMW</i> no. 301 | Caldey, Pembrokeshire |

⁵⁶ *CIIC* no. 428, *ECMW* no. 305.

Ogham / Latin inscriptions with debased Roman capitals

1. *ECMW* no. 42 Crai, Breconshire
2. *ECMW* no. 43 Crickhowell, Breconshire
3. *ECMW* no. 71 Trecastle, Breconshire
4. *ECMW* no. 127 Rhuddlan, Cardiganshire
5. *ECMW* no. 138 Eglwys Gymyn, Carmarthenshire
6. *ECMW* no. 160 Llangeler, Carmarthenshire
7. *ECMW* no. 169 Llanwinio, Carmarthenshire
8. *ECMW* no. 176 Clocaenog, Denbighshire
9. *ECMW* no. 198 Kenfig, Glamorgan
10. *ECMW* no. 307 Clydai, Pembrokeshire
11. *ECMW* no. 313 Llandeilo, Pembrokeshire
12. *ECMW* no. 353 Mathry, Pembrokeshire
13. *ECMW* no. 354 Nevern, Pembrokeshire
14. *ECMW* no. 384 St Dogmaels, Pembrokeshire

Ogham / Latin inscriptions with debased Roman capitals and some mixed-alphabet letters

1. *ECMW* no. 70 Trallwng, Breconshire
2. *ECMW* no. 84 Bryncir, Caernarfonshire
3. *ECMW* no. 106 Treflys, Caernarfonshire (possible)
4. *ECMW* no. 305 Cilgerran, Pembrokeshire
5. *ECMW* no. 306 Clydai, Pembrokeshire
6. *ECMW* no. 346 Mathry, Pembrokeshire
7. *ECMW* no. 390 St Dogmaels (*recte* St Dogwells), Pembrokeshire
8. *ECMW* no. 404 Steynton, Pembrokeshire

Mixed-alphabet Latin inscriptions

The non-standard letters in the eight Ogham / Latin inscriptions, listed above, which include mixed-alphabet letters, are of great interest. They show the beginnings of a trend that is much clearer in some of those Latin inscriptions in the Roman alphabet only which are also placed in the 400-600 period of his Group I by Nash-Williams. Among these bilingual inscriptions we find the incorporation of a scribal form of f,⁵⁷ an extremely compressed linear form of s,⁵⁸ the use of half-uncial with square minuscule forms, placed in the height of accompanying capitals regardless of whether they have ascenders or descenders,⁵⁹ the use of Greek sigma for S, and the use of angularised manuscript ligatures to compress the FIL of FILI into one character (see ILLUS. 2:13).⁶⁰

When we examine the further intrusion of non-capital forms into the inscriptions of *ECMW* Group I, it is clear that we are seeing a non-classical system of dealing with letter-spacing and placement, but, as I hope to show, it is not chaotic (as Petrucci suggests) but rather has a clear method for the placement of letters with ascenders and descenders in company with capitals. What this system might be based on will be discussed after a listing of mixed-alphabet Group I inscriptions, noting the manner of their placement of letters.

Capital inscriptions of *ECMW* Group I with mixed-alphabet intrusions

1. *ECMW* no. 33. Llantrisant, Anglesey. Horizontal layout.

Cursive, freely drawn. Squared minuscule d and q with ascenders and descenders protruding above or below the rough two-line layout.

2. *ECMW* no. 41. Abercar, Breconshire. Vertical layout.

Completion of capital N having the right-hand finish at half the height of stroke one; squared minuscule h, trident-shaped m or M, right-angled ligature of LI.

⁵⁷ *ECMW* no. 70.

⁵⁸ *ECMW* no. 84.

⁵⁹ *ECMW* no. 305.

⁶⁰ *ECMW* no. 306.

3. *ECMW* no. 54. Llanfihangel-Cwmdu, Breconshire. Vertical layout.

Angle-bar A with forked serifs at the top, square T, C, half-uncial g in the height preceding capital E, F with round, script-type entry stroke, square minuscule h in the height of the preceding capital S, R with horizontal finish to the second stroke, N with diagonal link at the mid-point of the downstrokes.

4. *ECMW* no. 68. Scethrog, Breconshire. Vertical layout.

Cursive, freely drawn. One minuscule right-angled s, fish-tail entry into manuscript-type ligature of fi. The N has a crossbar with a diagonal linking at the mid-point of the second vertical, thus reducing the angle and avoiding a pointed finish. Fish-tail entry also into R.

5. *ECMW* no. 76. Ystradgynlais, Breconshire. Vertical layout.

One intrusive letter, square-footed angular T, half the size of the preceding C.

6. *ECMW* no. 95. Llannor, Caernarfonshire. Vertical layout.

Square minuscule f and h.

7. *ECMW* no. 105. Penmorfa, Caernarfonshire. Vertical layout.

Flattened bows in C, ligatured Fi, with the i in half the height of the F, ligatured NA with the diagonal commencing half-way down the first vertical. Squared minuscule b followed by an uncial E.

8. *ECMW* no. 115. Llanddewi Brefi, Cardiganshire. Vertical layout.

Cursive, minuscule right-angled s, ligature LA, curvilinear double-looped M or m.

9. *ECMW* no. 121. Llandysul, Cardiganshire. Vertical layout.

Ligatured FI, horizontal finish on stroke two of R, squared minuscule h lying within the letter height of the O.

10. *ECMW* no. 132. Tregaron, Cardiganshire. Vertical layout.

Ligature of square-footed T with an uncial E in half the height of the preceding capital.

11. *ECMW* no. 140. Cynwyl Gaeo, Carmarthenshire. Vertical layout.

Angle-bar A, minuscule q with squared bowl lying within the height of the capitals. Flattening of curves.

12. *ECMW* no. 141. Cynwyl Gaeo, Carmarthenshire. Vertical layout.

Minuscule s, angled, possible minuscule g within the line of capitals, capital N with the diagonal joining high on the second stroke.

13. *ECMW* no. 143. Egremont, Carmarthenshire. Vertical layout.

One terminal right-angled minuscule s.

14. *ECMW* no. 144. Henllan Amgoed, Carmarthenshire. Vertical layout.

Minuscule Q with flattened bowl, angle-bar A, B with two separated squared bows, preceded by an I the height of the lower section of the B, and followed by an angle-bar A occupying the space above it.

15. *ECMW* no. 149. Llanboidy, Carmarthenshire. Vertical layout.

Squared forms. Three-bar M with linking crossbar at top. Angle-bar A, ligature, completely angular, of minuscule h with capital E laid on its side. N with the diagonal link joining at the mid-section of the downstrokes. Ligature of Fi with the i as a minuscule in half the height of the F. Flattened arcs on C. Use of I turned to the horizontal perhaps influencing the turning of the (possibly) horizontal E.

16. *ECMW* no. 170. Merthyr, Carmarthenshire. Vertical layout.

Half-uncial f and l, miniaturised O and flattened arcs on C.

17. *ECMW* no. 184. Caerwys, Flintshire. Vertical layout.

Angle-bar A, half-height O, three-bar M with horizontal link at top.

18. *ECMW* no. 214. Llanilterne, Glamorgan. Vertical layout.

Angle-bar A, minuscule d in the height of the capitals, uncial M, half-uncial g in the height of the capitals, squared forms of T, h and c. Attempt at wedge serif.

19. *ECMW* no. 270. Tirphil, Glamorgan. Vertical layout.

Angular half-uncials or minuscules used in a two-line design, lying within the capital height: squared **g**, **r**, **b**, **a**, **u**, **s**, **m**.

20. *ECMW* no. 279. Llandanwg, Merioneth. Vertical layout.

Squared 9-shaped **Q**, with a flattened and angularised **s**.

21. *ECMW* no. 297. Brawdy, Pembrokeshire. Vertical layout.

Disarticulated **R**, with no contact between the second stroke at the mid-point. Ligatured **MA** followed by a possible half-uncial **g**.

22. *ECMW* no. 299. Brawdy, Pembrokeshire. Vertical layout.

Half-uncial ligatured **Fi** with the **i** in half the height of the **F**. Angle-bar **A**. An **R** that is disarticulated, with a horizontal stroke at the mid-height of the first downstroke.

23. *ECMW* no. 314. Llandeilo, Pembrokeshire. Vertical layout.

Three-bar **M**, with horizontal bar; ligatured **FI** and **LI**. An **N** that has a diagonal linking at the mid-section of the downstrokes.

24. *ECMW* no. 335. Llanychaer, Pembrokeshire. Horizontal layout.

Half-uncial **e** and **m**. (Now lost, recorded by or for Edward Lhuyd in 1698.)

25. *ECMW* no. 345. Maenclochog, Pembrokeshire. Vertical layout.

Sickle **G** in height of preceding capital **A**. Ligatured **Fi** with the **i** in half the height of the preceding **F**.

26. *ECMW* no. 352. Narberth, Pembrokeshire. Vertical layout.

Half-uncial **l**. Uncial **M**, ligatured **Fi**, with the **i** in half the height of the **F**. (Lost, only known from seventeenth- and eighteenth-century sketches.)

The treatment of intrusive letters in these Group I inscriptions: conclusions

In the Group I inscriptions listed above, none of the intrusive letters is clearly modelled on the curvilinear scribal hand, as, rather than the bows of a pen-formed hand, they show a marked angularisation. In ligaturing, as in **FI** and **LI** (the most frequently seen of ligatures on account the common use of **FILI**), we see the habit of (a) reducing the second of the ligatured letters to half size, or (b) placing the letters on different levels to link them. Other angular letters were treated in a similar way. In *ECMW* no. 6 from Llanbabo on Anglesey there is an **ET** ligature of the latter kind, (b). We see the former, (a), used in a boxed form of ampersand, where the **t** following the **e** is half-size, on the post-Roman Mavorius stone at Kirkmadrine near Whithorn.⁶¹ Later converted to manuscript use in display capitals, the boxed **ET** was to be a long-lived graphic device, appearing often in the Book of Kells (see Chapter 9). The system is based on a rectangular **O** (ILLUS. 2:17), divided into quarters, each quarter holding, for example, the letter **p**, **q**, or **h**. For those letters that do not include bowed strokes, for example **m** or **n**, plain vertical strokes are used, connected by a horizontal link, planned on the rectangle used for the letters that include angularised bows. By such a method, minuscule letters are upgraded and included in a two-line capital alphabet.

We might suggest, then, that the initial popularisation of a few angular ligatures encouraged the cloning of a family of angular letter-forms, all of which had the advantage of being ideal for letter-cutters in hard materials. It is important to demonstrate clearly that in the inscriptions of *ECMW* Group I we see protoforms of many of those letters that will reappear, with no palaeographical precedent, in eighth-century Insular display capitals (ILLUS. 2:18). These protoforms are further developed in the Group II inscriptions of the seventh to the ninth centuries. There is a continuum in epigraphy that is not demonstrable in palaeography.

These protoforms are:

A: as in *ECMW* no. 140. Angle-bar **A**, Greek epigraphic form, in Group II inscriptions abandoned for a rectangular-bodied minuscule.

B: as in *ECMW* no. 105, lower bowl only, as a minuscule, with a flat bar projecting to the right at the head of the downstroke.

⁶¹ *ECMS* Kirkmadrine 1.

C: as in *ECMW* no. 54. Capital size, rectangularised, Greek epigraphic form.

D: as in *ECMW* no. 33. Rectangular bowl, half-size in the two-line capital rules.

G: as in *ECMW* no. 214. Flattened curves, **Z**-shape; later manuscript letter removes conflict in epigraphic letters with **Z**-shape **S**.

H: as in *ECMW* no. 41. Boxed and half-size, placed in the two-line rules of capitals.

M: as in *ECMW* no. 314. Three-bar, horizontal linkage.

N: as in *ECMW* no. 141. Two-bar, linked by a diagonal at the mid-section of each downstroke.

P: as in *ECMW* no. 116. Minuscule, boxed, placed in the two-line rules of capitals.

Q: as in *ECMW* no. 144. Minuscule, boxed, placed in the two-line rules of capitals.

R: as in *ECMW* no. 306. Angularised, bowl opened out to roughly half a rectangle, horizontal tail at the mid-point of the writing line.

S: as in *ECMW* no. 270 or 308. Angularised; shape conflicts with the angularised **g**.

T: as in *ECMW* no. 132. Rectangular, with horizontal foot, used in full and half-size.

U: as in *ECMW* no. 305. Rectangular, capital size.

It will be seen that, of the twenty letters in use in the Roman alphabet, fourteen had been angularised in an alternative geometric alphabet used in Wales by c. 600; the six letters which had not been homogenised were **E**, **F**, **I**, **L**, **X** and **O**. The first five of these were letters that presented no difficulty to letter-cutters; the **O** was, as the most tricky of problem letters, dealt with in a variety of ways, most commonly by the squaring of the form, by miniaturisation, or by both methods. In Group II epigraphy, letter-cutting tools and skills

seemed to have improved to the extent that the **O** could be cut in a variety of ways: curvilinear, rectangular or lentoid. The characteristic delight in mixing different forms of the same letter appears to be common to scribes of display letters and letter-cutters in the eighth century.

The way in which these, which we may describe as protoform geometric capitals, were used was distinctive; it depended upon the use of a quarter-size **O**, added to a downstroke, to construct the **Q**, **P**, **B**, and **D** (ILLUS. 2:19), adapted as angular minuscules. These were placed in a two-line design, amongst capitals, i.e. with their ascenders or descenders touching the rule rather than cutting through it; **h** was similarly placed alongside capitals. Compared to classical norms of lettering, this is an odd-looking placement of a four-line letter and a two-line letter together. Yet we shall see in Chapter 10 that this type of eccentric placement of jumbled upper and lower case continued into the more ambitious Group II inscriptions which were manuscript-influenced. Here angle-bar **A** was abandoned in favour of a rectangular-bodied minuscule modelled on the 'flat-topped' **a** that was peculiar to a certain type of Welsh minuscule of the ninth to the eleventh centuries.⁶²

The geometric protoforms of Group I are much cruder than, for example, the letters of the Group II inscription from Caldey Island, Pembrokeshire.⁶³ But this would seem to reflect a level of coarseness and lack of preparation of the stone face in the Group I inscriptions as a whole, apart from those that were re-used Roman pieces. Some of them were executed on surfaces with highly visible geological inclusions which the cutters had to avoid.⁶⁴ On account of the roughness of the surface, finesse in making acute-angled joins or perfect round curves was unachievable in letter-form. What we see emerging, in place of badly-executed curves and acute-angled joints, are forms that avoid such difficulties for the letter-cutter; and this may explain their evolution. The large curves of the capital Roman **O** were avoided both by rectangularisation, and by reduction of those letters that included the right or left bow of the **O** in their construction, to half-size.

⁶² This is to be seen in the hand of the scribe of Codex Cantabrigensis Ff.4.42 (the Juvencus manuscript). On folios 46 and 47, for example, we can see the flat-topped **a** in the hand of the main scribe and also in the hand of the glosses. See H. McKee, ed., *Juvencus: Codex Cantabrigiensis Ff.4.42* (Cambridge, 2000).

⁶³ *ECMW* no. 301.

⁶⁴ See, for instance, *ECMW* no. 115.

Conclusion

The evolution of these forms in Welsh epigraphy accords with the theory of Julian Brown (see Chapter 9), that the source of the display capitals of the great eighth-century Insular Gospels lay in an earlier angular style of epigraphy in wood or stone. Their sudden appearance in eighth-century Insular manuscripts, as a homogeneous, well-designed alphabet, is remarkable, and has given rise to much speculation. Many other suspects, apart from Julian Brown's, have been suggested by scholars from different fields. Until quite recently, the existence of very plausible alternative theories put forward by scholars such as Stanley Morison, Nicolette Grey, Michelle Brown and Peter Meyer has rather obscured the existence of the extensive body of Welsh evidence that accords with Julian Brown's theory. In the following chapters I shall discuss these alternative theories, and the origins and styles of lettering in various media that were extant in post-Roman Britain, in order to evaluate them using the Welsh evidence as comparanda, and to arrive at an informed conclusion.

Chapter 3

EARLY MANUSCRIPTS IN BRITAIN

In this chapter I shall discuss the relationship between inscribed and written letter-forms with particular reference to bookhands. The question which looms largest, and is most perplexing for the post-Roman period, is whether book arts influenced stone-cutters at all. The major difficulty in comparing epigraphic with palaeographical letter-forms is that we have no contemporary Insular manuscript evidence to compare with the inscriptions of *ECMW* Group I. We are limited to speculation based on early Christian bookhands of the Roman world, and on how these might have influenced British scripts, on the presumption that there was a British book trade, however rudimentary. Robin Lane Fox has recently posed some important questions that encourage a re-thinking of the route and quality of the post-Roman importation of writing material into Britain. In particular he questions the point at which Christian manuscripts became ornamented and venerated art objects:

To judge from the very small sample of early Christian papyri, Christians' holy texts rank not as fine scrolls or works of calligraphy but as humdrum books, copied in everyday hands. I conclude, then, that scribes did not command particular respect among Christians because, at first, the oral prevailed over the Christian written.¹

Lane Fox estimates that the production and export of *de luxe* Biblical texts on vellum or parchment from the east did not begin until the end of the third century.² His suggestion that an early type of Biblical text existed that was more workaday and unornamented is a valuable one: we know from the late-sixth-century Ussher I³ and the *Cathach*,⁴ c. 600, that, at the time of their writing, the art of manuscript decoration in the British Isles was still rudimentary, and book production still relatively simple.

¹ R. Lane Fox, 'Literacy and Power in Early Christianity', in A. K. Bowman and G. Woolf, eds., *Literacy and Power in the Ancient World* (Cambridge, 1994), p. 131.

² *Ibid.*, p. 141.

³ TCD MS 55.

⁴ RIA MS 12 R 33.

A major route of importation of half-uncial Biblical texts into Britain must be suggested by the fact that the Irish themselves called the hand *litterae Africanae* and not *Romanae*.⁵ But we should not assume that this was the dominant hand of Christian texts coming into Britain, nor fail to take into account that there may have been a pre-existing and more popular – and less formal – literary cursive among the hands of such texts. A. K. Bowman and G. Woolf suggest that trading links between Northern Europe and Africa via Marseilles and the Rhône valley may account for the early Gallo-Greek ‘extension of Southern writing practices’ into Gaul. They point out that recent finds are revolutionising ideas about the spread of writing in the west:

There is a sub-literary level, relatively poorly represented in our surviving evidence, where the diverse linguistic influences on written (as well as spoken) Latin and Greek can be observed. A century ago it would hardly have been predicted that the areas most productive of evidence for this would turn out to be the edges of the Roman empire, Egypt and Britain, where the handwriting in which Latin texts were written c. AD 100 is strikingly comparable.⁶

That scripts remained mutually comprehensible on the fringes of the empire, even after it began to break up, is shown by the Albertini tablets from late-fifth-century Algeria (ILLUS. 3:1).⁷ Like the Vindolanda tablets, they are written on thin, wooden, postcard-sized slips of wood, and they show that informal cursive Latin scripts maintained standards of practice throughout the Vandal Interregnum. Letter-forms and ligatures remain surprisingly constant: they would have been readable to the writers of the Springmount Bog tablets about a century later. This might suggest conditions and circumstances, after Justinian reclaimed Africa in 533, in which a re-established Carthage / Marseilles import trade could have included a now-lost layer of papyrus pamphlets or codices, written in hands a good deal less formal than half-

⁵ Bischoff, *Latin Palaeography*, p. 76.

⁶ A. K. Bowman and G. Woolf, ‘Literacy and power in the ancient world’, in Bowman and Woolf, eds., *Literacy and Power*, p. 12.

⁷ C. Courtois et al., eds., *Tablettes Albertini, Actes privés de l'époque vandale* (Paris, 1953).

uncial. We know that pottery from Carthage and Byzantium was being imported into Western Britain via coastal trading centres in the sixth century; it travelled through the Straits of Gibraltar and the western seaways off Spain and Portugal.⁸

If the British and Irish first acquired Biblical manuscripts in half-uncial, and if their scribes emulated this hand alone, then we cannot explain the acquisition and survival of a stock of abbreviations from Roman cursive (ILLUS. 3:2). These are not seen in formal half-uncial, and may have been acquired when the Irish learned writing from the British in the fifth century, or earlier, in some form of Roman notational hand. These abbreviations are seen clearly in the hand of the Book of Mulling,⁹ of the second half of the eighth century (ILLUS. 3:3). They are abbreviations that went out of use in Continental cursive but survived in Irish script into the ninth century.¹⁰ Traube speculated that they emanated from south-west Britain, perhaps from Welsh foundations like Llantwit Major and Llancarfan.¹¹ As well as these abbreviations, the first lower-case Roman letters that we see in Irish inscriptions – and in some of the Welsh ones – have been adapted, angularised and simplified. They have the appearance of letters taken out of an originally informal context to be enlarged and adapted for a formal one. Such borrowings within a craft quarter would have been the natural outcome of craftsmen working in different media in close proximity, if not in actual collaboration. As we shall see in Chapter 8 in the case of the Runic alphabet,¹² where it has taken centuries of debate to establish that its origin lies in Latin, out-of-the-ordinary tools and materials could alter a handwritten alphabet almost out of all recognition. They governed the appearance of the epigraphic script.

⁸ K. R. Dark, *Byzantine Pottery* (Stroud, 2001), pp. 89-92; E. Campbell, 'Imports, Trade and Economy', in K. R. Dark, ed., *External Contacts and the Economy of Late Roman and Post Roman Britain* (Woodbridge, 1996), pp. 83-96.

⁹ TCD MS 60.

¹⁰ O'Neill, *The Irish Hand*, p. 16.

¹¹ L. Traube, *Nomina Sacra: Versuch einer Geschichte der Christlichen Kürzung* (Munich, 1907), quoted by Julian Brown in *A Palaeographer's View*, p. 231.

¹² H. Jensen, *Sign, Symbol and Script* (London, 1970), pp.567-79; R. I. Page, *Runes* (London, 1987), pp. 6-13.

Although the cutters were clearly not looking at crisply-chiselled classical models for the letters of the Group I inscriptions, neither can we claim that they were clearly looking at penned bookhands. There was, certainly, a transition from capitals to minuscule, lower-case letters. Unfortunately palaeographical interest in Welsh minuscule in its formative period, with the important exception of Lindsay,¹³ has been minimal. Despite the fact that Latin learning and its scripts arrived in Ireland through the conduit of Britain, and that the famed southern Welsh monastic schools were reputed to have maintained a high standard of learning during the sixth century,¹⁴ the lack of surviving early Welsh manuscript evidence has created a blind-spot in palaeographical perception of this period. In his *Latin Palaeography* Bischoff appends to his section on 'Latin script in Ireland' the remark: 'Unquestionably dependent on Ireland is the handwriting of Wales and Cornwall, two Celtic areas in which Insular script was written until at least the tenth century ...'¹⁵ and takes the *Catamanus* inscription from Llangadwaladr, Anglesey (*ECMW* no. 13) of c. 625, 'the oldest surviving witness', to be linked to Irish-Northumbrian manuscript practice of the late seventh century. Something is surely being overlooked in this assumption, but can any evidence be found outside those early Welsh scriptoria whose manuscripts we have lost?

From Capitals to Bookhands in the fifth and sixth centuries

The imagined hiatus in Christian commemoration between the end of the Roman period and the beginning of the early medieval era has had the effect of unnecessarily dividing up a single century, the fifth, into a too-rapid sequence of decline, fall and revival from Gaul. This has had similar consequences to those outlined above for British epigraphy on the study of British palaeography. Patrick, a Romanised British Christian, is said to have evangelised in Ireland in the fifth century with all the paraphernalia of a Roman Christian – wax tablets, service books and altar vessels – and to have given instruction in the use of the Roman

¹³ W. M. Lindsay, *Early Welsh Script* (Oxford, 1912).

¹⁴ St Illtud of Llanilltud Fawr (Llantwit Major) was venerated as the teacher of St Samson, St Paulinus and St Gildas. The life of St Samson, the earliest to survive, gives good detail on his early life and education in south Wales. See *The Life of St Samson*, transl. by T. Taylor (London, 1925).

¹⁵ Bischoff, *Latin Palaeography*, p. 89.

alphabet.¹⁶ Whether he was making use of imported books or books of British production is not known. We have no manuscript survivors until the so-called Ussher I, of the second half of the sixth century, written on Continental skins, and the *Cathach*, of c. 600, written on Insular skins. But the peculiarly poor quality of Insular vellum that survives from the early seventh century, which improved in the course of that century, suggests that if books were being produced in Britain at the time of Patrick, then they were written on imported vellum or papyrus.¹⁷

The question of the date of the development of British and Irish parchment- and vellum-making techniques affects discussion of the wedge serif; this peculiar Insular invention appears on the first parchment or vellum that is recognisably prepared in a non-Continental manner.¹⁸ The surface is pumiced so as to remove the distinction between flesh and hair sides, and is in consequence napped and rough to the touch. This roughness may have been the reason for the long entry stroke of the pen on the thin leading into the downstroke on this surface. It is exceedingly difficult to place a loaded pen-nib on such a rough surface, and to be sure of a consistently even flow of ink, if it is drawn straight into a downstroke. But if a thin horizontal stroke is made first, then this difficulty is overcome. Durham A. II. 10 shows that until c. 650 the entry into the head of an Insular ascender was not systematically made in one movement as a broken stroke: rather the thin was made separately and was followed by a pen lift before the broad downstroke was attached. The thins in this case project to the right (ILLUS. 3: 4). To ensure elegance of letter-form it was important to make a complete letter from its different elements in a swift series of movements. The ink in flowing drew from the reservoir of the pen, to join with already-made marks that could link up swiftly only in a fluid state. The wedge serif marks the entry into this process of laying down a liquid ribbon. In the case of letters with bows, the entry thins are covered by the second stroke, as in the O, E or C (ILLUS. 3:5). The finesse of such thin strokes was impossible to replicate in stone.

¹⁶ Tírechán, *Collectanea*, ed. and transl. by L. Bieler, *The Patrician Texts in the Book of Armagh* (Dublin, 1979), pp. 122-3, 132-3.

¹⁷ MS Durham A. II. 17, *The Durham Gospels*, is written partly on Continental and partly on insular skins at the end of the seventh century.

¹⁸ Brown, *A Palaeographer's View*, pp. 234-5.

There are no calligraphic wedge serifs to be seen in Nash-Williams's *ECMW* Group I inscriptions. Instead we find (ILLUS. 3:6) plain clubbed line-ends (d), or loops (e); the rare triangular line ends (g) are drawn with no understanding of a scribal purpose. Looped entries into downstrokes are characteristic of uninflected cursive hands; crucially, loops cannot be made by a broad pen on rough-surfaced Insular vellum. The conclusion must be that Insular broad-pen letter-form had no effect on the epigraphic practices of craftsmen who were transferring to stone, with a brush, charcoal stump or scribe, letters that were both uninflectedly linear in their draft, and rendered linear on the stone.

In *ECMW* Nash-Williams chose to use manuscript half-uncial as a touchstone, dating his Group I inscriptions of the fifth to the seventh centuries by the proportion of what he defined as 'half-uncial' letters that intruded into the crude capitals. However, by this stage some of these uninflected letter-forms were already transmuted from written forms into simplified angular versions, and also include minuscules in the sixth century. A better match for comparanda relevant to early Welsh epigraphy may be found, not in high-grade manuscript half-uncials, but rather lower in the hierarchy of scripts. Our earliest Insular evidence seems to indicate that this hierarchy had not achieved a calligraphic canonical form until the close of the seventh century.

The possible influence of papyrus as a writing surface

William O'Sullivan considered that Christian texts on papyrus, in the form of codices or unbound sections, may have been imported before the establishment of Insular book manufacture.¹⁹ As a writing surface, like wax, papyrus permits a range of pen movements not possible on the later Insular skins, and could be considered as a possible influence on cursive writing.

If Insular half-uncial evolved into its canonical Phase I from c. 650, and the unruly prototype hand of the *Cathach*, c. 600, is more comfortable with a cursive into which the scribe frequently relapses, then we have to try to account for the survival of a common or literary cursive that was not written on a ruled surface. Julian Brown believed that such

¹⁹ O'Sullivan, 'Manuscripts and Palaeography', pp. 515-6.

writing, 'the day to day writing of the professional scholar',²⁰ was influential, but can it have been written only on the medium of wax tablets, or is it possible, continuing Robin Lane Fox's line of enquiry, that the first Christian manuscripts coming into Ireland and Britain were commonly papyrus volumes, and that papyrus was imported after 410?²¹ These volumes would certainly have been lighter, easier to transport, and cheaper than vellum or parchment ones. Unfortunately we have no mention of papyrus or parchment, either as books or blanks, as a cargo in the sixth or seventh centuries.²² Papyrus does not survive well in damp climates, but its presence, even if only at the commencement of Insular book-making practice, may have had an influence on the initial free-form habits of writing texts. Papyrus was never pricked and ruled for writing, as it contained within its own surface a rough horizontal / vertical grid. By its nature it encouraged free, loose writing, untrammelled by the necessity to place each letter between rules. For volumes it was bound up in quinions, folded fives, in the Irish manner – rather than in quaternions, folded fours, in the Roman manner.²³

If compiling and hoarding written material was not unusual in learned circles, then it follows that questions concerning the continuation of the stationery trade in Britain, and of the continued importation of vellum and papyrus after 410, are crucial ones. Unfortunately, as papyrus would disintegrate and parchment turn into glue, they are ephemeral substances non-existent in the archaeological record c. 400-600. Julian Brown was negative: 'With the Roman army and administration gone regular supplies of papyrus, some of which will no doubt have been for sale to the public, will have been cut off.'²⁴ He envisaged a crisis point quite soon after all supplies had been used up, at which some Roman Briton set himself to make his own parchment; but it is difficult to believe that the indifferent parchment of the *Cathach*, of Durham A. II. 10 or the Bangor Antiphonary represents the outcome of almost 200 years of Insular practice of parchment-making.

²⁰ Brown, *A Palaeographer's View*, p. 228.

²¹ Lane Fox, 'Literacy and Power', p. 141.

²² J. M. Wooding, *Communication and Commerce along the Western Sealandes AD 400-800* [B.A.R. International Series 654] (Oxford, 1996), p. 70.

²³ O'Sullivan, 'Manuscripts and Palaeography', p. 516.

²⁴ Brown, *A Palaeographer's View*, p. 238.

The more positive theory of Pirenne does not assume a dramatic break in trading links as ex-provinces fell away from the empire, and he imagined a continuation of trading with significant use of papyrus until 'nearly the end of the eighth century'.²⁵ The Arabs continued to trade in papyrus from Alexandria, and produced imitation protocols that mimicked the Byzantine ones (ILLUS. 3:7). The protocol was an official certification of the quality of the papyrus, and it used as titling decorative capitals that were angular and tall; these were reduced to unreadable marks in the Arab copies (ILLUS. 3:8).²⁶ Kenyon and Bell remark on 'the difficult perpendicular writing' of these protocols.²⁷ Wherever papyrus was imported, these unusual capital letters would have been also. There is in Berlin a protocol consisting entirely of 'perpendicular' writing.²⁸ Furthermore, an anecdote from Gregory of Tours shows that the papyrus trade was flourishing, particularly in southern France, in the second half of the sixth century, and that it was easier to buy papyrus there than in Nantes. Involved in a furious dispute with the argumentative and prosy Bishop Felix of Nantes, Gregory exclaimed:

What a pity that it was not Marseilles that elected you as Bishop! Instead of bringing you cargoes of oil and other wares, its ships could have carried only papyrus, which would have given you all the more opportunity for writing libellous letters to honest folk like me. As it is, only lack of paper cuts short your long-windedness.²⁹

Papyrus was commonly used for writing letters, and for note taking, for which a shorthand had been devised. Its surface could bear rapid writing; and it may well have been thought working-class in contrast to fine-surfaced skins. Peter Brown has commented on the sixth-

²⁵ H. Pirenne, *Mohammed and Charlemagne*, transl. B. Miall (London, 1968), pp. 90-93; p. 170.

²⁶ J. Karabacek, *Papyrus Erzherzog Rainer* (Wien, 1894), Plate IV.

²⁷ F. G. Kenyon and H. I. Bell, eds., *Greek Papyri in the British Museum* (London, 1893-1974), Vol. IV, p. 414.

²⁸ G. Steindorff, 'Neue koptische Urkunden aus Theben', *Zeitschrift für ägyptische Sprache und Alterthumskunde* XXIX (1891), p. 16.

²⁹ Gregory of Tours, *The History of the Franks*, transl. L. Thorpe (London, 1974), Book V.5.

century expansion of bureaucracy and paperwork for clerics like Gregory. He was chastised for learning shorthand to assist him in his administrative tasks, as if there were a class distinction that should preserve him from acquiring the working-class hand of his clerks' office.³⁰

Though Pirenne has been criticised for overlooking certain discontinuities and disruptions caused by the Arab invasion, it is clear that the distinctive cursive habits of writing on papyrus in Gaul were not lost. He shows that, at the beginning of the eighth century in northern France, the monastery of Corbie was still importing fifty quires of papyrus annually at a time when papyrus was still for sale nearby on the streets of Cambrai.³¹ Pirenne's more positive assessment of the part played by papyrus in the literacy of ex-provinces of Rome is echoed by Stanley Morison, who points out that the Merovingian Chancery was issuing charters on papyrus until the reign of Thierry III, in the last quarter of the seventh century, this being contemporary with the Book of Durrow.³²

We can compare the cursive of the late-sixth-century Springmount Bog tablets with two examples of cursive-influenced sixth-century texts: one an example on papyrus,³³ from which I show pen manipulation and ligaturing, and one on parchment from northern France³⁴ (written between 537 and 560), from which I show a triple ligature and pen manipulation (ILLUS. 3:9). Here we can appreciate the type of evolution that might have taken place in Britain if papyrus and wax tablets had remained in common use in the post-Roman period, and if no change had been made in the surface preparation of Continental-style parchment which allowed free ligaturing. But, at some point, whole ex-provinces turned to their own peculiar methods of production which led to divergences into national writing styles – on papyrus, on Insular parchment and on Continental parchment: these very different surfaces gave rise to different scripts.

³⁰ P. Brown, *The World of Late Antiquity* (London, 1971), p. 175.

³¹ Pirenne, *Mohammed and Charlemagne*, p. 90.

³² Morison, *Politics and Script*, p. 111; The Book of Durrow: TCD MS 57. Facsimile: Luce *et al.*, eds., *Evangeliorum quattuor Codex Durmachensis*.

³³ MS Vatican Barb. Lat. 1.587.

³⁴ MS BN *Collectio Canonum*.

The great change in Insular script, to triangular serifs, deceleration and wide spacing, comes about when there is a change to its own rough-surfaced type of parchment which inhibited ligaturing, presumably when importation of Continental skins and/or papyrus eventually ceased. Continental skins continued to be imported fitfully until late in this process: the Durham Gospels, of the late seventh century, use both Insular and Continentally-prepared skins. As the Irish and Welsh economy was based on cattle rearing, the skin used for manuscript production was vellum (calf). In explaining the Insular preference for using the skins of cattle, William O'Sullivan has published a clear account of the differences between calfskin vellum and sheepskin parchment.³⁵ If we follow Julian Brown, we might see the Insular script as emerging from a vigorous undergrowth of common to semi-formal hands, adapted for the peculiar surface of Insular parchment, and looking at first like the *Cathach* (ILLUS. 3:10A). We can compare the relative success of Insular half-uncial as a legible formal majuscule when we look at the grand formal hand arrived at in Luxeuil on Continental parchment, as seen in the seventh-century Luxeuil Lectionary (ILLUS 3:10B).³⁶ Here we see ligaturing horizontally and vertically; here also we begin to see clear differences in letter construction that result from the different techniques forced upon scribes because they are working on materials which prohibit certain movements (ILLUS. 3:11).

Continental hands kept using the upward-pushed turn into the crossbar of the T (ILLUS. 3:12), a movement which is impossible on Insular parchment, and we even find this habit transferred to some inscriptions on stone: for example, on a sixth-century inscribed slab from Gaul, Viennoise du Nord (ILLUS. 3:13).³⁷ This is an important distinction to draw between fifth- and sixth-century Continental manuscripts and inscriptions and *ECMW* Group I inscriptions, where we see, from the moment that lower-case letters begin to appear among the capitals, a tendency to convert curved strokes to angular, which were easier to cut. Can such minutiae as line endings give us any clues as to what happened when British craftsmen, with, as we have seen, no previous tradition of letter-cutting in stone, set about making inscriptions? Petrucci encourages us to include these inscriptions in a wider view of early

³⁵ O'Sullivan, 'Manuscripts and Palaeography', p. 515.

³⁶ MS Paris BN lat. 9427.

³⁷ F. Descombes, *Recueil des Inscriptions Chrétiennes de la Gaule antérieures à la Renaissance carolingienne*, Vol. 15: Viennoise du Nord (Paris, 1985), no. 17.

Christian epigraphy as a whole, in contrast to classical. He believes that in early Christian inscriptions we see 'a new and extremely lively complex of signs ... deliberately laid out in a chaotic fashion.'³⁸ From the letter-forms, it is not clear that manuscripts are closely involved in this chaotic complex.

The first manuscript survivors

Though little has survived, there is sufficient to make a close comparison of manuscript, tablet and graffiti letter-forms with epigraphic letter-forms, so that we may investigate the problem of the eventual divergence of British epigraphic practice from the Roman, and of Irish epigraphic practice from the British, since Roman scripts must have come originally from Britain to Ireland. In the early seventh century, where we do have manuscripts to compare with epigraphy, it is not at all clear that a canonical manuscript hand existed for letter-cutters to use as a model. Our earliest surviving Insular hands show the apparently indiscriminate use of uncial, half-uncial or minuscule forms of some or all of the letters **d**, **n**, **r**, **s**, and they also show varying entries into the downstroke.

To establish the precise proportion of these different letters to one another, and the precise evolution and standardisation of the calligraphic triangular serif from the cursive looped entry, the Springout Bog tablets and five manuscripts will be examined, in what is currently thought to be their chronological order. These were all written by Irish or Irish-trained scribes, with the possible exception of Ussher I. They are:

A.	The Springmount Bog Tablets (NMI SA 1914:2)	ILLUS. 3:14	c. 550-600
B.	Ussher I (TCD MS 55)	ILLUS. 3:15	c. 550-600
C.	The <i>Cathach</i> (RIA MS 12 R 33)	ILLUS. 3:16	c. 600
D.	The Atalan Codex (Milan, Biblioteca Ambrosiana MS S. 45. Sup.)	ILLUS. 3:17	c. 620
E.	Durham MS A. II. 10.	ILLUS. 3:18	c. 650
F.	The Book of Durrow (TCD MS 57)	ILLUS. 3:19	c. 675

³⁸ Petrucci, *Writing the Dead*, p. 26.

Where the manuscript survives in sufficient quantity, the size of the sample surveyed is one quarter of a gospel, roughly 150 verses, equivalent to ten Psalms of the *Cathach*, except in the cases of the Springmount Bog tablets, which contain only sections of three Psalms, 30-32, and of the Atalan Codex, of which only the *incipit* page was obtainable in a readable form. The analysis for each manuscript covers six aspects of the hand, or hands in the cases of Ussher I and the Atalan Codex. These are:

- 1a. The height of the writing line (WL) in nib widths (NW). This is normally the same as the height of the **O**.
- 1b. The angle of the **O** axis.
- 1c. The space between writing lines.
- 1d. The relative size of ascenders and descenders in nib widths.
2. The ratio of uncial **D** to half-uncial or minuscule **d**; of **N** to **n**; of **R** to **r**; of **S** to long **s**; of **G** to **g**.
3. The number of triangular serifs in relation to loops at the ascender head of the letters **d**, **b**, **l** and **h**.
4. The type of the serif join to the downstroke: the angle of the stroke (types 1 to 4, increasing in extremity of angle).
5. The bows of the letter **e** in relation to the writing line.
6. The incidence of ligatured forms from **e**, **g**, and **t** crossbars.

Some of the calligraphic terminology used in these analyses is explained in ILLUS. 3:20: (A) inflected line, (B) uninflected line, (C) minims, (D) ascenders, (E) descenders, (F) wedge serif, (G) the method of making one, looped entry, (H) the **O** axis, (I) nib widths, (J) interlinear space, (K) ligature, (L) the angles of serif joins.

A. The Springmount Bog Tablets NMI SA 1914: 2. 1-6³⁹

Text:

Psalms 30-32. Found in 1913 in Ballyhutherland Bog, County Antrim. A set of six ?yew boards, c. 75 mm. by 210 mm., recessed to take a layer of wax on a keyed, grooved surface. Partially surviving texts inscribed with a stylus.

Analysis:

1a. Height of the WL: Linear, uninflected, but approx. 3 stroke widths to the height of the O.

No writing line, fluctuating letter size.

1b. Angle of the O axis: 20 degrees.

1c. Space between WLs: N/A. No writing line.

1d. Size of ascenders and descenders: Highly variable ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
all d	11 N: 2 n	all r	all long s	all g

3. Triangular serifs or loops: d, b, l, h: All looped entry with two exceptional incorrectly-drawn triangular 'serifs'.

4. Type of serif join to downstroke: N/A.

5. Bows of e, position of bar in writing line: None within the line, fluctuating high-bowed stroke.

6. Ligatured forms: extended bar of e, t, g: es, et, ec, ecc, ti.

³⁹ CLA Supplement No. 1684; not in J. J. G. Alexander, *Insular Manuscripts: 6th to the 9th Century* (London, 1978). Literature: Armstrong and Macalister, 'Wooden book'; G. Charles-Edwards, 'The Springmount Bog Tablets'.

B. TCD MS A. 4. 15 (55): Ussher 1⁴⁰

Text:

Gospel book, Codex Usserianus Primus (known as Ussher I). Writing space *c.* 175 mm. by 12-30 mm. Remains of 180 skin folios, mounted on paper.

Analysis:

1a. Height of the WL: 3 NW.

1b. Angle of the O axis: 45 degrees.

1c. Space between WLs: 2 WL space.

1d. Size of ascenders and descenders: 2 NW for ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
all d	10 N : 1 n	all r	1 S : 7 s	all g

3. Triangular serifs or loops: d, b, l, h: Pre-triangular serif, all looped entry.

4. Type of serif join to downstroke: N/A.

5. Bows of high e, position of bar in writing line: Mostly the bar runs along upper writing line, a few within the line.

6. Ligatured forms: extended bar of e, t, g: e with inflected lower bow and uninflected upper as in en, et, est, es, em, tem.

⁴⁰ *CLA* ii, no. 271. Alexander, *IM*, no. 1: 'Early seventh century Ireland (?)'. Literature: Westwood, *PSP*, no. 19; Nordenfalk, 'Before the Book of Durrow', pp. 147 ff., fig. 5; *idem*, *Die spätantiken Zierbuchstaben* (Stockholm, 1970), p. 141, fig. 16; F. Henry, 'Les débuts de la miniature irlandaise', *Gazette des Beaux Arts* (1950), pp. 5-34, figs. 3, 11; *idem*, *Irish Art*, pp. 1, 62, 64, 187, pl. 58.

C. RIA MS 12 R 33: The *Cathach*⁴¹

Text:

Psalter (*Cathach* of Saint Columba). Writing space 200 mm. by 130 mm. (maximum size with margins all lost). 58 folios. Headings are in orange minium. The MS is damaged and incomplete.

Analysis:

1a. Height of the WL: 4 NW.

1b. Angle of the O axis: vertical.

1c. Space between WLs: 6 WL space.

1d. Size of ascenders and descenders: 2 NW for ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
1 D : 2 d	1 N : 24 n	1 R : 24 r	1 S : 3 s	all g

3. Triangular serifs or loops: d, b, l, h: No measuring system in use, fluctuating size, may be as much as 2 NW broad.

4. Type of serif join to downstroke

type	1	2	3	4 (extreme)
occurrences	0	2	13	0

5. Bows of e, position of bar in writing line : Above the line 25 : 2 within the line.

6. Ligatured forms: extended bar of e, t, g: This is mainly a formal, closely-set hand, where although strokes touch, there is no deliberate ligaturing apart from the standard et; nevertheless the scribe has irregular fits of reverting to cursive and ligaturing from his high e cross bar, as in en, es, em, et, ex.

⁴¹ *CLA* ii, no. 266. Alexander, *IM*, no. 4: 'Early seventh century, Ireland'. Literature: Westwood, *PSP*, no. 19; *idem*, *Facsimiles*, pp. 82-3; H. C. Lawlor, E. C. R. Armstrong and W. M. Lindsay, 'The *Cathach* of St Columba', *PRIA* Vol 33 C (1916), pp. 241-443, plates XXXIII, XXXV- XXXVIII; Henry, *GBA*, figs. 10, 12, 13, 20.; M. Herity and A. Breen, *The Cathach of Saint Columba: An Introduction* (Dublin, 2002).

D. Ambrosian MS S. 45. Sup. : The Atalan Codex⁴²

Text:

Jerome's commentary on Isaiah. Writing space 235 mm. by 215 mm. 156 pages.

Contemporary note that it was the property of Atalan, who succeeded Columbanus as Abbot of Bobbio in 615, and died in 622. The text is a palimpsest re-using a text of Ulfilas in Gothic uncial of the sixth century. Hand A is Continental, Hand C is Irish. Both hands loop upwards into their t: this is a Continental feature, impossible to execute on rough-surfaced Insular skins.

Analysis:

1a. *Height of the WL*: Hand C, 4 NW; Hand A, 3 NW.

1b. *Angle of the O axis*: Hand C, vertical; Hand A, vertical.

1c. *Space between WLs*: Hand C, 2 WL space; Hand A, 2 WL space.

1d. *Size of ascenders and descenders*: Hand C, 4 NW for ascenders and descenders; Hand A, 3 NW for ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
Hand C 1D: 2 d	all N	1 R : 4 r	1 S : 10 s	1 G : 2 g
Hand A all d	all n	all r	all long s	N/A

3. *Triangular serifs or loops*: d, b, l, h: Hand C, like Ussher I, has rolled looped entries; Hand A has an angular thickening. Technically, no Insular wedge serifs.

4. *Type of serif join to downstroke*: N/A.

5. *Bows of e, position of bar in writing line*: Within the writing line, bars medial.

6. *Ligated forms: extended bar of e, t, g*: Both Hand C and Hand A are formal: though letters may touch they are not deliberately ligatured.

⁴² *CLA* iii, no. 365. Alexander, *IM*, no. 2: 'Early seventh century. Bobbio, N. Italy'. Literature: Henry, *GBA*, Figs. 1, 2, 10, 16, 18, 20; *idem*, *Irish Art*, pp. 63-4, 165, pl. VI; B. Schauman, 'The Irish script of the MS Milan, Biblioteca Ambrosiana, S. 45. Sup. (ante ca. 625)', *Scriptorium* 32 (1978), pp. 3-18.

E. Durham Cathedral Library MS A. II. 10⁴³

Text:

Gospel book. Fragments: A. II. 10 fols. 2-5; 238-238a; C. III. 13 fols. 192-195; C. III. 20, fols. 1-2.

Analysis:

1a. Height of the WL: 3 NW.

1b. Angle of the O axis: 30 degrees.

1c. Space between WLs: 2 WL space.

1d. Size of ascenders and descenders: 2 NW for ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
7 D : 39 d	16 N : 39 n	8 R : 29 r	28 S : 34 s	all g

3. Triangular serifs or loops: d, b, l, h: All sharply-made wedges, varying in size and angles as in the *Cathach*, i.e. there is, as yet, no system for ensuring regularly-sized serifs.

4. Type of serif join to downstroke: Extreme variation.

type	1	2	3	4 (extreme)
occurrences	14	13	11	15

5. Bows of e, position of bar in writing line: Initial *e* ligatures with following letters as in *er*, *et*, *ex*, *eu*: otherwise it tends to be high, variably; very few are within the writing line.

6. Ligatured forms: extended bar of e, t, g: Apart from the *e* ligatures above there is only an unusual *ga* ligature, constructed like the *cc* ligature of tablet writing. Other letters touch but remain distinct pen constructions.

⁴³ *CLA* vi, x. Alexander, *IM*, no. 5: 'Mid seventh-century Northumbria'. Literature: Nordenfalk, 'Before the Book of Durrow', figs. 20, 21, 24; Henry, *GBA*, figs. 15, 19, 20; *idem*, *Irish Art*, pp. 127, 161-9, 174, pl. 53, 61; Henderson, *From Durrow to Kells*, pp. 27-8, 55, 58-9, 80, pl. 20, 21.

F. TCD MS A. 4. 5 (57): The Book of Durrow⁴⁴

Text:

Gospel book. Writing space 245 mm. by 145 mm. 248 folios.

Analysis:

1a. Height of the WL: 4 NW.

1b. Angle of the O axis: vertical, pen angle 10 degrees.

1c. Space between WLs: 2 WL space.

1d. Size of ascenders and descenders: 1.5 NW for ascenders and descenders.

2. Ratio of uncial to half-uncial

D/d	N/n	R/r	S/s	G/g
4 D : 6 d	2 N : 25 n	3 R : 17 r	19 S : 3 s	all g

3. Triangular serifs or loops: d, b, l, h: Serifs here are regular on minims; but on **d, b, l, h**, (i.e. downstrokes with ascenders) there is still irregularity.

4. Type of serif join to downstroke

type	1	2	3	4 (extreme)
occurrences	1	0	5	0

5. Bows of e, position of bar in writing line: There is some swinging of the curve over the upper WL, but mostly they are within the WL except in ligatured et.

6. Ligatured forms: extended bar of e, t, g: Possible ti but in general there is formal separation of letters: the script is a clear majuscule.

⁴⁴ *CLA* vi, p. x. Alexander, *IM*, no. 6: 'Second half of the seventh century (c. 675?)'. Literature: Westwood, *PSP*, no. 19; *idem*, *Facsimiles*, pp. 20 ff., pls. IV-VII; Clapham, 'Notes', fig. 16; Kendrick, *Anglo-Saxon Art*, pp. 94 ff., pls. XXVII-XXVIII; Nordenfalk, 'Before the Book of Durrow', pp. 141-74, figs. 2-4; Luce *et al.*, eds., *Evangelium quattuor Codex Durmachensis*; E. H. Zimmermann, *Vorkarolingische Miniaturen* (Berlin, 1916), pp. 25-8, 32-3, 92-6, pls. 160-5; Henry, *GBA*, figs. 5, 17-18, 20-23; *idem*, *Irish Art*, pp. 105, 161-3, 166-76, pls. 31, 55, 60-1.

Commentary on manuscript analysis

The six texts analysed above, arranged in what is currently thought of as chronological order, reveal some important traits. The first two, the relatively informal Springmount Bog tablets, written on wax, and Ussher I, written on smooth Continental vellum, show no systematic attempt to use the later Insular triangular 'wedge' serif at the heads of minims and ascenders. Instead they use bold loops, and Ussher I has an angled pen-hold, which gives a 45-degree axis to the o. First and foremost, it seems that scribes achieved the formality of the grandest lettering by flattening a broad pen-hold to almost horizontal, giving an o with a vertical axis and heavily inflected. This gives maximum inflection of the line in swelling from thin to thick exactly in the centre of the letter height, but it also inhibits any speed of writing. These two hands show the strong influence of rapidly-written minuscule, preferring d, r, s, and half-uncial g. However, they both prefer an Uncial N to the half-uncial n, a trait they share with the fifth-century Italian Naples Lat. 2.⁴⁵ This preference shows a tendency to avoid bowed strokes. They both preserve the broken left bow with ligaturing from the lower left quadrant, a feature of New Roman Cursive that is carried into the fifth-century cursive half-uncial.⁴⁶

The first Insular manuscript to be written in a recognisable prototype of formal half-uncial is the *Cathach*. In comparison to the Springmount Bog tablets and Ussher I, which both have what Nordenfalk describes, vividly, as 'Schwing',⁴⁷ in the main it is labouriously written, each letter being a careful work. This laboriousness is a consequence of the writing surface which is not like that of Continentally prepared skins; it is rough, like suede, which would have inhibited any pushing of strokes, and also presented a problem when the pen was drawn downwards for a vertical minim or ascender shaft. In the *Cathach* a great change has taken place in the type of writing support: for the first time we see an Insular manuscript written on Insular skin prepared in a non-Continental manner. On it we see that the Insular scribe could not do what the Continental scribe could do on his smoother writing surface.

⁴⁵ *CLA* iii, p. 398.

⁴⁶ Confusingly called 'quarter-uncial' by Lowe in *CLA* iv, p. xvi; Julian Brown, in *A Palaeographer's View*, p. 190, thought that a better name for it was 'cursive half uncial'.

⁴⁷ Nordenfalk, 'Before the Book of Durrow', p. 155. He uses the word 'Schwing' to convey a sense of springing rhythm, not bound to follow the writing line slavishly.

The Atalan Codex shows that, even with a horizontal pen-hold, a looped entry into downstrokes could be made, as could the characteristic looped upward entry into the uncial t. The writer of the *Cathach* could not do what the writer of Ussher I could do in making his entry into the head of the half-uncial d; he had to make a more laborious entry with a pen lift and double stroke, making a 'strap end' to the ascender, which in the more fluent hand of Ussher I was made in one smooth movement. Although the *Cathach* is certainly an attempt to write a formal majuscule, it still retains some ligatured forms of cursive, ligaturing from the broken left bow's lower quadrant (ILLUS. 3:21), as in the Springmount Bog tablets (ILLUS. 3:14), Ussher I (ILLUS. 3:15) and Naples Lat. 2 (ILLUS. 3:22).

In the Atalan Codex, written in Bobbio, c. 620, Hand A shows a Continental half-uncial, with minimal serifs, in contrast to Hand C, which is an Irish-influenced hand with looped entries like that of Ussher I. The Irish hand preserves uncial features whereas the Continental has used half-uncial. Both these hands are formal, with no ligaturing; both have the upward-pushed looped entry into the crossbar of uncial t, a stroke impossible to make boldly on early Insular vellum. The hands are tightly controlled, particularly in keeping the e within the writing line, compared to the later Durham A. II. 10, c. 650, and the Book of Durrow, c. 675.

The first elaborately decorated Insular gospel to survive, Durham A. II. 10, shows an Irish hand, writing on insular skins, that thoroughly understands the nature of the triangular serif. At the end of the Gospel according to Saint Matthew, the double-column page is decorated with an interlace pattern that contains within its loops a well-written *pater noster* in Greek uncials. However, the scribe still does not know how, or does not care, to make the serif the same size every time on ascenders, though he shows more skill at making regular seriffed minims. There are interesting enlarged initial letters in this hand, where, with the same pen, the scribe has doubled-up a letter-form to make it bolder. In his triangular serifs on ascenders, it is as if he understands the stroke above the writing line as a doubled one. If the scribe and illuminator of Durham A. II. 10 are one and the same, then, although he is very skilled at precise patterning, he shows no disposition to be as precise in his repeat letter-forms. The script is as free as that of the *Cathach*. If these two scribes were consciously basing their hands on Continental half-uncial models, rather than inventing their own free approximation, then we might expect both of them to have recognised that the Continental e and s occupied

the letter-space of an o. We might suppose that in a formal, well-spaced hand, the left bow of e and o should be the same stroke. They do not choose to adapt this regularising system, and their irregularities are cursive at root (ILLUS. 3:23).

When we come to the last manuscript in the series of six texts, the Book of Durrow, there is the same precision of ornament and relative freedom of calligraphy. The apparent fluctuation in the height of the writing line is in many cases caused, as in the *Cathach*, by the unusually large s which swings over the upper and lower writing lines, as do the bowed strokes of the p and q. Like the scribe of Durham A. II. 10, the scribe seems to understand the serifs of his ascenders in b, d, h, l, as double strokes, the second aimed at the upper writing line.

The Book of Durrow, of enormous and much-disputed importance, was first recognised as being of an early date by Lowe in *CLA*. E. H. Zimmermann, writing in 1916, had thought it to be later: Carl Nordenfalk was concerned to correct Zimmermann's view, commenting that he had 'dated [it] without motivation to the close of the eighth century and [it] is dismissed as of no value to the question of the beginnings of Irish book decoration.'⁴⁸ In 1947 Nordenfalk was the first to construct a clear palaeographical and art-historical argument that brought Ireland into discussion of the origins of Northumbrian art, from which it had been excluded by Kendrick and Masai. He wrote: 'If the *Cathach* of Saint Columba was written in the latter half of the sixth century, as palaeographers assume, then the fundamental principle of Anglo-Irish initial ornament is of the same high age and a creation of Irish illuminators, long before the Book of Durrow.'⁴⁹ Nordenfalk was extremely sensitive to the calligraphy of the Book of Durrow, and his comments perfectly express the lively quality of the pen-forms, written without that mechanical repetition of 'laboured doggedness'. The letter-form, he wrote, 'is elastic and mobile. It expands and contracts with a pulsating rhythm which imbues the entire form with ornamental "Schwing".'⁵⁰

⁴⁸ Zimmermann, *Vorkarolingische Miniaturen*, p. 21; Nordenfalk, 'Before the Book of Durrow', p. 146.

⁴⁹ Nordenfalk, 'Before the Book of Durrow', p. 151.

⁵⁰ *Ibid.*, p. 155.

If the date now given to the Lindisfarne Gospels by Michelle Brown, c. 715, is correct, and if the Book of Durrow, despite the arguments of Uta Roth⁵¹ for a dating of c. 600, remains at c. 675, then what happens in the transition from the Phase I half-uncial of the Book of Durrow to the Phase II half-uncial of the Lindisfarne Gospels is the transposition of the mechanical control of the decoration to the calligraphy itself. It is possible to see how the calligraphy of the Book of Durrow will develop and reach further heights in the Book of Kells, in which the widest writing line is a multiple of five nib widths, requiring much greater skill and control than writing in four.⁵² In contrast, the scribe of the Lindisfarne Gospels plays for safety and writes in three nib widths, which results in a heavy, tight pattern of letters.

It is clear from the analysis of the formal manuscript hands above that some of the ligaturing habits of the faster cursive notational hand, which persist in creeping in even to the formal attempt at half-uncial of the *Cathach*, had, by the time of writing of Durham A. II. 10, approximately fifty years later, been redirected into a decorative minuscule and had been purged from the formal hand. The evolved formal half-uncial restricted the e to the writing line, but the decorative minuscule made a feature of the upper bow high above the writing line, along which a ligaturing stroke ran into the following letter. The letter-form that we see in the early epigraphy of Wales belongs to an eclectic phase of script development before any such definite hierarchy had formed. We can establish, through the analytical data and diagrams given above, what characterised the move to a formal Insular half-uncial, and what characterised the cursive hands that were to evolve into the Irish minuscule, later to become Ireland's national hand. If we then compare this analysis of evolving written forms to epigraphic forms, it will become apparent that tools other than pens influenced the final appearance of epigraphic letter-form.

⁵¹ U. Roth, 'The Book of Durrow', in Ryan, ed., *Ireland and Insular Art*, pp. 23-9.

⁵² B. Meehan, *The Book of Kells* (London, 1994), pp. 78-85, discussing hands A-D (for which see below, Chapter 8).

Comparison of Insular hands with Continental hands: early scripts and wedges

The hands analysed above show Irish practice in Ireland, Northumbria and Bobbio, Italy, c. 550 to c. 675. We may now compare the results of the analysis with two Continental productions:

- G. The sixth-century St Augustine's Gospels⁵³ in uncial – possibly sent to England by Pope Gregory.
- H. The early book script of the fifth-century Greek/Latin *Codex Bezae*, possibly Italian.⁵⁴

It should thus be possible to isolate practices that are Continental from practices that are Irish, and to establish those practices they had in common.

In analysing Insular manuscript pen-forms, Bella Schauman helpfully describes the process of transformation from informal cursive to formal half-uncial as a process whereby contiguity of strokes lessens and space is left between letters.⁵⁵ The impulse to leave the pen in contact with the writing support, ligaturing as much as possible, was inhibited. With the use of a broad pen came the necessary disarticulation of the letter-form into parts that were placed together deliberately, in a series of separate strokes, where previously the narrower nib had carried out two, or even three, of the strokes in one movement. This process of disarticulation, resulting in increasing complexity of construction, can be seen in the changing technique of making the downstroke: ILLUS. 3:24 shows this process with the letter d.

Although the Continental book script or prototype half-uncial of the fifth-century *Codex Bezae* (ILLUS. 3:25) has minimal entry strokes and is as plain a hand as can be, moving stiffly from the thin into the thick and vice versa, later Continental uncial and half-uncial had a roundedness in its gradation from thin to thick that is not present in early Insular versions. The range of pen manipulation that was permitted by the surface of Continental vellum (ILLUS. 3:26) was wide, but on Insular vellum this was much inhibited.

⁵³ CCCC MS 286.

⁵⁴ CUL MS Nn. II. 41.

⁵⁵ Schauman, 'MS Milan, Bibliotheca Ambrosiana, S. 45 Sup.', p. 12.

The long, upward-pushed entry strokes are not attempted on early Insular vellum; and where a Continental scribe can place his nib on his writing surface and move into an immediate broad stroke with the slightest of entries, the Insular scribe had to make a preliminary thin stroke at least as long as the width of his nib. To conceal the starkness of the protruding thin strokes a supplementary thick stroke was drawn in from the left, thus creating the characteristic Insular wedge serif (ILLUS 3:20F).

Here it can be seen that the stroke entries made in one movement in Ussher I have in the *Cathach* been disarticulated into three. In explaining the origin of the Irish term for half-uncial, *litterae tunsae* (i.e. 'shorn letters' – shorn of the free-looping entries that may have been attached to their previous pen-forms), Bischoff theorises that the wedge serif could have been made in one movement with an upward-pushed stroke against the direction of the writing.⁵⁶ However, this is not borne out in those places where we can see, by the clotting of the ink, that the serif wedge has been added after the downstroke, with its thin approach-stroke, nor by my experimental attempts to replicate the stroke on a similar surface. In the *Cathach* it is clear that no system had been evolved to ensure that serifs were regularly sized; but such a system is in operation by the time of production of the Book of Durrow. By the time of the Lindisfarne Gospels, serif control is even tighter, and contrasts strongly with the freedom and range in the *Cathach* (ILLUS. 3:27).

Conclusion

A variety of hands appears in this opening phase of Insular book-production, and many of the surviving manuscripts are written in a controlled set minuscule, which was clearly deemed suitable even for gospels, being used for all of the folios, bar the first recto, of the Echternach Gospels. Much has been made of the argument that the scribes of Bangor, County Down (hands seen, for example, in the minuscule of the Bangor Antiphonary of c. 690 and in the earlier surviving manuscripts of Bobbio), in belonging to a different federation from the Columban foundations, might have deliberately created their own scribal house style.⁵⁷ But improved scribal practice in achieving regularity and formality must surely have been seen as

⁵⁶ Bischoff, *Latin Palaeography*, p. 86.

⁵⁷ Schauman, 'MS Milan, Biblioteca Ambrosiana, S. 45. Sup.', p. 16.

desirable in general: skill in using a majuscule writing *system* was shown by perfect understanding of letter proportions and by the recognition that parts of each letter were exactly replicated in others. This recognition and standardisation would naturally follow, in due course, the disarticulation of cursive letter-forms. More diversity and personality is allowed in the minuscule hands which preserve cursive and ligaturing habits.

The use of same-sized bowed strokes in uncial **D**, **E**, **A**, **O** in the Lindisfarne Gospels shows a complete facility in using the system that is not shown in the Book of Durrow. The highest-ranking ecclesiastical establishments were sure to have maintained a scriptorium aware of the most highly-developed craft skills. In this respect the evolution from Phase I half-uncial to Phase II, established by Julian Brown, must mirror a chronological progress in common scribal understanding.⁵⁸ Using the same difficult writing surface, the scriptoria that produced the Bangor Antiphonary and the Book of Durrow in the seventh century cannot have approached the process of precise replication of majuscule texts in ways so different as to constitute recognisably different styles. But, if papyrus and Continental skins were still being imported into Ireland in the mid-sixth century, then it is possible that, when Columbanus left for the Continent with Bangor scribes in 590, the wedge serif had not become a characteristic feature of the Irish hand. It might not have been called for when writing on Continentally prepared skins. David Dumville is prepared to consider that a common Insular technique of skin preparation may have been late – ‘as late as the seventh century’ – in coming into being.⁵⁹ If this was so, then employing high-grade calligraphic script as comparanda when we examine the epigraphy of *ECMW* Group I inscriptions is anachronistic. This chapter has shown that Insular scribal practice, and quality of skin surface, was extremely variable in the seventh century. Before Insular half-uncial had developed a canonical form, and before parchment-making was an organised craft, we should look outside the organised scriptorium for script models.

⁵⁸ Dumville, *A Palaeographer's Review*, p. 7.

⁵⁹ *Ibid.*, p. 24, n. 31.

Chapter 4

GROUP I INSCRIPTIONS AND THE LETTERING OF THE CATAMANUS STONE

There has always been a chronological difficulty in the palaeographical definition of the first lower-case letters that intrude into the debased capitals of *ECMW* Group I inscriptions (AD 400-600+); the alphabet of Continental half-uncial developed in the fifth century, and consequently Nash-Williams placed its arrival in Welsh capital inscriptions well into the sixth century.¹ But the earliest inscribed Insular lower-case letters, like those at Inchagoill, County Galway,² or at Cilgerran, Pembrokeshire³ (ILLUS. 4:1), look far more like minuscules than half-uncial majuscules, the distinction between which has been discussed in Chapter 2, and it is an anachronism to describe them as half-uncial. It has been difficult to face this problem because of E. A. Lowe's conviction (quoted on p. 8 above) that Insular 'pointed' minuscule evolved from the half-uncial majuscule, that is to say after the time-span of Group I was over. This would naturally be the case if Welsh scripts had started from scratch using only the model of imported fifth-century Continental half-uncial: imported, presumably, by those Gauls whom Nash-Williams saw as re-introducing Christianity to Britain in the late fifth century. In this chapter I shall examine an important inscription commemorating Catamanus or Cadfan, King of Gwynedd, from Llangadwaladr on Anglesey; I shall show why it has been mistakenly classified as Group I 'half-uncial', and, by using comparisons with others, I shall suggest an alternative interpretation and the more likely category of early Group II inscriptions.

Lowe and Nash-Williams did not believe that any of the range of hands used during the Romano-British period, over a span of 350 years, had effectively survived in use after the departure of the Romans in 410. This departure roughly coincided with the scribal invention of half-uncial on the Continent, and it is assumed by Nash-Williams that subsequently the great mass of Christian texts was imported into Britain in the half-uncial majuscule hand. If the importing of Continental skins prepared for writing ceased after the Roman withdrawal, then it is difficult to understand how Insular scribes first copied and produced their own codices, using Continental models written on a quality of skin which they could not themselves produce. The material on which they were writing would have an effect on the form of the

¹ *ECMW*, p. 12.

² *CIIC* no. 1.

³ *ECMW* no. 305.

writing itself. When they wrote large on stone, which was undressed, a further set of complications arose.

Some problems of distinguishing the characteristics of scribal versus cut letters in the course of the time-span of AD 400-600+

The *Catamanus* inscription, at Llangadwaladr on Anglesey, is the only safely dated inscription in *ECMW* Group I (ILLUS. 4:2).⁴ Placed by Nash-Williams right at the end of the Group, indeed straying into Group II, it shows a departure in style from the post-Roman inscriptions, described in Chapter 2, that preceded it. Its dating has been disputed, but it seems safe to place it in the second quarter of the seventh century, and at the present time it is generally dated to c. 625. With the closely related *ECMW* no. 35 (see p. 25 above), it is the first early medieval Welsh inscription to show an awareness of titling letters and text letters, and was evidently laid out by a writer with some familiarity with manuscripts. Its text is ambitious and in grandiose Latin:

CATAMANUS / REX SAPIENTIS(s)IM / US OPINATIS(s) IM / US OMNIUM REG / UM

‘King Catamanus, most wise, most renowned of all kings.’

It is carved on a very hard close-grained conglomerate, H. 1.22 m. by W. 510 mm. (4ft by 1ft 8in). Cadfan, or Catamanus, was the son of Iago, King of Gwynedd, who died in 615, and the father of Cadwallon, who died in 634. The death of Cadfan is generally calculated to have occurred c. 625. Although the layout is vertical, consistent with many Group I inscriptions, it also has a cross, above and at right angles to the text, and an eccentric mixing of letter-forms that is more extreme than those in any of the other Group I inscriptions. Its line endings are unique, in the form of looped entries into strokes, such as we see in the manuscript TCD Ussher I, or on the Springmount Bog tablets. Inconspicuous as they may appear, the line endings of letter-forms like the loop or wedge – written or cut – provide important evidence. But, unlike prototype Insular serifs that are written, line endings, with few exceptions, have not received enough attention in analyses of the Group I inscriptions.

⁴ *ECMW* no. 13.

In this chapter, the analysis of the *Catamanus* inscription will enlarge upon the distinction that may be made between the scribal manner of effecting entries into the letter-form with a pen, discussed in Chapter 3, and the very different methods and tools used for the much larger-scale letter-cutting in stone, which are naturally quite different from those of scribes. Just as it is possible to make an evolutionary range of scribal forms from Continental to Insular, and to ascertain why particular techniques were suited to one surface rather than to another, the line endings of cut letters may also reveal the practical origins of their style, perhaps occurring in a specific time-span. Skill in letter-cutting, shown by the depth of cut, the closeness of layout and the small size of letter, was late developing in Wales; and because there was no clear move to a calligraphic style of epigraphy such as we see in Ireland, simple, uninflected, minuscule wax-tablet style letters continued in common use, unchanging, until the eleventh-century influx of new alphabets like Lombardic and Gothic with the Normans.⁵

In consequence, those few letters in the Welsh inscriptions that do reflect sequential development should then give vital dating evidence. Of all the letters, majuscule A and minuscule a presented the greatest practical difficulty, and these have the greatest variety of form (ILLUS. 4:3). In Chapter 2 (p. 49 above) we have seen that, at the close of the Group I time-span, angle-bar A was abandoned for either the Greek three-bar manuscript form, or an adapted minuscule. Another chronological indicator is the use of e with the upper bow above the line, a cursive minuscule practice that came under control at the end of Phase I half-uncial, when scribes realised that, for symmetry, the e bow should be identical to the left o bow, and the letter was aligned with the upper writing line, instead of springing high above it to facilitate a ligature with the bar. In addition, attention should be paid to the overall layout of an inscriptional text, to place the design concept in relation to comparable models. In the case of the *Catamanus* inscription, despite its letters being described as ‘grotesque’ and ‘irregular’ by Charles Thomas,⁶ this confirms the care and expertise of the letter-cutter, who has followed the model, brushed onto the surface of the stone, with the utmost precision. The layout, like a manuscript justified to the left, beginning with large lettering and diminishing to smaller, is in mixed alphabet and in fluctuating letter-size. It represents a more complex type of inscriptional design than do the mixed-alphabet Ogham / Latin bilingual inscriptions.

⁵ G. Charles-Edwards, ‘The Epigraphy of Wales’, pp. 128-9.

⁶ C. Thomas, *Whispering Reeds or the Anglesey Catamanus Inscription Stript Bare* (Oxford, 2002), p. 89.

Although it is safe to assert that specific individual calligraphic letter-forms had no place in Welsh epigraphy, on a larger scale we might guess that, by the mid-seventh century and the opening of the time-span of *ECMW* Group II, letter-cutters would have seen, and have been influenced by, the bigger decorative letters of manuscripts that were drawn and filled, rather than written rapidly with a broad pen. Here the *Catamanus* inscription is very unusual in having letters that appear to be drawn from such models, but the inscription pre-dates such manuscript letters by two generations, at least sixty years. We may conclude that the appearance of a high-status memorial inscription like that of *Catamanus*, mixed-alphabet with some geometric letter-forms, must have been sanctioned by familiarity with some known and accepted angular model – but clearly not with manuscript geometric capitals, which only appear at the end of the seventh century.⁷ Though the *Cathach*, from c. 600, is too early to use such capitals, in its decorative bands of *diminuendo* leading in to each Psalm we do find mixed-alphabet letters, fluctuating letter-size, and, crucially, the three-stroke Greek α that is a dominating feature of the *Catamanus* inscription. With its ligaturing *e*, geometric *m* and *n* it should be seen as part of a natural epigraphic hinterland of prototype Phase I half-uncial manuscript production, transmuted some distance from calligraphy by passing through the hands of a brush-lettering craftsman who was not a penman but who certainly was literate.

The *Catamanus* inscription is a key example for understanding the process by which minuscules were gradually adopted by letter-cutters because of their simpler construction and less curvilinear bowed strokes, which the cutters rendered angular. A detailed examination of the practical advantages of minuscule over majuscule forms from the point of view of inscription-makers is long overdue. Other than those on the bilingual Ogham / Latin stones, the *Catamanus* inscription is the first example of a fairly securely dated inscription using epigraphic geometric capital *M* and *N* before they were adopted and elaborated by scribes, a process during which letters that were originally the simplest of minuscules were promoted to the top of the hierarchy of Insular scripts as the ‘capital’ display alphabet. Minuscules became majuscules, a transition that also took place in the gradations of set minuscule which, well-spaced and carefully executed, but still with an angled pen-hold, could be used for grand productions like the Echternach Gospels.⁸ The fact that geometric capitals arrived at this late-

⁷ These are discussed in detail in Chapter 9, and are analysed as imitative of earlier epigraphic forms.

⁸ BN MS lat. 9389; *CLA* v, no. 578.

seventh-century high point in book arts has obscured their humble origins, but it reconfirms the importance of minuscules in the Insular script system, an importance that was emphasised by W. M. Lindsay above all.⁹ Lindsay also isolated the ‘flat-topped a’ as being peculiarly distinctive to early Welsh script, and showed how this feature is shared with a type of Irish angular majuscule.¹⁰

William O’Sullivan was a modern palaeographer who recognised the existence of angular majuscules as a distinct type, such as those of the Stowe Missal and St Gallen MS 51 (ILLUS. 4:4):¹¹ that is to say, a type of hand that employed a minuscule pen-hold and e ligatures, and compressed the angular o into half the width of a round half-uncial o, upgraded to the status of majuscules (grand writing): a hand that, in a less formal presentation, would have been classified as minuscule and informal rather than majuscule and formal. In these two hands, in ILLUS. 4:4, we see an adaptation perfectly suited to be used by craftsmen using cutting tools. It is clear from a comparative analytical diagram, particularly in the a form, and from comparisons with some Clonmacnoise cut examples, that in Ireland this scribal hand does have a precise relationship with cut letters which is extremely difficult to prove in the case of Wales. Clearly, in the period of the Nash-Williams Group I inscriptions, c. 400-600+, the use of high-grade calligraphic pen-forms as comparanda in attempting to structure a chronology is not practical, and, as Mark Handley has emphasised in the case of Luxeuil capitals, it can even be misleading.¹²

The palaeographical background of the Catamanus inscription

It is symptomatic of the difficulties of constructing a chronology that combines epigraphic and palaeographical evidence that our first reliably dateable inscription, in graphic terms, is a non-calligraphic freak. With Irish survivors like the *Cathach* as comparanda, it is impossible to imagine a Welsh book from the first half of the seventh century containing a penned page that was a miniaturised version of these letters cut in stone. Yet Kenneth Jackson considered that the lettering of the *Catamanus* inscription at Llangadwaladr was cut in ‘an

⁹ Lindsay, ‘Irish Cursive Script’.

¹⁰ Lindsay, *Early Welsh Script*, p. 19.

¹¹ O’Sullivan, ‘Manuscripts and Palaeography’, p. 533.

¹² Handley *Death, Society and Culture*, p. 33.

almost pure half-uncial'.¹³ Nash-Williams uses the same term in his description of it as 'mixed Roman capitals and half-uncial'.¹⁴ Likewise, throughout his *Early Christian Monuments of Wales*, he used 'half-uncial' as a term for a variety of letter-forms; they might have been better described generally as bookscript, set minuscule, or possibly tablet-writing. In his recent study of the *Catamanus* inscription, Charles Thomas persists in the tradition of defining its script as half-uncial, and even further defines it as an inscription 'with no capitals'.¹⁵ However, if we look at the text of this inscription actually written in manuscript half-uncial (ILLUS. 4:5), and then at the inscription itself, it is apparent that there is some difficulty with the looseness of use of this strict palaeographical term. Certainly, this inscription is *not* inscribed calligraphy, nor a production by any specialist from a scriptorium. Yet as an inscription it is not contemptible, and not all who see it would agree with Charles Thomas's description of the lettering as being 'grotesque' and 'irregular'.¹⁶

It is a pertinent question, then, when we attempt to date the non-capital inscriptions included under Nash-Williams's Group I and early Group II, whether the comparison with manuscript letter-forms is helpful or even relevant. It is clear that, as Insular letter-cutters of the sixth century, apparently unconstrained by any notional hierarchy of scripts, moved away from the attempt to use a version of Roman monumental capitals, they took letter-forms from many sources, high and low, and mixed them to suit the limitations of their tools and materials. Although Nash-Williams does give the palaeographical sources for the early and wide variety of individual lower case letter-forms, in his detailed Appendix I of *ECMW*,¹⁷ yet within the main body of his Descriptive List of inscriptions he is determined to classify these earliest variegated lower-case letter-forms generally as 'half-uncial'. This is a distinct departure from the perceptions of the earlier scholar J. Romilly Allen, who remarked of the Scottish mixed-alphabet style, as seen in the unintelligible Newton inscription: 'Familiarity with the forms of the letters used in late Roman and early Christian inscriptions of the Cisalpine regions of the Roman Empire prepares us for almost any amount of debasement, especially of minuscules,

¹³ *LHEB*, pp. 160-2.

¹⁴ *ECMW* no. 13.

¹⁵ Thomas, *Whispering Reeds*, p. 7.

¹⁶ *Ibid.*, p. 89.

¹⁷ *ECMW*, pp. 223-234.

whose forms were less simple and more subject to local variation.¹⁸

This debasement of pure Roman letter-forms happened in many ex-provinces of the empire, and, as we have seen (in Chapter 2, p. 37), it had happened in Britain during the Roman period itself.¹⁹ When we examine closely the *Catamanus* inscription, securely dateable in the second quarter of the seventh century, we see a mixed-alphabet composition in which some of the letters are not formally scribal, but belong rather to the practice of low-grade, common writing. However some letters, notably the minuscule *s*, the three-bar *m* and the *n* with diagonal links rendered in a particularly angular manner, clearly foreshadow the development of Insular scribal geometric capitals at the end of the century. Only the *o*, the *p* and the *e* could pass muster as a skeletalised, linear form of half-uncial originals. None of the letters shows line inflection; none of the letters uses the distinctive triangular serifs of the manuscript hand. The inscription is executed with a descending depth of writing line, largest for lines one and two, diminishing on three and narrowest for four and five.

Many of the letters used could be described as minuscule in origin or by adaptation. These are: *C*: broken left bow, flat-topped second stroke; *A*: two- or three-stroke adapted uncial, Greek in origin; *T*: compressed uncial but showing a rightward-angled foot; *M*: three-bar version of a minuscule *m* of which there are three large examples with angled links, and three small with a single flat bar across or near the top; *N*: a two-bar version of a minuscule *n*; *u*: angular boxed ; *s*: angular minuscule; *r*: minuscule; *p*: disarticulated, possibly half-uncial.

This inscription is a very long way indeed from being 'almost pure' in any respect: it is mixed-alphabet, and shows no scribal professionalism; yet it is impressive. So it is helpful to expand the range of seventh-century craftsmen who might have executed inscriptions to include those who were not pen-using scribes. The *Catamanus* inscription is of particular interest in that it shows signs of having been brushed on to the stone with some boldness, and the curved, painted entries into the downstrokes have been faithfully rendered by the letter-cutter. The patterning of the strokes of the inscription moves freely from the curvilinear to the angular, a characteristic of the earliest elaborate stone-carved designs in Wales as well as in Ireland (ILLUS. 4:6).²⁰ If we approach the *Catamanus* text as pattern-making, and try to relate its pattern to any of the hands that we know in manuscript survivals from the late sixth

¹⁸ *ECMS*, second edition (Forfar, 1993), p. xxiii.

¹⁹ Handley, 'The origins of Christian commemoration'.

²⁰ See the Turoe stone, ILLUS. 1:3B.

and early seventh centuries (see Chapter 3), then we can find a match for this type of curved entry into strokes indented by stylus in wax in the Springmount Bog tablets (ILLUS. 4:7) and, in pen-form on animal skin, in the manuscript Ussher I (ILLUS. 4:8). The terminals of the painted-then-cut strokes of the *Catamamus* inscription show that they come from a period before the establishment of a fixed style of Insular manuscript half-uncial. This had distinctive and regular triangular serifs and pen-hold, which gave a bold, symmetrical letter having a foursquare o with a vertical axis (ILLUS. 4:9). In some inscriptions we can see the naturally-formed terminals of a brushed letter, where the stock of the brush, drawn along flat on the stone, gives a line of regular width. But when the brush is lifted off, or placed on, the stone, it puddles the paint in a symmetrical outward spread (ILLUS. 4:10), and sometimes the cutters followed this shape precisely, as in the *Catamamus* inscription: they were not concerned to make a calligraphic-style line end. It is extremely important to replicate the techniques used by the ordinator, as this avoids some very basic misunderstandings of the intent of the work.²¹ It should be clearly stated that Charles Thomas' extraordinary interpretation of this natural phenomenon is quite unnecessary, and is a distraction from good physical evidence of craft practice.²²

Many problems beset the analysis of an inscriptional letter-form that passes through a series of transformations: first composed as a text in a small written exemplar, probably on a wax tablet; secondly – itself a work of great difficulty – enlarged and arranged on the stone by a painter or ordinator using dry-point, paint, charcoal or chalk; and thirdly the letter-cutting itself. The sequence from the Insular perspective has been best described by John Higgitt.²³ All three processes were specialist: carving in stone is heavy, forceful work which a skilled scribe would avoid as it would desensitise the hands for the more minute manipulation of a pen, where the use of force is anathema. In a large centre where many specialists might have been available, the three processes might have been carried out by three different practitioners such as, in order, a cleric, a painter-decorator and a mason. Less complicated works than the *Catamamus* inscription could have involved two practitioners, or even one, since there were

²¹ G. Charles-Edwards, 'The Epigraphy of Wales', p. 58.

²² Thomas, *Whispering Reeds*, p. 69.

²³ J. Higgitt, 'The Stone-cutter and the Scriptorium: Early Medieval Inscriptions in Britain and Ireland', *Epigraphik* 213 (1988), pp. 149-161.

clerics, such as the metal-smith and bishop Eligius, who were also highly skilled craftsmen.²⁴ Such men may have had knowledge of an inscriptional alphabet and of a cursive notational hand, but not of a scribal, calligraphic one.

The tool used for the inscriptions of Nash-Williams's Group I and II was not a cutting-edged chisel but a blunt-pointed punch, which gave a dished rather than a V-cut section. Therefore, one of the most obvious routes of transformation of letter-form as it passed through the three processes, from small text to large inscription, was that any inflection of the letter-form (such as that made by a broad-edged pen) was ironed out by the cutting tool. In Nash-Williams's Group I and II inscriptions, on account of weathering, it is often difficult now to see whether the letter-cutter was cutting with a blunt point or an edged chisel, but it is usually possible to ascertain whether he was using the tool struck vertically, or chasing with it at an oblique angle.

The Lapis Echodi stone on Iona

A useful comparison is provided by a small inscription²⁵ on the *Lapis Echodi* stone from Iona in the Western Isles of Scotland. This, among the earliest Iona inscriptions, was found in a stone heap beside the Abbey in 1956.²⁶ Approximately contemporary with the *Catamanus* inscription, it has an early Maltese-type cross with a Chi-rho carved on the front face, and an inscription on the upper edge reading *LAPIS ECHODI* (ILLUS. 4:11). The letter-forms are unusual in showing a complex ligature and in their mixing of alphabets. No attempt has been made to render a penned letter-form with thick and thin strokes. The cutting tool is producing a round-section indent very like that made by a stylus in wax, which is an uninflected line (ILLUS. 4:12). The *Echodi* inscription has an inch-high o, whereas the truly monumental *Catamanus* inscription has os on a scale four times larger. Looking closely at the small-scale inscription *Lapis Echodi*, which is only 216 mm. (8.5 inches) long, we see the effect of the monoline incision, chased with a round-ended toolpoint, regular at one-eighth of

²⁴ L. Alcock, *Kings and Warriors, Craftsmen and Priests in Northern Britain AD 550-850* (Edinburgh, 2003), p. 308; P. Fouracre and R. A. Geberding, *Late Merovingian France* (Manchester, 1996), p. 149.

²⁵ G. Charles-Edwards, 'A reconsideration of the origins of early Insular monumental lettering of the mixed-alphabet type: the case of the "Lapis Echodi" inscription on Iona', *PSAS* 134 (2004), pp. 173-81.

²⁶ *Royal Commission on the Ancient and Historical Monuments of Scotland*, Vol. 4, Argyll (London, 1980), p. 182, no. 22.

an inch across, in negating or removing any signs of an inflected line. The technique is that described by Macalister as 'pocked and rubbed', which was effective on sandstones.²⁷

In contrast, if we look closely again at how the cutter of the *Catamanus* inscription has followed his brush-stroke model, we see that he has used a technique akin to the drawn and filled capitals of the later medieval scribes. He has cut with immense care the actual edge of the letter, following the painted model minutely, but when attacking the stroke centres, where he has simply to take out large areas of stone, he has cut more roughly; in some cases we can see the strokes of the punch-lines routing out, like those which constitute the actual letter strokes on the *Echodi* inscription. The ligature of e with a following letter that has a left bow is found in both inscriptions; this ligature was the longest surviving in Insular epigraphy in the form of et, though eventually it was rendered almost unrecognisable (ILLUS. 4:13). In the *Echodi* inscription we see the ligature of ec and in the *Catamanus* inscription eg, where the bow has been angularised. Accepting this difficulty of perceiving the original letter-form, is there any way in which we might be able to identify its type, despite these transformations by brush and cutting instrument?

Aids to the identification of hands

Four aids to the identification of hands may be suggested: the breaking of the left bow to facilitate ligaturing; the axis of the O; the stroke sequence; and the nature of the serifs or terminals of downstrokes.

1. *The broken left bow of cursive*

In both the *Catamanus* and *Echodi* inscriptions we have good examples of cursive ligatures (ILLUS. 4:14), which show clearly the break of the left bow into two, facilitating the addition of a bar ligaturing two letters with a conjoint stroke. Consequently, if we associate it with a panned form, the o of this alphabet has the left axis and distribution of weight of the Rustic capital, though it is of different proportions. These are features of cursive or pre-canonical half-uncial. They enable us to place inscriptions with such features chronologically before the mid-seventh-century adoption of Phase I half-uncial with its e coming within the writing line, and a four-square o with a vertical axis. If we notice the clear stroke break in the c of *Echodi*, this prepares us to notice the similar flattening of the finishing stroke of the large

²⁷ CIIC no. 182.

opening *C* of *Catamanus*; an uncial or half-uncial *o* or *c* would have the meeting of the left and right bows at this point. Close observation of the axis of inscribed *os*, and the detection of original stroke changes, might thus enable us to deduce the type of hand originally envisaged by the ordinator.

2. *The axis of the O*

Considerable confusion might be banished if it were realised that palaeographical terms have strict meaning with measurable rules, and that, as J. Romilly Allen suggested, a few basic Roman hands lie at the root of Insular and Continental variations.²⁸ Recognising the proportions and the axis of the *O* give guidance here, but unfortunately only when the ordinator or cutter has not avoided the undoubted problem of cutting any *O* by making it a minuscule omicron. However, half-uncial letters that include a left bow (that is the opening stroke of the *O*), such as *e*, *t* or *q* can equally well give us this indication of the *O* axis. The pen angles of different hands result in differently-shaped *os* in cursive bookscript (ILLUS. 3:1), Rustic capitals, uncials, half-uncials and minuscules.

In palaeography, 'Rustic' does not mean crude, but is the term for the compressed two-line Roman hand with an extraordinarily steep pen angle of *c.* 60 degrees. This gives a thin downstroke and a thick horizontal, an elongated *O* with an axis 10 to 20 degrees off the vertical, and thick strokes in the bows at upper right and lower left, as we can see when we compare the *o* axis of Rustic script (ILLUS. 4:15A) with that of Greek uncials (ILLUS. 4:15B). *Tabellae Sulis* 10 (ILLUS. 4:16) shows how a tall, Rustic-style script appears in the hand of a writer in stylus on lead, which lacks the tractability of wax.²⁹ Notice the angularity of the *S*, *C* and *T*, suiting a tool that was being pushed or drawn along a line with some force.

Uncial is a two-line capital script with the edge of the pen held almost horizontal, giving broad downstrokes and thin horizontals. The axis of the *O*, roughly on a square, is vertical, as in its descendant half-uncial, which became the dominant majuscule book hand of eighth-century Insular Christianity (ILLUS. 4:17).

²⁸ *ECMS*, p. xxiii.

²⁹ I am grateful to Roger Tomlin for permission to use his drawing for *Tabellae Sulis*, no. 10.

Half-uncial is a four-line script with ascenders and descenders. In its Continental form it was of extreme simplicity (ILLUS. 4:18), but in its Insular form it became embellished with triangular serifs, and is associated with an unusual angular display script and a flamboyant minuscule.

Minuscule is a four-line script heavily influenced by rapidly-formed, cursive pen movements made with the pen edge at the angle of 45 degrees, giving a horizontal and a vertical of the same thickness. Where the axis of the *o* is swung to the left, the result is as in Rustic (ILLUS. 4:19). It has the minimum number of pen-lifts in contrast to the half-uncial, which is disarticulated in comparison (ILLUS. 4:17). Characteristic letters are the two-stroke *d* with the swung-over second stroke, the easily confused long *r* and *s*, and high *e* with ligaturing bar on the writing line.

3. *The stroke sequence*

Another aid to letter analysis is provided by the stroke sequence of the letter formation. In the case of the *Catamanus* inscription we discover a great deal about the idiosyncratic three-bar *m*, which is used in the form of the angular display hand in the bolder opening section of the inscription, and as an angular minuscule in the smaller closing section, lines 3 to 5. If we make a careful comparison of the construction of the penned forms of half-uncial and minuscule *m*, then we can see that the angular display form has not been influenced by penned forms, as its diagonal linking strokes travel in the opposite direction.

The second and third stroke of half-uncial *m* spring with a round arch from the first minim (ILLUS. 4:20A). As we can see from the round entries into strokes, it was possible for the stone-cutter of the *Catamanus* inscription to render curves; therefore he did not lack the capacity to cut a correct half-uncial *m*.

The second and third strokes of minuscule *m* rise up, through the downstrokes, at the pen angle of 45 degrees, to give two thins parallel to the entry stroke of the opening minim (ILLUS. 4:20B). As we see from ILLUS. 4:2, the *Catamanus* display forms of *m* have their thin linking strokes travelling in the opposite direction. It is possible then to be quite clear, from the stroke sequence, whether a written, pen-formed bookscript letter was intended by the inscription's designer, or a more monumental angular display letter that may have had no connection whatever with scribal tools.

4. *The serif or terminal of downstrokes*

If the ordinator intended a script form, then he would enter into the downstroke from the left with a horizontal thin; consequently the cutter renders a terminal that is weighted to the left, i.e. the line ending is not symmetrical. If the ordinator intends a letter that has come into use from a pre-existing adaptation for cutting, such as the Merovingian or Lombardic angular capitals, then the line ending is symmetrical (ILLUS. 4:21). Even in the case of the *Catamanus* letters, which are brushed on with rapidity, we are able to see that the line endings are plumb centre over the downstrokes, and show no trace of the leftward triangle of a pen-form serif. It remains a practical anomaly that the cutters were perfectly capable of cutting symmetrical, geometric triangular terminals on their cross forms, such as we see in the cross accompanying the *Catamanus* inscription, and yet did not think of applying such a neat line ending to their lettering stems. John Higgitt has discussed the careful spacing and positioning of the texts in relation to sculptured crosses in a variety of examples, but does not discuss the simpler type of layout found on the *Catamanus* inscription, with an inscribed cross at right-angles to the text.³⁰ The text is set vertically down the stone, as was often the fashion during *ECMW* Group I. An explanation for the layout has been put forward by Charles Thomas, according to which the monument was designed to lie flat within the church, the cross being aligned with the long walls, and the inscription to be read from the side aisle.³¹ This would also explain the survival of the extraordinarily crisp cutting. But against his argument there is no archaeological evidence for an early church on the site, which, c. 625, would probably have been of wood, or for indoor monuments in Wales at the time. It would seem more likely that the monument was standing vertically before its re-use in the fabric of the building.

The *Catamanus* inscription: analysis of the lettering

Does the *Catamanus* inscription show a discernible style that can be paralleled in any other *ECMW* inscriptions transitional between Groups I and II? There appears to be some system at work in the inscription, even though it is not a system that has any obvious connection with precise scriptorium practice. That the ordinator was competent enough to adapt his letter-forms to the limitations of the stone selected for a memorial is suggested by

³⁰ J. Higgitt, 'Words and Crosses: The Inscribed Stone Cross in Early Medieval Britain and Ireland', in J. Higgitt, ed., *Early Medieval Sculpture in Britain and Ireland* [B.A.R. British Series 152] (Oxford, 1986), pp. 125-152.

³¹ Thomas, *Whispering Reeds*, pp. 22-3.

the nearby horizontal inscription at Llangaffo³² (ILLUS. 1:4B), very similar in style, which has identical three-stroke a, m and n, but where the letters are of a different proportion. I have argued in detail elsewhere that the identity of the letterer of these two stones is the same.³³ On the Llangaffo stone he has adapted his letter-form to a long, narrow shaft with a laminated working area of great difficulty in the lower left, by elongating his letters and deliberately selecting a form of l in *lapidem* that skirts around a raised edge of lamination, rather than cutting into it. With the elongation of the letters has come angularity of form. Here we find angular c, t, u and geometric n and m; the R is majuscule, as opposed to the *Catamanus* minuscule. The two inscriptions are consistent with a writer skilled enough to paint a bold text with a horizontal flow in a vertically-aligned inscription,³⁴ and able to compress his script for a narrow, upright inscription that was horizontally aligned on the pillar-stone. Interestingly, he uses the same three-stroke A on both inscriptions, but at Llangaffo he seems to have stopped elongating his writing line to fit in the closing *lapidem*. Both of these inscriptions have what Nordenfalk calls 'Schwing';³⁵ they are designed by confident writers who understand a repertoire of marks which they are able to use rapidly in sequence.

They are, as Nicolette Gray wrote of eighth-century Lombardic epigraphic capitals, where several forms of a letter might be used in the same inscription, 'not cut to any formal canon'; they are 'irregular yet they are so combined together that they make up a whole having some self determining order and felicity'.³⁶ They use an alphabetical repertoire that has many distinct versions of the same letter, used apparently haphazardly. What then could be the reason for the placement of the two versions of letters such as the m, both forms seen together in the *Catamanus* inscription (ILLUS. 4:22)? In them we see that the connecting thins between the downstrokes travel at a radically different angle from those in the half-uncial and minuscule pen-forms. Is it possible to link them with other angularised forms that have the broken left bow? Close analysis of the first minuscule form of m in line 3 shows that this was

³² ECMW no. 35.

³³ G. Charles-Edwards, 'The Epigraphy of Wales', pp. 60-62.

³⁴ That is, the inscription was carved with the stone horizontal, as shown by the puddling of the paint (see above, p. 85), and the stone was raised to the vertical at a later stage.

³⁵ Nordenfalk, 'Before the Book of Durrow', p.155.

³⁶ N. Gray, 'The Palaeography of Latin Inscriptions in the Eighth, Ninth and Tenth Centuries in Italy', *Papers of the British School at Rome* 16, n. s. 3 (1948), p. 78.

a simple and effective way to render either a pocked or a carved letter in stone; altering the angles of the linking thins – as was done in line 1 – disarticulates the form, giving five cuts instead of four and avoiding an unnecessary complexity of form, a complexity that in other places cutters were eager to discard as they evolved a simple alphabet having the appearance more of common writing than a scribal hand. But this long-enduring, simple alphabet *did* come to have associated capitals which seem to consist of angularised minuscules, and whose forms are among the earliest non-capital letters to intrude into, and disrupt, the initial epigraphic style of debased capitals. They may have been affected by some craft use that was not scribal.

Julian Brown remarks that, although most canonical half-uncial manuscripts of the sixth and seventh century use uncial N to the exclusion of minuscule n, ‘in Insular the dominance of minuscule n argues strongly against the derivation of Insular half-uncial from the canonical half-uncial of Italy, Gaul or Spain’. Instead he derives it from Italian documentary cursive, where we find uncial N subordinate to n.³⁷ The analyses of the previous chapter have given precise ratios for the distribution of minuscule forms among the half-uncial of the earliest surviving Insular manuscripts. When we consider carefully all the epigraphic lower-case letters found in *ECMW* – the m, n, and linked r (ILLUS. 2:18), alongside the angular t, e, q, o and p – where we might describe the strokes that are bows when formed with a pen as ‘boxed’ – there is a good case for showing that the development is from the pre-canonical cursive half-uncial, sometimes called quarter-uncial. The stroke break of the left bows is on a left axis, and what was a pen-formed bow has become an angled foot (ILLUS. 4:24). The half-uncial forms with the o axis vertical are placed above the angular minuscule forms where we can see the first and second stroke. It is most likely that this development was made to simplify pen-forms and to make them suitable for use in other media such as stone and metal. As it is not possible to link the *Catamanus* inscription with the practice of pen-lettering, we might compare it with contemporary Continental epigraphy to discover if there was a similar non-scribal approach here also.

Clearly, the widespread and variegated distribution of a type of ‘barbaric’ or ‘popular’ capital, described by Nicolette Gray as being of ‘a definite school’, in ex-provinces after the fall of the Roman empire, shows that there was an artificer’s alphabet independent of the broad-pen letters of the scriptorium. She notices features of early Lombard epigraphy, ‘letters with

³⁷ Brown, *A Palaeographer’s View*, p. 189.

stems projecting above or below the horizontal links as in E, F, L, and P'.³⁸ They have the plain, uninflected line of coinage dies, with fish-tail or clubbed line ends. John Higgitt sees these characteristics as Merovingian, with early occurrences in sixth- and seventh-century Gaul (ILLUS 4:23).³⁹ The connection between this barbaric type of capital letter-form and a primary use in metalwork is often made. For example, Françoise Descombes in *RICG* 15 illustrates the tombstone of Bertegiselus in Vienne, and her comment, 'L'epigraphie vient ici renforcer le temoinage des monnaies',⁴⁰ makes the same stylistic link with coinage as Stanley Morison had done.⁴¹ In his corpus of inscriptions from the middle Rhine, Walburg Boppert illustrated a series of stones with lettering in this homogeneous style.⁴² Although the Insular geometric M and N in their method of construction clearly belong to this grouping, only the N, not the M, occurs in post-Roman Continental inscriptions.⁴³ From these Continental examples we learn that, before Insular scribes had evolved a display capital, such a capital did exist in the early seventh century for applied lettering in metalwork and stonework, which may have influenced the repertoire of forms used by the designer of the *Catamanus* inscription. I think it is intended that the first line of this inscription is in display capitals – with the earliest dateable Insular epigraphic use of the three-bar M – which confirms the superior hierarchical nature of the geometric form as a capitular version for more important sections than the angular minuscule. This is a purely epigraphic development, taking place some time before we see developed scribal geometric capitals towards the end of the seventh century, when they have reached the top of the Insular script hierarchy.

³⁸ Gray, 'Latin Inscriptions in Italy', p. 79.

³⁹ J. Higgitt, 'The Dedication Inscription at Jarrow and its Context', *The Antiquaries' Journal* 59 (1979), p. 357.

⁴⁰ Descombes, *RICG*, Vol. 15, no. 21, p. 241.

⁴¹ See the conclusion of Chapter 2 and pp. 106-108 in Chapter 5 below.

⁴² W. Boppert, *Die frühchristlichen Inschriften des Mittelrheingebietes* (Mainz, 1971), stones to Panto (pp. 72-4) and to Badegiselus (pp. 24-6).

⁴³ Higgitt (*ibid.*) mentions a possible exception in E. F. Le Blant, 'Paléographie des inscriptions latines du III siècle à la fin du VIIe', *Revue Archéologique* (3rd Series) 30 (1897), pp. 35-6.

'Barbaric' display capitals as a possible ancestor of Insular display capitals?

It is worthwhile to examine the few British inscriptions that are recognised examples of Gray's 'barbaric' capital examples, in order to discover if there is a consistent treatment of the M (ILLUS. 4:25) that would suggest import of letter-forms from Gaul through strong and unbroken trade connections. There are six such inscriptions:

A *ECMS* vol. 2 p. 432, Yarrow Kirk 1 (Selkirkshire), *HIC MEMORIA PERPETVA / IN LOCO INSIGNISIMI PRINCI / PES NVDI / DVMNOGENI HIC IACENT / IN TVMVLO DVO FILII / LIBERALI(S)*.

Two *ORC* cursive Ms with vertical opening stroke and added high zig-zag; two splayed outer stroke Roman capitals with central V-shape. It should be noticed that the cursive M form with the miniaturised v plus one diagonal has the angled linking strokes at the same angle as the display M of the *Catamamus* inscription. The cursive M version of the Yarrow inscription suggests a surviving employment of Roman rapid writing in Britain; overall the inscription is not easy to parallel in Gaul.

B *CIIC* no. 518, Kirkmadrine (Galloway), *Initium et Finis*.

Trident M beneath an encircled Chi-rho with open hook. Charles Thomas compares this inscription to a Gaulish example from the *Hypogée des Dunes* at Poitiers (ILLUS. 10:7). Possible Gaulish connection? But there are several similar trident Ms among the Ogham / Latin bilinguals of Pembrokeshire (Chapter 2).

C, D *ECMW* nos. 77 and 78, Aberdaron, Capel Anelog, (Caernarfonshire), *Veracius* and *Senacus*.

Four Ms on *ECMW* 78, all Roman capital form, some bar serifs; common to Britain and Gaul.

E *ECMS* vol. 2, p. 262. Lethnott (Forfarshire), *Filii Medicii*.

(ILLUS. 10:2.) One three-stroke M constructed with no links, itself a curiosity in Britain; no obvious parallels in Gaul.

F Kermodé, *Manx Crosses*, no. 27, Maughold (Isle of Man), *Crucis XRI imagenem*.

(ILLUS. 10:8.) Two three-bar Ms with horizontal link; parallels in Brittany.

These six inscriptions show no consistent treatment of the letter M. The later bas-relief inscription from Portmahomack, Ross and Cromarty, on the other hand, shows a stylish manuscript-influenced layout and alphabet (ILLUS. 10:3).⁴⁴

Some of these inscriptions have marked fish-tail line endings that we do not see on the *Catamanus* inscription, and these may give a clue as to the specific nature of the original craft use of these angular letters. This use appears to be governed by the desire to curtail any chance of the vertical stemlines slipping over the boundary of the letter-form, and by the desire to avoid curves. This suggests cutting or graving tools that are being used at an angle very close to the surface being worked, such as a chip-carving knife on wood, or a graver on metal. Apart from the coffin and portable altar of Saint Cuthbert,⁴⁵ we have very few surviving examples of carved letters or symbols in wood. However, sufficient survives to indicate that the line ending of a chip-carved downstroke on planked timber, with the grain running vertically, had to be stabilised with deep-cut terminals to prevent ripping along the grain, before the double cut of the actual downstroke was made. Once these terminals were in place, the rest of the letter was added without disturbing them, by linking the secondary strokes between the terminals themselves.

Though carvers in stone would have been aware of book arts, it is not sensible to expect that inscription-cutters during the seventh century – when the long-term process of transition from building in wood to building in stone commenced – would only have emulated the script forms of book arts. Some form of simplified linear marking on metal and wood to indicate ownership or maker's marks must have evolved concurrently. We should be prepared to consider that there may have been movement from the far more developed crafts of smithing and woodworking into scribal practice, more so than vice versa.⁴⁶ Chisels, knives and styli were well-understood tools in general use compared to the more specialised broad-edge pen in use on costly skins.

The method of use for a graver or chip-carving knife obscures from the operator the end of the line being worked, as well as making it likely that there may be slips from the intended path of the tool on smooth polished metal, or on grained wood. Some of the

⁴⁴ *ECMS*, Tarbat no. 10.

⁴⁵ J. M. Cronyn and C. V. Horie, *St Cuthbert's Coffin: the history, technology and conservation* (Durham, 1985); C. Thomas, *The Early Christian Archaeology of North Britain* (Oxford, 1971), pp. 191-4.

⁴⁶ Alcock, *Kings and Warriors*, pp. 340-2.

terminals or 'stops' that we find on inscriptional pre-canonical letters of the late sixth or early seventh century are scooped curves, rather than flat horizontals or chevrons.⁴⁷ These cannot have issued from any woodworking practice, where curved strokes were eschewed until the invention of U gouges, but must rather come from metalworking. Accepting that the decoration of manuscripts drew much inspiration, particularly in the case of the Book of Durrow, from metalworking, can we on the other hand find in inscriptional lettering art, which pre-dates it, any sanction for that felicitous irregularity that marked the non-classical 'barbaric' or 'popular' letter for Nicolette Gray?

Dateable manuscripts from the end of the seventh century and the beginning of the eighth, such as Dorbenne's Life of Adamnan,⁴⁸ the Bangor Antiphonary⁴⁹ or the Lindisfarne Gospels,⁵⁰ demonstrate that the fine gearing of a strict hierarchy of scripts would have been well fixed by the end of the seventh century, by which time *diminuendo* has been laid aside as a method of making display letters in favour of geometric capitals. The Schaffhausen manuscript still shows in its set minuscule the high e with ligatures, ligatured ti, ec and et, but it has round os and wide spacing. Insular geometric display letters have become established as scribal monumental capitals by the time of writing of the Durham Gospels (late seventh century), which pre-date those of Lindisfarne.⁵¹ Michelle Brown has recently placed a date of c. 715 on the Lindisfarne Gospels, thus enlarging the chronological gap between them and the Book of Durrow (c. 675) to around forty years.⁵² By this time, also, the exaggeratedly high e of the cursive form that facilitated ligaturing to the right has generally been banished from half-uncial, and is to be seen only in the minuscules. If we turn back to the beginning of the century to examine the *Cathach*, then we can see that the *Catamanus* inscription is mirroring a state of flux that exists in this manuscript regarding the design of display letters, before the strict division between layers of script has set in. The method of presenting a display section of

⁴⁷ R. A. S. Macalister, 'Notes on Certain Irish Inscriptions,' *PRIA* Vol. 33 C (1916), pp. 81-92.

⁴⁸ Schaffhausen, Stadtbibliothek, MS Generalia I, c. 703.

⁴⁹ Milan, Biblioteca Ambrosiana, MS C. 5. Inf., c. 690.

⁵⁰ British Library, MS Cotton Nero D. IV, c. 715.

⁵¹ Durham Cathedral Library, MS Durham A. II. 17, c. 680.

⁵² M. Brown, *The Lindisfarne Gospels: Society, Spirituality and the Scribe* (London, 2003) p. 397.

lettering in the *Cathach*, at those points where each new Psalm begins, is to use enlarged letters that are not necessarily those of the primitive half-uncial text, in a series of diminishing size until the text size has been returned to. These are mixed-alphabet sections where there is no adherence to a writing line. Julian Brown points out the Late Antique nature of this practice in some Bobbio manuscripts, particularly in the case of texts beginning with a large T or P which flow, with diminishing letter size, into ligatured conjoint letters as in 'Ter' and 'Pri'⁵³ (ILLUS. 3:21).

Most interestingly, in some of these sections, the *Cathach* uses an angularised version of the three-stroke Greek uncial A which is such a feature of the top three lines of the *Catamanus* inscription. The ordinator of this inscription, whose lack of scribal expertise I have been stressing, has not used the scribal 'double c' or 'oc' form of half-uncial a but has instead made a feature of the Greek epigraphic letter which, by the end of the seventh century, had been adapted and absorbed into the repertoire of scribal geometric capitals. The choice of this A, then, like the choice of the three-bar M with diagonal links, was probably made for reasons of display, as a method of aggrandising the section giving the name of the king.

The manuscript Durham A. II. 10 of c. 650 is an important intermediary between the primitive half-uncial of the *Cathach* and the Book of Durrow. It shows no attempt to use geometric capitals for massed display. Rather it uses the compound letters that we find used for capitalisation in the Springmount Bog tablets. The use of geometric display letters on the *Catamanus* inscription in the first half of the seventh century supports the theory of Julian Brown that these letters were in origin epigraphic, and that only after a period of experimentation with other forms of display letter (like the compounds of Durham A. II. 10 or the *diminuendo* of the *Cathach*), did Insular scribes adopt and adapt them.⁵⁴ In Durham A. II. 10 we also see a minuscule that has formed distinctively, and the scribe does not slide within his text from half-uncial to minuscule, as the scribe of the *Cathach* does. An important chronological aid can be established by tabulating the forms of geometric capitals when they are used on their own, and when they are used later in conjunction with scribal curvilinear forms. In the latter the ordinators are evidently emulating the display pages of Gospel books (see Chapter 9).

⁵³ *CLA* iii, nos. 397a and 398 (also known as Naples Lat. 2.); *CLA* v, no. 654; Brown, *A Palaeographer's View*, p. 204.

⁵⁴ T. J. Brown, 'The Palaeography of the Latin Text', in Kendrick *et al.*, eds., *Evangeliorum quattuor Codex Lindisfarnensis*, Vol. 2 (Olten, 1960), p. 75.

Conclusion

The *Catamanus* inscription is interesting for its unlikeness to scribal half-uncial rather than for its likeness. When we compare it to Continental examples of epigraphy and metalwork, and to other Insular inscriptions of the first half of the seventh century, it seems that very little inscribed lettering of this period qualifies as calligraphic. The evidence of the *Echodi* inscription from Iona, combined with the evidence of the *Catamanus* inscription, together establish that there is a perceptible sequence of development in epigraphic mixed-alphabet letter-form before the appearance of the horizontally-banded, strictly angular type such as the Toureen Peacaun East Cross (ILLUS. 7:4) or the Tarbat inscription (ILLUS. 10:3). The *Catamanus* inscription has loose fluctuation of size, spacing and layout, consistent with the style of display lettering used by the *Cathach*. The neater and smaller *Lapis Echodi* inscription is more controlled, with a deliberate locking together of some letters, as in the opening triplet *Ech*, and wide spacing given to others, as in *odi*. Both inscriptions persist in using a round *o*. None of the examples in Group I and early Group II inscriptions of *ECMW* attempts to use the lozenge form for the *o* or for the body of minuscule letters like *a* and *d*; this seems to be an Irish development, perhaps from the shape that occurs in the Ogham supplementary letters of the *forfeda*.⁵⁵

The mixed-alphabet style of display lettering flourished before the establishment of the consistently pen-formed model of epigraphic half-uncial, as well-spaced as a majuscule, which was used in Ireland. We can date the beginnings of this Irish style to the establishment of scribal half-uncial Phase I in the second half of the seventh century, which is typified by the hand of the Book of Durrow.⁵⁶ It is clear then that, with close scrutiny, it is possible to discern that letter-cutters were drawing upon sources independent of the work of high-grade scribes, and that they utilised exotic alphabets such as Greek in combination with simplified letters to create the mixed-alphabet style. Their tendency is to employ linear letters rather than curvilinear, and this would suggest an epigraphic craft milieu in which the use of straight lines was favoured over curved ones. The possibility should be considered that the Irish settlements in Dyfed, where Ogham-using, Irish-speaking people encountered and adapted Latin and Romano-British memorialising habits, might have had such a craft milieu. In Ireland, inscriptions of the earliest period show the same peculiar angular minuscule-type intrusions as

⁵⁵ McManus, *A Guide to Ogam*, §7, pp. 13-15.

⁵⁶ Brown, *A Palaeographer's View*, p. 206.

do the Group I inscriptions of *ECMW*, but these become less frequent as Irish letter-cutters learned to cut scribal forms in stone very skilfully (see Chapter 8). The divergence between Welsh and Irish practice becomes marked by c. 900.

An important chronological pointer from the purely epigraphic alphabet of Ogham overlaps with the time of writing of the *Cathach*. K. H. Jackson estimated that the use of Ogham in Wales would have died out by c. 600,⁵⁷ and it is on those inscriptions in Wales that are bilingual in Ogham and Latin that we find the first angular adaptations of minuscule and difficult curvilinear letters like capital S that became, in time, the preferred display capital of Insular scribes of the eighth century (see ILLUS. 2:16).⁵⁸ Though Roman cursive half-uncial, or some type of Roman documentary hand, such as that suggested by Julian Brown, had passed from the western seaboard of Britain to Ireland by the beginning of the seventh century, innovation in the adaptation and use of Roman letters seems to have flourished in the country to which they had been transplanted, rather than in Britain itself.

Macalister's first *CIIC* volume,⁵⁹ subtitled *The Ogham and Analogous Inscriptions of Ireland*, opens with the 'half-uncial' Inchagoill (Co. Galway) inscription⁶⁰ (ILLUS. 4:1A), because its formula replicates, or so Macalister thought, the lost or destroyed original in Ogham. This inscription, together with the Kilmalkedar (Co. Kerry) alphabet stone,⁶¹ both possibly as early as the second half of the sixth century, are discussed by John Higgitt in an important article.⁶² Going to the heart of the tricky question of certain identification of scribal hands, like that made by Macalister in this instance, he writes of the Inchagoill inscription:

The lettering is informal and irregular and lacks display forms like those seen at Llangadwaladr ... the letter forms are akin to those of Irish book script of about the time of the Codex Usanianus Primus and the *Cathach*, although they lack the wedge serifs of the latter ... can the G on the Inchagoill stone be explained as an unusual angular version of the unusual form in the Codex Usanianus Primus?

⁵⁷ *LHEB*, p. 137.

⁵⁸ G. Charles-Edwards, 'The Springmount Bog Tablets', p. 34.

⁵⁹ *CIIC* Volume I (Dublin, 1945).

⁶⁰ *CIIC* no. 1.

⁶¹ *CIIC* no. 913; Okasha and Forsyth, *Early Christian Inscriptions of Munster*, pp. 165-9.

⁶² Higgitt, 'The Stone-cutter and the Scriptorium'.

Of the script of the Kilmakedar inscription, he asks: 'It was based on book script but should it be classified as half-uncial or minuscule?'

Higgitt's questioning of the classification of the letter-form that we see in these inscriptions, which date from a period before Insular half-uncial has evolved into its canonical form, *c.* 650, is crucial. Nash-Williams's Group I inscriptions cover the period of the fifth to seventh centuries, and the type of lower-case letter-form that appears among the debased capitals of the Group I inscriptions belongs to the same serifless type, patently more minuscule than majuscule, as we see in the two Irish inscriptions above. Listed in Chapter 2 as a recognisable series, these inscriptions should be clearly distinguished from the later homogeneous half-uncial inscriptions, though they make primitive play with the contrast of curvilinear and angular forms in the manner of the more sophisticated late-seventh-century scribal capitals. It should be clear that here we are seeing a progressive evolution within a recognisable type. Thus this thesis identifies a group of late-sixth- and early-seventh-century inscriptions in Wales which exemplify the epigraphic precursors of Insular decorative capitals of the late seventh and eighth century.

How it came about that letter-cutters in the second half of the sixth century, and at the beginning of the seventh, felt free to design large, irregular public inscriptions on stone that are mixed-alphabet, and that were acceptable to their patrons, must reflect a development in crafts which is not directly connected with book arts at this time. We can only assume that formal written productions of Roman-style missives and rescripts in the British Isles in the sixth century used the free-form hands with which we are familiar from Continental sources. Therefore close analysis of engraving in metalwork and woodwork may provide some clues as to why upper- and lower-case were combined, and what may have been the specific advantages of certain shapes and sections of cut, in relation to certain tools on certain materials. Certainly, mixed-alphabet inscriptions like the one to Catamanus at Llangadwaladr, though showing no signs of scribal experience of broad-pen use, are executed with confidence and are impressive. We should look to other workshops and other media to appreciate and understand them, rather than be critical of their appearance as calligraphic productions, since this is not a category to which they belong.

Chapter 5
TOOLS, METALWORK AND THE GROUP I INSCRIPTIONS:
THE TRANSITION FROM METALWORK TO STONE.

As we saw in Chapter 1, there have been various attempts to link developments in the art and craft of later Iron Age metalwork with later developments in the decorative arts of the early Christian scriptorium.¹ Decoration and lettering, however, have tended to remain in separate compartments. In Chapter 2 the lettering of Roman and Romano-British portabilia in metal, the *instrumentum domesticum* of *RIB*, was put forward as a possible influence on the later debasement of high-grade Roman capital letter-forms in stone during the *ECMW* Group I time-span. It was suggested that some characteristics of this style of debased, incised letter-form re-appear in eighth-century display capitals. The transition thus presumed from epigraphy to calligraphy calls into question the relation of workshop to scriptorium, and opens up the possibility that, during the period of Group I, the upper hand was to be found in the workshop and not in the scriptorium. In the creation of a shrine or memorial, perhaps, a renowned master-craftsman, smith or jeweller, might fashion letter-forms with as much assurance as a high-ranking scribe. Certainly it is on metal and stone that we see letter-forms with the greatest dissimilarity to high-grade scribal pen work.

There are three elements in the eighth-century book arts which combine to present a visual mix that is peculiarly Insular. These are: elaborate decoration; non-Roman display script and, on the other hand, canonical hands that are clearly descended from Roman models. It is crucial to distinguish the separate sources of these three components when we try to relate the display script and the canonical hands to lettering cut in stone, where we find angular display letters a century before their appearance in Insular book arts. There is an even greater time lapse before we see the transference of calligraphic scribal hands into the medium of epigraphy. This would seem to indicate both an initial lack of engagement between the scriptorium and the mason's workshop, and a positive engagement of artificers in the design of monumental lettering.

In this chapter I shall propose a linkage between established metalworking techniques and the actual structuring of seventh-century cut letters, which eschewed a round-hand Roman

¹ Henry, *Irish Art*, pp. 92-116.

model. In doing this I shall suggest that highly gifted and valued smiths and metalworkers, with prestige and power, were able to transform the alphabet in a new way, and on a monumental scale, that was evidently acceptable to their patrons. The possibility that their work builds upon technology and design from a metalworking tradition which evolves from late Iron Age to Romano-British will also be examined. The links in that evolution that bear upon the early medieval appearance of a unique display alphabet with no apparent connection to any previous Roman alphabet will also be discussed.

The question of whether the finished appearance of inscriptional art was controlled by the artificers who executed it, or by the learned class of scribes who composed it, has been polarised for some time. The arguments of Nash-Williams suggested a conduit of influence flowing from the scriptorium to the stone-cutter's workshop;² the arguments of Stanley Morison, on the other hand, suggested a conduit to the scriptorium from epigraphic practice in metalwork, specifically the small-scale die-cut lettering of coiners.³ Certainly the display script of Insular manuscripts of the seventh and eighth centuries, as we have seen from the analysis of manuscripts in Chapter 3, cannot be associated with any earlier Insular pen-formed letters. Morison's suggestion, then, of scribal adoption of angular forms of display script influenced by Byzantine coinage and such small-scale precious portabilia is an attractive and plausible one; but in this chapter the possibility of other, and earlier, metalwork influence surviving from the Roman period will also be examined. Most significantly, it is designed on a larger scale than coinage and relates more easily to the larger scale of book arts.

An unusual overlap between decoration and lettering, such as we see in Insular display letters, has been perceived in earlier decorative patterning that co-existed in book arts and metalwork. The theories of J. Romilly Allen on the use of repeat letter-forms in decorative metalwork and stonework have long fallen by the wayside, but they are relevant to this thesis. His perception⁴ that metalworkers and stone-carvers had an abstract understanding of blocked capital letter-shapes, and used them repeated, reversed and inverted in complex pattern-

² *ECMW*, p.12.

³ Morison, *Politics and Script*, pp. 152-8. I am very grateful to Anna Gannon for discussing the problem of scale regarding die-cut letters in comparison with relatively large-scale geometric inscriptions in stone.

⁴ *ECMS*, Vol. II, pp. 136-9.

making within repeat squares and bands, has a clear connection to the invention of the geometric alphabet that uses mirrored pairings and interlocking letter-shapes. His perception has not been made use of by epigraphers, who tend to concentrate on texts and philology, or by art historians, who tend to concentrate on iconography and typology; yet to examine letters in the light of the technology of repeat decoration may be a route to a firmer chronology.

Difficulties in making a precise link with metalwork techniques

It has long been acknowledged that there are difficulties in establishing a clear chronology on visual evidence alone. With the passage of centuries and accelerating surface deterioration, the early inscriptions of Group I of the fifth to the early seventh century are increasingly difficult for the epigrapher to analyse technically: their techniques of incision are often impossible to ascertain. This has resulted in some epigraphers, such as Elisabeth Okasha, making quite deliberately loose chronological classifications, sometimes as broad as half a millennium.⁵ Inevitably much will remain speculative, and a commonly understood vocabulary to describe these monuments in a precise sequence with a time-scale has still not appeared. An ambitious attempt by Ken Dark to provide one, contrary to Okasha's instinct, has proposed a four-fold re-classification of the Group I inscriptions by reference to their cutting techniques and layouts, and Carlo Tedeschi subdivides the original classifications of *ECMW* by epigraphical reference to the debased and cursive forms of early Christian Continental memorial stones.⁶ Nevertheless, Group I inscriptions confirm the often-made general point that, after the Roman withdrawal in AD 410 and in some cases before it, high standards of letter-cutting with the use of a tempered-edged chisel were abandoned in Britain as a model worth emulation.⁷ But, as has been shown in Chapter 2, it is also the case that the Romans themselves in Britain used a range of inscriptional lettering of different standards, with the highest-class inscriptions where we might expect to find craftsmen of the highest skills, at major military bases or in towns.

⁵ E. Okasha, *Corpus of Early Christian Inscribed Stones of South-West Britain* (London, 1993), p. 50.

⁶ Dark, 'Epigraphic, Art-Historical, and Historical Approaches', pp. 51-61; Tedeschi, 'Some observations', pp. 24-5.

⁷ P. Craddock, *Early Metal Mining and Production* (Edinburgh, 1995), p. 238.

In Chapter 2 we also saw that *RIB* classifies the lowest level as 'quarry-inscriptions': these are the roughly-picked and irregularly-lettered examples found near Roman quarry sites. Even where we might have expected relatively formal letters, they were not considered essential.⁸ If there was no specialist there to produce them, an army mason was considered competent enough. Similarly, many Roman military gravestones show surprising cursive informality and mix minuscule with capital forms, including minuscule **b** with bow to the left,⁹ the tablet form of **e** with two verticals,¹⁰ and **I** with its horizontal foot descending below the line as in cursive Rustic capitals.¹¹ The Roman-British habits of ligaturing **M** and **N** with **A** and **V**, and of inverting or reversing the forms of **A**, **D**, **E**, **S** and **X**, are noted by Tedeschi.¹² All these characteristics suggest that the lower-grade inscriptions, both before and after the Roman withdrawal, are associated with less specialised and refined tools and craft practice, where there was no access to masters of the craft, to specialised equipment, or to technicians who could maintain such equipment.

The edged chisel needs frequent tempering in a forge. Relatively soft untreated iron can be sharpened and reshaped without the specialist attention of a smith. In straitened circumstances this practical advantage may have outweighed all else.¹³ Consequently, in post-Roman Britain, sculptural cutting in depth with inflected V-section was abandoned, as a model, for a lighter uninflected incision where the letter was conceived of in outline. Such methods are to be seen in inscriptions on metal.

Among this type of inscription we find the use of a punch, or hand-pick, shaft held vertically, struck in an overall pointillist technique (ILLUS. 5:1); we see this clearly in the fragmentary pillar-stone in fine-grained quartz-gritstone erected to the memory of *Domnicus*

⁸ e.g. *RIB* 721.

⁹ e.g. *RIB* 256.

¹⁰ e.g. *RIB* 346 and 1528.

¹¹ e.g. *RIB* 1575.

¹² Tedeschi, 'Some observations', p. 17.

¹³ Craddock, *Early Metal Mining*, p. 238.

at Llangwryfon, Cardiganshire.¹⁴ Using a different technique, the same tool could be used to hack out a curved-section indent in a manner similar to the smithing technique of *repoussé* in metal, which was worked from the back of the piece. A hand pick is far less controllable and accurate than a hammer and punch. Perhaps in order to indicate that punched work is more refined than the brutally-struck *RIB* quarry inscriptions described as 'picked', Mark Handley uses the term 'pocking' rather than 'punching', and where an inscription has had roughnesses removed after the initial working he describes it as 'pocked and smoothed'.¹⁵ This is a technique that we see, for example, in the inscription to *Catacus* on the pillar-stone at Llanfihangel-Cwmdru, Breconshire (ILLUS. 5:2).¹⁶ Nash-Williams classifies the unusual forked serifs of this inscription, and the form of the A, as lapidary Greek. It seems likely that the second technique of incision is an elaboration of the first. In the case of inscriptions made in crudely granular and very hard granite, where weathering, especially inside the cut, is unlikely, pocking alone leaves rough grains breaking up the surface. If these have been trimmed down then we may assume they have been tooled away, as can be seen in the *Gallmau* inscription from Lanrivoaré, Brittany.¹⁷

As the Britons were renowned for their smithing skills, but apparently had no tradition of fine-detail stone-cutting, we might speculate that what we see in the first, debased capitals of the earliest Group I inscriptions is letter-cutting carried out on stone by craftsmen who are mainly familiar with metalworking (or woodworking, but for wood we have no significant surviving comparanda: see Chapter 6). If this was the case, then examination of lettering on metal during the Roman period might provide some evidence that characteristics of metalworking techniques adopted by the Romano-British were carried over into the new craft of stoneworking. Just as Insular manuscript decoration in the later seventh century was to show clear borrowings from metalwork, we should be prepared to find that related crafts, like letter-cutting, absorbed and applied knowledge that was practically useful beyond the sphere

¹⁴ *ECMW* no. 122.

¹⁵ M. A. Handley, 'The Catalogue', in W. Davies *et al.*, eds., *The Inscriptions of Early Medieval Brittany* (Aberystwyth, 2000), pp. 117, 140, 149, 166.

¹⁶ *ECMW* no. 54.

¹⁷ *IEMB*, ref. F2, pp. 113-7.

of its origin.¹⁸ Not only decoration but also alphabets were prone to adaptation when they left the written page and were applied outside the scriptorium or secretariat. Indeed, as Elisabeth Okasha warns, some such radical adaptations can leave us unsure of which alphabet is being represented.¹⁹ Stanley Morison is the scholar who has discussed most lucidly such alphabetical transformations.

The work of Stanley Morison and its relevance to Insular display lettering: the importance of his method of detailed practical analysis

As already indicated, we find geometrically-adapted Roman minuscule letters used in Wales and Ireland in mixed-alphabet inscriptions on stone at the beginning of the seventh century, and some even in the Ogham / Latin inscriptions of pre-600; their origins have been much disputed. Specialist research has rarely concentrated on the minutiae of epigraphic serif formation, should it have survived, nor on the correlation with manuscript letter-forms. A notable exception was Pádraig Ó hEilidhe, who in 1967 lamented that the Lyell Lectures of Stanley Morison, in which he put forward some revolutionary revisions of Insular epigraphy and palaeography, were as yet unpublished.²⁰ They did not finally appear until 1972.²¹ It cannot be said that any of Morison's ideas have had any influence, even yet, on the interpretation of those intertwined difficulties in understanding early developments in Insular writing and letter-cutting that Ó hEilidhe perceived. Morison's outstanding contribution was to open up the field of comparanda, particularly in drawing attention to Byzantine inscriptional work on metal and its influence on the Merovingian style that later combined with the style of the Insular mission abroad, and also came into Britain and Ireland through the intercourse

¹⁸ V. & R. Megaw, 'A cat and mouse game: Tracing Iron Age elements in the Book of Kells', in E. Pohl, U. Recker and C. Theune, eds., *Archäologisches Zellwerk. Beiträge zur Kulturgeschichte in Europa und Asien. Festschrift für Helmut Roth zum 60. Geburtstag* [Studia honoraria 16] (Rahden, 2001), pp. 215-7.

¹⁹ Okasha, *CECISSWB*, pp. 53-4.

²⁰ P. Ó hEilidhe, 'The Crosses and Slabs at St Berriherth's Kyle in the glen of Aherlow', in E. Rynne, ed., *North Munster Studies* (Limerick, 1967), pp. 102-26.

²¹ Morison, *Politics and Script*.

between the Frankish, Kentish and Irish courts.²²

Describing the mid-fourth-century decline in Roman epigraphic standards after Pope Damasus (whose scribe Philocalus designed the Damantine style of monumental capitals which purged itself of any Greek letters), Morison comments firstly on the type of monumental letter that came into popular use in Rome at the beginning of the fifth century. He saw this as a process of abandoning the old, wide and wide-spaced, monumental capital letter whose round O sits within a square, in favour of a modern narrower letter 'in the proportion of Rustic', followed by a gradual debasement of the monumental form that accelerated after the sack of Rome in 410.²³ Morison then describes the 'technomorphic' inventiveness of the inscriptional letterers of Byzantium in evolving a new style combining Greek epigraphic letters with newly-designed adaptations of Roman minuscule letters. As we have seen in Chapter 2, this is a combination that we find in some of the inscriptions of *ECMW*, but we must note that the mixed-alphabet style of monument did not purge itself of Greek letters. These may have taken root through early familiarity with the *nomina sacra* such as IHC, XPI etc. The Byzantine style used the Greek forked or angle-bar A, which, Morison noted, 'had appeared on Christian Latin inscriptions of all classes from the third century'.²⁴ In Greece itself, Morison stressed, the forked A remained 'a carver's and not a scribe's form'.²⁵

Precious gifts in metal, with the new Byzantine 'syncretic alphabet' that combined Greek and Latin letters, were sent from Constantinople to Rome and to the Franks. Particularly influential would have been items like the elaborate processional cross made c. 570 and sent by Justin II to Rome, with its inscription that combined 'hybrid capitals and uncials with formalized cursive elements'²⁶ (ILLUS. 5:3), and the heavy engraved and lettered gold pieces sent by Tiberius to Chilperic, King of the Franks. In Kent the Frankish cleric Liudhard, Queen Bertha's chaplain, had such a lettered gold piece as a medalet, with a

²² J.-M. Picard, *Ireland and Northern France AD 600-850* (Dublin, 1991), pp. 27-82.

²³ Morison, *Politics and Script*, p. 98.

²⁴ *Ibid.*, p. 108.

²⁵ *Ibid.*, p. 89.

²⁶ *Ibid.*, p. 99.

suspension loop.²⁷ In the late sixth and early seventh century the Anglo-Saxons copied and wore Imperial lettered gold tremisses as jewellery.²⁸ Irish and British interaction with the Franks began to take place in the middle of the sixth century; it is in the seventh century that we find in both countries inscriptions which, like the Byzantine, are mixed-alphabet, including Greek letters and formalized cursive elements.

Ian Wood has drawn attention to the Merovingian claim of dominion over southern England at this time, and has also stressed the nature of the Irish mission to the Franks before the time of Columbanus.²⁹ He notices the three brothers from the north of Ireland who worked abroad in the first half of the seventh century: Fursey, founder of the monastery at Lagny who was buried at Peronne, and Ultan and Foilan, Abbots of Fosses. When Ultan was Abbot of Fosses he had arranged for the return of the exiled King Dagobert II from the monastery of Slane in Ireland.³⁰ Fursey had spent some time in East Anglia as a missionary, with little success, and had then moved to France.³¹

In discussing the Merovingian coinage and the large royal and aristocratic storehouses of treasure, Wood emphasises the importance of wealth and display among Merovingian noblemen and churchmen. They used gold bullion fashioned as precious gifts for donation at shrines, inscribed with the names of their donors.³² Realizing that such distinctive art objects and smaller portabilia would have been imitated in Ireland and Britain, he cautions against the over-simplicity of perceiving a 'transmission of culture running from Italy in the sixth century, to the British Isles in the seventh and then to Carolingian Francia in the eighth'.³³ As well as Italian manuscripts, Benedict Biscop brought back to Northumbria Merovingian manuscripts

²⁷ Morison, *Ibid.*, pp. 99-100; L. Webster and J. Backhouse, eds., *The Making of England, Anglo-Saxon Art and Culture AD 600-900* (Toronto, 1991), p. 23, no. 5b.

²⁸ *Ibid.*, p. 53, nos. 34 a-f.

²⁹ I. N. Wood, *The Merovingian Kingdoms 450-571* (London, 1994), pp. 176-7.

³⁰ *Ibid.*, p. 232.

³¹ Charles-Edwards, *Early Christian Ireland*, pp. 317-8.

³² Wood, *The Merovingian Kingdoms*, pp. 217-20.

³³ *Ibid.*, p. 220.

from Vienne, to equip the monastery at Wearmouth and Jarrow.³⁴ Irish influence on the development of Christian Merovingian art, monasticism and letters, and vice versa, might have produced ideal conditions for the flourishing of Morison's 'syncretic' alphabet in the British Isles, particularly in metalwork. Niamh Whitfield has already suggested such links in goldsmithing techniques. She also cautions against too rigid a conception of Irish cultural connections: 'do we look only east towards Anglo-Saxon England ... or do we also look in a more southerly direction towards Frankish and Lombardic kingdoms or even further east towards the Late Antique and Byzantine world?'³⁵ This question also has a bearing on the origins of the earliest inscriptional letter-forms of the British Isles, and on the issue of whether there was a firmly-established style of inscription-making in existence before the Anglo-Saxons developed their own.

Morison was a trained typographer, who worked with metal types and punches, and was attuned to metalworking techniques. As a result he attributed the development of the unique Insular triangular serif, of the seventh-century manuscript hands, to attempts by Insular scribes at copying the symmetrical angular-cut serifs of the inscriptions on late Roman coins. He believed that fashions in lettering would have changed under the influence of imported portabilia in precious metals. He made the assumption that Britons and Irish would have been attentive to the lettered messages on coinage at a time when perhaps it was of more significance in its weight as bullion:

The lettering most familiar to the mass of the people is not that engraved on marble or stone, or engrossed on charters, but that struck on metal. Coinage is the most popularly distributed of all the applications of lettering.³⁶

Morison seems not to have had a scribal understanding of the construction of the Insular serif, which has an approach-stroke from the left and is not symmetrical (see ILLUS. 3:4). This provides a useful means of dividing inscribed letter-forms that show asymmetrical

³⁴ Brown, *A Palaeographer's View*, p. 150.

³⁵ N. Whitfield, 'The Earliest Filigree from Ireland', in Redknap *et al.*, eds., *Pattern and Purpose*, p. 143.

³⁶ Morison, *Politics and Script*, p. 102.

scribal serifs from those that have symmetrical ones (ILLUS. 5:4), as cut on stone, wood or coin dies. In contrast to the scribally-influenced wedge, the symmetrically wedged equilateral triangle at the head of a downstroke (ILLUS. 4:21A) shows that, at some point in its evolution into a model to be drawn on stone, it has previously been made by cutting tools in a hard medium. For example, a letter-cutter used to working on wood first cut the horizontal bars or stops that would prevent the downstroke from ripping up the grain, and going beyond the intended bounds of the letter, before he joined them with a downstroke (see ILLUS. 5:1 and 5:2, and Appendix 1). Thus he made a symmetrical line-finish in contrast to that put on the stone by a letter-cutter used to broad-pen forms, who would naturally move into the downstroke with a straight line from the left, which in some of the Clonmacnoise Type A inscriptions are left unbracketed, with no serif (see Chapter 8). These Morison describes as 'bar serifs' (ILLUS. 5:5): they have a simple straight cut across the end of the downstroke, with no angle or curve to make a visual link between horizontal and vertical cut.³⁷ Morison has also drawn attention to the importance of line endings, and has provided a method of analysis whereby we can be more certain whether a letter-form has evolved in a scriptorium, a smithy or a stone-cutter's workshop. The transformations wrought in letter-form by being transferred to a different medium have confused palaeographical analysis and have prevented the establishment of any sound typology. Yet, as we shall see in Chapter 8, craftsmen working in hard materials at Clonmacnoise were to make design decisions that employed well-spaced round-hand alphabetical forms. There may be an opportunity to construct a basic chronological division at that point where it became more fashionable to have a scribal-style epitaph than one that was in mixed-alphabet display capital style.

How writing becomes transformed when it is applied by letter-cutters, in metal and stone, using crude methods

As far back as the invention of cuneiform writing in clay (ILLUS. 5:7), craftsmen understood the means of getting the maximum effect of contrasting marks from an edged tool: the same sharpened reed, held upright, could produce a fine thin line, and also, when it was held at an angle, could produce a wedge, pressed sideways onto the writing surface. We can see this technique taken into the hands of metalworkers. A dedication to Castor and Pollux

³⁷ *Ibid.*, pp. 149 ff.

from Rome of the mid-sixth century BC is the earliest surviving Roman letter-cutting on bronze (ILLUS. 5:6).³⁸ In this we see that the upright hold (A) on the chisel, and the use of the sharpened edge tilted (B) (see ILLUS. 5:7) – so that the sideways section of the edge made a triangular wedge-shaped indent at the line end – presented difficulties in the execution of curved strokes: see especially in ILLUS. 5:6 where the O is made with a series of lapped straight strokes. This primitive wedged line end must be distinguished from the later inscribed ‘calligraphic’ wedge, which, in relation to those indented in bronze, is a skeuomorph. Seventh-century Insular letter-cutters rendering a triangular ‘scribal’ line end are carving a shape whose origin and purpose they do not understand. The wedge of the Roman letter-cutter in bronze is naturally produced by the tool with which he is working. However, this is a distinction which Stanley Morison did not take into consideration. He associated the later incised calligraphic wedge with a deliberate emulation of metalworkers’ wedge serifs brought into Britain via the medium of coinage, as he believed that ‘Coinage is the most popularly distributed of all the applications of lettering.’³⁹ But the distinction is between a carved feature that is merely decorative and a pen-made one that is functional.

Just as the incised line with depth at its centre was a step forward from the technique of all-over punching in early Roman letter-cutting in metal (ILLUS. 5:8), a similar technological change came about when letter-cutters discovered that they could cut much more efficiently if they chased their strokes, holding their chisels or gravers at an angle and striking them lightly with a mallet (ILLUS. 5:9). There was a drawback with this improved technique in that it was far too easy to overshoot the intended length of line, so that, where this was likely to happen, the cutters first put in a punched or drilled stop, as for example on ILLUS. 5:10, detail, and ILLUS. 5:12. This safety measure is analogous to the upper and lower horizontal cuts made on wood which prevent the chiselled-out vertical of the downstroke from ripping up or down the grain of the plank (ILLUS. 5:11). In order to avoid irrecoverable errors made by slips of the chisel, the aim was to cut long strokes from a point of danger towards a point of safety. We can see this safety device clearly in a bronze plate, now in Rome in the Capitoline Museum, which records a meeting of a *Collegium Fabrum* (ILLUS.

³⁸ *Corpus Inscriptionum Latinarum* (Berlin, 1862-), I²:4:2883; Gordon, *IILE*, Catalogue, no. 2.

³⁹ Morison, *Politics and Script*, p. 102.

5:12).⁴⁰ This is a large plaque measuring c. 570 mm. by 400 mm. (2ft by 1ft 4in) – much larger than the usual type of bronze Roman military diploma, of which thirteen examples have survived in Britain,⁴¹ which have an average size of 152 mm. by 127 mm. (6in by 5in). They are, though, a palaeographically related type, differing in the size of the letter-forms and line ends, cut with a hand-held graver and pushed, not struck.⁴² With a hand-held graver there was no strict need for the safety measure of bored ‘stops’ at the line ends.

Simple Roman lettering techniques that survive into the post-Roman period

There is a type of letter construction found on *ECMW* Group I monuments, but also on monuments at other places on the coast of the Irish Sea province, and on the Continent, which shows this technique of stabilising the downstroke between two strong line ends or stops before adding the remainder of the letter strokes. These secondary strokes are not allowed to touch the stops at the line ends, as we see in details of the B and E of the *Veracius* inscription from Aberdaron, Caernarfonshire (ILLUS. 5:13).⁴³ We should notice that these ‘fish-tail’ line endings are related to those line ends that Nash-Williams classified as lapidary Greek in the Breconshire *Catacus* inscription (ILLUS. 5:2).⁴⁴ If we follow the suggestion made above – that smiths were evolving their own methods of applying letter-form to stone – then this ‘stopping’ technique might be placed firmly in a phase of development before any scribal style of ‘half-uncial’ inscriptions had come into being, and after letter-cutters had moved on from vertically-struck punching of capitals to chased work. Confirmation of this theory lies in the dating of similar inscriptions in Brittany to the sixth or seventh century, such as that made for Beladore at Bais, Ille-et-Vilaine, and cut in friable slate using this method (ILLUS. 5:14).⁴⁵

⁴⁰ *CIL* II, 5748.; Gordon, *IILE*, Catalogue, no. 78.

⁴¹ *RIB* no. 2401.1-13.

⁴² Gordon, *IILE*, no. 78.

⁴³ *ECMW* no. 77.

⁴⁴ *ECMW* no. 54.

⁴⁵ *IEMB*, pp. 258-266; the Merovingian date is also suggested by P. Guigon, *Les sepultures du haut Moyen Age en Bretagne* (Rennes, 1994), p. 97.

The Merovingian Franks also used the chisel on goldwork in a way that would have been recognisable to the Roman metalworker. A remarkable object from Rouelle de Limons, Puy-de-Dome, shows a complete range of goldsmithing techniques in moulding and engraving (ILLUS. 5:15).⁴⁶ Of particular interest are its cast and then engraved letters of alpha and omega and the rho of the highly ornamental Chi-rho. This cast openwork ornament of c. 600 has additional surface decoration of engraved wedged stops with a chased line connecting them. It is a clear example of chased and struck work, contemporary with the Group I inscriptions. We might speculate that the range of marks that we see on this object were common knowledge to craftsmen working on different surfaces. Because hardly anything has survived in wood from the period, it remains an anomaly that the lettering on St Cuthbert's altar appears to have line ends made in the same way (see Chapter 6).

We have seen in Chapter 4 how the line ends of the *Catamanus* inscription come from the tradition of informal cursive writing, with rounded movements into the heads of downstrokes. Its cutting was minutely careful at the edges of the letters, with the cutter carefully following every variation in the brushed-on letter-forms; but the cutting-out of the centre of the letters was a great deal rougher, showing some marks of chasing as the cutter routed out unwanted stone from the stroke centres. Close examination of the deepest parts of some of the least-damaged cut letters of Group I and II monuments has shown that a boldly-struck line of deep punched holes was made up the centre of the stroke, and unwanted stone was cut away from around this area in a 'joining up the dots' technique (see Appendix I).⁴⁷ The advantage of having deeper-cut indents at turns or corners in strokes, as well as at line ends, would have been the prevention of slips during the rougher movements of clearing away from the cut edge. Here again we have an overlap with a Roman metal-smithing technique of a low-grade, informal kind, such as we see, for example, in the bronze plate of *Cintusmus*, discussed below. The survival of such a rough and ready lettering technique might suggest that an equally simplified letter-form survived with it.

⁴⁶ Now in the *Cabinet de medailles* of the Bibliothèque Nationale, Paris.

⁴⁷ M. Redknap, 'Tools and cutting techniques', in M. Redknap, J. M. Lewis and N. Edwards, *A Corpus of Early Medieval Inscribed Stones and Stone Sculpture in Wales*, Vol. 1 (forthcoming).

Some examples of Romano-British lettering techniques on metal that may overlap with those used later on stone

From Colchester (ILLUS. 5:16) comes a bronze votive plate of c. 400 AD, c. 76 mm. by 51 mm. (3 in by 2 in), cut by a coppersmith with a Celtic name using a square-section punch. His name was *Cintusmus* and his trade is given as *aerarius*: coppersmith: his dedication reads *Deo Silvano Callirio D Cintvsmvs aerarivs V S L M*, 'Cintusmus the coppersmith gave [this] to the god Silvanus Callirius; he willingly and deservedly fulfilled his vow'.⁴⁸ The lettering is neatly laid out, with well-shaped letter-forms – see the S and O – that must have been sketched on with a burin before the punch was applied. The word *aerarius*, 'coppersmith', occurs on one other inscription, a dedicatory panel on a statuette of the God Mars: *Celatus aerar / ius fecit et aera / menti lib(ram) donav / it factam (denariis) III*, 'Celatus the coppersmith fashioned it and gave a pound of bronze made at the cost of three denarii' (ILLUS. 5:17).⁴⁹ It is dated to the mid-second century. Though debased and ill-spaced, the capitals are individually quite well-formed and engraved.

These two votive inscriptions present two quite different approaches to small inscriptional lettering. Celatus is using monumental capitals, but Cintusmus is using, and very effectively, a technique first found in marking personal names on helmets,⁵⁰ shields,⁵¹ weapons,⁵² and such-like military gear. Perhaps originally the pointillist dotting technique was adopted for the purpose of safely marking hard iron, with vertical strikes, but it was later adopted by bronzesmiths and coppersmiths. Certainly by the end of the fourth century, and perhaps before, the technique is also to be found on valuable silver vessels, used rather than engraved line-work. Among the objects in a late-fourth- or early-fifth-century deposition found in the Traprain Law hoard, East Lothian, was a silver flask or flagon (ILLUS. 5:8) bearing around its neck the inscription *Frymiacoeisiafici[t]* 'Eisia made [this] for Frymiacus';

⁴⁸ *RIB* no. 194.

⁴⁹ *RIB* no. 274.

⁵⁰ See, for instance, *RIB* nos. 2425, 2426.2.

⁵¹ *RIB* no. 2426.1.

⁵² *RIB* no. 2427.4.

this has a **Chi-rho**, and its lettering is made of 'small dots or punctuations'.⁵³

Lettering was also applied to sheet lead objects such as coffins and ossuaria, but the method of application did not involve incision or engraving. Shaped wood was pressed into sand moulds before the molten metal was poured, leaving the lettering in relief.⁵⁴ As it involves the medium of wood, the technique is discussed in Chapter 6. Yet again, it presents a method of shaping letter-forms that did not involve V-section incision. As we know that some Romano-British craftsmen, such as Cunobarrus, were familiar with this type of coffin burial, it should be included among the type of letter, raised and sans serif, that might have survived in the post-Roman period as a conduit for simple capital letter-forms.⁵⁵ Toller pointed out that lead coffin distribution 'corresponds with that of wealth in Roman Britain. Lead was not a cheap material in which to bury yourself'.⁵⁶ He found that there was a higher concentration than elsewhere around the Bristol channel, and that there was a southern distribution with marked concentrations at Exeter and Colchester. The style of lettering in the surviving examples, on account of having been cut in wood, is executed in bands in the manner of tile stamps (ILLUS 6:7A).

Another find from the Traprain Law hoard was a silver strainer with a **Chi-rho** and the inscription *Jesus Christus* (ILLUS. 5:18A).⁵⁷ The most remarkable aspect of the inscription is that here we see Roman angular letters which, like the later *ECMW* Group I inscriptions, mix rapid shorthand tablet letters (such as the double-vertical e), with capitals, in a selection that is governed by their suitability for being dot-punched or cut in straight lines. The inscription has a reversed Z-shaped S that is borrowed from a type of Greek **Sigma** also seen on Welsh Group I inscribed stones.⁵⁸ It is not the only Greek letter to travel to the British Isles. If it is

⁵³ *RIB* no. 2414.20; A. O. Curle, 'The Treasure of Traprain - the inscription on the flask', *PSAS* 62 (1927-8), pp. 162-3.

⁵⁴ H. Toller, *Roman Lead Coffins and Ossuaria in Britain* [B.A.R. 38] (Oxford, 1977).

⁵⁵ *RIB* no. 2416.4.

⁵⁶ Toller, *Roman Lead Coffins*, p. 2.

⁵⁷ *RIB* no. 2414.21.

⁵⁸ *ECMW* nos. 308, 160, and 346.

not a Rustic capital, another Greek epigraphic letter that crossed into the angular alphabet in *ECMW* Group I was the squared C, seen at its most extreme in *ECMW* no. 54, from Llanfihangel-Cwmdu, Breconshire, and also in a related inscription from Nant Crew re-discovered in 1957.⁵⁹ If this borrowing was in operation in the late fourth century, while Britain was still part of the Roman empire, then the Greek / Roman syncretism (see above), which Stanley Morison dates to the sixth-century Byzantine influence that reached Britain via the Franks, may have taken root much earlier in Britain under direct Roman influence. This would have been early enough to have survived in a post-Roman practical repertoire of inscriptional letter-forms specially suitable for engraving and cutting. The work on the Cintusmus plaque, though suggesting a link with the first post-Roman inscriptions on stone in its deeply dot-punched centre-line technique, is unlike them in an important respect. It shows no hesitancy whatsoever in the execution of perfect curves. Indeed, one of the lowest-grade punched-dot inscriptions on metal shows a cursive looped entry into the downstroke.⁶⁰

A clear hybridisation is to be seen where Celtic craftsmen produced items, such as *cingula militae*, zoomorphic openwork belt buckles, for the Roman military market (see below). Objects like the Rudge cup combine brilliantly enamelled step patterning with lines of lettering confined between two horizontal bands below the rim (ILLUS. 5:19).⁶¹ As in the technique of *opus interassile*, where the background is cut away to leave the block letters in relief as described in Chapter 2, the background is excised to leave the letters isolated and attached to the horizontal bands at head and foot. As we shall see in Chapter 6, this was a technique equally attractive to woodworkers, but our surviving evidence for wood is later. In the case of the metal cups, the background to the letters was filled with red enamel, lying on a dotted field, so keyed as to make the enamel adhere more firmly to the metal surface. The lettering is a strangely bold adaptation of squat Roman capitals. Openwork technique was used for the similar lettering of military equipment like baldrics, which show a preference for lozenge O.⁶²

⁵⁹ *CEMISSSW* no. B1.

⁶⁰ *RIB* no. 2414.38.

⁶¹ *RIB* no. 2415.53.

⁶² *RIB* nos. 2429.1-16.

A copper-alloy dice-tower – a box-like construction in which dice were placed at the top to fall through a series of obstructions that turned them in an irregular manner – found on the site of a *villa rustica* at Vettweis-Froitzheim in Germany shows *opus interassile* letters in six lines with strong horizontal banding (ILLUS. 5:20).⁶³ The text reads: *PICTOS / VICTOS / HOSTIS / DELETA / LUDITE / SECURI*, ‘The Picts / are defeated / The enemy / has been destroyed / Play / with security’. This has caused it to be associated either with Constantius’s campaigns against the Picts in 296, or with the two campaigns of 343 or 368. The inscription is in simple block letter, with a ruled border enclosing each band of letters. The drill-holes at the corner of each angle, for example the top of the P and I of *PICTOS* or the bottom left of the T of *DELETA*, where the fret-saw has been inserted, are sometimes visible. The resemblance to the later bands of manuscript *tituli* is very strong. On the dice-tower, the letter L of *DELETA* has given difficulty in that it cannot read correctly in the openwork band when its foot is merged with the rim of the band, so its foot has been angled and the downstroke shortened. A similar difficulty with L in the Toureen Peacaun inscription (see Chapter 7) was overcome by making a right-angled bend in the centre of the downstroke; this results in a character identical to the *ECMW* Group I epigraphic ligature of LI.

We have seen above that, during the Roman period in Britain, openwork *interassile* was perhaps the boldest method of making prominent display letters in metal, and that this was carried over into *champlevé* designs where the raised letter stood out on an enamelled field rather than being isolated as a cut-out. The technique of chip-carving, on the other hand, does not seem to have been utilised by letterers for such a purpose. It remains in the smaller-scale sphere of coinage die-cutting and decorative patterning. As a decorative metalworking technique it seems to have gained in popularity with the popularisation of Germanic-style belt-buckles in the Roman military during the fourth century. A fine example of this style of zoomorphic openwork buckle was found at Catterick, Yorkshire; in this style of buckle, for the first time in British art, we see lively designs of pairs of animal heads mirroring one another. Jocelyn Toynbee wrote of the type: ‘it seems not unlikely that the market for which they were manufactured was that of the German auxiliaries in the Roman armies’.⁶⁴ As the

⁶³ E. Hartley, J. Hawkes, M. Henig and F. Mee, eds., *Constantine the Great: York’s Roman Emperor* (York, 2006), Catalogue no. 69.

⁶⁴ J. M. C. Toynbee, *Art in Roman Britain* (London, 1962), Cat. no. 129; pl. 153.

presence of Germanic troops in the Roman army was so substantial in the Late Empire, the taste for such designs may have become widespread. In their catalogue and survey of such buckles, Hawkes and Dunning chart their distribution and typology; they describe them as limited to military use. But it is possible that Romano-British craftsmen adopted and adapted such designs for markets other than specifically military ones. Hawkes and Dunning list two unusual specimens, one from the civilian settlement of Caerwent, Monmouthshire, and one from the Romano-British temple complex at Lydney, Gloucestershire. Of this type of buckle they write: 'we must imagine that these last examples of Romano-British craftwork were precious and had a long life'.⁶⁵

Though we cannot show that the chip-carving technique was adapted for letter-cutting in metal by the Romano-British, the technique may have survived in use on wood (see Chapter 6). The concept of the letter as angular, incised and faceted is difficult to demonstrate on metal. Letter-cutters make no attempt to facet letters sharply on stone in the early medieval period, yet, in the Group I period, they seem to have a concept of the letter with worked line ends (ILLUS. 3:6). These have various crude line end finishes, and do seem to link with those metalwork examples discussed above, where the line ends were of the greatest practical importance, and were well worked, whereas the *hastae* or downstrokes that joined the line ends were not given such careful treatment. Clearly the early medieval letter-cutter was attempting large-scale inscriptions with no clear pre-existing model in any craft; instead he put together various elements that were usable and fitting, just as he used letters from different alphabets. We can say that those elements he found useful were not from the small-scale model of coinage dies, but from the larger-scale portabilia, quite likely cloned from the sort of Romano-British *instrumentum domesticum* that survived in use in the post-Roman period. Ownership inscriptions must have played a prominent part in this survival.

There is one other possible source for the impulse to angularisation of lower-case letters. Tablet-writing seems to have been practised on a wide variety of surfaces, and not only on those that were recessed to take a layer of wax, like the Springmount Bog tablets of the late sixth century. The Vindolanda tablets, of native British manufacture, were made of alder,

⁶⁵ S. C. Hawkes and G. C. Dunning, 'Soldiers and settlers in Britain, fourth to fifth century; with a catalogue of animal-ornamented buckles and related belt-fittings', *Medieval Archaeology* 5 (1961), p. 26.

oak and birch.⁶⁶ In addition, lead was used, not only for curse tablets, and there are also examples on precious metals (ILLUS. 5:21). Stylus and burin can make readable marks on metal for drawing up designs, or for inscribing letters. The research of R. S. O. Tomlin and Pierre-Yves Lambert, specialising in tablet writing, has revealed the angular distinctiveness of cursive written on metal. As we see from the illustrations above, the type changed little. A second-century example from Bath⁶⁷ shows the angularisation of Rustic-model capitals, particularly important in the ‘boxing’ of the base of the T, and in the curves of the S. A third-century, cursive, lower-case example shows the tendency, whether upper- or lower-case, to break loops and bows with an angular turn.⁶⁸ A fifth-century example on a silver tablet, from Poitiers, shows the boxed T, ligatures and mixed capital and lower-case forms with which we are familiar on the Group I stones.⁶⁹

An overlap with early medieval craft-working

These letters on metal tablets have a very strong resemblance to the free-form hands of the *ECMW* Group I inscriptions; we may be confident that what we see in their letter-forms is not a very bad attempt to emulate any formal scribal hand, but represents instead the confident usage of informal hands, which have long been adapted for use outside the scriptorium. These constituted a form of common writing which was to change little over the centuries. We can isolate the period in which some inscription makers – unfortunately rather few in Wales – became influenced by formal scribal hands: and here rough palaeographical dating bands must surely be relevant and helpful, at least for the eighth and ninth centuries. Display letters, which have not been influenced by scribal models, use at the head of their downstrokes the symmetrical serif or line end which appears to represent a craft tradition unrelated to the scriptorium. This is relevant to the inscriptions on two remarkable metal objects surviving from the second half of the eighth century, one in Ireland and one in Northumbria, that show

⁶⁶ A. K. Bowman, ‘The Roman imperial army: letters and literacy on the northern frontier’, in Bowman and Woolf, eds., *Literacy and Power*, p. 112.

⁶⁷ Tomlin, *Tabellae Sulis*, no. 10.

⁶⁸ Tomlin, *Tabellae Sulis*, no. 97.

⁶⁹ *Recueil des Inscriptions Gauloises*, Vol. 2 Fasc. 2 (Paris, 2002), L-110, Poitiers (Vienne), p. 313.

Insular metalworkers engraving geometric capitals with complete confidence. These are the Ardagh Chalice⁷⁰ (ILLUS. 5:22) and the Coppergate helmet⁷¹ (ILLUS. 5:23); both inscriptions have symmetrical line-endings. The chalice is quite remarkable in that the background of its geometric letters is dotted to emulate either the red-dotted background of the manuscript style or the pitted surface of the keyed background of letters on an enamel ground. Yet the letters have epigraphic and not calligraphic line ends, so that the metalwork lettering perhaps presents a fusion of the practices of two workshops. The Coppergate helmet's inscription is less accomplished, being a retrograde inscription stamped in *pressblech* twice from the same mould on a thin copper-alloy sheet; the mixed-alphabet inscription uses curvilinear half-uncials to contrast with the angular geometric capitals including gate M and N. The connection between the scribe who drew the letters and the smith who worked them in metal cannot have been close, as the strips were fitted into the helmet back-to-front; on the Ardagh chalice, on the other hand, there seems to have been close contact between the two craftsmen, so close that both engraving and design might have been carried out by the same hand.

The inscription on the Ardagh chalice employs a complex system of pairing contrasting forms of the same letter, and the juxtaposition of curvilinear and angular forms. It shows a level of complexity in the use of geometric forms that is matched in no surviving Insular metalwork, and in very few examples of Insular geometric lettering on stone. The following list notes particular clusters of letters that illustrate the use of this deliberate patterning system:

1. Greek Pi is used to emphasise angularity in *Philipi*: opening with squared minuscule PH, half-sized I, followed by L with right angle break at mid line, half-size I, Greek Pi, full-size terminal I.

⁷⁰ National Museum of Ireland 1874:99; Earl of Dunraven, 'On an ancient Chalice and Brooches lately found at Ardagh', *Trans. R. I. A.* 24 (1873), pp. 433-54; Henry, *IA*, pp. 92-9.

⁷¹ The Castle Museum, York, inv. no. YORCM CA 665; D. Tweddle, *The Archaeology of York*, Vol. 17: *Small Finds*, fasc. 8. (York, 1984); Webster and Backhouse, *The Making of England*, no. 47.

2. To avoid problems of legibility, the **L** has a right-angle break at the mid-line, as in the Toureen Peacaun inscription; terminal **I**, as in **PAULI**, can then be placed high and half-size in the void above the **L** mid-line break.
3. There is deliberate contrasting of three forms of **A**: a rounded half-uncial, a Greek three-stroke **Alpha** and an oblong boxed form. These can be seen in sequence in **BArtholomei/ MAthei/ ThomAe**.
4. A good example of the placement of angular beside curvilinear forms is to be seen in **IOHANNES**, where the double **N** has an angular geometric form ligatured with a curvilinear calligraphic form.
5. The inscription throughout uses a squared minuscule **D** with thrown-over top stroke, of the same squared family as the oblong **A**, and a squared minuscule **B**.
6. In cases where the same letter occurs twice in a sequence, contrasting forms are used. This is of great interest, in that it shows a repertoire of forms as extensive as that of the Book of Kells. See the choice of curvilinear with angular **S** at the close of **TATHEUS** and the opening of **SIMON**.
7. There are instances where **I** following a vowel has been rendered half-size and fitted into the void above the preceding vowel: in **BARTHOLOMEI**, the half-size **O**s at '**HOLO**' have been rendered first as a round and secondly as a lozenge. Other instances show **I** above **B**, **E** above **H**, **I** above **H** and **I** above **L**.

The Ardagh chalice, and the Toureen Peacaun East Cross inscription, show a complexity and elaboration in the use of geometric capitals which would seem to indicate that they both date from a period when understanding of the alphabet was at its peak. But both of them have an epigraphic understanding of line ends, and they may represent craft knowledge that emanates from the workshop, as many of the curious practices listed above are to be found, admittedly in crudely executed versions, in Group I inscriptions.

Dating the heyday of geometrical capitals

The scribal metamorphosis from Phase I half-uncial to Phase II is quite clear, as we see in comparing blocks of text from the Book of Durrow and the Lindisfarne Gospels, and a well-spaced half-uncial on stone with a sensitivity to placement between rules should indicate a dating well into the eighth century. Display lettering evolves in Phase I, *c.* 650 - *c.* 700, reaches a peak in the gospel books of Phase II, *c.* 700 - *c.* 800, and goes into a decline in early ninth-century productions like the MacRegol Gospels, Bodleian Library MS Auct. D. II. 19 (see Chapter 9). If we follow John Higgitt's arguments, then finely-designed and sharply-executed geometric capitals, like those of the Ardagh Chalice, would be chronologically tied to the period of the eighth century, when the style flourished in manuscripts. But this should not lead to the assumption that they are merely a reflection of manuscript examples.

Cut-stone letters that may be defined as scribal are extremely rare in the entire corpus of *ECMW*; clearly the great majority of the inscriptions are produced by craftsmen operating in a sphere that is not dominated by the scriptorium. It appears to be dominated, rather, by the adaptations necessary when working in the medium of stone, adaptations which are equally suitable for working on metal.

The quality of stone and its effect upon the techniques of cutting

This inevitably brings into consideration the drastically inhibiting effect of the quality of the stone surfaces on which our first Insular inscriptions were cut, as these inscriptions show a noticeable aversion to large bowed strokes. In order to quarry out pillar-stones, only certain types of geological formation in gritstone levels and arenaceous sandstones with a high quartz content seem to have been workable with the quarrying skills of AD 400-600+. The advantages of these types of stone to the quarriers were disadvantages to the letter-cutter. Gritstone and the harder quartz sandstones are not easy to incise, particularly with curves, and the consequent aversion to bowed strokes would naturally incline letter-cutters to utilise angular substitutes (ILLUS 5:24). It must be stressed that these are angular Roman letter-forms, in the common stock of Roman writing and applied lettering that had been in use in the British Isles for more than three centuries.

I have carved replica letter-forms, including the relevant Ogham, on Sutton limestone, Quarella quartz sandstone, Pennant sandstone and Gritstone using a fire-sharpened lettering

chisel. These experiments confirm that the dangers of ruining the legibility of an inscription would have ensured that the best stone for the purpose was chosen, and that safe techniques would be evolved for inscription making. (A list of these experimental cut letters, with photographs and a commentary on the characteristics of the stone types, is given in Appendix 1.) Oblique-angle joins, when made by punching, were particularly difficult to make cleanly.

Ogham could be the extreme outcome of a straight-line reductionism as seen in the most shorthand of Roman tablet writing, used in a cipher or code the logic of which has proved undiscoverable. Any resemblance to Runic is illusory. Damian McManus comments: 'Some obvious parallels between ogam and runes have always been recognised but formal resemblances between ogam and the common Germanic Futhark or its western and northern offshoots stop at a preference for angular at the expense of rounded shapes'.⁷² Included among the Group I inscriptions are twenty-two that are bilingual Latin / Ogham; a list of these inscriptions is given in Chapter 2. My recent experiment has shown that to letter in Ogham by pocking rather than chasing, across or up to the arris of freshly-cut Sutton stone – which is much softer than a gritstone – leads to spalling and defacement of the reading. Whole sections of the stone surface, lying between the bars that end on the arris, or cross it, flake away. So, in the case of the bilingual inscriptions, the choice of the hardest stones might also have been influenced initially by the necessity of having a surface that could bear a great deal of battering along its edge; in Pembrokeshire, for example, which has a large number of the bilinguals, dolerite was used. In Group I the choice of hard arenaceous sandstones and millstone grits predominates.

Though it is thus possible to account for the hard stone, and for the angular approach to the cutting, it has been difficult to find a satisfactory explanation for the fifth- or sixth-century Welsh conversion to the use of a loose and informally laid-out 'bookscript' for inscriptions; and difficult, also, to understand why, having chosen to utilise a type of common writing that could be ligatured and looping, stone-cutters then converted certain letters to angular forms. Especially in the Group I inscriptions, there is a complete lack of interest in ruled lines for writing in, or in exact layout. Scribal training in Continental half-uncial on imported vellum would have habituated the scribe to writing between rules; the irregular placement on the line of Group I lettering is one of the more obvious indications that we are

⁷² McManus, *A Guide to Ogam*, p. 9.

not looking at the writing of trained scribes. Yet Romano-British craftsmen, particularly in metal, certainly knew what a straight edge was; and in their decorative crafts the geometric patterning known as latticework was routinely contrasted with curvilinear. As we have seen, they were also accustomed to repeat-patterning, and to the doubling-up of forms that mirrored one another, on either side of the design, presumably by the use of templates. A clear chronological indicator might be identified, then, at that point where inscriptions begin to show consciousness of layout in horizontal bands, and of the deliberate patterning of angular letter-form in that line. This occurs at that point where Group I elides into Group II; we might speculate that this signals a growing awareness on the part of artificers that monumental inscriptions are to be designed in relation to the whole work, which may carry decoration by this stage, and that the pattern of strokes of the alphabet are small elements which should lock in to the larger design of the whole layout. The evidence discussed above suggests that inscriptions showing block-letter, horizontal banding and a concern with inter-letter spaces may have emerged in the early medieval period from Romano-British metalwork practice on portabilia with lettering that was designed on a significantly larger scale than coinage. Just as we shall see later in eighth-century Insular manuscripts (Chapter 9), the decorative attractiveness – as an arresting patterned image – of such lettering design outweighed any conception that legibility was a necessity.

The angular style of decoration on metal and its survival from the Late Iron Age to the early medieval period

Enlarging on the work of Joseph Raftery and Adolf Mahr, Françoise Henry used the example of the decorated metalwork of sword scabbards found in the River Bann at Coleraine and Toome, and also at Lisnacrogghera, County Antrim, in attempting to show that there had been no hiatus in Irish metalworking traditions between the first and the fifth centuries AD.⁷³ She demonstrated that the use of latticework squared grilles or frameworks was common, and that the technique of opposed blocks of hatched engraving, seen for example on one of the scabbards from Lisnacrogghera (ILLUS. 5:25),⁷⁴ was echoed in early Christian work such as

⁷³ A. Mahr, *Christian Art in Ancient Ireland* (Dublin, 1932); J. Raftery, *Prehistoric Ireland* (London, 1951); Henry, *Irish Art*, pp. 9, 98.

⁷⁴ Henry, *Irish Art*, Plate 7.

the early-eighth-century Moylough belt shrine (ILLUS. 5:26).⁷⁵ This shrine has geometric patterns built up using the shapes of the letters T, L, and S. It uses an L-fret frame to enclose a panel of repeat spiral decoration, which is a good example of the deliberate contrast of geometric with curvilinear. This style of metalworking decoration uses simple geometric tricks for repeat patterning; it utilises the division of a line or panel into half, then into four. It employs an effective mirroring system whereby one image is laid beside another, but reversed. We find all of these tricks used in the geometric display alphabet. This was an alphabet that had no parallel in the classical lettering tradition and was an invention peculiar to the Insular world. The invention took place during the period when book hand was chosen in preference to capitals for the purposes of inscription: the implication might be that highly-skilled metalworkers, held in high regard, were in a position to influence the products of the scriptorium.

From Roman to post-Roman: choosing alternatives to classical capitals

In Carlisle's Tully House Museum we can see the curious conjunction of late Roman lapidary inscriptions with post-Roman British inscriptions, which are clearly close kin to Group I of *ECMW*.⁷⁶ The *Brigomaglus* inscription from Chesterholm, now in the Chesters Museum (ILLUS. 5:27), is a good example of a style current in both Wales and Cumbria.⁷⁷ We might speculate, in consequence, that perhaps what we see in the mixing of alphabets and upper- and lower-case in the Welsh Group I stones is not peculiarly freakish, but a distant reflection of some current or previous style perhaps familiar from portabilia with smaller-scale lettering. In Stanley Morison's view, during this period it was Byzantine metalworkers who created a deliberate fusion of Greek and Roman, upper- and lower-case letter-forms for their inscriptional work on metal.⁷⁸ He sees this style as influential in Britain and Ireland via the Franks, but we have seen above that such syncretism was going on in a much earlier period. Constantine's close connection with Britain at the beginning of the fourth century, and his use

⁷⁵ *Ibid.*, p. 96, Plates 34, 35.

⁷⁶ e.g. *RIB* no. 908.

⁷⁷ *CIIC* no. 498.

⁷⁸ Morison, *Politics and Script*, pp. 98-100.

of Greek letters for the *nomina sacra* in his insignia and his secretariat, would have ensured that at least a rudimentary knowledge of Greek letters survived in the Christian community in post-Roman Britain. This could have been fortified by the importation of manuscripts. Greek letters found in the geometric capitals of manuscripts of the eighth century include **Alpha**, **Chi**, **Pi**, **Rho**, **Sigma** and **Omega**. Morison emphasises the importance of Constantine in the adoption of Greek letter-forms including angle-bar A with **Omega** in inscriptions of the fourth century, but contact with the script might have been made even earlier.⁷⁹ Perhaps the Roman evidence for the Druidic use of Greek in Gaul should be taken seriously, as indicating familiarity in the British learned classes with a script system that is a great deal more angular than the Roman.⁸⁰ Very fine Greek hands are to be found in Durham A. II. 10, folio 3v, in Schaffhausen MS Generalia I, and in the *Liber Commonei*, folios 24r - 36r, from the mid-seventh, the early eighth and the early ninth centuries respectively. As we have seen, the *ECMW* Group I stones sometimes use the odd Greek letter, such as a **sigma**, in place of the Roman letter.⁸¹ Unusually, a very well-written inscription in Greek was cut on the edge of the Fahan Mura slab, Co. Donegal.⁸² The Loher Pillar in County Kerry has an **alpha** and **omega** that relate closely to Welsh examples; the **alpha** is of particular interest, as is it of a type that was to re-appear in the scribal display alphabet, but is seen first in the late *ECMW* Group I *Catacus* inscription at Llanfihangel-Cwmdru, Breconshire.⁸³

As will be discussed further in Chapter 9, the conception that the 'Lindisfarne display capitals' of the Northumbrian corpus are a Northumbrian scribal invention, later copied by stone-cutters, has had the effect of marginalising all those kindred inscriptions found elsewhere in the British Isles: those that are described as 'outliers' by John Higgitt, and presumed to be

⁷⁹ *Ibid.* p. 62.

⁸⁰ Caesar, *De Bello Gallico*, transl. H. J. Edwards (Cambridge, Mass., & London, 1917), Book 6 §14, pp. 338-9: 'Druides ... cum in reliquis fere rebus, publicis privatisque rationibus Graecis litteris utantur' - 'the druids [in Gaul] ... in almost all other matters, and in their public and private accounts, they make use of Greek letters'.

⁸¹ *ECMW* nos. 160, 346.

⁸² *CIIC* no. 951.

⁸³ Henry, *Irish Art*, monochrome plate no. 16.

later imitations.⁸⁴ It is assumed that no geometric display capital inscriptions are to be found in Wales apart from the *Saturnbiu* inscription on Ramsey Island, which is described as an 'Anglo-Saxon inscription' by Mark Redknap.⁸⁵ However, we do have two ambitious inscriptions which show the attempt to design a memorial in massed predominantly geometric capitals. These are at Llanlleonfel,⁸⁶ placed by Nash-Williams in his Group II of the seventh to the ninth centuries, and at Caldey,⁸⁷ dated by Nash-Williams to the early ninth century. We should include with stones of this type single-line inscriptions, such as the pillar-stone with the inscription to *Enevir* at Tregaron, Cardiganshire (ILLUS. 10:10, no. 4),⁸⁸ which are of the angular family and are certainly not half-uncial.

In these we see the squaring of the body, the reduction of bowed strokes to straight lines, and the use of parallel lines in layout. Significantly, the *Enevir* inscription is decorated with a checked pattern. What we may be seeing here, in stone, is the influence of decorative geometric patterning on metalwork applied to all the letters of the alphabet instead of to a few; for, as J. R. Allen had noticed, decorative patterning had especially utilised those letters that could be templated and repeated. The Group II inscriptions have made use of a specialised alphabet developed from the angular letters that we see at first scattered among others in the mixed-alphabet inscriptions of Group I, and which, as we have seen above, may be modelled on forms initially used on metal. That this type of letter was ideal for the use of stone-cutters seems to be suggested by the fact that we find it still in use in the panelled crosses of the tenth and eleventh centuries.⁸⁹ In some of these cases it is only the style of the decorative carving that provides evidence that the inscription is later than Group II, a fact that should give warning that there is a significant chronological disjunction between stone-cut display letters and manuscript practice in Wales after Group II.

⁸⁴ Higitt, 'The Display Script of the Book of Kells', p. 217.

⁸⁵ M. Redknap, *The Christian Celts* (Cardiff, 1991), p. 36.

⁸⁶ *ECMW* no. 62.

⁸⁷ *ECMW* no. 301.

⁸⁸ *ECMW* no. 133.

⁸⁹ e.g. *ECMW* nos 237, 255.

The span of Group II inscriptions, c. AD 600-800+, seems to be the only grouping in which we can find such a conjunction, and then only in a few clear examples. Nothing, neither upper- or lower-case, in the surviving corpus of Insular manuscripts until the Book of Durrow, in any way parallels the display letters that we see on stone in the Group I monuments. If we take into account the palaeographical arguments presented in Chapter 3, showing that the adaptation of a Continental half-uncial into its Insular form does not appear to have happened until the time-span of Group I was over, we must re-think not only the relationship between geometric display letters and Insular half-uncial, but also which of them came first. It leaves us free to construct a chronological model whereby, because large linear display lettering is not a part of Insular manuscript book arts until after 650, large-size monumental lettering on stone must be given its own chronological span in which it evolves separately from manuscript hands under the influence of lettering in other media. In this regard the palimpsest inscription on the Flixborough plaque⁹⁰ (ILLUS. 5:28A) is crucial: it is now inscribed, in the uppermost inscription, in a decorative hybrid minuscule that is recognisably Anglo-Saxon in style. Its corner fixing holes show that it was probably attached to a wooden reliquary or monument. Michelle Brown dates the upper inscription to the mid-eighth century, and describes the erased inscription beneath as angular display capitals 'of the sort popularised by the Lindisfarne scriptorium'.⁹¹ This would seem to indicate that Anglo-Saxon taste was turning away from such display capitals and choosing instead the hybrid minuscule style. The importance of this plaque is that it establishes that geometric capitals were used on metalwork objects for purposes of monumental inscription, and in areas where a distinctively Anglo-Saxon style later overlaid them. We see this bold, plain Anglo-Saxon style in a now lost inscription on stone, found in 1902, from King Alfred's city walls at Shaftesbury, c. 880 (ILLUS. 5:28C).⁹² We can see that the style of this inscription is purified of the angular minuscule intrusions and 'barbaric' O recorded in the now lost inscription from Caistor (ILLUS. 5:28B) by Richard

⁹⁰ Webster and Backhouse, eds., *The Making of England*, Catalogue no. 69a.

⁹¹ *Ibid.* Unfortunately the BM radiograph from which Michelle Brown made the analysis of the underlying display capitals has now been mislaid and is unavailable for re-examination.

⁹² D. Sturdy, *Alfred the Great* (London, 1995), p. 189. Sturdy's reconstruction of this inscription is: 'AELFRED REX HA / NC URBEM FECIT / ANNO DOMINIC / AE INCARNATIO / NIS DCCCLXXX / REGNI SUI VIII'.

Gough in 1806.⁹³

Free from the restrictions imposed by the perception of all intrusive lower-case letters in Group I as manuscript 'half-uncial', we may then conceive that the early forms of display geometric capitals seen in its mixed-alphabet inscriptions are not emulating the decorative letters of lost manuscripts, but rather are themselves the source of the later adaptations by scribes who wished to contrast a strong angular alphabet with the curvilinear half-uncial.

To return to the proposition to combine study of decoration with study of letter-form that was outlined at the beginning of this chapter, we might now propose an interpretation that may account for the peculiarities of the mixed-alphabet inscriptions of *ECMW* Group I. As we have seen above, we find angular minuscule letters first on Roman metal portabilia, and might strongly suspect that they are the source for the lower-case forms that began to replace capitals on stone in the post-Roman period. There seems then to have been a time-lapse before sculpted decoration was applied to monuments, and before letter-form was treated systematically, with the understanding that all the letters of the alphabet repeat a few basic shapes in different combinations. As the bronzeworking and enamelling arts for which the British Isles were renowned during the Roman period were the arts of the smith, and the arts of the stonemason can be shown to have developed much later, it seems sensible to entertain the possibility that, in the post-Roman period, when we have Irish communities Wales, part of the metalworker's repertoire might include the making of inscriptions.⁹⁴ The fashioning of the tools for cutting, and the making of metal plates for attachment to wooden monuments or buildings, the ownership or dedication inscriptions of precious artefacts, were most likely in the hands of smiths.

It appears, then, that metalworkers must be the chief suspects for a class of men who learned to work in the new medium of stone; this would account for the similarity between sculptured and engraved decoration. It is on late Iron Age metalwork that we see the most accomplished deliberate decorative contrast of curvilinear with geometric patterning. This

⁹³ R. Gough, drawing in Okasha, *Hand-List*, Cat. no. 18, p. 58 & plate. From R. Gough, ed., *Camden's Britannia*, enlarged edition (London, 1806), Vol. II, pp. 386-7 and figure.

⁹⁴ Inscriptions made by Romano-British smiths are recorded in *RIB*: Cintusmus, *RIB* 194, and Celatus, *RIB* 274 {see p. 114 above}.

systematic patterned contrast, alternating between geometric and curvilinear, was kept on into the ninth century, by Irish and Welsh scribes rather than Anglo-Saxon (see ILLUS. 9:23A and ILLUS. 10:17).

However ragged the linkage, and we have seen above that the linkage with a type of low-grade Roman inscribed lettering extant in Britain on a range of materials is possible, there is a case for the survival of a continuum in memorial design and production. The post-Roman British did not stop burying their dead, and the necessity of marking individual graves in some way, whether in wood or stone, on a large or small scale, remained. This was an inevitable continuum which is, due to unavailability of evidence, not demonstrable in the manuscript tradition. It is possible to argue that in the fifth century large display letters were needed and were produced in stonemasons' or carpenters' workshops for grave markers in wood, in combined wood and metal, or in stone. These evolved into mixed-alphabet inscriptions in the sixth century; I suggest that the reason why they did not look exactly like eighth-century manuscript display letters, and were not used in carpet-page-like designs, is because they predated them, and represent a simpler stage in the alphabet's evolution..

Conclusion

Nash-Williams's use of the term 'half-uncial' has created an interpretational blockage in which research has been centred on the analogy with manuscript production, presuming letter-cutting to be a dependent craft of the scriptorium. I have attempted to show above that the analogy with scribal practice is invalid, especially for Group I inscriptions. If the researcher's view is widened to entertain the possibility that letter-cutting was an allied craft of metalworking, or indeed of carpentry, in other words within the range of works created by wrights rather than by scribes or a scribal underling, we may better understand the choice and assemblage of letter-forms. If in addition we compare their letter-forms with lower-grade and common writing, on surfaces such as wax, clay or papyrus, instead of with high-grade book production, we may arrive on firmer ground to establish a chronology.

The inscriptions on metal examined in this chapter show that letter-forms on such a hard material have discernible links with inscriptions on stone, especially in the *ECMW* Group I period, and these are links that cannot be shown to exist in the case of high-grade and canonical scribal letters. Geometric letters in metalwork could be executed to a high standard

and employed as a formalised display letter for use on precious metals, as in the Ardagh Chalice and the Coppergate helmet from York. It is possible, then, that geometric letters were conceived and developed by Insular metalworkers, whose bronzeworking and enamelling arts were renowned in the Romano-British period, at a time before the arts of the stonemason had developed. At this time and also in the immediate post-Roman period, when there are Irish communities in Wales, the making of inscriptions may have been part of the smith's craft repertoire. Thus we have a body of epigraphic evidence for the use of geometric letters in Wales before AD 600, which may have come into being without any direct link to the scriptorium.

Chapter 6

CARVED AND INCISED WOOD

Though it is clear that early Insular woodworking was a highly-developed craft, no high-grade inscriptional evidence on wood has survived to confirm Julian Brown's theory that inscriptions, on wood as well as on stone, influenced the development of Insular geometric capitals (see above, Chapter 2). This chapter will examine Insular artefacts in wood from the Roman to the early medieval period, as well as material that has survived in more favourable climates, to discover if techniques of cutting, and rendering of letter-form, might have influenced Insular practice. The literary evidence for inscriptional art in wood is also discussed; Ogham, in particular, has been associated with the knife-cut marking of wood. Because of the hitherto greater interest in the Anglo-Saxon and Germanic background of the English, there has been a bias that has, perhaps, neglected the parallel development of craftworking in Celtic areas. Finally the evidence from surviving law tracts will be examined, with the aim of clarifying the relationship of Ogham and Runic, to suggest that their respective developments could have been quite separate and independent, in Ireland and Continental Europe, rather than interlinked in the British Isles.

Ogham and woodworking

Ogham is a type of purely epigraphic letter-form, peculiar to the Irish, which was practised before the Irish version of Roman-letter inscriptions evolved. Designed to be cut on the angle of upright pillar stones, its alphabet at first consisted of notches and straight lines in various combinations, arranged in four sequences of one to five notches and one to five strokes, straight and angled.¹ (See ILLUS. 2:16A.) As the alphabet became more widely used, refinements were added. A wide, sideways V referred to by Macalister as a 'feather' mark was used to indicate the opening letter of a new word, but rarely epigraphically.² The *forfeda* for additional sounds was added, including the lozenge O for 'o/oi', and some Ogham letter-cutters began to make special adaptations, like joining the three lines of the letter T with

¹ McManus, *A Guide to Ogam*, §§ 6-7.

² *CIIC*, Introduction, p. viii.

a crossbar to prevent confusion when two Ts occurred together, thus producing the same shape that was to re-appear as Insular display capital 'gate' M (ILLUS. 8:18).³

Damian McManus has stressed the antiquity of the Ogham script, featuring as it does in the legendary literature of Ireland: the *Book of Leinster* declares that Cétchuimnech was the first person for whom a memorial carved with Ogham script was raised.⁴ Significantly, McManus also points out that, in another text, the mother of Ogham is named as *scían*: knife,⁵ a cutting instrument that would not have been used on a stone pillar, particularly on the adamantine, and favoured, gritstones. The *Táin Bó Cúailnge* and *Tochmarc Étaíne* describe several burials and the raising over them of stone memorial pillars inscribed in Ogham; but, like Runic, Ogham is believed to have first evolved for use on wood. The date of the first use of Ogham is unclear, but a firm fourth-century dating has recently been put forward for an Ogham-inscribed, leaf-shaped metal votive at Newgrange.⁶

The evidence of the Irish sagas is literary evidence, about which historians have reservations, since it may be the product of an imaginative early medieval society rather than of an Iron Age one. However, it does attest the use of wood with an advanced technology in its working.⁷ For example, posts and rods are described as four-sided or eight-sided, suggesting the ability to cleave wood cleanly along long lengths and smooth it; it is said that hazel withies and hurdles were used in the construction of buildings.⁸ The literature describes wooden pillar-type notices in the nature of public warnings, and smaller portable messages marked on rods of yew.⁹ We should not be surprised that a graphic system associated with

³ CIIC no. 104, [GLO]METT, no. 215, BATTIGNI; no. 235, MOLEGOMRID, for lozenge O.

⁴ McManus, *A Guide to Ogam*, p. 155.

⁵ *Ibid.*, p. 153.

⁶ R. Ó Floinn, 'The Newgrange shrine re-considered' (forthcoming).

⁷ J. P. Mallory, 'Silver in the Ulster Cycle of Tales', in D. E. Evans, J. G. Griffiths and E. M. Jope, eds., *Proceedings of the Seventh International Congress of Celtic Studies* (Oxford, 1986), p. 59.

⁸ McManus, *A Guide to Ogam*, pp. 156-9, § 8.10.

⁹ C. O'Rahilly, ed., *Tain Bo Cuailnge* (Dublin, 1967), pp. 330 ff.; E. Windisch, ed., *Tochmarc Étaíne*, in *Irische Texte*, Vol. 1 (Leipzig, 1880), p. 129, § 18.

wooden-post memorials could only be expressed vertically, as horizontal presentation was obviously not a possibility. Such cloven pillars in the medium of stone were also marked with Ogham script along these edges. As the surviving Ogham evidence today is on stone only, it is difficult, without the aid of imagination, to discern links between the epigraphic practice of the sagas and surviving early medieval inscriptions, in relation to the medium of wood. It requires an effort to appreciate its one-time prominent place, before the widespread use of stone, and to envisage inscriptions in wood cut with a strictly rectilinear script from pre-Christian times throughout the early medieval period. The addition of exotic curvilinear forms of decoration, and round-hand calligraphy, to epigraphy on stone during the early medieval period should not make us lose sight of the restrictions of the medium of wood, and particularly the restrictions of working in the favoured oak heart-wood.¹⁰

It is difficult to avoid the conclusion that Ogham, and the medium of wood, played a part in the development of Insular display letters, which are rendered as far as possible in straight cuts. Even the most cursory examination of Ogham reveals that exotic influences need not be looked for when we search for the origins of geometric Insular capitals like the diamond or lozenge O or the gate form of M.

Early Woodworking in Ireland

There is early evidence for decorated wood from Ireland. A rare survival from the late Iron Age is the cauldron from Altartate, Co. Monaghan (ILLUS. 6:1A), which is carved, not turned. Unlike much of the decorated wood from Glastonbury Lake Village, it is executed on a substantial piece of timber rather than on bentwood.¹¹ The decorative band under the rim of the Altartate cauldron employs a twining pair of parallel bands, executed with the use of compass points; familiarity with this design concept in wood at this early period is very significant. Adolf Mahr associated its remarkable incised decoration with La Tène metalworking techniques.¹² The use of bored points as guides and positions of safety for tool

¹⁰ R. Meiggs, *Trees and Timber in the Ancient World* (Oxford, 1982), p. 180.

¹¹ C. Earwood, *Domestic Wooden Artefacts in Britain and Ireland from Neolithic to Viking Times* (Exeter, 1993), pp. 37-8, 58-63, 275-6.

¹² A. Mahr, 'A wooden cauldron from Altartate, Co. Monaghan', *PRIA* Vol. 42 (1934), pp. 11-29; Earwood, *Domestic Wooden Artefacts*, pp. 46-9.

placement is analogous to those metalworking techniques discussed in Chapter 5.

Two further examples from the early medieval period (ILLUS. 6:2A and B) show that the use of such decoration in wood, employing panels and bands, survived from the late Iron Age into the later period. These are the turned bowl from Ballinderry Crannog no. 1, Co. Offaly, with a parallel band below the rim holding a chain of interlace, and the wooden hanging bowl of c. 600+ from Cuillard, Co. Roscommon, with triangular sunk panels holding raised triskeles.¹³ From Ballinderry crannog no. 2 comes a distaff decorated with faceted lozenges on the knop, in a primitive version of chip-carving (ILLUS. 6:2C).¹⁴ Such designs in wood may well have influenced the subsequent invention of a letter-form that is monoline banded, and not an inflected pen-form.

Caroline Earwood makes an important distinction between styles in the decoration of wood: sweeping curvilinear patterning could only be executed on wood which was malleable enough to turn (ILLUS. 6:1B), such as alder, whereas simpler geometric patterning could be executed on utensils and on vessels carved out of harder woods (ILLUS. 6:1C).¹⁵ These reticulated areas of decoration appear to coincide with areas where a good grip might be desired on a utensil or vessel. It is clear that in the late Iron Age there existed in the British Isles a simple repertoire of geometric reticulated patterning, based on the square, oblong or lozenge, that was executed in scored horizontal banding or panels.

Woodworking in Britain in the Roman and Romano-British period

What survives in wood from the Roman period in Britain, though there is very little material evidence due to its perishable nature, shows that it was used for applied lettering with the same range from low- to high-class inscriptions as was stone. In his meticulous study of Trajanic Roman capital inscriptions, the letter-cutter and lettering historian L. C. Evetts made the important distinction between the quality of the cut lettering in the time of Hadrian, and later inscriptions, which fell away in quality: 'The finest examples belong to the first and the

¹³ Earwood, *Domestic Wooden Artefacts*, pp. 98-100.

¹⁴ *Ibid.*, p. 137.

¹⁵ *Ibid.*, p. 228.

first half of the second century.¹⁶ Of this period, the sole surviving example of high-quality Trajanic lettering in wood from Britain comes from the western, originally turf, section of Hadrian's Wall.¹⁷ It is a fragment of an oak dedicatory slab, comparable to those cut in stone for the stone-built eastern sector of the wall (ILLUS. 6:3). It is now c. 254 mm. by 102 mm. by 51 mm. (10 in by 4 in by 2 in). It is on display in the Roman Gallery of Tully House Museum in Carlisle, where it was examined in April 2005; the lettering has been painted in red. In his appendix to the article by Richmond and Simpson, R. G. Collingwood estimated that it was originally part of a plank two Roman inches thick and five feet long, with a depth of fifteen inches, planed on both sides; this section is similar to the later British walling planks of Yeavinger hall.¹⁸

From the very small surviving fragment, Collingwood attempted a rather ambitious reconstruction of the entire inscription, subsequently published in *RIB* (but, confusingly, in Volume I of the *Inscriptions on Stone*), as *RIB* no. 1935 (ILLUS. 6:4).¹⁹ He realised the significance of the piece: 'lettered with great skill and elegance [it was] important and attached to a structure intended to be permanent'. It confirms that Hadrian had originally planned to build the wall of stone in the east, but of turf in the west, on account of quarrying and transport logistics. It also shows that letter-cutters had wood-cutting chisels capable of cutting crisp curves that were comparable to the highest-quality letters cut in stone. This technological capacity, dependent upon the smithing standards of the Roman army, was lost in Britain in the post-Roman period, though cruder and coarser methods of applying lettering apparently survived (see Chapter 2 above).

The coarsest letter-cutting in wood of the Roman period is found on building timbers, where a vertical 'stop' has been cut in at the ends of the strokes.²⁰ This prevents accidental

¹⁶ L. C. Evetts, 'The lettering of Roman-British inscribed stones', *Archaeologia Aeliana* 4th Series XXVI (1948), p. 157.

¹⁷ F. G. Simpson and I. A. Richmond, 'The turf wall of Hadrian 1895-1935', *Journal of Roman Studies* XXV (1935), pp. 16-18.

¹⁸ B. Hope-Taylor, *Yeavinger: An Anglo-British Centre of Early Northumbria* (London, 1977), pp. 144-5.

¹⁹ Objects of wood are listed in *RIB* Volume II, Fascicule 4.

²⁰ e.g. *RIB* no. 2444.8.

ripping up or down the grain, before the V-section stroke joined them. Barrels,²¹ and miscellaneous objects,²² show the use of V- and U-section gouges to mark numbers and weights. The exterior casings of wooden stylus tablets,²³ and more lightweight objects, are merely scratched with a sharp-pointed instrument. Such letters and numbers are very freely made, as they were for practical purposes and not for display.

Better-quality applied Roman lettering of a simplified nature, sans-serif and uninflected, was cut in wood for the purposes of making multiple copies from a master, as in the *pressblech* technique. In the case of ceramics, tiles, votive plaques, and leadwork, letters were raised upon, or indented in, these products by means of wooden moulds. *RIB* records several instances of named Celtic metalworkers who made lettered pieces such as lead tanks and votives.²⁴ Charles Thomas has emphasised the importance of one such lead tank from Caistor in Lincolnshire (ILLUS. 6:5) with Late Antique ornamentation.²⁵ This tank has raised lettering contained within banded panels: *CUNOBARRUS / FECIT / VIVAS*, 'Cunobarrus / made [this] / long life to you'. The letters are simplified and curves are reduced; the proportion of the O is of a tall Rustic capital, rendered as a very flat oval.

A Welsh example, of a lead coffin with the inscription *CAMULORIS HOI* [Hic Ossa iacent], 'Here lie the bones of Camulorix', was discovered at Llangeinwen, Anglesey, in 1878 (ILLUS. 6:6).²⁶ Dated by Nash-Williams to the fifth century, it might rather be of the Roman period; but if it is fifth-century, it is an important late piece, broadly contemporary with those inscriptions in stone such as the *Brigomaglus* inscription (ILLUS. 5:27). As lead is a much more tractable medium, the lettering here is more controlled.

Jocelyn Toynbee has given the clearest practical description of the open sand-casting of such leadwork, produced in native workshops. The molten lead was poured into a wet-sand

²¹ e.g. *RIB* no. 2442.

²² e.g. *RIB* no. 2444.

²³ e.g. *RIB* no. 2443.11.

²⁴ e.g. *RIB* no. 2416.4.

²⁵ Thomas, *Christianity in Roman Britain*, p. 125.

²⁶ *ECMW* no. 27.

mould contained in a wooden frame with a raised edge, the patterning and lettering having been previously impressed into the wet sand with wooden blocks like tile-stamps.²⁷ A recurring question in this thesis about the difference in quality between small-scale lettering on metal or wood, and the larger-scale lettering on stone, is illuminated by another observation by Toynbee. She noticed, in her discussion of pre-Roman British coinage, that the finest lettering on these coins was produced by striking the surface with a die which was a metal version of a wooden tile-stamp (ILLUS. 6:7A), producing 'splendid Roman lettering' in a sunk panel, as with the letters of the Rudge cup, whose cut-away sunken ground was originally filled with coloured enamel (ILLUS. 5:19A).²⁸ Toynbee dates to the first or second century the series of cups similar to the Rudge example.²⁹ In her discussion of the series of moulded pottery antefixes from Caerleon she illustrates a triangular antefix with the head of a Celtic God, decorated with 'a trio of trees [that] fill each angle', and stresses the extent of native adaptation and conversion of a Roman device:

It would seem that the whole Caerleon series was of native workmanship and the deities on whom the Roman legionaries, both at Chester and Caerleon, relied for the protection of their roofs were of Celtic, not Graeco-Roman origin.³⁰

Tile stamps of *tegulae*, imbrex (curved tiles) and antefixes, were made by cutting only the outline of the letters in wood, leaving a banded rim to protect the raised letters from damage, and then excising the background, in the manner of the fourth-century Coptic Mu'allaqqa inscription, which is discussed below. Alternatively, the letters could be cut into a rimless block, which, when impressed, would give a sunken field with the letters standing up proud within it (ILLUS. 6:7B), as in the example shown from Caerleon.³¹ The ability to read such an inscription or a monogram, as a negative or a positive image, must have been

²⁷ Toynbee, *Art in Britain Under the Romans* (Oxford, 1964), pp. 345-6.

²⁸ *Ibid.*, pp. 25-38; *RIB* no. 2415.53.

²⁹ Toynbee, *Art in Roman Britain*, Cat. no. 113.

³⁰ Toynbee, *Art in Britain Under the Romans*, p. 430.

³¹ *RIB* no. 2489.6.

commonplace, to judge from the manufacture of gold openwork rings, which, like the tile-stamps, cut away the background to isolate the letter-form *opus interrasile*.³² This type of metalwork was delicate, and perhaps was used only for women's jewellery. The inscription *AEMILIA ZESES* on one example found at Corbridge, Northumberland, is of particular interest in that it combines fish-tail and geometric serifs (ILLUS. 6:7C).³³

The effectiveness of decorative patterning that could be worked in a negative and a positive manner was recognised by craftsmen of the Roman period in Britain, and by the Romano-British in the succeeding period. The family of Christian monograms that overlap **Chi** and **rho**, making the *crux florida* pattern of the 'marigold' hexafoil design, which could diversify into four, six or eight lentoid 'petals', also includes the quatrefoil design (ILLUS. 6:8). This, depending on the spaces that are emphasised, can be read as an equal-arm Greek cross or as a quatrefoil. The spaces between the 'petals', as well as the petals themselves, make a perfect cross. For the stone-cutter, this design was accomplished with the aid of compasses or dividers; mechanically incised with some kind of lockable proportional dividers, this cross type is also known as a 'cross of arcs'. Like the angle-bar **A** discussed in Chapter 2, the cross of arcs was established in Britain during the Roman period itself, and may not be a later Gaulish import. The altar dedicated to Minerva from High Rochester, Kent,³⁴ is a good example, showing quatrefoils and hexafoils (ILLUS. 6:9). The device was one that transferred from pagan to Christian use.

In the Water Newton hoard we find evidence of early British Christian practice overlapping with the votive-offering habits of an earlier religion. The hoard of silver votive plaques, some of which appear to have been decorated using embossed *pressblech* patterns made with wooden moulds, gives an incontrovertible example of Romano-British craft practice mimicking the Roman, yet resulting in objects that are lettered in a non-classical manner.³⁵ In the Greek **alpha** and **omega** letters on these votive plaques we find calligraphy abandoned for monoline angularised capitals. The **omega** in particular, which resembles an **E**

³² e.g. *RIB* nos. 2422.5, 2422.12.

³³ *RIB* no. 2422.1.

³⁴ *RIB* no. 1267.

³⁵ *RIB* nos. 2431.1, 2431.4-11.

on its side in *RIB* 2431.5 and 2431.9 (ILLUS. 6:10 and see Appendix I, no. 3), and a W in *RIB* 2431.1, indicates that the double curves of the Greek uncial omega, which mirror in inverted form the double curve of the Greek uncial mu, were not practicable in metal or wood. The angular E lying on its side is a close, if inverted, relation of the trident M found on the bilingual Ogham / Latin inscriptions of Pembrokeshire. Numbers of such thin metal votive plaques have survived, lettered in punched dots or chased monoline. Wooden moulds may possibly have been used in the embossed replication of patterning. A case might be made, then, for the existence of a type of angular, monoline and sans-serif Romano-British letter that was designed for use in the medium of wood by *champlevé* and *intaglio*, for which obvious evidence has not survived in Britain.

Woodworking in Britain and Ireland in the post-Roman period

Bede makes it clear that the British and Irish favoured building in timber, as at Lindisfarne, and that the earliest Anglo-Saxon churches emulated them.³⁶ He also refers to the little church of timber in York, built by King Edwin c. 626, which was later enclosed in a grander stone structure.³⁷ Unfortunately, except for post-holes, no early Irish or British timber church has survived in the archaeological record. Buildings could be round, using wattle with earth-fast stakes and roofing thatch, or rectangular. Quoting from the Book of Mulling [*sic* for Mulling], H. G. Leask gives interesting references to the excellence of Irish building techniques in timber, but describes some of their hut-like buildings of the rectangular-framed type as being unable to withstand high winds.³⁸ Their sill-beams cannot have been fixed to a stone footing. The average size for a rectangular panelled and planked *duirtheach* (small oak church) was fifteen feet by ten feet, but the great *duirtheach* at Rahan, Co. Offaly, was described as a 'jointed edifice' requiring 1,000 boards.³⁹ The smaller huts could be uprooted under stress and displaced by high gales, but churches, like Rahan, were more substantial.

³⁶ Bede, *Historia Ecclesiastica Gentis Anglorum*, ed. and transl. J. McClure and R. Collins (Oxford, 1994), III, 23 and 25.

³⁷ *HE* II, 14.

³⁸ TCD MS 60 [Book of Mulling]; Leask takes his material from the Book of Mulling from Eugene O'Curry, *Manners and Customs of the Ancient Irish* (London, 1873).

³⁹ H. G. Leask, *Irish Churches and Monastic Buildings* (Dundalk, 1977), pp. 5-6.

We may suppose that they were similar to the one surviving Anglo-Saxon timber church at Greensted in Essex (ILLUS. 6:11A).⁴⁰ Its main timbers were over 3.3 metres tall, c. 11 ft, and the wall planking, on average 350 mm. wide and an average of 160 mm. deep (c. 14 in by 6 in), was linked by means of an independent tongue (ILLUS. 6:11B). This is not a construction technique known from Scandinavia. The groove to take the tongue was cut by chiselling two fine lines 20 mm. (c. three-quarters of an inch) apart, then repeatedly drilling down this channel with a 20 mm. bit, and chiselling away the unwanted remainder. This is a technique analogous to a method used by stoneworkers incising a line in stone.

Perhaps better evidence for the use of timber in early church building came from the excavation of St Bertelin's, Stafford, now absorbed into the later St Mary's (see plan in ILLUS. 6:12C).⁴¹ Here a small ninth- or tenth-century wooden church was excavated within a later and larger stone edifice. The timber building was originally constructed around a wooden cross, c. 8 ft in length with a pointed base (ILLUS. 6:12B); it had been taken down and buried in the centre of the nave at the time of the construction of the stone church. It was deliberately buried in a cut pit with a packing of pebbles, and three important burials were subsequently laid over it. An Appendix to Oswald's excavation report by Raleigh Radford entitled 'Wooden Structures – Conclusions and Analogies' surmises:

As a first stage we may assume an enclosure marked by a standing cross of timber and used both for services and for burials. Later a small timber church was erected in the enclosure. The post holes and the eastern sleeper beam suggest that this was a rectangular building ... The first stage at Stafford must be pre-Danish. The building of the wooden church may also be pre-Danish of the seventh to the eighth or early ninth century ...⁴²

⁴⁰ H. Christie, O. Olson and H. M. Taylor, 'The Anglo-Saxon Church at Greensted in Essex', *The Antiquaries' Journal* 59 (1979), pp. 92-112.

⁴¹ A. Oswald, *The Church of St Bertelin at Stafford* (Birmingham, 1955).

⁴² C. A. R. Radford, 'Wooden Structures – Conclusions and Analogies', in Oswald, *St. Bertelin's at Stafford*, pp. 26-7.

The cross at St Bertelin's was of simple construction, made from one massive baulk of timber, and its section was semi-circular, suggesting a split trunk. The arms of the cross, of which only one has survived, were short and fan-shaped, of Anglo-Saxon type.⁴³ No sign of any inscription or decoration survived. Constructional timbers and domestic artefacts that have survived in waterlogged conditions from Scotland, such as those at Loch Glashan, are similarly plain.⁴⁴ The only surviving early elaborately-carved wood from Scotland appears to be the seventh- or eighth-century decorated box for woodworking tools, lost in Birsay Bog, Orkney, and recovered in 1882. The decoration is contained in a frame analogous to the frame of stamping blocks and dies (ILLUS. 6:13).

Charles Thomas has written extensively about the prevalence of the use of wood in the seventh century, citing timber precursors of later ecclesiastical structures on the Continent; and Caroline Earwood has made a valuable and exhaustive study of domestic wooden artefacts.⁴⁵ Thomas emphasises that the prevalence of wood rather than stone as the most frequently-used building material could have resulted in the common occurrence of wooden high crosses, sarcophagi, memorials and reliquaries, such as St Chad's above-ground *tumba lignea* ('relic-tomb') at Lichfield.⁴⁶ This was a structure of wood 'in the shape of a little house, having a hole in one side through which those who go thither out of devotion may insert their hands and take some of the dust'.⁴⁷ St Chad was buried in AD 672. Lettering on such memorials could be cut either directly in the wood, or on attached metal plates. Thomas draws the analogy with Merovingian wooden coffin-reliquaries, and it is worthwhile to consider that there may have been a line of transmission of letter-forms that were specifically designed not only for inscribing on metal, but also for cutting in wood. As we have seen in the previous chapter, decorative high-relief chip-carving in metalwork had been seen in Britain during the

⁴³ R. Cramp, ed., *Corpus of Anglo-Saxon Stone Sculpture in England*, Vol. I (Oxford, 1984), p. xvi. Cross Type 8.

⁴⁴ Earwood, *Domestic Wooden Artefacts*, pp. 95-96, 130-1.

⁴⁵ Thomas, *Early Christian Archaeology*, pp. 74-81; Earwood, *Domestic Wooden Artefacts*.

⁴⁶ Thomas, *Early Christian Archaeology*, p. 147.

⁴⁷ *HE* IV, 3. Translation by Charles Thomas.

Roman period; the dearth of surviving evidence in wood makes it difficult to ascertain whether this metalwork model could have been the conduit for a bolder method of incising wood than had been seen previously, or whether it was introduced in the early Christian period through the conduit of imports from the East.

Design influences reaching Britain and Ireland from the East

In the epigraphic art of the British Isles in the sixth and seventh centuries it is evident that new design themes were reaching Britain from far-distant sources. Brought through the conduit of trade, by returning pilgrims, by displaced ecclesiastics seeking refuge, or on objects imported through missions, these themes were quickly adapted by native scribes and stone-cutters. Early sources also give evidence that missionary British and Irish ecclesiastics themselves travelled widely to take up positions in Europe; when Columbanus first attempted to establish himself at Luxeuil he was aided by the British abbot Carantocus who was already settled in the area.⁴⁸ Manuscripts and portabilia circulated, and were copied, within this free-ranging group. Art historians have long stressed the importance of Coptic book arts as an early influence on the book arts of the British Isles, such as we see in ILLUS. 6:14: the script of these books was a starkly thick- and thin-stroked one, modelled on Greek uncial.⁴⁹ In the writing of their manuscripts, Christian Egyptians – the Copts – had adapted Greek uncial script, adding seven signs from their own demotic script, and used it from the second to the ninth centuries.⁵⁰ Badawy comments particularly on the fourth- or fifth-century Glazier Codex, on account of its recognised decorative link with Insular interlace patterns, but he concentrates on the decoration; the actual script might also have been influential.⁵¹

⁴⁸ Jonas, *Vita S. Columbani*, ed. B. Krusch, *Ionae Vitae Sanctorum Columbani, Vedastis, Iohannis* [MGH SRG] (Hanover, 1905), Book I, Chapter 7, pp. 165-6.

⁴⁹ Henry, *Irish Art*, pp. 64-5, 117, 126, 132.

⁵⁰ Jensen, *Sign, Symbol and Script*, pp. 487-9.

⁵¹ A. Badawy, *Coptic Art and Archaeology: the Art of the Christian Egyptians from the late Antique to the Middle Ages* (Cambridge, Mass., 1978), p. 276; H. Bober, 'On the Illumination of the Glazier Codex. A Contribution to Early Coptic Art and Its Relation to Hiberno-Saxon Interlace', in H. Lehmann-Haupt, ed., *Homage to a Bookman. Essays on Manuscripts, Books and Printing, written for Hans. P. Kraus on His 60th Birthday, Oct. 12, 1967* (Berlin, 1967), pp. 31-49.

Nils Åberg was the first to publish comparative decoration from Coptic and Insular manuscripts, but he did not pursue the possible influence of the accompanying Coptic script, which was Greek in appearance. It used a flat pen-hold with abrupt movements from thin stroke into thick that gave it a more angular appearance than Roman uncial, and it was thus more suitable as a cut letter. Åberg's arguments, using the evidence of Coptic manuscripts in the Vatican Library, such as Vatican MS 66 and Vatican MS 59, are compelling; he was impressed by the juxtaposition of curvilinear with geometric, and by the remarkable similarity between Coptic and Insular interlace (ILLUS. 6:15). He juxtaposed a motif from the Book of Durrow, for example, with the carved decoration of a Coptic gravestone from Edfu, incised with a *crux florida* (ILLUS. 6:16A), and of a ringed cross from Luxor with interlace (ILLUS. 6:16B).⁵² In the transmission of decorative pattern from east to west, scripts were not seen as an integral part of the design package, perhaps because such lettering as reached the British Isles on portabilia, such as coins and reliquaries, was not readily recognised as a written letter-form. The exception seems to have been the *nomina sacra*, which were firmly associated with Greek capital script.⁵³ Applied letter-form on hard surfaces may have been widely divergent from pen-formed writing, depending upon the nature of locally available materials; and though it is clear that decorative patterns and symbols, like those for the *nomina sacra*, were coming into the British Isles from afar, the accompanying letter-form on British memorials cannot be described as exotic, nor is it at all stylish. When the Roman empire collapsed, a group of 'barbarian' scripts – for instance, the fourth-century Bishop Ulfilas's West Gothic, again modelled on Greek,⁵⁴ – was established on its edges. From this time on, we begin to find barbarian scripts with an associated display lettering, such as Lombardic letters and Luxeuil script, of a peculiarly non-classical design that appears eccentric and ill-designed in comparison with the classical.⁵⁵

⁵² N. Åberg, *The Occident and the Orient in the Art of the Seventh Century* (Stockholm, 1943-7), Vol. I, pp. 100-1.

⁵³ D. Dumville, *Abbreviations used in Insular Script before AD 850* (Cambridge, 2004), pp. vii-viii.

⁵⁴ Jensen, *Sign, Symbol and Script*, p. 484.

⁵⁵ *Ibid.*, p. 534; Maunde Thompson, *An Introduction to Greek and Latin Palaeography*, pp. 340-67.

As this thesis has been pursuing the theory that bookscripts and inscriptional lettering were two distinct strands of craft practice that intertwined irregularly, an examination of Coptic inscriptional lettering on stone and wood has been undertaken. The researches of John Beckwith and Alexander Badawy on proto-Coptic sculpture touch lightly upon this aspect of carving craft.⁵⁶ Very few objects carved in wood survive from the early medieval period, and they are rare from antiquity. Those that do survive are Coptic, and show high craftsmanship.

Early Coptic buildings, although simple in architectural construction, were decorated by the fixing of carved wood to walls in the form of friezes, lintels, panels, icons, doors and door surrounds. Structural tie-beams were carved with decoration or texts; large-scale texts were also placed above doorways.⁵⁷ The wood favoured for such carving was lightweight cypress, sycamore [*sic*] fig, cedar or acacia, all easy to carve, manoeuvre and transport.⁵⁸ Cypress and cedar were valued above all for their resistance to decay.⁵⁹ Although it is unlikely that heavy stone monuments were exported from Coptic Egypt, portable pieces of such elaborate wooden craft work would have been desirable in gift-exchange, trade or barter with northern Europe. The fact that half-uncial was at first known in the British Isles as *litterae Africanae*, before it was adapted and transformed into *scotticae*, might suggest that trade with northern Africa was of significant importance between the fall of Rome and the Arab invasion.⁶⁰ Here the Coptic evidence in carved wood will be compared with the sparse relics of early Christian material in northern Europe and the British Isles, on the assumption that lightweight carved wooden panels were as likely to have been transported by sea to the north as were papyrus, service books, pottery, gospels or icons. We may then assess the surviving material to discover whether there was a common Late Antiquity method of applying lettering to wood that could have survived in Britain, preserving originally Roman techniques.

⁵⁶ J. Beckwith, *Coptic Sculpture 300-1300* (London, 1963); Badawy, *Coptic Art and Archaeology*.

⁵⁷ Badawy, *Coptic Art and Archaeology*, p. 109.

⁵⁸ *Ibid.*, p. 160.

⁵⁹ Meiggs, *Trees and Timber*, pp. 49 f.; pp. 46, 78, 268, 308.

⁶⁰ Thomas, *Christianity in Roman Britain*, p. 348, Map 60; Bischoff, *Latin Palaeography*, pp. 75-6.

Early Christian woodwork in the east: its influence in Europe

There is a large literature on the fifth- and sixth-century timberwork which survives at St Catherine's monastery in the Sinai, and some of this timber is inscribed. Because the inscriptions were to be fixed to mud or mud-brick walls, much of the Coptic inscriptional material is worked on light planks, and the relief is, consequently, low.⁶¹ The dry climate of Egypt seems to have been more favourable than any other for the survival of wooden artefacts. Objects that originated there, such as the sixth-century Moggio pyx, which was taken to the Veneto from the Alexandria area,⁶² would have travelled to Europe by the same route as did the papyrus exported in vast quantities by the church fleets of Alexandria.⁶³ Tradeable objects that could have been packed flat for travel and re-assembled before sale or gifting, such as the relief-carved chest from Aphroditopolis, made up of five panels pegged together and a lid, would have been popular.⁶⁴ From Bawit, and also now in the Coptic Museum in Cairo, we have two consoles with carved saints standing within arched alcoves (ILLUS. 6:17A and B).⁶⁵ Stylistically these appear Roman, but Coptic manuscript decoration appears much less so. If the method of decorating manuscripts employed by the Copts could have had influence in Britain, then, by the importation of inscribed wooden objects, so might have their inscribed lettering techniques. They might also have reinforced or revitalised applied lettering techniques on perishable materials that had already been in use in Britain during the Roman period. We have examples of both raised and incised inscriptions, now in the Coptic Museum in Cairo, and in the Museo Archeologico in Florence.⁶⁶

⁶¹ K. Weitzmann and G. Galavaris, *The Monastery of St Catherine at Mount Sinai: the illuminated Greek Manuscripts*, Vol. 1 (Princeton, 1991).

⁶² Badawy, *Coptic Art and Archaeology*, p. 158; the pyx is now in the Dumbarton Oaks Museum, USA.

⁶³ A. C. Johnson and L. C. West, *Byzantine Egypt: Economic Studies* (Princeton, 1949), pp. 70, 158, 252.

⁶⁴ G. Gabra, *Cairo: The Coptic Museum and Old Churches* (Cairo, 1993), p. 99.

⁶⁵ *Ibid.*, p. 162.

⁶⁶ *Ibid.*, pp. 134, 341.

For the purposes of comparison with the Coptic material we have very little from the early Christian period in Europe. Apart from some recent finds of relatively small items like the sixth- or seventh-century carved staff from Lemanaghan bog in County Offaly (ILLUS. 6:18A),⁶⁷ we have the sixth-century bookstand of Saint Radegonde at the convent of the Holy Cross at Poitiers (ILLUS. 6:18C)⁶⁸ and perhaps the carved cypress doors of Santa Sabina on the Aventine Hill in Rome, of c. 450.⁶⁹ From the seventh century we have the coffin and portable altar of St Cuthbert⁷⁰ (ILLUS. 6:18B), and from the eighth century the wooden crucifix known as the Volto Santo at Lucca Cathedral.⁷¹ The carving techniques of those items that have carved letters or symbols will be analysed and an attempt will be made to relate them to the angular, non-calligraphic 'epigraphic' display lettering that we find in early Insular manuscripts.

On both St Cuthbert's coffin and his portable altar, lightweight angular display capitals are used. Raleigh Radford, in his commentary on the altar, points out that the lettering of the altar is not of the same style as that of the coffin.⁷² He associates the altar inscription with the lettering style of two stones from Capel Anelog at Aberdaron (ILLUS. 5:13), of the *Petrus Apustoli* inscription at Whithorn, and of Kermode's Maughold 27 (ILLUS. 10:8); he remarks that 'the distribution of this type is Western and Celtic', and deduces that the altar originated at Melrose from an early period in Cuthbert's career. Cuthbert was received into the priesthood under Bishop Eata at Melrose in 651. Radford dated the altar to the 650s, and saw the style of lettering as influenced by Gaulish epigraphy (ILLUS. 6:18B).⁷³

⁶⁷ E. O'Carroll, 'Ireland's Earliest Crozier?', *Archaeology Ireland* 14.2 (Summer, 2000), pp. 24-5.

⁶⁸ *Le Stuc: Visage oublié de l'art médiéval* (Musées de Poitiers, 2004), pp. 55-6; F. Cabrol, *Dictionnaire d'Archéologie chrétienne* (Paris, 1924-53), cols. 885, 887.

⁶⁹ P. N. Hasluck, *Manual of Traditional Woodcarving* (London, 1911), p. 140.

⁷⁰ C. A. R. Radford, 'The portable altar of St Cuthbert', in C. F. Battiscombe, ed., *The Relics of St Cuthbert* (Oxford, 1956), pp. 326-35; Cronyn and Horie, *St Cuthbert's Coffin*.

⁷¹ R. Donati, *Lucca* (Terni, 1974), pp. 16-7.

⁷² Radford, 'The Portable Altar of St Cuthbert', pp. 327-8.

⁷³ *Ibid.*, p. 329; Radford cites a specific Gaulish inscription: E. F. Le Blant, *Inscriptions chrétiennes de la Gaule antérieures au viii^e siècle* (Paris, 1856-65), no. 663.

The reading of the text of the oaken portable altar is *IN HONOREM S. PETRU* 'In honour of Saint Peter' (ILLUS. 6:18B).⁷⁴ The alphabet uses lozenge O, a Greek M (as reconstructed by Radford), a capital form of H, and an interesting Z-shaped S, set skew so as to read clear of the head and tail scores; it does not use upgraded minuscules. It is of great interest as the sole survivor of banded Insular display capitals in wood, and, in the P and the R, shows the technique of joining the second stroke to the first downstroke without touching the serif. This is a distinguishing feature of the epigraphic geometric display alphabet Type C (see Chapter 9 below), and is proof that the design feature of allowing the serifs to project arises for practical purposes. That is, it allows the letter to be legible: if the second stroke had run into the horizontal bands the letter would have become disarticulated and unreadable.

A significant difference exists between Roman-period, Trajanic, deep-cut lettering on stone (and on wood such as the Carlisle fragment described above) and such incised and raised lettering as we find in Coptic memorials. Badawy illustrates a wide range of limestone *stelae*, which, though adventurous in their architectural and figural decoration, show no flair for lettering.⁷⁵ Here there is no instinct to treat the letter as a sculptural shape in which there may be a play of light and shadow (respectively left and right with the light falling from the right) within the deepest V-cuts of the thickest strokes. This is not due to lack of skill, but may be related to the practical restrictions placed upon the Coptic letterer working on a relatively thin 'plank', or section of either wood or stone, in which case he chose a relief letter and cut away the background; if, like the British, the Copts worked first in wood and then upgraded to stone, it may have been simply a practical consequence. Discussing their monumental cross-slabs in stone, Françoise Henry commented, 'The Copts seem to have had a predilection for flat slabs carved in low relief'.⁷⁶

⁷⁴ Cronyn and Horie, *St Cuthbert's Coffin*, pp. 24-5; Webster and Backhouse, eds., *The Making of England*, Catalogue no. 99; Thomas, *Early Christian Archaeology*, pp. 137-8, Fig. 93.

⁷⁵ Badawy, *Coptic Art and Archaeology*, pp. 210-21.

⁷⁶ Henry, *Irish Art*, p. 132.

The largest surviving early Christian inscription in wood, probably from El Mu'allaha Church near Alexandria, is dateable to the fourth century (ILLUS. 6:19).⁷⁷ It was discovered – out of its ecclesiastical context – and deciphered by Pierre Jouguet in 1937. He dated it to the time of the promulgation of the Council of Nicaea, AD 325.⁷⁸ Its text is a hymn to Christ cut in Greek capitals, laid out in four lines between raised bands. ILLUS. 6:19 shows the letter-cutting technique, which is directly comparable to the Celtic metalworking technique of *champlevé*, which we have seen applied by Romano-British craftsmen to Roman letter-forms on items like the Rudge cup (discussed above, see ILLUS. 5:19). This technique is still to be seen in the early medieval period on items such as the early-seventh-century, house-shaped reliquary from Clonmore, Co. Armagh (ILLUS. 6:20).⁷⁹

The Coptic El Mu'allaha inscription, fixed above a high-relief frieze of the entry into Jerusalem, is cut along the grain of a sycamore-fig plank 2.75 m. long, a fraction under 11 ft. It is 360 mm. (c. 14 in) deep. The lettering bands take up the top half of the depth, and the sculpted scene of the entry into Jerusalem is carved along the bottom half. To make the letter-forms, which are cut between raised bands, stand out, a vertical cut has been made around the letter outlines and then the background was excised, much as a wax tablet was recessed. To protect the raised letters from damage, they have raised bands of the same height at the head and foot. In order to preserve the bands from accidental cutting during the excision of the backgrounds, it appears that cutting instruments, in excising the background, worked away from the bands into the centre of the writing line.

The woodcarving tool used to cut away the background was of a special type, the same chisel that was used to excise the recess on a writing tablet to hold the wax (ILLUS. 6:21A). This was a dog-leg chisel:

so shaped as to enable them to follow easily along internal or concave curves. It is obvious that a tool quite straight in its length would always have the line of force entering the wood in too direct a manner; and if the tool made any progress at all, it

⁷⁷ M. Sacopolou, 'Le Linteau Copte dit d'Al-Moallaha', *Cahiers Archéologiques* 9 (1957), pp. 99-115; now in The Coptic Museum, Cairo. Exhibit no. CM. 753.

⁷⁸ Badawy, *Coptic Art and Archaeology*, p. 133.

⁷⁹ Now in the collection of the Ulster Museum.

would move in a series of jumps, which would leave a rough and uneven surface. But by bending the tool, the line of force is also bent in such a manner that it leaves the tool free to move along the surface in a manner that allows the edge to cut evenly.⁸⁰

The El Mu'allaqā lintel is a high-quality production, and we may suppose that in it we see an established method of presentation of sacred text and illustration in the medium of wood. Marina Sacopolou, who has studied its iconography in great detail, believes it to be a work commissioned by a prestigious patron from an outstanding craftsman: we may be fairly sure that the method of raising the letter-form, and protecting it between bands, was peculiar to the woodcarving techniques of the time, in supplying lightweight panels that were to be affixed to existing structures.⁸¹ It is not a technique that we find generally used on Coptic stone monuments, which appear to be lettered freely without the aid of incised writing lines; those that do have repeated regular lines of letters may have been chalked as a guide.⁸² The imposing incised letters of the inscriptions on the great tie-beams of St Catherine's in the Sinai (ILLUS. 6:22) do not appear to have been given ruled parallel guides; they give the best surviving example of the type of symmetrical serif that occurs when two diagonals meet at an apex, as we see in the beam no. 8 (ILLUS. 6:22F), in the Alpha and Lamda of the name *Basileus*.

The Copts also had an established technique for incising letters in wood more substantial than a thin plank, as we see from a fifth- to sixth-century spatula, very well carved with geometric designs and the name *ANTONIN* incised in a panel on the handle with angle-bar A and three square Ns (ILLUS. 6:21B). We also see this technique in the production of wooden stamping blocks.⁸³ Here we do have an overlap with the type of late Roman or post-Roman letters which we see impressed into lead with wooden moulds, as in the examples from Caistor (ILLUS. 6:5) and Llangeinwen (ILLUS. 6:6) discussed above.

⁸⁰ Hasluck, *Manual of Traditional Woodcarving*, pp. 27-8.

⁸¹ Sacopolou, 'Le Linteau Copte dit d'Al Moallaka', pp. 99-115.

⁸² Illustrated in Badawy, *Coptic Art and Archaeology*: e.g. with guidelines, BM 1619, and Louvre, X 5049; without guidelines, BM 1533, and Ny Carlsberg Glyptothek, AEIN 1544.

⁸³ Badawy, *Coptic Art and Archaeology*, p. 341.

If we compare the production methods of the El Mu'allāqa lintel to the methods used to contain incised letter-forms on stone between highly visible parallel writing lines (which we see in surviving examples of monumental inscriptional art in the Rhineland and in Scandinavia, mentioned in Chapter 10), then we see that the northern European letters are cut between two single incised boundary lines. This is also the method used in the incised inscription on the wooden portable altar of St Cuthbert; we might speculate that this represents a widely-dispersed method, found independently in different cultures, for incising letters in wood, and that the El Mu'allāqa inscription represents the method of making raised letters, of which no examples have survived in wood from the Insular period in Britain. The fact that early Insular manuscript capitals, framed between bands of letter height, appear to represent raised letters with a cut-away background needs discussion, as only one Scottish inscription on stone – from Tarbat (Portmahomack), Ross and Cromarty – is treated in such a manner (ILLUS. 10:3), and this possibly represents a skeuomorph of a type of plank, or split-post, inscription which was once common. We do have two examples of raised lettering on Anglo-Saxon stone monuments at Wensley, in North Yorkshire, but on neither is the line of lettering contained within a panel of double bands that define the letter height.⁸⁴

Insular evidence for decorative woodworking

Françoise Henry commented on the plank-like appearance of the earliest decorated Irish grave slabs, for example the Ballyvourney (Co. Cork), and Inishkea North (Co. Mayo) slabs, on which she felt there was 'very little more than engraving'; she memorably classified them as of 'stone-plank' type.⁸⁵ But some time elapsed before it was perceived that the earliest high crosses, made in wood, were to be understood as multiple-plank constructions, bolted together. Dorothy Kelly⁸⁶ and Douglas MacLean⁸⁷ have written on the transitional period, from the seventh to the eighth century, between constructing crosses in wood and building

⁸⁴ Okasha, *Hand-List*, nos. 120-1.

⁸⁵ Henry, *Irish Art*, p. 123, Plate 50 and Figure 14.

⁸⁶ D. Kelly, 'The heart of the matter: models for Irish high crosses', *JRSAI* 121 (1991), pp. 105-445.

⁸⁷ D. MacLean, 'The status of the sculptor in Old Irish law and the evidence of the crosses', *Peritia* IX (1995), pp. 125-55.

them in stone. It is clear from examples like St John's and St Oran's crosses on Iona that carpenters transferred their techniques of construction directly from wood to stone. This had disastrous results in both cases when too much weight was allowed to fall on a joint weakened by mortising. Only in time did the craftsmen learn the characteristics of a new medium.⁸⁸

The excavation of sites such as Yeavinger has shown that grand British halls of massive wooden construction were prominent features in the landscape of post-Roman Britain. At Yeavinger, Hope-Taylor was able to show the existence of a 'British standard plank', approximately thirteen inches by four, in use for walling.⁸⁹ This would have been one of a number of standardised plank sizes. Carpenters then had the capacity to make multiple planks of the same measurement for walling, and we may assume some carefully-controlled system of overall proportionality in the erection of large buildings.⁹⁰ Similarly, the excavations at Lindisfarne, and associated research, have revealed the extent to which the landholdings of the community of St Cuthbert included managed woodlands, which would have been capable of producing fine broad-oak planking such as that used in the construction of St Cuthbert's coffin.⁹¹

The Irish sagas also provide abundant, if exaggerated and idealised, literary evidence for the use of various woods for their specific qualities in large buildings. The *Táin Bó Fraích* (The Cattle-Raid of Fraéech) describes the ornate wooden hall of Ailill and Medb of Connaught, emphasising the decorative value of carved work in red yew.⁹² Bricriu's house, described in *Fled Bricrend* (The Feast of Bricriu), is praised for the carving of the posts and door-posts of his hall.⁹³ Catherine Karkov has commented that the elaborate decoration of such halls with carved woodwork and metal fittings, which might have been taken for a flight of literary imagination, has been corroborated by the finds at archaeological excavations of

⁸⁸ I. Fisher, *Early Medieval Sculpture in the West Highlands and Islands* (Edinburgh, 2001), pp. 5-6; 15-17.

⁸⁹ Hope-Taylor, *Yeavinger*, p. 119 (theatre timbers), p. 91 (Building C2 timbers).

⁹⁰ *Ibid.*, p. 38.

⁹¹ D. O'Sullivan and R. Young, *Lindisfarne: Holy Island* (London, 1995), pp. 36-8.

⁹² W. Meid, ed., *Tain Bó Fraích* (Dublin, 1967), p. 3, ll. 65-8.

⁹³ G. Henderson, ed., *Fled Bricrend* (London, 1899), p. 2.

such Iron Age sites as Navan.⁹⁴ From the realm of early saints' lives we have Cogitosus's seventh-century account of Saint Brigid's church at Kildare, in which he describes the ornately-carved doorways and painted images of what must have been one of the most important churches of the time in Ireland.⁹⁵

Excavations at the monasteries of Iona and Whithorn, of the royal crannog at Lagore, and of similar complex wooden structures, have shown the range of domestic utensils and equipment that was manufactured in wood; indeed, wood may have been used in many instances now unfamiliar to us.⁹⁶ At Lagore, lathe-turned bowls and carpenters' tools including adzes, saws, draw-knives, chisels, wedges, gouges, punches and awls were found.⁹⁷

Archaeologists are also providing increasing evidence that wood was used in cemeteries in place of stone as a means of marking graves. It is clear, from excavations of the serried and regular ranks of depositions arranged around a central 'special grave', that there must have been some system of recording the positions of graves on the surface of the burial-ground. Elizabeth O'Brien has made a survey of post-Roman Insular burial practices in which she noticed the remains of grave markers of wood in the form of post-holes at the heads of graves, as well as at the feet. An especially good example was excavated at Whithorn, which featured 'Two special graves marked by posts at head and foot', and also a series of log coffins, shaped by adze.⁹⁸ Dr O'Brien has compiled tables showing the wide distribution of grave markers excavated to date:

⁹⁴ C. Karkov, 'The Decoration of early Wooden Architecture', in C. Karkov and R. Farrell, eds., *Studies in Insular Art and Archaeology* (Ohio, 1991), pp. 27-48.

⁹⁵ Cogitosus, *Vita Sanctae Brigidae*, Ch. 32; ed. Bollandists, *Acta Sanctorum*, Feb. 1, pp. 135-41; transl. by S. Connolly and J.-M. Picard, *JRSAI* 117 (1987), pp. 11-27.

⁹⁶ H. O'N. Hencken, 'Lagore Crannog: An Irish Royal Residence of the 7th to 10th Centuries A.D.', *PRIA* Vol. 53 C (1950), pp. 1-248; P. H. Hill, *Whithorn and St Ninian. The Excavation of a Monastic Town 1984-1991* (Stroud, 1997).

⁹⁷ Hencken, 'Lagore Crannog', pp. 156-8, 109-11.

⁹⁸ Hill, *Whithorn and Saint Ninian*, pp. 73, 88.

The placing of post-holes at the foot of the grave is a recurring feature throughout the early medieval period. It indicates that the burial was laid facing towards the feature. If, as is likely, these burials were Christian, then the post-hole might have contained a wooden cross. A grave-marker with the name of the deceased would more likely be placed at the head.⁹⁹

Dr O'Brien has also found, but relatively rarely, posts at the side and head of the burial, and has listed several instances of sets of four post-holes, indicating a 'wooden super-structure' similar to the house-shaped shrine over the grave of St Chad.¹⁰⁰ Her theory that wooden grave-markers were used seems to be confirmed by two incidents related in the late-seventh-century account by Tírechán of St Patrick's circuits around Ireland: in one Patrick lifts and repositions, from one grave to another, a wrongly-sited memorial; and in the other a whirlwind lifts, breaks and scatters a similarly lightweight, presumably wooden, cross.¹⁰¹

When Heather King was supervising the uplifting and re-siting of the West Cross at Clonmacnoise in 1991, she found a rectangular pit, 0.42 m. by 0.34 m. and 1.4 m. in depth (c. 17 in by 13 in by 55 in), with traces of wood adhering to two sides. In her summary excavation report she wrote: 'the suggestion is being made that there may have been an earlier wooden 'cross' on the site.'¹⁰² In Brittany the remarkable survival, at Landevennec, of a late-seventh- or early-eighth-century coffin, carved out of a single block of oak heart-wood, shows that the carpentry technology for assembling precisely-made, large wooden objects was in existence at that period. The coffin (ILLUS. 6:23) is approximately 2.4 m. (8 ft) long, trapezoidal in shape, tapering from 0.6 m. (2 ft) square in section at the head end to 0.3 m. by

⁹⁹ O'Brien, *Post-Roman Britain to Anglo-Saxon England*, Chapter 2, Table 5, pp. 30-32; pp. 66, 84, 122, 183.

¹⁰⁰ Thomas, *Early Christian Archaeology*, p. 148; see p. 142 above.

¹⁰¹ Tírechán, *Collectanea*, ch. 41; ed. and transl. by L. Bieler, *The Patrician Texts in the Book of Armagh* (Dublin, 1979), pp. 154-7; cf. Muirchú, *Vita S. Patricii*, II.2, ed. and transl. by Bieler, *ibid.*, pp. 114-15.

¹⁰² H. A. King, 'New Graveyard, Clonmacnoise', in I. Bennett, ed., *Excavations 1994: Summary Accounts of Archaeological Excavations in Ireland* (Bray, 1995), pp. 74-5; p. 74.

0.6 m. (1 ft by 2 ft) at the feet end of the coffin.¹⁰³ Although the coffin is perfectly symmetrical and smooth, expert examination by Jean-Yves Hunot showed that saws had not been used in its making, only adzes.¹⁰⁴ It is possible to imagine this massive piece as a solid, set upright in the ground in order to visualise the main timber of a high cross in wood. The dimensions of the cross-base postulated by Heather King at Clonmacnoise are comparable to the narrower end-section of the Landevennec coffin.

The Viking-Age excavations at Wood Quay and Christchurch Place in Dublin have provided a wide range of wooden objects of Viking, Hiberno-Scandinavian, and native manufacture. The great interest of the recovered objects is that we see material marked with Scandinavian Runes alongside identifiable Insular work.¹⁰⁵ Uaininn O'Meadhra included some of the rune-marked items in her *Motif Pieces from Ireland*, where we see fish-tail line endings in the place of cut serifs.¹⁰⁶ Fish-tail serifs are suited to knife work, and consideration should be given to the peculiar technique necessary in cutting with the chip-carving knife (ILLUS. 6:24). Most unusual among the Insular objects from the Dublin excavations was an intricately-carved boss, assumed to be the centrepiece to a lost high cross, suggesting that carvers developed to the full a carving technique in the medium.¹⁰⁷ Also giving evidence of a refinement in the cutting of Insular woodcarving was a carved Insular vandyke (decorative border edging), with an incised V-section V inside fret-patterns.¹⁰⁸ It has well-cut and finished serifs.

¹⁰³ A. Bardel and R. Perennec, *Inhumations et édifices religieux au Moyen Âge entre Loire et Seine* (Rennes, 2004), pp. 129-30.

¹⁰⁴ J-Y. Hunot and D. Marguerie, *Étude des Bois Archéologiques, L'Abbaye de Landevennec* (Rennes, 1999), rapport dactylographié.

¹⁰⁵ J. T. Lang, *Viking-Age Decorated Wood: A Study of its Ornament and Style* (Dublin, 1988).

¹⁰⁶ U. O'Meadhra, *Motif Pieces from Ireland* (Uppsala, 1979), Cat. no. 25, Plate 6.

¹⁰⁷ Lang, *Viking-Age Decorated Wood*, Catalogue no. DW 1.

¹⁰⁸ *Ibid.*, Catalogue no. DW 14.

In the Wood Quay finds it was remarkable to see the persistence of native Irish patterns right in the centre of Viking Dublin, alongside the Scandinavian and Anglo-Saxon material. In his comments upon the Insular decorated wood that was found in the excavation, James Lang stressed that there was a common store of woodworking techniques and patterns over a wide geographical area. He remarked upon the prescience of Dr Henry when she wrote, in 1970 before the Wood Quay excavations, that she thought it wrong to attribute any particular stylistic features too closely to an exact geographical area: she was 'more inclined to see here parallel phenomena and varying aspects of a fashion which takes slightly different forms in the various countries in which it occurs, countries in constant contact with one another, having in common not so much fully evolved patterns as certain tastes and trends'.¹⁰⁹

Wood as a possible conduit of Insular style

If, as seems to be suggested by literary sources and by recent archaeological research, carpenters had tools sufficiently strong and sharp to carve patterns in wood, then they may also have been able to letter in it without difficulty.¹¹⁰ But the intractable grain of wood presents a challenge to the letter-cutter of a kind quite different to that of working in stone. It has always been recognised that Runic letter-forms evolved as a result of adapting to this challenge, but little attention has been paid to the minimalist and angular letters of the Roman period in Britain, which may have been preserved by craftsmen in the post-Roman period. Here the inscribed letter-forms of stone memorials might suggest the survival of a simplified angular letter in common use in post-Roman times that was serviceable to craftsmen working in hard materials, but was not then relevant or useful to scribes who used broad-pen techniques. *RIB* records the variations of fluidity and angularity that occurred when inscribing on coarse pottery before and after firing, and it is valuable to compare these two approaches to the rapid writing achieved upon hard surfaces on a larger scale (ILLUS 6:25A and B). They are clearly comparable to the stamped, scored and impressed letter-forms discussed above and below.

¹⁰⁹ Quoted in Lang, *Viking-Age Decorated Wood*, p. 14.

¹¹⁰ M. E. Hall, 'Iron Working from Some Early Medieval Irish Sites', *Peritia* IX (1995), pp. 221-33.

The drastic difference between the form of writing which is possible on a smooth and yielding surface, and that which is possible on a surface which is not, is well illustrated by the inscriptions made upon Roman *terra sigillata* after firing (ILLUS. 6:26A).¹¹¹ Here we see the same abandonment of curves which is later reflected in the first inscriptions upon stone of Nash Williams's Group I stones, when they abandon Roman capitals. As we have seen above, if we search *RIB* for other examples of simplified Roman letter-forms designed for hard surfaces, then we find evidence among the stamped letter-forms of ingots, lead containers, ceramics, glass, tiles and votive plaques (ILLUS. 6:26B), and in openwork jewellery. After the Roman withdrawal, two strands of craft practice may have survived in post-Roman Britain which may have preserved such simplified angular letters: metalworking and woodworking. These letters would have been monoline and shallow, and would not have created those shadows that give the appearance of depth. In the case of sculptural technique, even as simple as that which we see on the Lemanaghan bog staff (ILLUS 6:18A), it is clear that the major step-change came with the adoption of Germanic cast chip-carving techniques in metalwork, which gave a light and dark contrast to a deeply-faceted surface. But this was a technique that had appeared in Roman Britain, and (perhaps through the conduit of German auxiliaries) had spread through the army and its civilian hinterland, during the Roman period itself. It gave much more complexity and light-reflecting brilliance than did the flat-field contrasts of *champlevé*. Wood, slate, ivory and bone must have been an important conduit for the chip-carving technique: the right- and left-angled incision by knife on wood made a V-section that was not possible to execute on stone at that time. Unfortunately, because of the lack of substantial surviving evidence in wood, it is only possible to speculate on the nature of techniques in building and decoration in the British Isles during the post-Roman period. But that there was a long-standing specialist craft tradition in the medium of wood is suggested by surviving law texts.

¹¹¹ e.g. *RIB* nos. 2496.3, 2494.188, 2494.170.

The evidence on craftworkers from the law texts

The earliest law texts to give evidence on craft practice in Ireland and Wales are not contemporary with one another. From Ireland the evidence is contained in a mid-eighth-century text, *Uraicecht Becc*; but from Wales the text – *Cyfraith Hywel Dda* – is no earlier than c. 900.¹¹² The Irish, earlier, text places a much greater emphasis on the woodworker: the Welsh, later, text upon the smith.¹¹³ This may reflect the transition that had taken place, between the time of writing of the *Uraicecht Becc* and the *Lex Hoeli*, in the use of a wider range of structural materials for ambitious building projects. In his ground-breaking study of the status in Ireland of carpenters and sculptors based upon the *Uraicecht Becc*, which exists in early and late versions, Douglas MacLean reveals a complex hierarchy of master craftsman, *sáer*, and his apprentices, *felmacc*.¹¹⁴ In Ireland it is clear that originally the entire craft of the *sáer* was concerned with the medium of wood alone. Stone did not begin to displace wood as a medium for grand buildings until the mid-eighth century, when the carpenters of the older texts become the stone masons of the later. The word for smiths who worked in iron, copper, bronze and precious metals was *sóir*.

Thus the earliest texts of *Uraicecht Becc* differ from the later recensions in an important respect: 'It must be emphasised that the original Old-Irish text of UB never mentions any craft that had to be performed in stone.'¹¹⁵ The chief master *sáer* worked in oak and could construct oaken churches, but there were lesser masters with specialisms: the master of yew-work, *ibróracht*, the chariot builder, *carpatsáer*, and the house builder, *ailtíre*. The verb associated with their work is *rindaíd*, to cut or incise. This verb may only later have been used with the meaning of 'carve', and figurative sculpture may have been a late-developing craft, mastered after more basic stone-cutting skills. That there was such a hierarchy seems likely. Peter Harbison has made an important deduction from the 'Unfinished Cross' at Kells,

¹¹² T. M. Charles-Edwards, *The Welsh Laws* (Cardiff, 1989), pp. 83-5.

¹¹³ D. A. Binchy, ed., *Corpus Iuris Hibernici* (Dublin, 1979), Vol. 5, pp. 1612-4. For the different versions of this text see L. Breatnach, *A Companion to the Corpus Iuris Hibernici* (Dublin, 2005), § 5. 53; D. Jenkins, *The Law of Hywel Dda: Law Texts from Medieval Wales* (Llandysul, 1986), pp. 37-8, 194.

¹¹⁴ D. MacLean, 'The status of the sculptor', p. 125.

¹¹⁵ *Ibid.*, p. 134.

Co. Meath. Here, the interlace-pattern geometric ornament on the underside of its arms and ring was completed, whereas the figurative work on the East Cross head was never finished, and Harbison therefore proposed that the workshop had specialists who worked in the separate fields of geometric ornament and figural sculpture.¹¹⁶

Etymologically it is clear that in Welsh the word *saer* first meant a joiner, who was a worker in wood; but, when stone came to be worked as sculpture, the word was amplified by distinguishing the *saermaen*, the worker in stone, from the *saercoed*, the worker in wood. On account of the physical strength and understanding of metal technology that would have been necessary attributes of the *saermaen*, it seems highly likely that stoneworking was a diversification from within the craft of the *gof* or smith. Unfortunately, when we look for evidence from Welsh sources that might provide similar background information to the Irish *Uraicecht Becc*, relevant to the transitional period from wood to stone, there is no law tract that provides such detail on the grades of woodworker and the hierarchy within the craft. But the texts of *Lex Hoeli* or *Cyfraith Hywel*, based upon Welsh laws possibly in use at the beginning of the tenth century, do provide comparative material from the craft of the smith, supreme among craftsmen.¹¹⁷ In early medieval Wales the smith was revered, an officer of the king's court; in *Cyfraith Hywel* any details of the tools, or practice, of woodworking come in incidental material. The smith was entitled to his land and his food and had to carry out set duties:

It is right for him to fulfil all the court's needs free, except for three things; those are the rim of a coultter, and the head of a spear, and the socket of a fuel-axe; for each of these three things he is entitled to payment for his work.¹¹⁸

The smith kept weaponry sharp and in good repair, and tools in top working condition. In a passage on the various values of pieces of equipment, in which a carpenter is not mentioned, the smith's implements are listed together, with not only a total value but also an itemised value: a large anvil, 60 pence; a bicorne, twelve pence; bellows, eight pence; pincers,

¹¹⁶ P. Harbison, *The High Crosses of Ireland: an Iconographic and Photographic Survey* (Bonn, 1992), Vol. i, p. 353; Vol. ii, figs. 360-62.

¹¹⁷ Jenkins, *The Law of Hywel Dda*, pp. 37-8, 194.

¹¹⁸ *Ibid.*, p. 38.

four pence; a sledge-hammer, four pence; a bender, four pence; a nail-maker, four pence; a furrower, four pence; a vice, four pence; a footrasp, four pence; an iron file, four pence; a grindstone, four pence. In contrast, the carpenter's tools are scattered among various paragraphs and they include: a drill, valued at two pence; a medium auger, a penny; a gimlet, a halfpenny; an adze, a penny; a drawknife, a halfpenny; an awl, a halfpenny; a plane, a penny; a saw, a halfpenny; a turning lathe, a farthing. In miscellaneous equipment, but presumably pertaining to the smith, is 'a polishing stone' valued at a halfpenny.¹¹⁹

In the entire text of *Cyfraith Hywel* there is no direct mention of a mason or of stoneworking. There are two oblique references: the first is to what appear to be the ancient monuments of standing stones and fortified enclosures:

if a person claims land, and says that he is entitled to it and that his ancestors were on that land before him and left ditches or other works on that land, and if there were anyone who doubted that he had maintainers who would be enough in law to maintain it; and that when it was desired to test the maintainers they returned that they had heard from their ancestors that it was the other's ancestors who made that stone work or the ditches or banks, that is taken as testimony.¹²⁰

The second oblique reference to stone is contained in a triad which seems to indicate that, at the period of writing of the text in the tenth century, stone was a customary building material which may have been sculpted. Or the reference may be to drystone constructions:

Three things which a person can take without another's leave: water not in another person's vessel, and a stone not in a piece of work, and fire from a hollow tree.¹²¹

The Welsh text gives the impression that wood, and objects made from wood, were so commonplace as to be unremarkable, and unlikely to be any valuable object of contention.

¹¹⁹ *Ibid.*, pp. 192-4.

¹²⁰ *Ibid.*, p. 98.

¹²¹ *Ibid.*, p. 171.

Ogham and Runes

The assumption that Germanic peoples were supreme in wood technology has bedevilled many arguments, including the precise dating and relationship of the Ogham and Runic scripts. It is important to recognise that the possession of a highly-developed technology in woodworking was not a peculiarly Teutonic distinction, as Gerard Baldwin Brown claimed in his discussion of the origin of geometric chip-carving:

Now the fact that Runic characters were expressly shaped to be cut in timber is a positive proof of the familiar use among the ancient Germans of the knife on wood, and inclines us to claim these patterns as native Teutonic products ¹²²

But, as we have seen above, Ogham was also associated with knife-cut lettering, and, in contrast to Brown's blinkered view, Hans Jürgen Hansen stresses the difficulty of distinguishing barbarian woodworking techniques in general from those of the Roman world. He acknowledges that not only Teutonic but also Celtic and Slav peoples living in heavily wooded homelands would naturally develop skills in woodworking:

Many features of the timber framed buildings of medieval towns certainly suggest Roman traditions. Nevertheless, excavations in Celtic, Teutonic and Slav areas have shown that a noteworthy technique of building in wood, clearly independent of ancient traditions, existed in these areas at a relatively early date [BC] ...¹²³

From the *Uraicecht Becc* and the fact that the Ogham alphabet uses the names of trees and woods as mnemonics for its alphabetic characters, it is clear that in Ireland wood of many varieties was valued highly and was worked in a complex way. There has been much discussion of the date of the invention of Ogham,¹²⁴ believed to have been used first as a tally

¹²² G. Baldwin Brown, *The Arts and Crafts of Our Teutonic Forefathers* (London & Edinburgh, 1910), p. 71.

¹²³ H. J. Hansen, *Architecture in Wood: A History of Wood Building and Its Techniques in Europe and North America* (London, 1971), p. 21.

¹²⁴ See especially Harvey, 'Early Literacy in Ireland'.

system on wooden slips, and recently it has been pushed back. Damian McManus has noted that 'The rectilinear nature of its characters is perfectly designed to cope, for example, with the grain in wood'.¹²⁵ The theory that Ogham is dependent upon Runes is dismissed by McManus as chronologically very improbable:

some obvious parallels between ogam and runes have always been recognised but formal resemblances between ogam and the common Germanic Futhark or its western and northern offshoots stop at a preference for angular at the expense of rounded shapes ...¹²⁶

The earliest evidence for organised grouping of the Runes comes from the sixth century: the most recent date, calculated from archaeological evidence, for the use of Ogham is the fourth century. McManus has been loath to use the saga material as evidence for an early date, unlike Binchy, who believed 'that for each occasion that it was used on stone, Ogam must have been used thousands of times on wood', and thought that 'the frequent references in the sagas to messages inscribed on pieces of wood have some reality behind them'.¹²⁷ McManus concludes that Runic, as a source for Ogham, 'is neither formally attractive nor, in the present state of knowledge, chronologically feasible.' It would, then, seem that regional adaptations of the Roman alphabet, made at the fringes of the empire when it was at its greatest extent, could vary greatly, as in Runic and Ogham, or could coincide in alphabetic design, as in the mixed-alphabet style of the Rhineland and Wales.

Conclusion

We have seen that in the period from the fifth to the seventh centuries in Britain we have a range of experimentation with types of letter-form for epigraphic use, one of which preserves the angular characteristics of letter-forms that were adapted for use on hard materials during the Roman period in Britain. Indeed, British craftsmen designing coins made

¹²⁵ McManus, *A Guide to Ogam*, p. 7.

¹²⁶ *Ibid.*, p. 11.

¹²⁷ D. A. Binchy, 'The background of early Irish literature', in *Studia Hibernica* 1 (1961), p. 9; quoted in McManus, *A Guide to Ogam*, p. 40.

fine adaptations of Roman letter-form in pre-invasion coinage, so that the British were using and adapting applied Roman lettering for half a millennium before Christian Anglo-Saxons in England began the same process. We might expect, also, that in the realm of domestic portabilia, inscriptions relating to ownership or commemoration of personal events might be freely lettered and not slavishly bound to mimic a high-class Roman model.

Noting the strong link with the North African church which gave rise to the adoption of the *litterae Africanae* in Ireland, we have seen above that Coptic manuscripts have long had an acknowledged place as an influence on Insular manuscript style, and it has been suggested that other Coptic craft objects with different inscriptional techniques, such as those required for wood, might also have been imported into Ireland and Britain through the medium of trade or by travelling churchmen. As we shall see in Chapter 9, the surviving manuscript evidence for Insular geometric capitals, used with practised skill rather than copied in a decadent manner, is overwhelmingly Irish. In Irish epigraphy, where there was no engagement with the Roman capital form (and instead a determination to invent something other that became Ogham), from the earliest period we find the bows of the minuscule **O** rendered as a diamond or oblong, which is the diagnostic form for the body of geometric capitals. If the development of craft technique in cut lettering progressed from knife-cut forms in wood, to punched forms in stone, to chased forms in stone, as we have seen above, then we might isolate certain adaptations as peculiar to certain methods of cutting. The three-bar **M**, the two-bar **N**, the **Z**-shaped **S** and **G**, the lozenge and oblong **O**, and the boxed **A** and **E** are forms whose shapes were governed by the knife, like Runic, but they come from a different palaeographical background. The Irish and Welsh angular letters always remain recognisable versions of a Roman letter. Although there is a dearth of evidence surviving in wood itself, what does survive suggests that they evolved in the first place for use on that medium.

We might speculate, then, that V-section chip-carving had either been an elementary technique in British woodcarving or had transferred from a Germanic metalwork source to the British Isles, possibly during the later Roman period, and had come into use on wood if not on stone. But attempts to identify the influence of one culture upon another, or the influence of work in one medium upon another, are beset with difficulties, particularly when dealing with a medium which has in the main decayed and been lost. Because the limitations of letter-cutting upon wood were a great deal more restricting than the engraving of letter-forms on metal, it

might be safe to conclude that those forms which show the crossing of diagonals to form a prominent triangular wedge, for example at the apex of the A, belong to the tradition of cutting in wood rather than to engraving on metal. The Ardagh chalice (ILLUS. 5:22) has several variations on single letter-forms, including the rectangular A, which avoids the joining of two diagonals. It is clear that its maker was free to design an inscription using a wider repertoire of forms drawn from various sources than was, for example, the designer of the *Catacus* inscription at Llanfihangel-Cwmdru in Breconshire (ILLUS. 7:8). Allowing diagonals to overshoot when they meet, then linking them with an incised wedge, and avoiding sharply-angled joins to the main stems of letters, are two discernible characteristics of cutting in wood with simple instruments (see Appendix 1, no. 4, for replica strokes in seasoned oak). Clearly, by the time the Ardagh chalice was produced, letter-forms were being freely chosen for aesthetic reasons, but in the time-span of *ECMW* Group I inscriptions the choice of letter-forms seems to have been governed more by practicality, and by the letterer's experience of the restrictions forced upon him by the intractability of his working surface. As we have seen above, within this time-span, an artificer was more likely to have been accustomed to the working of wood or metal than to the working of stone, and this may have had an effect on the transfer and ultimate survival of certain letter-forms as they passed from use in one medium to use in another.

Chapter 7

THE GEOMETRIC LETTER ON STONE IN THE GROUP I PERIOD: THE LINK WITH SCRIBAL PRACTICE

The origins and evolution of Insular geometric letter-forms may be placed in the period before building in stone had supplanted building in wood for major projects, and before Insular scriptoria had developed a canonical style of high-grade broad-pen writing. From the evidence examined so far, we might narrow this period down to between the middle of the sixth century and the cusp between *ECMW* Groups I and II at the beginning of the seventh. As we have seen in Chapters 2 and 4, it is possible to identify non-calligraphic letters in inscriptional use at a time before the invention, or standardisation, of anything that might be called Insular half-uncial. In *ECMW* Group I the mixed-alphabet type of inscription, which precedes those modelled on more obviously pen-formed letters, does achieve a style of its own, that survives – modified – into Group II.¹ When we consider the making of a memorial of the late sixth or early seventh century, an effort of imagination is required to picture the level of literacy and graphic competence of a cleric, who might compose and oversee an inscription, and of the craftsman who would enlarge it and incise it on stone.

This epigraphic evolution, then, was not concurrent with a manuscript one, but took place in the working of hard materials like metal, wood and stone. A careful examination of the media and contexts of the earliest occurrences of the angular reductive alphabet, which is integral to the mixed-alphabet type of inscription, may help in the understanding of this evolution. Much research remains fixated on the primacy of manuscript evidence. To allow the applied lettering of the workshop an evolution of its own provides a valuable alternative perspective to one that sees epigraphy as a reflex of manuscript production, applied to stone. In this chapter I shall discuss the morphology of the angular alphabet, as it appeared on stone, and ask whether it is possible to link this morphology to a discernible chronological progression, a progression which, in its latter part only, in the late seventh and early eighth century, appears to run concurrently with dateable scribal practice. Having established that there were two types of approach to inscriptional lettering, the one utilised by the workshop

¹ e.g. *ECMW* no. 214 at Llanilterne in Glamorgan, and *ECMW* no. 54 at Llanfihangel-Cwmdru in Breconshire.

(typographical, drawn, and monoline), the other utilised by the scriptorium (calligraphic and inflected), I shall address two questions. Firstly, what was the relationship between the two, and, secondly, why did inscriptional style change so profoundly within the time-span of Group I, 400-600+?

The transition from wood to stone: memorials and display letter-form

The case for the evolution of a specific inscriptional technique for monuments in wood was examined in detail in the previous chapter. However, a brief summary is necessary at this point because of the probable significance of this technique as an element in the general evolution of monuments on stone discussed here. The predilection for pillars as monuments may have come about through the availability, and relative ease of working, of timber, which was habitually used rather than stone for building from the earliest times. Timber in the form of tall poles was sometimes incorporated with stone in monuments of the Bronze Age. For example, at the Brenig Bronze Age ritual complex near Cerrig y Drudion, Denbighshire, excavation revealed the use of massive tree trunks associated with the stone monuments. At Brenig Site 44, a stone ring cairn was surrounded by a circle of wooden posts; at Brenig Site 51, there was a stone platform cairn, and 'at the very centre... stood a large post; a carved totem or may-pole ...'.² At Navan Fort, the capital of the prehistoric kingdom of Ulster, excavation of a timber structure referred to by its excavator as a 'temple', 40 metres in diameter, provided evidence of great sophistication in timber construction in Iron Age Ireland. The earth-fast central post of this structure, sunk 2 metres deep, was dated by dendrochronology to 95 BC.³

Wood remained the preferred medium for structures in the seventh century and beyond.⁴ The transition from wood to stone is visible in the structural joinery of early stone crosses such as St Oran's cross or St John's cross on Iona. The first stone-built churches persisted in using timber in combination with stone: at Escomb, Co. Durham, it appears that

² M. Sharp and C. Chippendale, *A Land of Gods and Giants* (Gloucester, 1989), p. 112.

³ C. J. Lynn, *Navan Fort* (Belfast, 2001), p. 8; idem, 'The Iron Age mound at Navan Fort: a physical realisation of Celtic religious beliefs?', *Emania* 10 (1992), pp. 25-32.

⁴ Thomas, *Early Christian Archaeology*, pp. 145-9.

the window openings were grooved to hold wooden tracery.⁵ Excavation of a sixth-century British timber hall at Yeavinger, Northumberland, revealed the existence – as it were – of a British Standard wall plank of roughly a foot in width by five inches thick; memorials in wood are mentioned in an account of Saint Patrick's life; and the construction of wooden-frame churches is described in the *Hisperica Famina* of c. 620.⁶ There is a seventh-century description by Cogitosus of the large and elaborately-decorated church dedicated to St Bridget at Kildare, apparently built in wood.⁷

As in the Hendersons' argument about Pictish sculpture, in which they react against the 'manuscripts first' chronology (see below), we should be wary about imposing what we know of the earliest Insular lettering from manuscript examples onto cut lettering in stone that pre-dates them. If monuments existed in plank or baulk form when Ogham was in use in Wales and Ireland, then some form of inscriptional alphabet would probably have been cut on them, in straight cuts that avoided running down the vertical grain. Ogham would have done this naturally, and if a version of a Roman letter was used, then round forms would have been rendered as a lozenge, or as rectangles. Dorothy Kelly and Heather King have recently worked on the wooden prototypes of the Irish high crosses in stone, and the probability that such plank-constructed monuments had inscriptions on them has already been discussed (see above, Chapter 6).⁸

It is a curious coincidence that some of the epigraphic geometric Insular letters occur on monuments that are narrow and tall, like the so-called 'Acca's Cross' at Hexham, Northumberland, which is 3.58 m. (141 in) tall and has an inscribed panelled face tapering from 330 mm. (13 in) to 280 mm. (11 in) in width. Its stone is medium-grained orange-yellow sandstone.⁹ The fragmentary panel from the East Cross at Toureen Peacaun, Co. Tipperary,

⁵ Fisher, *Early Medieval Sculpture*, pp. 132-3.

⁶ Hope-Taylor, *Yeavinger*, pp. 38, 91, 119, 144-5; Tírechán, *Collectanea*, ch. 41; M. W. Herren, ed., *The Hisperica Famina: The A-Text* (Toronto, 1974), p. 109.

⁷ Cogitosus, *Vita Sanctae Brigidae*.

⁸ Kelly, 'The heart of the matter'; King, 'New Graveyard, Clonmacnoise'.

⁹ *CA-SSS*, Vol. I, Hexham 1 a-d, pp. 174-6.

has the same compressed space for a block of lettering, roughly 300 mm. (12 in) wide.¹⁰ It is possible that this type of dimension has been influenced by the optimum width of oak planking. Okasha and Forsyth date the East Cross as contemporary with the Lindisfarne Gospels, c. 720.¹¹ The six lines of horizontally-banded lettering on these two panels, at Toureen Peacaun and Hexham, have been scored horizontally to line up the head and foot serifs exactly. In contrast, the remarkable raised-letter inscription of *ECMS* Tarbet [*sic*] no.10 (Portmahomack) makes a decorative feature of these interlinear horizontal bands which were, if originally from the craft of wood-cutting, a practical necessity in wood, but in stone perhaps a skeuomorph. Such a neat approach as we see on the Tarbat inscription would not be possible if local geology could provide only rough boulders with pitted surfaces. Such symmetrical, pillared and panelled monuments, as Dorothy Kelly has suggested, may bear a close resemblance to a class of large Insular monument that was originally crafted in the medium of wood. This medium was universally available, tractable, and would have had a widely-understood craft technology: the shift to working in the more durable medium of stone would have had the immediate effect of diversifying techniques and approaches to the incision of lettering on a variety of surfaces.

The choice of stone for monuments

In Insular epigraphy we find a bewildering range of letter-form styles on an equally wide range of stone surfaces. At no stage in Wales does it rise to the height of an appreciable aesthetic success: we cannot identify a canonical cut-letter alphabet. It is difficult to ascertain whether the choice of stone for a monument was dictated by the type of letter-form to be inscribed, or whether the type of letter-form was dictated by the quality of the stone itself. In *The Art of the Picts* the Hendersons point out the limited repertoire of Welsh sculpture in the seventh and eighth centuries.¹² Yet on mainland Britain it is in Wales, as Lewis Morris had claimed (see Chapter 1), that we first see angular adaptations of Roman formal and informal letters. They occur in the bilingual Ogham / Latin inscriptions concentrated in Pembrokeshire,

¹⁰ Okasha and Forsyth, *ECIM*, no. 40; G. Charles-Edwards, 'The East cross inscription at Toureen Peacaun: some concrete evidence', *JRSAI* 132 (2002), pp. 114-26.

¹¹ Okasha and Forsyth, *ECIM*, p. 295.

¹² Henderson and Henderson, *The Art of the Picts*, p. 29.

which places them chronologically before c. 600, and also suggests Irish influence on their invention. In the Pictish corpus and in Northumbrian sculptural art we see high-quality, accomplished carving and well-prepared stone: in the Welsh corpus, the crudity of cutting and the quality of the stone cut, particularly in *ECMW* Group I stones, present the researcher with questions of quite a different order.

Foremost amongst these questions must be: why did monument makers, from the first, choose the hardest and most intractable stones to letter, with tools that were not hard enough to cut them well? The durability and naturally-occurring straight fractures of the stones chosen, such as basalt, rhaetic sandstones, gritstones, granite or dolerite, seem to have outweighed any of the obvious disadvantages to the letter-cutter. The conclusion to draw might be that, in the absence of highly-developed quarrying skills and stone saws, monument-sized stones had to be taken from beds in which the right size and shape required could be won out of the bed by relatively simple methods of detachment, regardless of what was to happen next. Naturally-occurring beds of basalt, dolerite, granite, sandstone and gritstone show natural lines of cleavage that could be utilised by quarrymen employing an iron wedge and feathers. Good carving-quality stone at sites like Iona has been shown to have been transported some distance from specific quarries, once it was discovered that local stone was not strong enough for carved pieces on a large scale.¹³ Re-use of prehistoric standing stones is also likely.

The first stone monuments

At first the desired shape seems to have been pillar-like, and the taller they could be, the more impressive; the dimensions of these pillar sections, given below, are remarkably thin for their length. Two examples of Welsh rough pillar-stones of roughly quadrangular, double-cube section give us some idea of the height: that at Ystradfellte, Breconshire,¹⁴ was c. 140 cm. (4 ft 7 in) high by 66 cm. (2 ft 2 in) wide by 33 cm. (1 ft 1 in) deep; that at Crai,

¹³ G. H. Collins, 'Appendix I: The Petrology of the Late Medieval West Highland Monuments', in K. A. Steer and J. W. M. Bannerman, *Late Medieval Monumental Sculpture in the West Highlands* (Edinburgh, 1977), p. 199.

¹⁴ *ECMW* no. 73.

Breconshire,¹⁵ with an Ogham / Latin inscription, was 120 cm. (3 ft 11 in) high by 30.5 cm. (1 ft) wide by 15.25 cm. (6 in) deep. This type of thin pillar could be fragile, and it could be destroyed by brute force. The fragmentation of diabase examples like those from Llandysilio West, Pembrokeshire,¹⁶ might have been influential in causing a shift from the tall and thin type to more massive block or slab-like forms of monument, or to smaller monuments in some instances. These would have been less visible in the landscape, if, as has been suggested, they were placed at strategic points on long sight lines.¹⁷ Nevertheless some early, sixth- to seventh-century, Irish examples of thin pillars in gritstone have survived, such as the Kilmalkedar stone, Co. Kerry, c. 121 cm. (3 ft 11 in) high by c. 32 cm. (1 ft) wide by c. 15 cm. (6 in) deep,¹⁸ and the Kilfountain stone, Co. Kerry, c. 150 cm. (4 ft 11 in) high by c. 25 cm. (10 in) (maximum) wide by c. 9 cm. (3.5 in) deep.¹⁹

The possibility that tall pillar-stones were raised to mark the boundaries of landholdings by powerful families has been much discussed.²⁰ The durability of the stones and the maintenance of such sites by succeeding generations, if this was so, must have been crucial. Law tracts suggest that the moving, or even destruction, of such landmarks was not unheard-of. Stone would be preferable to wood if such a danger existed. The Biblical quotation from Proverbs prohibits such a sin against neighbours as boundary re-shaping: 'Remove not the old landmark; and enter not into the lands of the fatherless'.²¹ But it was not impossible to move by primitive force even large monuments, as we know from the more

¹⁵ *ECMW* no. 42.

¹⁶ *ECMW* nos. 315-7.

¹⁷ J. Knight, 'The Historical and Archaeological Contexts', in *CEMISSW* (forthcoming), p.134.

¹⁸ *CIIC* no. 913; Okasha and Forsyth, *ECIM*, pp.165-9.

¹⁹ *CIIC* no. 186; Okasha and Forsyth, *ECIM*, pp.161-5.

²⁰ T. Charles-Edwards, 'Boundaries in Irish Law', in P. Sawyer, ed., *Medieval Settlement* (London, 1976), pp. 83-7; Edwards, *Archaeology of Early Medieval Ireland*, pp. 103-4; idem, 'Early-Medieval Inscribed Stones and Stone Sculpture in Wales: Context and Function', *Medieval Archaeology* 45 (2001), pp. 15-39; Swift, 'Irish monumental Sculpture', in Redknapp *et al.*, eds., *Pattern and Purpose*, pp. 49-60.

²¹ Proverbs, 23.10.

recent fate of three stones from Llandeilo and Maenclochog in Pembrokeshire (see Chapter 2, ILLUS. 2:11).²² These once commemorated a family group, but became separated when one was removed from its first recorded setting.²³

The first such pillar-stones in Ireland were incised with Ogham inscriptions; in Wales we have nine Ogham-only inscriptions, and twenty-six Ogham / Latin bilinguals. Considering that it was in the nature of the Ogham alphabet to be placed on the arris of the stone, it seems likely that not many types of stone would naturally stand up to repeated picked or chiselled strikes on the angled edge (see Appendix 1, nos. 9 and 10). But not only do some of the Ogham signs have repeated diagonals crossing over the arris: there is also a sign in which two diagonals actually cross on it, a matter of great technical difficulty for the stone-cutter.²⁴ Listed and illustrated in Appendix 1, nos. 9 and 10, experiments were undertaken that replicated a section of the Ogham inscription from Llanwenog, Cardiganshire,²⁵ in the same size as the original, and aiming at the same depth. The techniques of picking with a hand pick, striking with a vertically-held punch, and chasing with an angled punch were all used. It became apparent that the incised strokes, 40 mm. to 50 mm. in length on either side of the arris, 10 mm. in width and 10 mm. apart, were only achievable on a close-grained and hard gritstone type of stone. The geological composition of basalt, the softer laminated sandstones and schist caused stress fractures and severe flaking between the incised strokes on the edge. If light pocking was used, followed by repeated scoring along the line towards the arris, it was possible to work to the edge of a piece and achieve legibility, but this could be defaced very quickly indeed. From experience the monument makers would very quickly have restricted the range of stones worked to those, close-grained and hard, that were able to withstand vigorous working on the edge. Experiments to replicate Ogham were particularly disastrous on an arris of medium-hard stone, as the striking of the chisel, even within 25 mm. of the arris, could

²² *ECMW* nos. 313, 314 and 345.

²³ G. Charles-Edwards, 'The Springmount Bog Tablets', p. 42; S. Rees, *Dyfed: A Guide to Ancient and Historic Wales* (London, 1992), pp. 108-9, no. 88.

²⁴ McManus, *A Guide to Ogam*, p. 13.

²⁵ *ECMW* no. 127. I am grateful to Dr Mark Redknap of the Dept. of Archaeology, National Museum of Wales, Cardiff, for assistance in choosing and measuring a suitable section of the stone.

result in spalling which rendered illegible the adjacent strokes. The suggestion, made by Macalister, that the strokes of Ogham were pocked and scored on stone, rather than struck with main force, would seem sensible.²⁶ Perhaps used first on the more suitable medium of wood, Ogham was impractical as an inscriptional alphabet on stones that were not hard and close-grained. For this reason, perhaps, it may have been abandoned in favour of Roman-letter inscriptions.

Working surfaces and their influence on tools and tooling

It is clear that crafts in different media developed their own methods of dealing with the intractability of their materials. Features of patterns and designs could be transferred between crafts, simply because they were decorative, and could be used with no understanding of their original practical purpose: this might have happened – from wood to stone – in the Tarbat no. 10 inscription. Intractability is a characteristic of the 129 monuments of Nash-Williams's Group I inscriptions, described by him as 'rough pillar stones': of these, seventy-seven are in debased Roman capitals, thirty-two are Ogham / Latin bilinguals where the Latin may or may not be mixed-alphabet, and twenty are mixed-alphabet. A remarkable number, thirty-nine, of these 129 rough pillar-stones (some noted by Nash-Williams to be 'roughly quadrangular') have a roughly cubed or double-cubed section. This would seem to suggest a certain amount of control over quarrying out long edges, perhaps by the use of wooden wedges. In addition, two monuments at Llannor²⁷ are rough hexagonal pillars, taken from the naturally-occurring local basalt formations; no letter-cutter would choose to work in such an intractable medium.

Nash-Williams was not overly concerned with the precise geology of all of the monuments he studied. The following fifteen he noted as having particular local stone. In the asterisked examples his descriptions are compared with modern geological analyses, provided

²⁶ *CIIC* Vol. I, p. xv. In his comments on *CIIC* nos. 142 and 143, Macalister distinguished between cutting, pocking, and pocking with rubbing smooth. The rubbing smooth may have been achieved by scoring along the incision. Macalister refers to the Ogham strokes as 'scores'.

²⁷ *ECMW* nos. 96 and 97.

by the geologist Heather Jackson, of the National Museum of Wales, for *CEMISSSW*.²⁸ These show that Nash-Williams's geological identifications, often following the descriptions of Victorian antiquarians, were sometimes imprecise. The modern identifications raise important new questions about the deliberate choice and transportation of stone by craftsmen who wanted to work specific stone for reasons which appear to be unconnected to its qualities of malleability for letter-cutters.

- 1, 2. *ECMW* nos. 73 and 74, Ystradfellte. 'Local Old Red Sandstone.' Both 'roughly quadrangular'.
- 3, 4. *ECMW* nos. 96 and 97, Llannor. 'Local basalt'. Both 'roughly hexagonal'.
5. *ECMW* no. 105, Penmorfa. 'Local greenstone'.
6. *ECMW* no. 106, Treflys. 'Local blue slate'.
7. *ECMW* no. 122, Llangwryfon. 'Local fine grained quartz-grit'.*
[*CEMISSSW*: 'Llangwryfon 1; Fine-grained, quartz-cemented dark grey sandstone; Aberystwyth grits.']
8. *ECMW* no. 125, Llanwnnws. 'Dark grit characteristic of the Cwm Ystwyth area'.*
[*CEMISSSW*: 'Llanwnnws 1: Coarse, micaceous, slightly feldspathic, partially recrystallized, well bedded, siltstone. Horizontally laminated.']
9. *ECMW* no. 132, Tregaron. 'Local gritstone'.*
[*CEMISSSW*: 'Tregaron 1: Medium-grained, moderately sorted, quartz-cemented, dark-grey to grey, feldspathic sandstone.']
10. *ECMW* no. 138, Castell Dwyran. 'Greenstone'.*
[*CEMISSSW*: 'Castell Dwyran 1: Crystal lithic tuff. Shardic texture visible. Five per cent small feldspar phenocrysts in fine dark matrix; also small pyrite crystals. Brown weathered surface due to mafic minerals. Quarry localised at Llwyn-pinner-fawr.']
11. *ECMW* no. 176, Clocaenog. 'Local felspathic sandstone'.
12. *ECMW* no. 258, Port Talbot. 'Rhaetic sandstone Bridgend/Pyle area'. Originally a Roman milestone.
13. *ECMW* no. 271, Barmouth. 'Local Cambrian grit'.

²⁸ I am grateful to Dr N. Edwards for sight of these descriptions before publication.

14. *ECMW* no. 315, Llandysilio West. 'Local diabase'.*
 [*CEMISSSW*: 'Llandysilio 1: Dolerite. Contains ubiquitous crystals of radiating phrenite and pumpellyite, chlorite and fresh-looking plagioclase with obvious twinning. Some albitised feldspars. Could be glacially transported from the Pencaer peninsula, 18km north west.']
15. *ECMW* no. 316, Llandysilio West. 'Local diabase'.*
 [*CEMISSSW*: 'Llandysilio 2: Dacite lava, grey. Exhibits a trachytic flow texture, zoned feldspar, epidote and recrystallized quartz. Quarried at either Eithbed Fach or Llys-y-frân, both 10km away; could be glacially transported.']

Groupings of monuments using the same local stone suggest that an organised, if rudimentary, quarrying operation was in place in these areas; a suitably massive stone had been quarried, lettered and raised to the satisfaction of a patron, and so the process was repeated. Greenstone and diabase (varieties of diorite), felspathic and rhaetic sandstone are hard, close-grained rocks and are not ideal for letter-cutting. Some of the best-known early Welsh inscriptions are on stone surfaces that a modern-day letter-cutter would refuse to work, given a choice. The *Catamanus* inscription at Llangadwaladr²⁹ is on an adamantine, small-grained conglomerate; the inscription to Dallus Dumellus at Llanddewibrefi³⁰ is on an extraordinary quartz-cemented (?) siltstone. The former is listed in *ECMW* Group I as a 'roughly rectangular slab or pillar stone', the latter as a 'rough pillar stone'.

One of the major benefits of the revision of *ECMW*, the new *Corpus of Early Medieval Inscribed Stones and Stone Sculpture in Wales*, is that it gives a clear geological description of each monument's stone. This has proved to be of immense value in ascertaining the extent of the difficulties faced by their letter-cutters. The majority of the monuments are of extremely hard stone: the wide classification 'sandstone', which suggests material from choice quarries normally easily worked, covers stone such as that from the Quarella quarry at Bridgend (see *ECMW* no. 258 above, a re-used Roman piece). Because of its high quartz content, this stone

²⁹ *ECMW* no. 13.

³⁰ *ECMW* no. 115.

is hard to cut and shape.³¹ The chance of cutting tools slipping on such a stone would have increased the preference for strong line ends, or deep terminals, which would prevent the accidental continuation of the stroke beyond the length intended. As we have seen in the previous chapter, letter-forms were adapted to suit such predicaments. Ireland was not unaffected by these practically-influenced design adaptations. The seventh-century pillar at Loher and the pillar at Reask, both in Co. Kerry, show the same boxing of round forms for display monumental letters on intractable surfaces as we see in the Welsh corpus.³² An unusual late example of an Irish mixed-alphabet inscription using gate M with accomplished half-uncial occurs at Dunleer, County Louth.³³ Both the Loher and the Dunleer monuments have the alpha and the omega symbols rendered in an angular fashion; the Dunleer case is interesting in giving a definite association of gate M with a display capital style that is Greek. As in the Toureen Peacaun inscription, discussed below, the ordinator has rendered the Latin section in Greek and geometric letters, but the vernacular in half-uncial.

Angular comparanda in early manuscripts and inscriptions

As Ogham is a straight-line conversion of the Roman alphabet, and as our first British straight-line adaptations of Roman letters occur on the Ogham / Latin bilinguals of south-west Wales, it is surely worthwhile to examine the possibility that the Insular milieu in which geometric capitals developed was an Irish-dominated one. In Ireland there was no tradition of the use of Roman capitals, so that, as the manuscript tradition evolved, there was a need for a capital form, whereas there was already a capital tradition in Britain. The predilection for straight-line, angular forms, carried over into the earliest minuscule manuscript hands, affected the way in which the Irish manipulated pen-forms. Two Irish manuscripts, later than the *Cathach* of c. 600, and a century apart themselves, may give evidence that supports such a

³¹ J. Horak, 'Geological Sources and Selection of Stone', in *CEMISSSW*, Vol. II (forthcoming), Introduction to Chapter 4.

³² Okasha and Forsyth, *ECIM*, pp. 171, 178.

³³ *CIIC* no. 578.

theory. The Antiphonary of Bangor,³⁴ c. 690, and the Stowe Missal,³⁵ c. 800, show that in the minuscule hand, Irish scribes had not changed from the staccato technique of the scribe of the *Cathach* in the making of bowed strokes. They still moved with an abrupt chopping movement from the thin stroke into the thick, as in the Gothic *textura*, creating the 'flat-top' a (ILLUS. 7:1). This gives an a form that is strongly boxed.

From the earliest ambitious alphabet stone at Kilmalkedar, we see that the angularising of the body of the a was then echoed in the construction of the o, as a lozenge. With discrete styles, Irish epigraphy never descended into the chaotic mixed-alphabet stage of the Welsh, and scribes seem to have had a relatively stabilising and standardising influence. But it is possible to discern a close-set pre-half-uncial style which is more cursive and includes ligatures. An important distinction must be drawn between what seem to be the epigraphic prototype forms of the later geometric capitals, in *ECMW* Group I, and the geometric capitals themselves, which occur in both manuscripts and epigraphy during the period of *ECMW* Group II. The prototypes occur mostly in minuscule-only or mixed-alphabet compositions, rather than as a strict majuscule, and are composed as a capital inscription between two rules.

An inscription must be fairly long in order for it to be possible to gauge whether the designer was familiar with massing geometric capitals. Among such extended texts in the Welsh corpus, only the eighth-century inscriptions at Llanlleonfel, Breconshire,³⁶ and Caldey, Pembrokeshire,³⁷ can be classified as majuscules, executed between two lines, and they are thus of great significance; in addition, lettering in the style of elaborate manuscript geometric capitals was discovered in 1967 in the inscription on a stone from Ramsey Island.³⁸ Michelle Brown includes the Llanlleonfel inscription in her listing of epigraphic examples of the angular alphabet on stone, but, like John Higgitt, she perceives such examples to be 'outliers', being

³⁴ MS Biblioteca Ambrosiana C. 5. Inf.; I. Adamson, *Bangor: Light of the World* (Belfast, 1979), facsimile, pp. 87-158; commentary, pp. 13-85.

³⁵ MS Royal Irish Academy D. II. 3; O'Neill, *The Irish Hand*, pp. 6-7, 63-4.

³⁶ *ECMW* no. 62.

³⁷ *ECMW* no. 301.

³⁸ E. Okasha, 'A New Inscription from Ramsey Island', *Archaeologia Cambrensis*, CXIX (1972), pp. 68-70.

outside Northumbria where they presume the alphabet to have originated.³⁹

We shall see in Chapter 8 that when Professor Macalister made his monumental survey of the Clonmacnoise memorials, he made a series of alphabet diagrams in chronological sequence (ILLUS. 8:1).⁴⁰ The earliest layer of letter-forms, numbered i, may be compared with the script of the Kilmalkedar stone (ILLUS. 8:12). This monument was dated by Professor Bieler to the late sixth century, but this dating has recently been revised to c. 600, or early seventh century.⁴¹ Nevertheless, this type of alphabet, co-eval with the Welsh Group I examples with the strongly rectangular body, was in use as an epigraphic alphabet in Ireland before c. 650, the rough starting date given by Rosemary Cramp for the series of Lindisfarne and Hartlepool grave slabs or 'name-stones' in bilingual Runic and Anglo-Saxon geometric capitals.⁴² As we have seen in Chapter 4, the Z-form type of S, the three-bar M, and the rectangular U, N and h of this series were already present in the Welsh Ogham / Latin bilingual inscribed stones which, Jackson estimates, went out of fashion c. 600.⁴³

Typologically related to these *ECMW* Group I period angular intruders into capital inscriptions are four majuscule inscriptions with strongly-marked symmetrical fish-tail serifs: the *Petri Apustoli* stone at Whithorn,⁴⁴ the *Medicus* stone at Lethnott,⁴⁵ and the two inscriptions at Capel Anelog on the Lleyn peninsula.⁴⁶ This type expanded to include minuscule forms such as those we see on the pre-Viking Maughold 27.⁴⁷ The serifs remain distinct from secondary additions to the main stem of the letter, a feature which, as is argued

³⁹ Brown, *The Lindisfarne Gospels*, p. 229; Higgitt, 'The Display Script of the Book of Kells', p. 217.

⁴⁰ R. A. S. Macalister, *The Memorial Slabs of Clonmacnois* (Dublin, 1909), p. 80.

⁴¹ Okasha and Forsyth, *ECIM*, Kilmalkedar 1, pp. 165-9.

⁴² *CA-SSS*, Vol. I, e.g. nos. 29-30.

⁴³ *LHEB*, p. 137.

⁴⁴ *ECMS*, Whithorn no. 1.

⁴⁵ *ECMS*, Lethnott no. 1.

⁴⁶ *ECMW* nos. 77 and 78.

⁴⁷ Kermodé, *Manx Crosses*, p. 110, Plate X.

in Chapter 6, is associated with wood-carving. We shall see in Chapter 9 that this peculiar epigraphic variation of the sixth and seventh centuries was preserved and included in the display capital variations of the Book of Kells c. 800, as what I have classified as the Type C geometric alphabet. Although it disappears from epigraphy in stone, we might surmise that in the intervening years it may have survived in the medium of wood.

The angular alphabet: its place in Insular art

It is an aim of this thesis to explore firmly the connection between the early angular letters of the *ECMW* Group I and the angular letters of *ECMW* Group II, and to relate both to the geometric display letters of eighth-century Insular manuscripts. The angular letters of Group II (c. 600-800+) are to be seen in a family of twenty-seven inscriptions discussed in Chapter 10 (listed in Appendix 2, under Wales). They overlap chronologically with manuscript style in the late seventh and eighth centuries, and have a dwindling occurrence in a period of decadence in the ninth and tenth. It is evident from the appearance of the Insular geometric display letters of the eighth-century gospel books that they were peculiarly suited to working in materials where curves were difficult to execute, and suggestions have been made that metalworkers, woodworkers or stone-cutters used them first, before scribes adopted them. In 1795 the *Cambrian Register* published the Welsh antiquarian Lewis Morris's theory that the geometric capitals of Insular manuscripts were in origin an 'ancient British letter now commonly called the Saxon letter' from the repertoire of Roman-letter adaptations made by the stone-cutters of early Christian inscriptions. In this he was enlarging upon the earlier theories of Edward Lhuyd, who had discussed the origins of writing in Britain in a letter to the Anglo-Saxon scholar Humphrey Wanley on 8 February 1703.⁴⁸ Morris understood the alphabet as an epigraphic one 'to be seen on our ancient tombstones in Wales, erected before the Saxons had the use of letters'.⁴⁹ Although his claim was ignored and has been long forgotten, Carlo Tedeschi, a more recent commentator on the origin of this alphabet, is now

⁴⁸ See N. Edwards, 'Edward Lhuyd and the origins of early medieval Celtic archaeology', *Antiquaries' Journal* 87 (2007), in press.

⁴⁹ This theory was published a considerable time after Morris's death in 1765: *Cambrian Register*, 1795, i, pp. 358ff. It is quoted by Westwood in his commentary on the MacDurnan Gospels in *PSP*, p. 9.

again thinking along similar lines.⁵⁰

In the facsimile volume of *Evangeliorum quattuor Codex Lindisfarnensis*, Julian Brown writes of the three distinct types of decorative capital used in the most ambitious Insular Gospel books:

The decorative capitals may be divided into three classes: first, ordinary Anglo-Saxon majuscule letters, as used in the text, enlarged; – secondly, the same enlarged letters made rectangular, a usage probably derived from inscriptions on wood or stone; – thirdly, letters of approximately the same form as Roman capitals, another epigraphic usage.⁵¹

Similarly, in ‘Northumbria and the Book of Kells’, an article first published in 1972, Brown discusses the inscription at Tarbat, Ross and Cromarty.⁵² He comments on the familiarity of the Picts with the second ‘epigraphic’ alphabet, and sees this as evidence that the Picts used the full range of Insular scripts in their scriptoria.⁵³ This is perhaps too large a conclusion to draw from a single inscription, and Brown’s analysis, though helpful and novel for 1960, was too loose to help with what may be discerned as a sub-group within his analysis, the Type C geometric capitals. Such blurring of epigraphic with calligraphic practice assumes close links between scriptoria and sculptural workshops, and craftsmen who might be skilled with both chisel and pen. As we have seen in Chapter 4, this is unlikely.⁵⁴ In 2004 we find George and Isabel Henderson describing the scribe of the decorative geometric capitals of the Durham Gospels as the ‘master epigrapher’ of the manuscript. This description accords with their argument that the craft of stone sculpting was highly developed independent of supposed

⁵⁰ C. Tedeschi, ‘Some observations’, p. 20; idem, *Congeries Lapidum*.

⁵¹ Brown, ‘The Palaeography of the Latin Text’, p. 75.

⁵² *ECMS*, Tarbat [*sic*] no. 10.

⁵³ Brown, *A Palaeographer’s View* p. 118; J. Higgitt, ‘The Pictish Latin Inscription at Tarbat in Ross-shire’, *PSAS* 112 (1982), pp. 300-21.

⁵⁴ See also G. Charles-Edwards, ‘The Epigraphy of Wales’, p. 126.

Pictish manuscript arts (of which we know nothing), and in origin could pre-date them.⁵⁵ They oppose the highly theoretical argument put by R. B. K. Stevenson, that Pictish sculptural developments were dependent upon manuscript ones, and therefore chronologically later. Stevenson claimed that Pictish animal art developed only after the introduction of manuscript models, such as those seen in the Book of Durrow.⁵⁶

The same chronological confusions and lack of clear evidence dog discussion of the evolution of geometric capitals. The distinguished lettering historian Nicolette Gray admired Insular geometric capitals as 'sophisticated, skilful and highly organised', but failed to recognise Welsh epigraphy as having any influence on them, though she had seen *ECMW*.⁵⁷ She thought that the geometric capital alphabet was an imported exotic, suggesting Kufic as an influence, through the conduit of Arabic silver coinage. Other influences have also been put forward: for example, Michael Ryan suggests late Roman influences, followed by Merovingian and Frankish influences in the sixth century, all reaching Ireland and becoming 'naturalised'.⁵⁸ Ian Wood has emphasised the significance of the Frankish King Theudebert's claim to overlordship of part of Southern Britain, and certainly of Kent, claims which date back to the mid-sixth century.⁵⁹ The emergence of a recognisably Anglo-Saxon style in manuscripts, metalwork and the decorative arts associated with church building may have been relatively late compared to the situation in those strongly Romanised Celtic areas where a continuous tradition may have survived from the Roman period, however crude. Referring to mid-seventh-century Anglo-Saxon practice, Bede commented on those high-ranking women who entered monastic establishments in Gaul 'because there were not yet many monasteries

⁵⁵ Henderson and Henderson, *The Art of the Picts*, p. 20.

⁵⁶ *Ibid.*, p. 31; R. B. K. Stevenson, 'Sculpture in Scotland in the 6th-8th Centuries A.D.', in V. Milošević, ed., *Kolloquium über spätantike und frühmittelalterliche Skulptur: 1970*, II (Mainz, 1971), pp. 65-75.

⁵⁷ Gray, *Lettering as Drawing*, p. 25.

⁵⁸ M. Ryan, 'Church metalwork in the eighth and ninth centuries', in Youngs, *Work of Angels*, p. 126.

⁵⁹ Wood, *The Merovingian Kingdoms*, pp. 176-80.

founded in England'.⁶⁰ Professor Ó Cróinín has discussed the significance of the Frankish Dagobert and his retinue in exile in Ireland, and of Frankish churchmen like Liudhard, Agilbert and Arculf who were influential within Britain.⁶¹ Stanley Morison's positive view of the importance of Byzantine metalwork, imported by the Franks into Britain and Ireland, in popularising the combining of Greek letters with upper- and lower-case Roman letters has already been discussed in Chapter 5. It tends to support Michael Ryan's theory. Nevertheless, though it is possible to appreciate the influence of such Byzantine work on angular letter-forms which combine usually discrete hands, the three-bar M remains peculiarly Insular, as do the rectangular-bodied a and the three-bar s. Therefore careful separation of distinct alphabet types within the classification of geometric capitals is possible, and necessary. Here the comparanda of eighth-century manuscript forms is most helpful, as will be shown in Chapter 9.

Distinguishing features and prototype forms of angular letter-forms in the Insular display alphabet

Nicolette Gray understood the three-bar M with its associated N and U to be diagnostic letters of the Insular manuscript display alphabet, but thought the three-bar M 'a letter which seems to have no ancestry'.⁶² She did not notice twenty-one examples of this letter-form in *ECMW* Group I and II monuments (ILLUS. 7:2), eleven of them within Group I, although six of these appear on the *Catamanus* inscription at Llangadwaladr (ILLUS. 4:2).⁶³ Nor did she notice that the form carried over into Group III on the grandest of monuments, such as King Samson's cross at Llantwit Major in Glamorgan.⁶⁴ In the Welsh examples the letters are crudely executed in comparison to the Northumbrian, such as those on the Ruthwell cross,⁶⁵

⁶⁰ *HE* III, 8.

⁶¹ Ó Cróinín, 'Merovingian politics and Insular calligraphy', pp. 40-2.

⁶² Gray, *Lettering as Drawing*, p. 25.

⁶³ *ECMW* no. 13. (See Chapter 4 above.)

⁶⁴ *ECMW* no. 222.

⁶⁵ *ECMS*, Ruthwell, pp. 442-8; É. Ó Carragáin, *Ritual and the Rood* (London, 2005), pp. 58-62.

seemingly limited by the hardness of the stone surfaces and by the inability of the cutting tools to make sharp-edged cuts. The lack of light and shade in the cutting of these twenty-one examples, the absence of serifs, and the rudimentary nature of the letter-form, are shared with barred versions of M from antiquity. A map with examples of letter-forms (ILLUS. 7:3) shows how earlier Mediterranean cultures adapting Greek and Etruscan alphabets designed a simplified form of M which is clearly linked to the Insular version. The fact that the Roman army in Britain used a completely reductionist alphabet for wax-tablet writing, including a two-bar e and a three-bar m, has been discussed earlier in Chapter 2. This suggests that, from an early period, epigraphic capitals had a separate evolution from the calligraphic letters of the scriptorium.

What may be the earliest and longest inscription using a homogeneous style of geometric capitals on stone, between strongly scored bands, comes from a monument at Toureen Peacaun, in Co. Tipperary in Southern Ireland (ILLUS. 7:4). This cross-shaft, known as the East Cross, survives today as a fragment 2 m. (6 ft 6 in) in height by 520 mm. (1 ft 8 in) in width by c. 230 mm. (9 in) in depth, but originally it supported an ambitious upper headpiece, taking its height to a remarkable 4 metres (c. 13 ft). Its consequent height and weight made it unstable on its base, which was the reason for the toppling and fracture of the monument. Its stone is a hard green-grey micaceous sandstone, which was difficult to work. Its inscription is of unusual interest in being composed mostly in Latin, but with some Irish; in its closing phrase *lasn dernad* it changes its language to Irish and in so doing also changes its script, from geometric capitals to half-uncial, then uses mixed alphabet for the name of the composer of the inscription.⁶⁶ Like its complex decorative lettering, its language is also grand in celebration of the local saint Beccan. It appears to open with the phrase *ob merita eius* ‘on account of his merits’, which we also find in the *Life of Beccan*,⁶⁷ and which is echoed in Bede’s account of the stepdaughter and daughter of King Anna of the East Angles:

*Quae utraque cum esset peregrina, prae merito virtutum eiusdem monasterii
Brigensis est abatissa constituta*

⁶⁶ G. Charles-Edwards, ‘The East Cross inscription from Toureen Peacaun’, p. 116.

⁶⁷ C. Plummer, ed., *Vitae Sanctorum Hiberniae*, 2 vols. (Oxford, 1910), i. 17-18: ‘tears of penitence are granted through the merits of the most blessed father Becan...’.

‘Both of these were, though foreigners, through the merit of their virtues, made abbesses of the monastery at Brie’⁶⁸

Much of the Toureen Peacaun inscription is badly damaged, but a partial suggested reading has been made of the six lines:

- 1 *OB MERITA EIUS*
 - 2 indecipherable
 - 3 [*DOM*]*V*[*S*] + possible placename
 - 4 *DONA[VIT PER S] ABAN* [?]
 - 5 *BECANI ANIMA LASN*
 - 6 *DERNAD*
- [top of cross] *OSGYD*

This might mean, roughly: ‘On account of his merits, the house of [placename] was given by Aban, [pray for] the soul of Becan by whom it was made. Osgyd.’⁶⁹

We shall see that grand expression in the language of Latin, with evidence of scribal knowledge shown in its wording, is a characteristic of those inscriptions with geometric display letters on stone which are recognisably akin to eighth-century manuscript *incipits* in display letters. The Toureen Peacaun East Cross inscription is the most ambitiously laid-out of all Insular geometric inscriptions, and can only be compared to the superlative engraved geometric letters of the Ardagh Chalice (see Chapter 5), which remain unique as the apogee of the geometric letter engraved on metal. The alphabet was attractive to highly-skilled craftsmen, particularly in giving the opportunity to display complexity and ingeniousness, while retaining the core message of the wording of the inscription.

⁶⁸ *HE* III, 8.

⁶⁹ G. Charles-Edwards, ‘The East Cross inscription from Toureen Peacaun’, p. 95.

An obviously homogeneous series of letters would have evolved as a result of the practical necessity of placing an inscribed text between marked horizontal banding. Here the horizontal bands were of such importance that parts of a standard Roman letter-form, which would have lain along it illegibly, have been moved inside the ruled bands in order to make the letter 'read' (ILLUS. 7:5). In effect this makes the serifs separate from the letter-form, a characteristic discussed in Chapter 5 above. It is suggested that this preserves a primitive safety device for preventing the accidental overshooting of incised downstrokes, which was a danger whether working in the medium of wood, metal or stone. The bands are analogous to the lined dry-point rules of the scribe, which are deep enough to be sensed through the edge of the quill.⁷⁰

The tombstone of Badegisel the priest, from St Alban in Mainz, shows a similar type of letter in use on the Continent *c.* 700 (ILLUS. 7:6). It uses a Roman form of M, G and T, letters which are by 700 already different and distinctive in the Welsh epigraphic range, but displays similarities with a small group of Insular inscriptions with fish-tail serifs. Walter Koch thinks that this type of 'mediocre' inscription betrays provincial backwardness: 'the elongation of the shafts and the use of angular forms [are] characteristic of unskilled writing'.⁷¹ Yet this type of letter, my classification Type C, was taken up as a significant and coherent alphabet group when the Insular scribes of the late seventh and eighth centuries adapted them for display capitals, and they are used by good and bad scribes, from the most accomplished of Gospels, such as Lindisfarne and Kells, to those of lesser rank such as the St Gatien.⁷² They seem to represent an early core of forms, as barbarian adaptations of early Christian epigraphy: they may have had a distinct aesthetic appeal simply because they were non-classical. It would seem contradictory for Insular scribes to embellish and promote to the rank of display capitals a letter-form that betrayed provincial backwardness. Rather, it might have gained acceptance as a monumental alphabet before it became a scribal letter.

⁷⁰ Cf. The *Cathach* on the versos of the opening three folios of each gathering. The quinions were ruled heavily through ten layers of skin; consequently the upper folios have such deep ruling that the script, written mid-way on the rule, has a central blank line from side to side of the column, where the ink has failed to mark the deep indent of the rule.

⁷¹ W. Koch, 'Insular Influences in Inscriptions on the Continent', in Higgitt *et al.*, eds., *Roman, Runes and Ogham*, p. 153.

⁷² MS BN nouv. acq. lat. 1587 (Alexander, *IM*, no. 56; *CLA* v, 684).

An attempt to classify types of angular letter in a developmental sequence

Since very little alteration was made in the technique of letter-cutting in the fifth to the eleventh centuries, the period covered by *Early Christian Monuments of Wales*, the recognition of minute changes in letter-form must be drawn into the evidence for dating purposes. Nash-Williams attempted to achieve this with a series of diagrams of immense complexity, which are difficult to use as comparanda.⁷³ As Kenneth Dark noticed, he did not gather his many individually-noted variations of a single letter into groupings which might be more precisely dateable than 'early, middle or late' sections of a 600-year span, which Macalister attempted to do at Clonmacnoise.⁷⁴ However, some general graphic rules of recognition for hands are helpful, especially when working in the borderland between epigraphy and calligraphy. As we have seen in Chapter 2, during the period c. AD 400-600+, in epigraphy some cursive intrusions from informal writing were brought into the debased-capital inscriptions, while in the mixed-alphabet and bilingual Ogham / Latin inscriptions minuscule letters began to become decidedly angular and formal. This may be seen in the range of letter-forms contained within the two groups that evolved after debased Roman capitals went out of use. See illustration 2:17A above.

Close analysis of two well-executed examples within Group I, one showing debased capitals, and the other early geometric lettering, will be helpful.

Example 1

The *Domnicus* memorial (ILLUS. 7:7) from Llangwryfon, Cardiganshire,⁷⁵ is dateable to c. 500. It reads: *DOMNICI / IACIT FILIUS / BRAVECCI*. Though this inscription in plain capitals looks crude, it is in fact executed very well. It has ligatured FI and AV and an open-bowed R, and was thrown onto the stone by the ordinator with extraordinarily haphazard speed. It is an example of the phenomenon, which we shall see later in Group II inscriptions, of a low-grade scribe whose writing is incised by an experienced and competent artificer.

⁷³ *ECMW*, pp. 223-34.

⁷⁴ K. R. Dark, *Civitas to Kingdom: British Political Continuity 300-800* (Leicester, 1994), pp. 267-9; idem, 'Epigraphic, Art-Historical and Historical Approaches', pp. 51-61.

⁷⁵ *ECMW* no. 122.

Example 2

The *Catacus* memorial from Llanfihangel-Cwmdu, Breconshire (ILLUS. 7:8).⁷⁶ It reads: *CATACUS HIC IACIT / FILIUS TEGERNACUS*. This monument has a number of innovations when compared to a plain debased-capital inscription like Example 1 above. We saw in Chapter 2 that in the middle-grade epigraphy of third-century Roman Britain, many elements later taken as characteristic of fifth-century Gaul were already present. In the *Catacus* inscription there are angle-bar As (with diagonals that cross over at the apex, like a wigwam),⁷⁷ squared forms of C, minuscule h, square-footed capital T (as in Rustic capitals) and N, and an unusual double-bar foot serif on the V which occurs three times. These angular letters are deliberately chosen, for the cutter is perfectly capable of cutting a curved form, as he does in S, forwards and backwards, in minuscule g, and in the upper horizontals of uncial F. Altogether this is an exemplary mixed-alphabet inscription, even if bizarre to modern eyes. The cutter and the patron wanted it to look as it does. There is some play with letter-spacing, which makes the square T occupy the upper half of the letter-space of the squared h. This inscription is chronologically placed on the cusp of Groups I and II by Nash-Williams at c. 600, and assorts well with the angular capital inscriptions in Brittany similarly dated by Guigon (see p. 112 above).

Another inscription from the same grouping of mixed-alphabet type is the memorial to Vendumaglus from Llanilterne, Glamorganshire (ILLUS. 7:9).⁷⁸ This reads: *VENDUMAGLI / HIC IACIT*. Dated by Nash-Williams to the same period as the *Catacus* inscription above, this inscription uses minuscule d with a separated serif, minuscule l, and g; the cutter's upper serifs are symmetrical, indicating that he has not worked in a scriptorium, although he uses an uncial M and E. These two inscriptions, to Vendumaglus and Catacus, are the two most accomplished of the twenty-five of mixed alphabet type that begin the move away from debased Roman capitals. They give abundant evidence that Stanley Morison's 'Byzantine-stye syncretism' was an epigraphic fashion well-rooted in Wales by the end of the sixth century, a

⁷⁶ ECMW no. 54.

⁷⁷ Seen first in the *Catacus* inscription, this extension of diagonals is found later in seventh- and eighth-century examples such as those from Ramsey Island, Loher and Toureen Peacaun.

⁷⁸ ECMW no. 214.

full century before we see scribes adapt geometric capitals for manuscript use.⁷⁹

In the British Isles in the seventh and eighth centuries, several epigraphic display alphabets were in use at once: sometimes deliberately used to contrast with one another, as in the Hartlepool and Lindisfarne grave slabs, and sometimes jumbled together in the same inscription, as in the Jarrow dedicatory slab or in the *Catamanus* inscription (see Chapter 4).⁸⁰ A map (ILLUS. 7:10) enables us to see the pattern of distribution of surviving geometric-letter inscriptions in Wales, including the mixed-alphabet inscriptions as prototypes. The diagnostic letter, the three-bar M, occurs also in the early medieval inscriptions of Brittany; therefore these are also included in a more general map of geometric inscriptions in the British Isles and Brittany (ILLUS. 7:11), and are listed in Appendix 2.⁸¹ It is at once noticeable that east coast inscriptions in England, like that at Hackness, Co. Durham (ILLUS. 7:12), have the M with a shallow upper V connecting the two downstrokes in what Morison describes as the 'Byzantine' manner, sometimes in the same inscription as other geometric shapes, such as squared C or G, as in the gold plaque from Brandon (Suffolk).⁸² It is possible to make a distinction (ILLUS. 7:13) between the more mixed rectilinear alphabet with three-bar M, half-uncial g, etc., and the more Roman- or Byzantine-style M of the Jarrow dedicatory inscription, which uses lozenge O, squared C and Roman, angle-bar A, but otherwise uses standard Roman forms.⁸³ It is clear that Julian Brown's types 1, 2 and 3 – quoted above – occurred in complex mixed-alphabet manifestations which cannot be analysed on the basis that they all represent Anglo-Saxon adaptations of the Roman alphabet. In the cluster of name stones from Lindisfarne and Hartlepool we see that both variants of angular capital alphabets co-existed with Runic.⁸⁴

⁷⁹ See Appendix 2. The twenty-five are also listed and discussed in G. Charles-Edwards, 'The Epigraphy of Wales', pp. 4-10.

⁸⁰ Okasha, *Hand-List*, Hartlepool III-VIII; Lindisfarne I-III, VII-VIII, X; Jarrow I. *ECMW* no. 13.

⁸¹ See also *IEMB*.

⁸² Webster and Backhouse, eds., *The Making of England*, Catalogue no. 66a.

⁸³ *CA-SSS*, Vol. I, Part I, Jarrow 17 (Pl. 98, 524); Okasha, *Hand-List*, no. 61.

⁸⁴ *CA-SSS*, Vol. I, Part I, Lindisfarne 23-33; Hartlepool 1-8.

The late appearance of inflected manuscript letters in stone and their combination with geometric capitals

As we have seen, the idea that the Lindisfarne Gospels present supreme examples of Insular geometric capitals, upheld by Julian Brown and Michelle Brown, has led to the label 'Lindisfarne decorative capitals' often being attached to them. It is an idea that avoids the awkward issue of the palaeographical and epigraphic problem of their use in the *Catamamus* inscription, c. 625, and also avoids the issue of their skilled use as cut letters in the Ruthwell Cross. We have seen, in Chapter 1, that various specialists have pursued the origins of geometric capitals, without any productive interchange of ideas. No distinguished scholar has been so left out of this discussion as W. R. Lethaby, the patron of Edward Johnston and the author of two remarkable works on the lettering of the Ruthwell Cross.⁸⁵ When Lethaby published his first finely-drawn alphabets of the Ruthwell Cross letters, he perceived them as purely typographic and epigraphic, and defined the angular alphabet classified as B in ILLUS. 7:13 as characteristic of Celtic areas. Yet, more significantly, he dated the Ruthwell Cross to before the Book of Durrow, c. 675, in which we first see protoforms of geometric capitals in an Insular manuscript, and as roughly co-eval with the manuscript Durham A. II. 10 (c. 650: see Chapter 3) which has none. In other words, he believed that it was possible to recognise a core of forms that existed as a cut-letter alphabet before scribes employed them for decorative effect at the end of the seventh century. It will be seen that the greatest danger of the view that manuscripts are primary as evidence is that epigraphic evidence, which is much earlier, and is not possible to analyse as calligraphic, will be overlooked.

Significant clues to the craft milieu from which geometric capitals emerged are to be found in the treatment of the serifs, and in the rare indications of pen strokes. The Durham Gospels,⁸⁶ representing an earlier manuscript tradition than that of the Lindisfarne Gospels,⁸⁷ most obviously in being single-column rather than double like them, is the first manuscript to

⁸⁵ W. R. Lethaby, 'The Ruthwell Cross', *Burlington Magazine* XXI (June, 1912), pp. 145-146; idem, 'Is the Ruthwell cross an Anglo-Celtic work?', *Archaeol. Journal* LXX (1913), pp. 145-161.

⁸⁶ MS Durham Cathedral Library A. II. 17; Verey, Brown and Coatsworth, *The Durham Gospels*.

⁸⁷ MS BL Cotton Nero. D. IV; Brown, *The Lindisfarne Gospels*.

show a large organised mass of geometric capitals on one page, though there are signs of their emergence to be found in the Book of Durrow.⁸⁸ Unfortunately, as the Durham Gospels were badly vandalised, only one decorative full-page has survived (folio 38 v). Yet the capitals of the Durham Gospels, unlike those of the much stricter Lichfield Gospels (see Chapter 9), show a broad-pen-formed variation in the design of the capital M (see ILLUS. 7:2 and 7:14). Most unusually, the M occurs in a form that can only have been influenced by the pen movements of a capital uncial (ILLUS. 7:15). When we refer back to the variations (ILLUS. 7:2) on the three-bar M of the early Welsh inscriptions of Group I and II, we find that five of them include a stroke that suggests a curved pen movement, three as the terminal stroke, and two as the attacking stroke. This is a helpful indicator of a definite transition to broad-pen mimicking in epigraphy. As we shall see in Chapter 10, in the period of *ECMW* Group II, half-uncial-based inscriptions, in a four-line scribal layout, co-existed with a two-line layout of mixed-alphabet type that is monoline and typographical. This might indicate that there were two different streams of inscriptional design, the calligraphic being later on the scene: a proposition which would assort with Lethaby's theory that Insular letter-cutters had developed an alphabet of incised letter-form, independent of calligraphy.

It is important to put the question as to whether the epigraphic three-bar M, the *shibboleth* letter of the geometric alphabet, is a simplification of a manuscript half-uncial or a full uncial form, even if, as has been shown, the three-bar form exists in a much earlier hand in use in Britain during the Roman period (ILLUS. 1:2). The complete dearth of Insular manuscripts before the late sixth century leaves us floundering in doubt over the quality of imported Roman scripts between c. 410 and 600. Uncial manuscripts would have been the up-market productions of professional scribes, and what we see on inscriptions of this period is very much down-market, if anything suggesting a predilection for Rustic capital proportions rather than uncial (see Chapter 3). It is relevant to the development of Insular geometric capitals – in design the polar opposite of the curvilinear uncials – that they use the compressed proportions of Rustic capitals rather than of uncials (ILLUS. 2:1). Again this would chime with a type of inscription designed for an exceptionally narrow panel, such as that dictated by the width of a plank, earth-fast, and set vertically.

⁸⁸ MS TCD 57 [A. 4. 5], Folio 193r. In the display lettering we see black letters in strong horizontal banding, with the use of angular Greek delta.

Related to the M of the Durham Gospels is the bowed-top uncial M of the *Vendumagli* inscription from Llanilterne, Glamorgan, and of the *Aviti Mon/omenti* example from Santon, Isle of Man (ILLUS. 7:16) which seems to be among the first Insular inscriptions deliberately to emphasise that display M existed in two forms.⁸⁹ They must be drawn into the argument that full uncial capitals were at least known to Insular stone-cutters over a widely scattered geographical area during the Group I period. High-quality, full-uncial capitals were reintroduced into Northumbria by manuscript imports from Italy, giving rise to the fine English uncials seen in the early eighth-century Codex Amiatinus.⁹⁰ Folio 205v of the Lindisfarne Gospels shows an uncial M used as an introductory capital, with behind it an erased larger version, four writing lines high. We see that skilled letter-cutters were able to cut Anglo-Saxon capitals with some uncial features (ILLUS. 7:17), as on the *Herebericht* memorial⁹¹ at Monkwearmouth, Co. Durham. This uses uncial H throughout, uncial E for the preliminary text, but Roman Trajan E for the name *Herebericht* in the last two lines, uncial and Trajan U, Trajan T and N throughout.⁹² If there had been an M in this text, no doubt it would have been Trajan to match the N. It is dated to the first quarter of the eighth century by Rosemary Cramp. In Britain such an accomplished Roman letter-cutting style had not been seen since the Hadrianic period; it is possible that it is the work of an imported craftsman.

Further to the distinction between epigraphic and calligraphic lettering, it must be noticed that, in the Monkwearmouth *Herebericht* inscription, its capitals have a standard Trajan-type symmetrical serif, well-formed. This inscription was probably cut at about the time of writing of the Lindisfarne Gospels. Yet in the Gospels we find that, although the smaller foot-serifs are symmetrical, a decorative feature has been made (ILLUS. 7:18A) of the top serif, which is inclined to the left and heavily emphasised, in the manner of the scribal wedge of the half-uncial main hand.⁹³ Such a scribal wedge, in epigraphic use, has recently been found at

⁸⁹ Kermodé, *Manx Crosses*, Santon no. 34, p. 114.

⁹⁰ Florence, Biblioteca Medicea-Laurenziana MS Amiatino I

⁹¹ CA-SSS, Vol.I, Part I, no. 5a.

⁹² *Ibid.*, p. 124. Cramp points out that the name and lowest two lines show signs of erasure and recutting, i.e. these lines are replacement for earlier ones.

⁹³ J. Backhouse, *The Lindisfarne Gospels* (Oxford, 1981), pp. 35, 40, 43, 45.

Dull in Perthshire.⁹⁴ The contrast with the symmetrical epigraphic capital serifs of the Lichfield Gospels (ILLUS. 7:18B) is clear. Like the accomplished calligraphic inscriptions of Clonmacnoise, this suggests that, during the eighth and ninth centuries, in Pictish as well as Irish scriptoria, there were scribes who could render display capitals on stone. They might render them as they pleased, epigraphically or calligraphically. This implies that, by this stage, an instrument was in use with which an ordinator could draw precise sharp-edged letters on stone. The dressing of plane stone surfaces, and the manufacture of instruments with which to letter on them, had improved in the transition from Group I to Group II stones during the seventh century. It is important to recognise that applied lettering practice in Group II still remained various, with the use of geometric capitals on sculptured stone, surely, an indicator of high-grade scribal activity in that area. But we still see accomplished inscriptions by ordinators using a brush and a free cursive hand, and employing deep, round and regular terminal pits rather than wedges, into the period of *ECMW* Group III. The *Irbic* inscription at Llandough, Glamorgan, *ECMW* no. 206, on an elaborately-decorated cross in Sutton stone, is a good example of late looped cursive. The basic technique of applied lettering would have been familiar to both the ordinator and the cutter of the *Catamanus* inscription more than three centuries before.

Conclusion

There is, then, a clear distinction to be drawn between those relatively simple geometric letters which are epigraphic in origin, which we see developing within *ECMW* Group I, and those geometric letters which show that they are influenced by scribal finesse, having well-shaped serifs and being used as an alphabet with a conception of homogeneous, well-spaced layout. This would assort with the change in scribal fashion when epigraphic capitals were adopted by scribes towards the end of the seventh century, to flourish in a manuscript manifestation in the eighth.

⁹⁴ R. S. Will, T. O. Clancy, G. Charles-Edwards and K. Forsyth, 'An eighth-century inscribed cross-slab in Dull in Perthshire', *Scottish Archaeological Journal* 25.1 (March 2003), pp. 57-72.

The fact that other styles of applied lettering still flourished right up to the Norman period suggests that as a craft letter-cutting was not rigidly tied to the scriptorium. It also suggests that as a craft tradition it came from an origin which was independent of church organisation, and might have survived, rather, in the hands of artificers in the secular world of courts before percolating to the ecclesiastical sphere. As we shall see in Chapters 9 and 10, the clear eighth-century epigraphic links with scribal practice, seen on *ECMW* Group II and III inscriptions, can provide chronological fixed points which are of great value, whereas the prototype forms of inscribed geometric capitals, occurring in the *ECMW* Group I period, have no manuscript parallels. This raises the possibility that those earlier researchers into the geometric letter, such as Morison and Lethaby, who gave equal weight of importance to artificers and to scribes, were on the track of a more likely and more complex explanation of the origins of Insular geometric capitals than the proposition that a group of Anglo-Saxon scribes invented them *ex nihilo* at Lindisfarne.

Chapter 8

EARLY INSCRIPTIONS AT CLONMACNOISE

The usefulness of the major collection of inscriptions at Clonmacnoise, Co. Offaly, in relation to Welsh inscriptions is that it provides a vast source of comparanda. From the eighth century onwards, many of them begin to show the influence of calligraphic script, and are of very high quality. Perhaps influenced by the high survival rate of manuscripts in Ireland compared to Wales, Bischoff assumed that Welsh script was dependent on Irish models.¹ However, it may be argued that in this he was wrong, as he also thought that 'no trace of late Roman script has survived' in Wales.² He based his opinion on manuscript evidence, which is much later than the epigraphic.

In this chapter I shall examine the reasons for the divergence between Welsh and Irish practice, and ask what might have led to the Irish predilection for, and facility in transferring high-quality pen-forms to, a stone surface. We have already seen that, in the period of Nash-Williams's Group I inscriptions (c. 400-600+), inscription-makers in Wales gradually abandoned rough Roman capitals for a type of crude bookscript; very few of these inscriptions show any scribal skill whatsoever. They show no conception of spacing between letters or between writing lines, or of placement in relation to margins. They appear to be individual attempts by local craftsmen with no conception of style, and we shall see that such memorials are not peculiar to Wales.

In contrast, a letter-cutter's understanding of scribal half-uncial forms may be seen later in those few foundations where:

- (A) there were quarriers who could dress stone and who had a supply of fine-grained stone fit for the purpose nearby;
- (B) there existed a smithy capable of producing and maintaining fire-sharpened, edged lettering chisels;
- (C) there existed a scriptorium in which there were scribes who were capable of enlarging their manuscript pen-forms and transferring them, inflected, on to the surface of stone.

¹ Bischoff, *Latin Palaeography*, p. 89.

² *Ibid.*

Only a very large monastery is likely to have gathered a range of craft workshops around it. The question of when a scriptorium and mason's yard on the same site began to cooperate to produce recognisably script-like forms in inscriptions in stone is obviously tied to the question of the dating of Phase I Insular half-uncial. If, as has been discussed in Chapter 3, Insular vellum and parchment, with its characteristic wedge-serifed half-uncial script, did not achieve a standard style until the end of the seventh century, then it is anachronistic to expect Insular half-uncial to emerge in epigraphy before the eighth century.

Sure signs of scribal practice applied to stone are head and foot rules for the body-height of the letter, placed parallel with the edges of the piece, correct letter-spacing and inter-linear spacing, punctuation and scribal contractions. An awareness of overall layout, including margins, akin to the spacing of a manuscript page, should indicate a craftsman who is familiar with book arts. It is helpful to examine a large number of inscriptions from one place, such as Clonmacnoise, which include both the scribal type of inscription and the much less formal, free-form and rule-less inscriptions that are definitely non-scribal. The latter should pre-date the time at which an Irish canonical half-uncial, or its associated display capitals, would have reached high status. This of course conflicts with Welsh practice, where, at Llantwit Major, a monoline simplified pen-form was considered suitable for even a royal memorial in the late ninth century,³ and in the mid-eighth century for an inscription that uses manuscript terminology, contractions, and display letters.⁴

From this examination and comparison it is hoped to discover parallels that may help in the construction of a chronology for the 'non-scribal' inscriptions in Nash-Williams's Group I of 400-600+. Though at no stage did inscriptional letter-cutting in Wales rise to the heights of scribal sophistication that we see in the cream of the collection at Clonmacnoise, discussed below, we do find similarities in the lower depths of the non-scribal range. Because Ireland did not adopt Roman capitals, from the first we find there inscriptional experiments with lower-case letter-forms, a practice also found in Wales from the period of the Ogham / Latin inscriptions. The mixed-alphabet style occurs in both countries.

³ *ECMW* no. 223, Abbot Samson's stone for king Iudhael, Arthfael and Tegan.

⁴ *ECMW* no. 220, Hywel's stone for his father Rhys..

The Clonmacnoise grave slab inscriptions

Clonmacnoise, Co. Offaly, on the east bank of the Shannon, is one of the most important early medieval ecclesiastical sites in Ireland. Traditionally, it was founded by St Ciarán, a disciple of St Finnian of Clonard, in AD 545.⁵ It was believed that whoever was buried at Clonmacnoise could not be damned on Judgement Day, so that the Irish nobility laid claim to various sections of the graveyard, 'paying for the right of burial with a land donation to the saint'.⁶ Killanin and Duignan wrote of it, 'In its heyday Clonmacnoise was more than just a monastery. It was rather a monastic city'.⁷

The graveyard contains a remarkable number of grave slabs, now approaching 700. Researchers have long been tempted into theories on their chronology: the main sequence has been thought to begin in the eighth century, with a few outliers possibly from the seventh.⁸ There is no other comparable collection in the British Isles: the Iona collection consists of under 100 stones,⁹ and Northumbrian¹⁰ and Welsh¹¹ sites providing comparanda do not approach this total. Dating ranges for these smaller collections, however, begin earlier. The *Lapis Echodi* stone on Iona, for example (see Chapter 4), is dated to the early seventh century, roughly contemporary with the *Cathach*.¹² It has been argued that the date range of

⁵ A. Kehnel, *Clonmacnois – the Church and Lands of St Ciaran* (New Brunswick, 1997).

⁶ *Ibid.*, p. 205.

⁷ Lord Killanin and M. V. Duignan, *The Shell Guide to Ireland* (London, 1967), p. 170.

⁸ C. Manning, *Clonmacnoise, County Offaly* [Dúchas Site Guide] (Dublin, 1998), implies that the *CIIC* sequence before the panelled cross series, nos. 611 to 625, includes these earliest slabs. The main studies of the slabs have been by Petrie, *CIIL* (Dublin, 1872); R. A. S. Macalister, *The Memorial Slabs of Clonmacnois, Kings County: with an Appendix on the Materials for a History of the monastery* (Dublin, 1909); idem, *CIIC*, Vol. II (Dublin, 1949); and P. Lionard, 'Early Irish Grave Slabs', *PRIA*, Vol. 61 C (1960-61), pp. 93-174.

⁹ Fisher, *Early Medieval Sculpture*.

¹⁰ *CA-SSS*, Vol. I.

¹¹ *ECMW*.

¹² *RCAHMS*, Argyll, Vol. 4, Iona 6, no. 22.

the earliest name-stones of Lindisfarne, a collection of four stones, and Hartlepool, a collection of eight stones, commences c. 650.¹³ If a new theory is to be put forward that attempts a comprehensive dating scheme for Insular epigraphy, then any analysis must include a discussion of the date range of the most primitive inscriptional material at Clonmacnoise. This material, which lacks finesse, includes inscriptions in mixed-alphabet style, with angular adaptations and the use of cursive ligatures; it is clearly comparable to similar inscriptions in *ECMW* Group I, which, even in its transitional period into Group II, cannot be dated later than c. 625.

For a long time, however, the main subjects of interest at Clonmacnoise were the major monuments. Catherine Swift is right to point out that the more appealing and dramatic high crosses have rather distracted attention from the value of the grave slabs, which remain palaeographically unsorted.¹⁴ Art-historical studies, which would classify the carving of the memorial slabs as mechanically repetitive and relatively unimportant compared to the high crosses, have favoured the study of the one at the expense of the other. It is regrettable that the only modern thesis to be undertaken on the subject of the Clonmacnoise grave slabs was never completed. Photographs taken by Peter Davis for this thesis are now included in the on-site catalogue. Formerly administered by the Office of Public Works, the site is now under the care of the Department of the Environment, Heritage and Local Government.

First listed and numbered by Petrie in the nineteenth century, then re-numbered twice with many additions by Macalister, in 1909 and in 1949, the still-rising number of slabs is recorded on site in the new numbering sequence of the Office of Public Works catalogue, which is unpublished and can be consulted on site: it is kept in the modern *lapidarium*. Many slabs were discovered or relocated during the clearance of the site in the 1950s, supervised by Liam de Paor.

¹³ *CA-SSS*, Vol. I. Part I, Hartlepool 1-8, pp. 98-101; Lindisfarne 22-25, pp. 202-4.

¹⁴ C. Swift, 'Early Medieval Irish Grave-Slabs and their Inscriptions', *Durham Archaeological Journal* 14-15 (1990), p. 111.

The date range of the Clonmacnoise grave slabs

The date range has been built up over a considerable period by different scholars, using several different methods.

(A) Annalistic dating

Although there is no contemporary annalistic evidence for the founding years of Clonmacnoise, we have quite specific entries on Clonmacnoise personnel from the mid-sixth century. It is a sign of a thriving scriptorium that three series of Irish annals were compiled there: *Clonmacnoise*, *Tigernach* and the *Chronicum Scotorum*. Even the *Annals of Ulster* provide detail about this major monastery. For example, the fourth Abbot, Ailithir, who received Columba at Clonmacnoise, is described by Adamnán and listed in the annals.¹⁵

In 1909, Macalister attempted to connect some of the names on the slabs with specific entries in the annals, though he warned against over-optimism in the case of common names. In 1961 Father Padraig Lionard published a detailed list correlating all the annalistic references to names appearing on early Irish grave slabs: this was edited by Françoise Henry.¹⁶ More recently, there has been a reaction against firm annalistic dating of the Clonmacnoise inscriptions. Catherine Swift has emphasised that the majority appear to commemorate ecclesiastics, with no patronymic, who cannot readily be identified with similarly-named persons recorded in the annals. She concludes: 'The currently accepted dating range for Irish grave slabs is almost entirely illusory'.¹⁷ However, in an important recent article,¹⁸ Ragnall Ó Floinn accepts as reliable, and uses the evidence of, three annalistic entries which tally with three inscriptions which do have patronymics. This question is discussed further below (pp. 209-210).

¹⁵ St. Adamnán of Iona, *Vita S. Columbae*, transl. R. Sharpe (London, 1995), pp. 115-7, 259-61; S. MacAirt and G. MacNiocaill, eds., *The Annals of Ulster, to A.D. 1131*, vol. 1 (Dublin, 1983), s. a. 599.

¹⁶ Lionard, 'Early Irish Grave Slabs'.

¹⁷ C. Swift, 'Dating Irish Grave-Slabs: The Evidence of the Annals', in C. Bourke, ed., *From the Isles of the North* (Belfast, 1995), p. 248.

¹⁸ R. Ó Floinn, 'Clonmacnoise: Art and Patronage in the Early Medieval Period', in H. King, ed., *Clonmacnoise Studies* (Dublin, 1998), Vol. I, pp. 87-100.

(B) Typological dating based on style of decoration

Macalister was the first to attempt an ambitious grouping and correlation of styles of alphabet with styles of decoration, which at Clonmacnoise are found in a bewildering number of combinations. He set out a simple typology for the slabs 1-10 (and also a classification for the crosses i-x), which was subsequently used as a basis by Father Lionard and Françoise Henry. In this he incorporated some of the previous work of Petrie, who reasoned that the smaller slabs decorated with equal-armed Greek crosses pre-dated those decorated with the Latin stemmed cross.¹⁹ Macalister's 1909 typology of the slabs begins with the simplest forms and continues through a series of increasing elaboration, which he assumed must be in a chronological sequence:

Type 1: those with inscriptions only.

Type 2: those in which a small initial cross is added to the inscription.

Type 3: those in which the cross is still subordinate, but is not initial to the inscription.

Type 4: those in which the cross takes a prominent place relative to the inscription and is either Latin (with prolonged stem) or Greek (with four equal arms).

Type 5: those in which the cross is enclosed within a square panel.

Type 6: those in which the panel is circular.

Type 7: those in which the arms of the cross project beyond the circumference of the circular panel (the familiar 'Celtic cross').

Type 8: those in which the circular panel dwindles to a small circular space at the centre, and corresponding semicircular expansions are added at the ends of the arms.

Type 9: similar crosses, but with looped 'ears' at the corners of the expansions.

Type 10: a few slabs evidently of late date than the majority of the memorials.

Ó Floinn²⁰ accepts the validity of Macalister's art-historical / typological approach and identifies Types 5, 8 and 7, which together contain 69 per cent of the total number of slabs known in 1909, as the three most important groupings. These he reclassifies as Types A, B and C, making an ambitious effort to rearrange them in a plausible chronological sequence, and goes on to compare Type A with Northumbrian material (see below).

¹⁹ *CHIL*, p. 16.

²⁰ Ó Floinn, 'Clonmacnoise: Art and Patronage'.

(C) Epigraphic dating

Macalister was the first to acknowledge that simplicity of decoration was not paralleled by simplicity of lettering, and to indicate that the art-history and the epigraphy of the slabs were two evolutions which had progressed in different ways (ILLUS. 8:1A and B). He classifies the alphabets of the inscriptions into four types.²¹ The first, which he associates with his Type 5 panelled crosses, Ó Floinn's Type A, uses a very mixed alphabet with a round, a square and a diamond or lozenge O, a Greek and Roman minuscule a and a Roman minuscule d. His remaining three alphabets, which he thinks to be later, use the calligraphic O-bodied D of uncial and half-uncial. Macalister's analysis suggests that, before the Irish began to use well-spaced calligraphic letter-forms epigraphically, c. 700, they used a more varied mixed alphabet in which the minuscule forms and the angularisation of some of the bowed letters presented a more linear and typographic appearance. It is among this mixed-alphabet type that we find a symmetrical serif rather than a calligraphic one; and this would be consistent with the cutting of these inscriptions by craftsmen who were more accustomed to working in wood or metal. The lettering seems to have evolved from close-set cursive complexity, which could be mixed in the same inscription with a reductive angularity, to the majestic well-spaced simplicity of majuscule half-uncial. On the other hand, the decoration evolves from simple single motifs, like linear crosses, to elaborate interlaced forms, and those decorated with fret-patterns, and Macalister also classifies these into Types.

The difficult question to answer is: how do the mixed-alphabet letter forms on the small panelled cross slabs, which are simple in design and lettered in pre-canonical half-uncial and non-calligraphic, relate to what little we know of the development of Insular manuscript hands in the sixth and seventh centuries? This is a very problematic area in which much is still unresolved, and which extends, of course, to the similar mixed inscriptions of Group I of *ECMW*. Françoise Henry discussed the relationship between the lettering of inscribed slabs and manuscripts in depth in her *Irish Art in the Early Christian Period* of 1940,²² although less was then known about palaeographical and epigraphic dating than is known today.

²¹ *CMS*, p. 80.

²² Henry, *Irish Art*, pp. 50-57, 145-48.

(D) Dating by comparison with Anglo-Saxon material

As soon as Petrie (1872) and Macalister (1909) made them available to scholars, the Clonmacnoise inscriptions became part of a heated debate over the origins of Insular art. The typology of Insular cross forms and ornament in general had received a great deal of attention since the publication of *Early Christian Monuments of Scotland* in 1903; this was initially inspired by the controversy over the origin of Insular style, and whether it was in essence Irish or Northumbrian. The tone of some of these arguments was crudely racist and combative: Teutonic culture versus Celtic, as has been documented by Nancy Netzer.²³ Father Lionard gives a clear account of the positions of scholars such as T. D. Kendrick and W. G. Collingwood, and himself confronts the arguments of those, who, like Gerald Baldwin Brown, saw the early output of the stone-carving workshops at Clonmacnoise as a reflection of copied Germanic or Northumbrian originals.²⁴

The neglect of early Irish and Welsh evidence, and the failure to relate it realistically to Northumbrian material, is exemplified in a study by John Mitchell of eighth- and ninth- century inscriptions at San Vincenzo al Volturno, Italy, which are designed around the central feature of a cross. He comments on the 'widespread tradition of early medieval Irish gravemarkers on which a commemorative inscription is set about a cross ... with a particular concentration at Clonmacnois ... None of these is securely dated, but all are likely to be later than the Northumbrian tombstones.'²⁵ He dates the Northumbrian examples to the late seventh and eighth centuries. But it seems unsafe simply to assume that the earliest Clonmacnoise inscriptional material, employing crosses in conjunction with an inscription, must post-date any Northumbrian examples, since Lindisfarne's foundation from Iona, in 635, traditionally took place ninety years after that of Clonmacnoise.

²³ Netzer, 'Style: uses and abuses'.

²⁴ Lionard, 'Early Irish Grave Slabs', p. 131; Kendrick, *Anglo-Saxon Art*; W. G. Collingwood, *Northumbrian Crosses of the Pre-Norman Age* (London, 1927); G. Baldwin Brown, 'The Hartlepool Tombstones and the Relations between Celtic and Teutonic Art in the Early Christian Period', *PSAS* 53 (1919), pp. 195-228.

²⁵ J. Mitchell, 'Script about the Cross: The Tombstones of San Vincenzo al Volturno', in J. Higgitt *et al.*, eds., *Roman, Runes and Ogham* (Donington, 2001), p. 171.

The Clonmacnoise grave slabs may be compared to the earliest name-stones at Lindisfarne and Hartlepool. Though poorly recorded, the excavations at Hartlepool seem to reveal that the grave slabs there were literally 'pillow stones', in that they were placed beneath the head of the corpse.²⁶ However, querying this assumption, Elisabeth Okasha's research has called into question the exact positioning and purpose of such stones at the time of their deposition.²⁷

The pro-Teuton Professor Baldwin Brown may have been the first to contrast the Hartlepool inscribed stones with those of Clonmacnoise, but his arguments were extremely partial, and were based on numismatic evidence regarding expansional crosses that is unconvincing today. He also comments on the fine finish of the edges of the Anglo-Saxon stones in comparison to the Clonmacnoise series.²⁸ More than three decades ago, Charles Thomas also noticed this connection, and discussed the theories of Baldwin Brown and Collingwood on the nature of the Northumbrian link with Ireland.²⁹

Rosemary Cramp³⁰ offers a valuable discussion of the relative dates of the Clonmacnoise series and those at Hartlepool and Lindisfarne (ILLUS. 8:2A and B). She dates the twelve similar panelled cross slabs of Lindisfarne and Hartlepool to the period mid-seventh to mid-eighth century,³¹ and remarks that the major difference between the Irish and the Anglo-Saxon series is that the edge of the Anglo-Saxon stones is well-shaped and finished, whereas the edges of the Irish stones are left in their natural irregular state when broken from their strata. As the Clonmacnoise masons did eventually choose to shape the edges of memorial stones, this would seem to suggest, if anything, an earlier stage in the sequence of development for those inscriptions that have unfinished and irregular edges.

²⁶ CA-SSS, Vol. I, p. 97.

²⁷ E. Okasha, 'The Inscribed Stones from Hartlepool', in J. Hawkes and S. Mills, eds., *Northumbria's Golden Age* (Stroud, 1999), p. 117.

²⁸ Baldwin Brown, 'The Hartlepool Tombstones'.

²⁹ Thomas, *Early Christian Archaeology*, p. 121; Collingwood, *Northumbrian Crosses*.

³⁰ CA-SSS, Vol I, Part I, p. 7.

³¹ *Ibid.*, pp. 98-101.

(E) Integrated typological and epigraphic dating

The difficulty of combining art-historical research with palaeographical research has prevented, until recently, any forward movement in concrete analysis for the Clonmacnoise material, particularly for the seventh century. This has come with the significant re-evaluation of the date range of the Clonmacnoise slabs by Ragnall Ó Floinn in 1998.³² As we have seen, Ó Floinn re-classifies Macalister's Type 5 of inscriptions with small panelled crosses as Type A, and argues that this group represents the earliest material at Clonmacnoise.

Unusually small compared to most later slabs, the Clonmacnoise small panelled cross slabs average 50 cm. (20 in) by 75 cm. (30 in). They are similar in size and design to the Hartlepool and Lindisfarne slabs, apart from their lettering and the finish of the stone surface. Of the 51 small panelled cross slabs recorded at Clonmacnoise by Petrie and Macalister,³³ a third are uninscribed, and some now appear lost; *CIIC* Volume II illustrates 32 surviving inscribed slabs or pieces of slab of comparable design to the Anglo-Saxon examples. The inscriptions, consisting of a name only, show a variety of lettering experiments with mixed majuscule and minuscule, with no awareness of letter spacing or strict scribal practice.

Ó Floinn places this group as 'closest to' the twelve similar panelled cross slabs of Lindisfarne and Hartlepool, dated by Cramp to the period *c.* 650 to *c.* 750 (ILLUS. 8: 2A and B).³⁴ He argues that the Type A inscriptions at Clonmacnoise may therefore be of similar date – significantly earlier than previous datings of the Clonmacnoise material as beginning in the eighth century.

³² Ó Floinn, 'Clonmacnoise: Art and Patronage'.

³³ *CMS* nos. 34-73, 215-16, 218, 226, 229-30, 232-4, 238, 248.

³⁴ *CA-SSS*, Vol. I, pp. 98-101.

The lettering styles of Macalister's groups

The listing of mixed-alphabet *ECMW* Group I inscriptions in Chapter 2 shows that intrusions of non-calligraphic letters had occurred to a significant degree before *c.* 600. Is it possible to show that similar intrusive letters existed in the largest collection of early Irish inscriptions on one site, at Clonmacnoise? The list below gives inscriptions from the small panelled cross slab series (Type 5 / Type A), with letters noted that correspond to those that we find in the mixed-alphabet inscriptions of Wales included in Nash-Williams's *ECMW* on the Group I inscribed stones, and on Group II cross-decorated stones, which he dated mainly to the seventh to ninth centuries. In them we see the tendency to make difficult letters angular. Numbers from *CIIC* Volume II (1949) are given first, followed by numbers from *CMS* (1909). Between 1909 and 1949 it appears that several of these slabs were lost or mislaid, and the discrepancy between Macalister's two lists is as yet not fully explained. The list below is of roughly half (14) the surviving complete slabs that are inscribed (32). See *ILLUS.* 8:3.1-14.

Select list of Macalister's Type 5 inscriptions: mixed-alphabet letter-forms

626/ 37 Fina[n]

All letters within two lines. Symmetrical serifs. The **n** shows the practice of the low joining of stroke two to stroke one, i.e. without disturbing the vertical line endings.

627/ 38 Ailgal

All letters roughly within two lines, left-bar serif on the first **l**, symmetrical on the second **l**.

628/ 39 +Rectnia

Unruled. minuscule opening **r**. Symmetrical serif on **i** and **r**, the **a** an adapted full **o**.

629/ 41 Arlia

All letters roughly between two lines. Good example of the relationship of the bifurcated line ending to the symmetrical line end. The **r** makes the low join of stroke two to one. All letters roughly between two lines.

631/ 46 Cruithnechan

Without rules, letters scattered irregularly. Strongly angular with boxed **u, t, h, n,** and **a**.
Monoline.

632/ 50 +Prescell

All letters roughly between two lines. Precisely shaped minuscule **r** and **s**.

633/ 51 Admoer ing / en duna

Without rules; inscription in two lines with 'daughter of Duna[n]' completed above the name of the commemorand. Boxed **d, m, n, u**. Angular **g, r**. One symmetrical bar serif.

635/ 54 [Oroi]t ar Maelbri[te] (inscription fragmentary when seen by Macalister pre-1909, but drawn by Petrie (his no. 84), when half the slab and all of the inscription was surviving.

Between two rules. Minuscule **m, r**. One left-bar serif on **b**.

636/ 55 Muirgalae

Between two rules. Boxed **m**, left-bar serifs apart from triangular on **l**. Ligatured **rga**.

640/ 59 Epscop Dathal

Roughly between two rules. Ligatured **cop** and **th**. Left-bar serif on Roman minuscule **d** and bifurcated on **l**.

641/ 61 Blaimac

Fluctuating, but roughly between rules. Symmetrical serif on **i**. Loose, cursive **b**. Half-uncial-like serifs on **band l** that are very unusual in the small panelled cross slab group.

642/ 63 Snedgus

All letters within two lines; the two-line rule clearly applies here, as the minuscule **d** has been ranged with the **g**. The miniaturising of the final **s** may have been necessary to fit the inscription into the fractured edge. Minuscule **s** and **d**.

643/ 65 Arttri

Unruled; a formed by adding two small horns to an o, boxed r, symmetrically seriffed i.

647/ 70 Tuathgal

Roughly keeps to top rule, fluctuates at base. Tall, minuscule proportions of letter, minuscule h. Ligatured athga.

Macalister discusses the palaeography of these inscriptions and makes some important classifications of letter-form (see ILLUS. 8:1B), though the radical difference between his hands i and ii-iv is hardly made clear by his own penmanship in the diagram of his four main types of alphabet.³⁵ For in fact the difference in sophistication between the inscriptions listed above, in Macalister's alphabet i, and the calligraphic type, covered by Macalister's alphabets ii to iv (which accompany the more elaborate cross designs) is very marked. Clonmacnoise was a famed centre of learning, centrally positioned at a nexus of communication routes, whose scribes and craftsmen would certainly have been aware of the finest work of the time.³⁶ It is therefore extremely unlikely that letter-cutters who cut in the manner of the small panelled cross slab inscriptions co-existed in a workshop or cluster of workshops with letter-cutters who cut in the manner of those that were calligraphically accomplished. The increasing elaboration of the style of cross design that comes with the adoption of calligraphic lettering and scribal practice on stone must reflect an evolution that is chronologically distanced from the small panelled cross slabs. Macalister's rough division of the slabs into his Types 1-10 follows this logic, as we see, simplified and emphasised by Ó Floinn (ILLUS. 8:1A).

The manuscript letter-forms analysed in Chapter 3 have shown how the evolution of Phase I and Phase II half-uncial was accompanied by changes in the style and elaboration of the decoration. Correspondingly the decoration of pre-canonical, or prototype, half-uncial of the standard of the *Cathach* or Ussher I is exceptionally plain in comparison with the high-grade manuscripts of Phase I and Phase II. We might speculate that Type A small panelled cross slabs were in the hands of craftsmen who were not high-grade scribes but had a

³⁵ *CMS*, pp. 76-83; table of letter-forms, p. 80.

³⁶ Charles-Edwards, *Early Christian Ireland*, pp. 250-4.

knowledge of letter-form, and used a repertoire of forms which were in use for applied lettering in hard materials. The more accomplished of them were executed in rough two-line bands, with ascenders and descenders in the letter-height of an O, and a large proportion of their letter-forms were angular and thus suited to cutting.

Why stonecutters at first preferred minuscule: some of Macalister's problems in classifying his alphabets at Clonmacnoise

Combining different grades of letter-form in Type A inscriptions appears to coincide with a desire to avoid the cutting of a long sequence of curved strokes (bows). For instance, full uncial or half-uncial combinations of a vowel plus D, or S, plus another vowel, as in ODES (ILLUS. 8:4A), demand a row of bowed strokes, difficult to space, difficult to cut and rather difficult to read. Among the first sequences of letters where we find downgrading to a minuscule letter from a half-uncial, we find round-bowed vowels on either side of a minuscule d or s. The advantages of this downgrading are clear: the main stroke of the minuscule is no longer a curved one, but a long, straight stroke differentiated by a smaller, additional stroke, which might be straight or curved (ILLUS. 8:4B). In general, the adoption of minuscules at various points would avoid difficult strokes, avoid letter combinations that took up too much space, and improve legibility. It is very striking that the Irish inscriptions of the family of Clonmacnoise small panelled cross slabs, though erratic, place their minuscule letter-forms within a two-line layout, as if they were capitals, an eccentricity, as yet unexplained, that is also apparent in manuscript display letters (ILLUS. 8:5A). It is quite clear that the reluctance to place a series of bows together is a characteristic of the mixed-alphabet inscriptions and is not shared by the calligraphic type (see below).

The period during which the mixed-alphabet inscriptions were cut, such as those accompanying the small panelled cross slabs, might have been a period before specialisation and co-operation in crafts enabled calligraphy to be transferred onto stone. Some time around 700 a means was found for scribes to write directly on the stone, or else scribes themselves learned to cut letters; but the delicate skill of the scribal technique contrasts very markedly with the forcefulness of the practice of punched letter-cutting. It is interesting to compare the uncouth lettering of the *Snedgus* inscription with that for *Chuindless*, Abbot of Clonmacnoise

(ILLUS. 8:5B).³⁷ The latter has some angularised letters, runs together *rch* and is of a different order of skill from the former. Given that Clonmacnoise must have had a library and a scriptorium from an early period after its foundation in AD 545, it seems more likely that there were two separate specialisations, with letter-cutting as a branch of the smith's craft.

Among the early experimental forms, evidently borrowed from the manuscript cursive and *diminuendo* that we see in the *Cathach*, is a practice of clustering letters in three with ligatures (ILLUS. 8:6), which we find on slabs with a wide distribution in Ireland (see *CIIC* no. 640, ILLUS. 8:3 above) and as far afield as Iona, where the *Lapis Echodi* inscription shows a clear ligatured double bow in the movement from *E* to *c* in Echodi (see ILLUS. 4:11). Julian Brown identifies this as a Late Antique habit, in cursive minuscule hands.³⁸ This is a significant indicator of the early presence of cursive in Dalriada and Ireland. Clonmacnoise must have had a letter-cutting workshop conscious of a 'house style' by c. 600. There is no reason to exclude Clonmacnoise from scribal practice of the type of literary cursive, seen in the Springmount Bog tablets, that pre-dates the prototype half-uncial that we see in the *Cathach*. In both these scripts we see cursive scribal habits that were discarded when canonical half-uncial Phase I letters were adopted by letter-cutters. It seems uncontroversial to suggest that the quite distinct ligaturing fashions of cutting must then pre-date such canonical-style inscriptions. The method of ligaturing from the break of the left bow (ILLUS. 8:7), a pure survival from New Roman Cursive, was so alien to the later evolution of wide-spaced, straight-pen Irish half-uncial, or of the wide-spaced formal set minuscule, that such irregular compound constructions were never revived epigraphically.

But we have formal set minuscule inscriptions, as well as half-uncial ones, at Clonmacnoise. On account of the static nature of formal set minuscule and half-uncial, much of the difficulty in dating this huge collection stems from the conservative nature of Irish scribal practice after Phase II canonical half-uncial had gone out of fashion. To confuse the issue still further, we have the kind of deliberate antiquarianism that revived the use of stem-

³⁷ Snedgus's inscription is *CIIC* no. 642, *CMS* no. 63. Chuindless is given a death date of AD 724 in the Annals of Tigernach, but of AD 720 in the Annals of the Four Masters. His slab is *CIIC* no. 675, *CMS* no. 108.

³⁸ Brown, *A Palaeographer's View*, p. 204.

line Oghams as seen in the memorial to Colman Bocht (ILLUS. 8:8),³⁹ where the epithet *Bocht* 'poor' is rendered in Ogham in the scholastic manner with a drawn stem line. It is the only Ogham inscription from the site, apart from a recently-discovered fragment of an earlier Ogham stone.⁴⁰ If the pre-calligraphic inscriptions can be isolated, and given a time-span, this should clarify the opening sequence of the calligraphic slabs. Allying art-historical evidence, such as Nancy Edwards's work on the sculptured decoration of the monuments at Clonmacnoise,⁴¹ with the epigraphic and palaeographic is crucial in such cases of dating difficulty.

It is important also to use evidence from different disciplines when the differences between two types of alphabet are minimal, as we see in that type of minuscule called 'set', which can be as grand as the main hand of the Echternach Gospels (ILLUS. 8:9). Some letters of the early cursive-influenced inscriptions of the *Echodi* type are easily confused with others from a compressed alphabet roughly corresponding to Macalister's alphabet Type iv, which seems to be modelled on a formal set minuscule, such as we see in the Echternach Gospels and later. Aware of palaeographical dangers, Macalister wrote in 1909: 'It will be noticed that the Snedreagol, Muirgalae and Tuathgal inscriptions all present to a marked degree the peculiarity of linking the letters after the manner of manuscript writing'.⁴² These ligatures are discussed in the list earlier in this chapter, where it is noted that *Tuathgal* is cut with five letters running together, which suggests early cursive practice. Here we find an immediate chronological difficulty in that these three inscriptions are included in the small panelled cross-slab sequence, yet have been associated speculatively by Macalister with death dates outside the range of 650-750. These are Snedreagol, Abbot of Clonmacnoise, who died c. 786, Muirgalae, Abbot of Clonmacnoise, who died c. 789, and Tuathgal, who died c. 811. They appear to be among the few inscriptions for which we have annalistic evidence, and this, plus the assumed rarity of their names, has allowed identification of the commemorand to stand for some time; but they do not have patronymics and therefore this identification is very questionable. The much-

³⁹ *CIIC* no. 749.

⁴⁰ Manning, *Clonmacnoise, County Offaly*, p. 48.

⁴¹ N. Edwards, 'A Group of Shafts and Related Sculptures from Clonmacnoise and its Environs', in H. King, ed., *Clonmacnoise Studies* (Dublin, 1998), Vol. I, pp. 101-18.

⁴² *CMS*, pp. 104-5; *CIIC* nos. 615, 636 and 647.

reduced list of inscriptions which are still dateable provides apparently firm but sporadic evidence for epigraphic practice from the mid-eighth to the beginning of the tenth century. But the new, more sceptical, approach to the small panelled cross slabs taken by Ó Floinn, who accepts only three, and Swift, who accepts none, must call even these into question. The surviving possibilities are listed with Macalister's 1909 numbers (*CMS*), his 1949 numbers (*CIIC*), and the Office of Public Works catalogue numbers (*CLN*). Death dates are taken from the annals, and it is remarkable that of the list below, only two are now accepted by Ó Floinn, and one is possible. The proliferation of commonly-occurring names makes it unsafe, in the case of a single incised name, to identify the commemorand with a known, historically attested person.

Sechnachse, d. 713, found after 1909 (*CIIC* 846, *CLN* 00010) Accepted

Chuindless, Abbot of Clonmacnoise, d. 720 (*CMS* 108, *CIIC* 675, *CLN* 00184) Accepted

Ailgal, anchorite of Clonmacnoise, d. 756 (*CMS* 38, *CIIC* 627, *CLN* 00049) Possible

Rechtnia, d. 784 (*CMS* 39, *CIIC* 628, *CLN* 00076)

Snedreagol, d. 786 (*CMS* 19, *CIIC* 615, *CLN* 00024)

Muirgalae, d. 789 (*CMS* 55, *CIIC* 636, *CLN* 00094)

Soerbegg, Abbot of Clonmacnoise, d. 791, found after 1909 (*CIIC* 1088, *CLN* 00014)

Tuathgal, d. 811 (*CMS* 70, *CIIC* 647, *CLN* 00222)

Dathal, d. 817 (*CMS* 59, *CIIC* 640, *CLN* 00212)

Ronan, Abbot of Clonmacnoise, d. 823 (*CMS* 88, *CIIC* 657, *CLN* 00157)

Ruaidri, d. 838 (*CMS* 75, *CIIC* 650, *CLN* 00132)

Marthine, d. 869 (*CMS* 132, *CIIC* 692, *CLN* 00427)

Maelpatraic, d. 885 (*CMS* 101 / 137, *CIIC* 670 / 697, *CLN* 00199 / 00351)

Suibne McMailae Humai, d. 891 (*CMS* 237, *CIIC* 776, *CLN* 00303) *

Maelbrigte, d. 892 (*CMS* 189, *CIIC* 736, *CLN* 00350)

Blaimac, d. 896 (*CMS* 61, *CIIC* 641, *CLN* 00213)

Corbriu Crumm, Abbot of Clonmacnoise, d. 904 (*CMS* 239, *CIIC* 778, *CLN* 00306) *

* These two stones are now lost and are known only from Petrie's drawings of 1822.

The late-skewed date-span of the above list, all but three of which have obits between 784 and 904, emphasises the importance of establishing a reliable chronological framework for the seventh century by analytical means. Palaeographically the lettering of the small panelled cross slab inscriptions for Muirgalae, possible death date 789, and Snedreagol, possible death date 786, does not assort with a period in which manuscripts such as St Gall 51, the Book of Kells or the Stowe Missal were being written. This argues against the association of small panelled cross designs (Type 5 / Type A) with burials after *c.* 750.

The different alphabets of the Northumbrian and Clonmacnoise grave-slabs

If the small panelled cross slabs from Clonmacnoise (Type 5 / Type A) overlap chronologically with the Lindisfarne and Hartlepool slabs of *c.* 650-750, then there must be an explanation for their palaeographical dissimilarity, which may be clearly seen by comparing *CIIC* no. 642 from Clonmacnoise and *CA-SSS* Hartlepool 1 (ILLUS. 8:10). Okasha lists the Lindisfarne series as having Runic texts accompanying angular 'Anglo-Saxon' capitals.⁴³ They were well-cut in a bi-alphabetic style which was, typographically, a new invention suited to the foundation of Anglo-Saxon monasticism. Bi-alphabetic Ogham / Latin inscriptions, characteristic of the areas of Irish settlement in Wales, are rare in Ireland. There is one late Runic / Ogham inscription of Viking Age date at Killaloe, Co. Clare.⁴⁴

The explanation for the dissimilarity of these Runic / 'Anglo-Saxon' inscriptions and the seventh- and eighth-century inscriptional style in Ireland might lie in the different tradition of literacy in the latter country, where there had never been any assimilation of Roman capital letter-forms. This should be set against the natural tendency of the Anglo-Saxons to use Runes, a two-line 'capital' script, for inscriptions, in combination with their newly learned Roman hands. Comparison of the English and Irish slabs, designed along the same lines as the Clonmacnoise small panelled crosses, shows that the Irish, though completely uninterested in Roman monumental capitals, were very interested in making display letters, such as those on a grave slab, distinctive. At first they were distinctive on a letter by letter basis, careless of classical ideas of layout, and laid on in a haphazard manner.

⁴³ Okasha, *Hand-List*, pp. 94-7.

⁴⁴ *CIIC* no. 54.

This has opened up the possibility for closer speculation on developments in manuscript hands in Wales and Ireland during the period before the establishment of a canonical Insular half-uncial Phase I, in the first half of the seventh century. We see Phase I half-uncial in the manuscripts Durham A. II. 10, c. 650, and, further refined, in the Book of Durrow, c. 675. Though we have few manuscript survivors, the bold variety of inscriptional letter experiment that we see at Clonmacnoise, particularly in the mixed-alphabet inscriptions which parallel those in Wales, suggests a craft milieu where developments in inscriptional lettering were independently distinctive. As we have seen in Chapter 2 and Chapter 7 above, Insular geometric capitals are prefigured in the pre-600 bilingual Ogham / Latin stones concentrated in Dyfed, and are therefore part of the mixed-alphabet tradition before the British and Irish had contact with rune-using people. This should have a bearing on our approach to those inscriptions from the mid-seventh century onwards at Lindisfarne and Hartlepool, where we see Runic and Insular display capitals together on bi-alphabetic memorials. That the angular inscriptional letters of Clonmacnoise, like those of the Ogham / Latin memorials in Wales, prefigure those of Lindisfarne is suggested by the fact that, when we first see them, they are angularised minuscules in mixed-alphabet compositions which have not yet been promoted to display capital status as a complete alphabet for use on their own. A schematised alphabet grid showing angular letters from the small panelled cross slabs at Clonmacnoise (ILLUS. 8:11) shows that, if Ó Floinn's suggestion that his Type A slabs may be ranged alongside the Anglo-Saxon examples from c. 650-750 is correct, then the range of angular letters in mixed-alphabet inscriptions seen within them is consistent with the chronology of the beginning of *ECMW* Group II.

The Irish letter-cutters who evolved the Type A style at Clonmacnoise did not use Roman capitals, but they knew majuscule and minuscule letter-forms equally well, and felt no qualms about adapting their shapes or combining them in the same inscription. Palaeographically we see this disinclination to use Roman capitals, and the inclination to invent something else, in the display lettering sections of the *Cathach*, c. 600. In ILLUS. 9:6. we see *diminuendo*, the use of Greek A and the enlargement of minuscule letters to aggrandise them. Simplification of the loosely-written cursive minuscule prototype of half-uncial which we see in the hands of the Springmount Bog Tablets, perhaps as early as the second half of the sixth

century, may well have begun in the hands of inscription-makers rather than of scribes.⁴⁵ The different tools and adamantine materials of letter-cutters in metal, wood or stone, as opposed to those of scribes, would naturally have resulted in an alphabet of angular forms peculiar to metalworking, woodworking and stoneworking.

Two early mixed-alphabet Irish inscriptions in Latin demonstrate the tendency to angularisation. The first, *CIIC* no. 1, from Inchagoill, Co. Galway (ILLUS. 8:12A), cut on gritstone, has trident *m*, z-shaped *g*, squared *h* and angularised *d*. The other is the late sixth- or early seventh-century Kilmalkedar alphabet stone, the earlier date given by Bieler and the later by Higgitt,⁴⁶ which gives a clear exemplar for handwriting (ILLUS. 8:12B) and possibly belongs to the period when Ogham was being gradually abandoned in favour of Roman-letter inscriptions, as we have seen in the transitional Ogham / Latin inscriptions of Dyfed.⁴⁷ The Kilmalkedar stone is cut mostly in angular minuscules, several of which are geometric, such as *q*, *n*, and *h*, with a few monoline 'half-uncial', such as *t*, *g*, *f* and *l*. Both inscriptions give a most helpful set of letters for comparanda in relation to the letter-forms of the Clonmacnoise small panelled cross slabs. Mixed-alphabet inscriptions that include these angular variations were quite clearly an acceptable style for letter-cutting, though at first no scribes used them, and they remained in epigraphic and not scribal use for almost the whole of the seventh century before scribes began to adapt them. Attempts to invent an Insular alphabet of display capitals by scribes had various results during the course of the century. Though geometric letters are seen first in a single *incipit* of the Book of Durrow, c. 675, we do not see an evolved geometric style with its distinctive page layout of black horizontal banding until the production of the Durham Gospels, c. 680, bound in quinions and written in a single column in the Irish manner.⁴⁸ At this time we find the geometric mixed alphabet being used in gospels both of the Celtic family, such as the Durham Gospels, and of the Anglo-Saxon family, such as the Lindisfarne Gospels: see below, Chapter 9.

⁴⁵ G. Charles-Edwards, 'The Springmount Bog Tablets'.

⁴⁶ Bieler, 'Insular palaeography', p. 271; Higgitt, 'The Stone-cutter and the Scriptorium'; Okasha and Forsyth, *ECIM*, pp. 165-8.

⁴⁷ M. Stokes, *Early Christian Art in Ireland*, Part II (Dublin, 1928), p. 3.

⁴⁸ TCD MS 57, opening of St John's Gospel; Durham Cathedral Library, MS A. II. 17; Verey, Brown and Coatsworth, *The Durham Gospels*.

As we have seen, a new slant has recently been cast on manuscript chronology in the period: Michelle Brown has put forward a new dating of 715 AD for the Lindisfarne Gospels, which are written in double column and bound in quaternions in the Roman manner.⁴⁹ Therefore we might suggest that the mixed alphabet, originally epigraphic, and in use in Wales and Ireland by c. 600, came into use in Northumbria via the import of Irish manuscripts and scribes, which began with the foundation of Lindisfarne, after 635. The arguments of Stanley Morison for external influences would be more convincing if we did not have a body of epigraphic evidence for the use of these letters in Wales before AD 600. The later Clonmacnoise inscriptions on stone are far more skilled than the first small panelled crosses, and their meticulous cutting suggests craft workers well used to iron instruments. Although the Irish had primitive techniques for dry-stone construction, dressed and mortared stone building is late in the archaeological evidence, and large wooden buildings would have been the norm until the ninth century at least.⁵⁰ From the post-Roman period to the ninth century there is no evidence that the craft of building in stone developed to the extent that masons could have acquired allied lettering skills in stone.⁵¹ We see no high-grade lettering skills in the small panelled cross slabs at Clonmacnoise.

The panelled cross slabs at Clonmacnoise do, however, show a variety of ways of making line ends, which do not seem to be influenced by pen-lettering. For example, in the later, elaborately decorated slabs classified as Type 7, or Celtic, by Macalister and as Type C by Ó Floinn, which have beautifully-spaced and calligraphically-understood letters, we do not find the heads of downstrokes with symmetrical serifs on both sides. On the other hand we do find them in the small panelled cross slabs (Type 5 / Type A), and, if they are seriffed at all, those that are sculpted only on the left, as we see in the *b* of *Blaimac* (ILLUS. 8:13) are rare: more often they have symmetrical finishes, worked from right and left. The illustration shows the different effects of the two distinct types of sculpted, three-dimensional, triangular cut serifs.

⁴⁹ Brown, *The Lindisfarne Gospels*, p. 397.

⁵⁰ Leask, *Irish Churches*, pp. 5-15; Edwards, *Archaeology of Early Medieval Ireland*, pp. 121-4.

⁵¹ Edwards, *Archaeology of Early Medieval Ireland*, pp. 122-31.

Type 1: The scribal serif, left-weighted (see MS TCD 57), which, when it is cut, has an isosceles plan.

Type 2: The inscriptional serif (see *CMS* no. 61, the *i* rather than the *b*). This is symmetrical and, lying directly over the downstroke, has an equilateral plan.

An inscriptional offshoot of Type 2 appears as a large, bifurcated ‘feather’ mark at the heads of downstrokes, as on the inscription on a millstone from Clonmacnoise which reads *Sechnasach* (*CIIC* Vol. II, no. 846; *ILLUS.* 8:14). Most certainly not a calligraphic feature, it is rather an uncompleted line ending of serif Type 2, without the finishing cut across the head that links the right and left angle. These bifurcated serifs, when they occur on simple slab designs and consistently at all heads of downstrokes, may safely be placed with the mixed-alphabet letters of the seventh century; see *CIIC* no. 579 (*ILLUS.* 8:15). Belonging to the symmetrical-wedge family, they are recognised by Pierre-Yves Lambert as imitations of the die-cut lettering serifs of coinage.⁵²

Within the letter-forms of Clonmacnoise Type A slabs we see the development of what Stanley Morison called ‘tricky sorts’,⁵³ particularly in the re-shaping of the body of the *O* and the linked letters *D*, *A*, *B* and *E*. This is an angularising tendency already to be seen in the bilingual Ogham / Latin inscriptions of Wales, pre-600, but at Clonmacnoise it is taken to greater extremes with a sharply-angled square or diamond-shaped *O*. (e.g. *CMS* nos. 16, 90). Stanley Morison saw the diamond *O* as a peculiarly Insular invention that was taken by the Hiberno-Saxon mission to the Franks,⁵⁴ but the practical necessity – to engravers and letter-cutters – of compressing and angularising round-bowed letters had given rise to the form in previous centuries (see Chapter 7).

As there was no coinage in Wales during the period of *ECMW* Groups I and II, and since it is not possible to transfer the method of rendering minuscule letters in stone, miniaturised, to the cutting of coinage dies,⁵⁵ it seems that we should look for a source for the

⁵² E.g. *RICG*, Vol. 15 (Viennoise du Nord), no. 21, p. 241, to Bertegiselus.

⁵³ Morison, *Politics and Script*, p. 161.

⁵⁴ *Ibid.*, p. 149.

⁵⁵ I am grateful to Anna Gannon, BM Finds Officer, for discussion of the degree of minuteness possible in the lettering of coinage dies.

early Insular inscriptional mixed-alphabet style in the ruins of the Roman hierarchy of scripts in the immediate post-Roman period in Britain. In these ruins minuscule may well have been a healthier survivor than majuscule. The fact that the small panelled cross slabs at Clonmacnoise with rough edges, and the similarly designed and sized slabs at Hartlepool and Lindisfarne with worked edges, have different lettering should not lead to the automatic assumption that the Clonmacnoise slabs were produced later. Certainly Anglo-Saxon minuscule was late in developing, but we cannot say the same for Wales and Ireland.

Can palaeography support Ó Floinn's new date range?

The period during which the small panelled cross slabs (Type 5 / Type A) were made, Ó Floinn suggests, was during the mid-seventh to the mid-eighth century.⁵⁶ The quality of Phase I Irish half-uncial and set minuscule in manuscripts was very high by the end of the seventh century. Could it have taken half a century for such excellent scribal standards to percolate into letter-cutting practice in the Irish Midlands, where the local Bloomhill sandstone, occurring in an outcrop a mile up the river, was perfect for precisely such a purpose?⁵⁷ One reliably dated inscription which gives us a clear image of the state of high-quality epigraphic half-uncial in the north-east in the early eighth century is the stone at Kilnasaggart, Co. Armagh, of c. 716+ (ILLUS. 8:16).⁵⁸ Here we see sharp triangular serifs, no dislike of repeated bowed letters (notice the *pete* of *peter*) and the *oc* form of *a*. This dateable stone gives us a much-needed chronological fix for Irish epigraphic practice at a time when on Lindisfarne, if Michelle Brown is right, the Lindisfarne Gospels were being completed in Phase II half-uncial. We might surmise that the scribal and epigraphic practice at Clonmacnoise, much grander than Kilnasaggart, would have been of equal skill to that of the Kilnasaggart inscription. In other words, by c. 700 at Clonmacnoise, integration between scriptorium and workshop might have been producing inscriptional lettering of the quality of Ó Floinn Type B, rather than the distinctly inferior inscriptional style of the small panelled crosses, his Type A.

⁵⁶ Ó Floinn, 'Clonmacnoise: Art and Patronage', p. 90.

⁵⁷ Edwards, 'A Group of Shafts from Clonmacnoise', p. 102.

⁵⁸ *CHC* no. 946; the stone records a grant by Ternóc son of Cérán, who died in 716.

W. M. Lindsay's definition of the clear peculiarities of Phase I half-uncial – the tendency to go over to a lower grade of script at a spacing or other practical crisis, and the use of *diminuendo* for display – are most helpful indicators.⁵⁹ They assist in examining Irish epigraphic lettering and attempting to band it into early and late pen-formed half-uncial letters, and a stylistically earlier mixed-alphabet style that was more linear and drawn than the succeeding deliberate attempt at rendering pen letters. Adding what we know of the dating of manuscript practice to Ó Floinn's suggested dating of Clonmacnoise Type A slabs,⁶⁰ we might put forward a rough, three-tiered chronological banding: the seventh and early eighth centuries during which pre-canonical mixed-alphabet inscriptions shade into Phase I calligraphic style, the mid- to late eighth century during which Phase I half-uncial shades into Phase II, and the late eighth century onwards, in which Phase II flourishes.

Though Ó Floinn's suggestion that his Type A slabs are earlier than has been thought before is radical, and flies in the face of supposed identification with annalistic obits, their primitive lettering is consistent with a seventh- and early eighth-century date. Their range of small panelled cross design is closely related to the Lindisfarne and Hartlepool slabs dated by Cramp from the mid-seventh to the mid-eighth century; the apparent disparity between the monumental lettering, in form and execution, on the English and the Irish slabs should not blind us to chronological developments in non-capital inscriptional lettering that were evolving in Ireland, Wales and Scotland, at a time when Anglo-Saxon taste was attracted to inscriptional capital letter-forms that were compatible with Runic. The precise dating of the evolution of the Anglo-Saxon bi-alphabetic sequence at Lindisfarne and Hartlepool is as difficult as the dating of the change from mixed-alphabet to calligraphic at Clonmacnoise. We first see geometric display capitals in manuscripts towards the end of the seventh century, and perhaps the Lindisfarne and Hartlepool stones are emulating these. In their earliest surviving form in the Book of Durrow and then in the Echternach and Durham Gospels, geometric capitals fill the gap as a display alphabet for Insular half-uncial, for which many other options had been tried in the course of the seventh century.

⁵⁹ Lindsay, *Early Welsh Script*, pp. 3-4.

⁶⁰ Ó Floinn, 'Clonmacnoise: Art and Patronage', p. 88.

The similarity of design between the inscribed small panelled cross slabs of Northumbria and Clonmacnoise calls for close scrutiny of their associated inscriptional alphabets. The epigraphic link and association of their dating range, put forward by Ó Floinn, suggests that a two-way route carried and promoted originally minuscule letters from informal to formal use. Though the Hiberno-Saxon desire to invent non-Roman display capitals of their own may have been governed by aesthetic choice, their appearance, and disappearance, more certainly reflects the workings of Morison's 'technomorphic' change in action – when new tools and methods enabled improvements in a craft form. Clonmacnoise is a site that holds an array of early medieval cut letter-forms unparalleled in the British Isles, with definite links to the Group I series of *ECMW*, and Macalister made an important start in framing a typology. From the palaeographical point of view, the earliest small slabs are the most significant, as Ó Floinn has reminded us. What we see in the angular lettering of Clonmacnoise small panelled cross slabs looks like the beginning of a technological process, the final outcome of which was Insular display capitals.

Conclusion

If we accept Ó Floinn's proposal that the small panelled slabs of Clonmacnoise chronologically overlap with the Lindisfarne and Hartlepool slabs, but begin earlier, then the implications are very significant. There is a strong possibility that the design evolution at Clonmacnoise, from small panelled cross slab (Macalister Type 5, Ó Floinn Type A), to the expansional cross (Macalister Type 8, Ó Floinn Type B), to the ringed 'Celtic' cross (Macalister Type 7, Ó Floinn Type C), was under way at the time of the making of the memorial for Chuindless, Abbot of Clonmacnoise (ILLUS. 8:5B), c. 720+. The designer of the ringed cross symbol was technically accomplished, the ordinator of the inscription less so, yet the letter-form is more developed than that of the small panelled crosses, where we have seen a significant disjunction between the skill of the designers and cutters of the symbols and the skill of the writers of the accompanying inscriptions. If the proposed evolution for letter-form put forward in this thesis is also acceptable, then the palaeography and the typology of the three major groupings in the Clonmacnoise collection may be worked together to provide a sounder chronological framework than exists at present.

Chapter 9

GEOMETRIC DISPLAY CAPITALS IN INSULAR MANUSCRIPTS

In this chapter I shall discuss case studies of two Insular manuscripts which use geometric display capitals in a systematic manner. I shall then attempt to classify the geometric capitals into three groupings:

Type A, which shows scribal adaptation of the alphabet,

Type B, which shows the influence of the alphabet's epigraphic origins, and

Type C, a more primitive sub-group within (B), related to those non-Roman intrusive letter-forms which first begin to displace standard capital forms in the Group I period.

There is obviously an inter-relationship between all those hands that use geometric capitals, but the manner in which the letters are used betrays their origins, either in epigraphy or in calligraphy. Because the geometric capitals are a major part of the decorative schemes of two well-known Insular gospels, the Book of Kells and the Lindisfarne Gospels, these are the two case studies which I shall discuss in depth. But developments previous to them, in the Book of Durrow and the Durham Gospels, suggest an evolution of geometric display letters which includes such a variety of forms by the early eighth century that the two hands responsible for the display capitals of the Lichfield Gospels can employ them in two distinct styles. Both are strongly epigraphic (ILLUS. 9:1). It is clear that the geometric display capital was freely adapted by individual scribes, who worked together in the same volume without feeling any necessity to regularise their display capital style. From the late seventh century to the ninth century a sequence of manuscripts of great variety has survived: this sequence demonstrates supreme craftsmanship in the eighth century, but only a century later this expertise has been lost.

It is in the Book of Durrow that we first see recognisable geometric lettering: it occurs in the *incipit* of St John's Gospel, f. 193, and nowhere else in the manuscript, perhaps as a mark of special distinction for that gospel (ILLUS. 9:2). The geometric letters are the Greek-

style angle-bar A, a triangular delta for the D of *deum / deus*, and a Greek mu for M. Well-executed Greek texts written by Insular scribes are found in manuscripts from Durham A. II. 10, of c. 650, to the *Liber Commonei* section, f. 19-36, of St Dunstan's Classbook of the early ninth century.¹ An M such as that used in the Book of Durrow is a remarkable feature of Schaffhausen MS Generalia I (Dorbenne's Life of Adamnán), appearing in the Greek text of the Lord's Prayer on f. 137;² and it occurs in the same text in the Book of Armagh, TCD MS 52.³ All three styles of the Greek display letters show the distinctive equilateral triangle which is produced when two diagonals are allowed to cross over when they intersect (ILLUS. 9:3). This sharp line end is not characteristic of incised letters on stone, and as a pen-letter it has to be manipulated or drawn and filled; if we look at the cross-overs of similar diagonal intersections on the tie beams of St Catherine's Monastery in the Sinai (see ILLUS. 6:19), it is clear that such a sharply-defined feature may have been characteristic of inscriptions in wood rather than in stone.

Though we see angularisation of minuscule letters in the Group I inscriptions of *ECMW*, 400-600+, in mixed-alphabet inscriptions, it is not until these angular letters are adopted by scribes that they are provided with the high finish of sharp line ends and are processed as an entire alphabet for display purposes. The evidence of the Book of Durrow might suggest that what inspired the creation of this alphabet was the sight of *nomina sacra* in Greek letters, such as IHC and XPI, which were later used more generally as contractions by Irish scribes.⁴ What we see in those three Greek letters of the Book of Durrow's *incipit* of St John's Gospel is the beginning of a process of angularisation in manuscript display letters that had begun a century before in the earliest epigraphy of Wales and Ireland. It is the Book of Kells that shows the most protean variety of manuscript forms of geometric display capitals.

¹ Bodleian MS Auct. F. 4/32.

² Henry, *Irish Art*, Documentary Plate VII.

³ Westwood, *PSP*, Plate 2, no. 10.

⁴ Bischoff, *Latin Palaeography*, p. 154.

Geometric Capitals in the Book of Kells

Although George Henderson illustrated many examples of geometrical capitals, and emphasised their importance in Insular book decoration, John Higgitt was the first scholar to study systematically the disposition and variety of geometric capitals in the surviving Insular gospels.⁵ In his sensitive study of the alphabet in the Book of Kells, he concentrated on the letters of the decorated full pages; he did not, however, include in his detailed analysis the many geometric letters that appear within the text. Nor did he enter into the question of the relative lack of geometric capitals within the text of the earlier Lindisfarne Gospels (c. 715) in contrast to the Book of Kells, which was produced a generation or two later. Higgitt did suggest, however, that there might be a perceivable pattern to the fluctuation in types of geometric capitals, as there are clearly individual styles of these within the Book of Kells, which might be related to the changes of text hand.

Françoise Henry perceived three text hands in the Book of Kells: A, B and C (ILLUS. 9:4); Bernard Meehan has suggested the possibility of a fourth, now classified as D.⁶ Henry's hands A, B and C are relatively easy to distinguish, but it is difficult to identify Meehan's hand D with certainty: consequently I have preferred to remain with Dr Henry's simpler analysis. The accompanying table (ILLUS. 9:8) shows how Bernard Meehan subdivides these three hands to establish the identity of a fourth scribe D.

The distribution of Henry's three hands is as follows:

Hand A: ff. 1v and 8v - 19r; 154r - 157v; 276r - 292r; 307r - 339v

Hand B: ff. 19v - 28v; 118r - 150v

Hand C: ff. 29r - 117v; 151r - 154r; 157v - 275v; 293r - 306v

⁵ Henderson, *From Durrow to Kells*; Higgitt, 'The Display Script of the Book of Kells'.

⁶ F. Henry, *The Book of Kells, with a Study of the Manuscript* (London, 1974), pp. 154-157; B. Meehan, 'The Division of Hands in the Book of Kells', in F. O'Mahony, ed., *The Book of Kells*, pp. 183-195.

The order of the gospels and their scribes is:

Preliminaries	1r - 28v	A (1v, 8v - 19r), B (19v - 28v)
Matthew	29v - 129r	C (29v - 117v), B (118r - 129r)
Mark	129v - 187v	B (129v - 150v), C (151r - 153v), A (154r - 157v), C (158r - 187v)
Luke	188r - 290r	C (188r - 275v), A (276r - 290r)
John	290v - 339v	A (290v - 292r), C (293r - 306v), A (307r - 339v)

Significantly, Dr Henry describes Hand A (ILLUS. 9:4A), who writes an early section of eleven folios in the Preliminaries and the greater part of the Gospel of St John, as 'slightly archaic', the most 'conservative' of the scribes, his hand showing 'kinship with the Lichfield script ... trained in the same tradition'.⁷ Hand B she characterises as freer in style than Hand A, with a marked tendency to use minuscule line endings, while Hand C, in contrast, 'the hand of the greatest part of the book ... with only one or two exceptions has no minuscule line-endings'. She asserts that B and C are more modern than A, 'and have parallels in the early ninth century'.⁸ It will be seen that the majority of the work is written by Scribe C, but that Scribe A, whom Dr. Henry understands to be the senior and most experienced scribe at work, opens and closes the work, as well as contributing from f. 154 to f. 157 and from f. 276 to f. 292.

There is no agreement as to whether the display capitals of the Book of Kells were produced by the scribes of the text, or by the painters and decorators of the manuscript. Dr. Henry identifies three illuminators, whom she describes as the 'Goldsmith', the 'Portrait Painter' and the 'Illustrator'.⁹ Several further tables would be necessary in order to make any judgement on the issue of linkage between the three (or four) scribes of the text hands, and the three letterers of the display capitals (ILLUS. 9:5): the question is further discussed below.

⁷ Henry, *Book of Kells*, p. 155.

⁸ *Ibid.*

⁹ *Ibid.*, pp. 211-2.

First, however, I shall list the geometric display letters on each gospel folio, with notes on how they are used. In the case of both the Book of Kells and the Lindisfarne Gospels this has been carried out from facsimiles.¹⁰ Particular attention has been paid to the use of geometrical capitals in combination with enlarged half-uncial manuscript letters, where they clearly present a more developed version of the 'mixed-alphabet' inscriptions of earlier manuscripts and of the early Christian epigraphic corpus, which significantly pre-date them (ILLUS. 9:6: see Chapters 3 and 4 for a discussion of the origins of these). Numbering is by folio. Letters in capitals followed by lower-case in brackets – e.g. *IU(dae)* – indicate that there has been a word-break in the titling, and the scribe has continued in the text half-uncial. At the end of each entry, if there has been a perceivable rhythm of change between the uncial-influenced curvilinear and the minuscule-influenced geometric, I have noted this rhythm in the form of C for curvilinear and G for geometric. In manuscript decoration, this mannerism, of alternating curving and straight-line design, brings to the manuscript page the La Tène-influenced patterns of metalwork and stone monuments.

Listing of the Geometric Capitals in the Book of Kells

1. Preliminaries: f. 1r - 28v

1.1 Hand A: f. 1v, 8v - 19r

8r. The first full colour display letter page, with top line in heavily-decorated curvilinear letters for *NATIVITAS*. In geometric lettering below, we find angle-bar A, square-bodied D, B, H, reversed-F type of G, gate and X-link 'Runic' N, gate M, Z form of S. Rectangular, boxed, ET compound, echoing earlier epigraphic form. Box brackets; gate letters have lentoid bars. (ILLUS. 9:7.)

¹⁰ Kendrick *et al.*, eds., *Evangeliorum quattuor Codex Lindisfarnensis*; E. H. Alton and P. Meyer, eds., *Evangeliorum Quattuor Codex Cennanensis*, 3 vols. (Berne, 1950-1).

12r. Major title across width of page, *MATTHEUS EX IU(dae)*, in angular display capitals. Large decorated trident M, miniaturised T, E and Z-shape S. Compounds: E within H, and S within U.

13r. Major title across page, *ET ERAT IOHANNIS* etc. The section *ERATIO* is contained in a blue frame. Large decorated E with lentoid bar. Bar serifs on A and V. X-link A. Subtitle with central mixed section, 'gilded' with orpiment at the central curvilinear ZA, in an otherwise geometric line. Boxed compound ET.

15v. Major title across page, *MARCUS EVANGELIS* contained in a frame. Large decorative rectangular three-bar S, twice. Angle-bar A. Reversed-F form of G. Box brackets. M containing A and R.

16v. Major title, *LUCAS SERVUS* etc. in a red frame. Large decorative L containing U; S containing E; N containing A. Square and Z-shape S. The S is constructed by adding two horizontal bars to a downstroke, right and left, and has lentoid bars to match M and N.

18r. Major title, *HIC EST IOHANNES EVAN(geli)*, framed. Compounds: large decorative H containing I; I with square O (of *Iohannes*) on downstroke. Half-size A and N miniaturised on a divided writing line, the N with a lozenge bar.

19r. Not geometric, but noted, because the large title *ZACHA* which is rendered in interlaced curvilinear letters has no frame.

1.2 Hand B: f. 19v - 28r

22v. Initial S, two lozenges one above the other.

24r. *IOhannis*: O as four overlapped lozenges one above the other; double-lozenge S.

25v. *VE(niet)*: X-link V.

2. Gospel of St Matthew: f. 29v - 129r

2.1 Hand C: f. 29r - 117v

29r. *LIBER GENERATIONIS*, second full colour display letter page; reversed-F type of **G**; ligatured **N/E**. D-shape **O**; miniaturised **I** and Z-shape **S**. Section of geometric letters in a frame.

34r. Third full display letter page, mainly curvilinear.

37r. Lozenge **O** followed by uncial **M**.

41r. Lozenge **O**.

41v. *NO(lite)*: compound **N/O**.

42r. Compound **S/I**.

44r. *EGO*: lozenge **O**, and compound **S/I**. **C/C/G/C/G**.

45r. *OR(antes)*: lozenge **O** with bar-serifs; *PA(ter)*: large decorative curvilinear **P** with geometric **A**.

45v. Compound **S/I** twice.

46r. Compound **S/I** twice.

47v. Lozenge **O**.

48r. Lozenge **O** with bar-serifs, followed by an uncial **M** in a diminuendo.

- 48v. *ATTENDITE*: miniature geometric capitals in a compound, the TTE and the N within a curvilinear OC form of A.
- 49r. Lozenge O.
- 54r. Compound H/A uncial, U with geometric A inside. Wirework interlace.
- 55v. *VI(dens)*: X-link wirework V; geometric I.
- 57r. *ECCE*: uncial E with geometric inserts around the bows. Diminuendo.
- 58r. *HIC*: compound H/I.
- 58v. *NOLITE*: compound N/O.
- 59v. *IOHANNES*: square O overlapping the downstroke of I.
- 60r. *OMNES*: lozenge O with bar-serifs, followed by uncial M, in a diminuendo.
- 61r. *OMNES*: as above.
- 64v. *REGINA*: diminuendo mixed alphabet.
- 66r. D square-bodied, topside extended to left.
- 67r. *VOS*: compound (curvilinear V with geometric O), V/O.
- 67v. A with double angle-bar and top bar-serif.
- 73r. *TUNC*: geometric V inside the curve of uncial T. C/G/G/C.

76v. *GENERATIO*: combined G/E, curvilinear G with geometric E under its crossbar. The first four letters have the rhythm C/G/G/C. *HI(pocritae)*: uncial H with geometric I inside; uncial F overlapping Greek A.

77r. Opening of line 2, geometrically-treated Greek A; end of line 3, S compound with square C on the diagonal of the S.

78r. *TUNC*: geometric V inside the curve of uncial T, as 73r above. C/G/G/C.

81v. *QUI*: square Q with bar-serif V inside it.

87v. *MULTI*: compound large decorative uncial M with geometric bar-serif V under its first arch, and I under its second. C/G/G/C.

90v. *HOC*: large decorative uncial H with a bar-serif lozenge O inside it. C/G/C

91r. *EUN(tes)*: curvilinear half-uncial E with geometric V inside it. C/G/G/C. *TUR(bae)*: curvilinear T with geometric V inside; uncial R. C/G/C.

92r. *MA(ne)*: uncial M overlapped by Greek A. C/G/G/C.

98r. *CONG (regatis)*: square C with lozenge O inside it, geometric N, half-uncial g. G/G/G/C/C/C.

99v. *VAE*: VA overlap. Three examples with Greek A.

101v. *DEO*: square-bodied D.

102v. *SED*: geometric E on the diagonal of the S. C/G/C.

103r. *CON(surge)*: compound C/O with square O held by the C. C/G/G/C.

104r. *VA(e autem)*: curvilinear U with geometric A inside; *OR(ate)*: lozenge O with uncial R; *TUN(c)*: C/G/G/C; *SU(rgent)*: S with geometric V on the diagonal.

106r. *QUIS*: with lozenge-tailed V inside a large half-uncial Q. C/G/G/C.

106v. *uOcatus*: Lozenge O with filled body, as in a spiral, Greek A; *AM(en)*: Greek A, uncial M; *SU(rgent)*: geometric V on the diagonal of S; *TUN(c)*: C/G/G/C;

109r. Lozenge O twice.

111r. *SCI* compound with square CI on the diagonal of the S; *TU(nc)*: uncial T holding an X-link V.

112r. A with bar-serif top and X-bar below; A with bar-serif above and lozenge below.

114v. *TUNC DICIT ILLIS IHS OMNES VOS* etc.: fourth full colour decorated folio page with display letters. Curvilinear T with geometric V inside; square D with I inside; Z-shape Ss; gate M, D form of O; geometric A inside square C. Major decorative lozenge pattern.

115r. *SCRIPTUM*: compound square S and C. Curvilinear half-uncial A with IT inside.

115v. *VE(rum)*: curvilinear V with geometric E inside.

116v. *QUIA*: geometric UI inside curvilinear Q. C/G/G/C.

116r. *TUNC*: geometric V inside curvilinear uncial T, two examples. C/G/G/C.

2.2 Hand B: f. 118r - 129r

118r. *NO(vissime)*: compound geometric N with O on its second downstroke.

119v. *MANE*: curvilinear uncial M with overlapping Greek A. C/G/G/C.

120v. *DICIT*: square D.

121r. *HA(bebant)*: large uncial H holding a Greek A.; *SEDENTE*: compound square S and E.

124r. Fifth of the full colour display lettered pages, the *TUNC CRUCIFIXERANT* cross-decorated page, with geometric letters in frames. Opening with a large decorated uncial T, infilled with plaitwork; the only letters that are not treated in a geometric manner are the half-O, D-shape type of O, and the R.

125v. *CAETERI*: Greek A inside uncial C.

126r. *CUM*: diminuendo with geometric V inside uncial C followed by a full uncial M. C/G/C.

127v. *VESPERE AUTEM*: major title across page; *AUTEM*: the H-extended abbreviation. These are the distinctive display letters of a letterer who occurs only here and possibly on a few other folios.

128r. Within the text, with the text ink and pen, the scribe has written a double lozenge s.

128v. *UN(decim)*: geometric UN.

3. Gospel of St Mark: f. 129v - 187v

3.1 Hand B: f. 129v - 150v

130r. Sixth full colour display lettered page. *EVANGELII IHS XRI*. The curvilinear patterning dominates the strict geometric lettering. The decoration is by Dr Henry's 'Goldsmith'.

138v. At the section *et materna mea est* there is the ampersand symbol squared in geometric style, ET (twice).

140v. *NON*: compound of two geometric Ns with the square O on the central downstroke.

143r. *CUM*: with a geometric V between curvilinear C and uncial M. C/G/C.

146v. *IPSE*: with the two downstrokes of the IP plaiting together to make a lozenge.

148r. *D(esertus)*: square D.

149r. *ET*: lozenge E and double lozenge T-bar.

149v. *ET*: interlaced like wirework.

150r. *ET*: with geometrical inserts on the curve of uncial E.

3.2 Hand C: f. 151r - 153v

152v. *IN*: the two adjacent downstrokes of IN plaited together at the base and made into a tail of repeated lozenges.

153v. *ET*: the geometrical squared verison, two examples.

3.3 Hand A: f. 154r - 157v

154r. *ET*: geometrical inserts on the curve of the uncial **E**.

3.4 Hand C: f. 158r - 187v

158v. Another *ET* with a stepped crossbar and a fish for the T-bar.

159v. Square **Q** and another geometric ampersand. as above, with fish.

161r and 161v. Wirework giving a geometrical appearance to curvilinear letters.

164r. *NAM*: geometric N/A compound with uncial **M**.

166r. *QUO*: compound **QU**. *C/G*.

168v. Greek capital **A**.

171v. *ET*: geometric ligature.

172v. *EUM*: large geometric **E**.

173r. *TUNC*: as *C/G/G/C*. *O(rate)*: with lozenge **O**. *ER(unt)*: with large geometric **E** as in 172v above.

173v. Compound **SE** with geometric **E** on the diagonal of **S**.

174v. **VI** geometric compound, two examples.

175v. *QUOD*: large curvilinear **Q** holding geometric **V**, with a lozenge **O** on its downstroke followed by an uncial **D**. *C/G/G/C*.

177r. Lozenge-shaped ET symbol with two-lozenge T-crossbar.

177v. AT: curvilinear A with geometric T inside.

178r. UNUS: triple compound overlapping UNU, two uncial Us with a geometric N between. C/G/C.

179v. SV(am): geometric V on the diagonal of S; square Q in Q(uid).

183r. ERAT AUTEM HORATE: seventh full colour display lettered page. Wirework geometrical interlace patterning. Large opening uncial E, lentoid bar, with geometric letters apart from uncial H and R. Infilling cloud-like. [NB. See also 231r.]

183v. V(t ad): bar-serif geometric V, with lozenge decoration.

184r. Within text hand, two angular Greek As.

184v. Marked reduction in the use of geometric capitals; of 5 initial clusters on this folio there is only one geometric bar-serif V.

187r. HA(ec): uncial H holding a geometric Greek A.

4. Gospel of St Luke: f. 188r - 290r

4.1 Hand C: f. 188r - 275v

188r. Eighth full colour display lettered page. N and I geometric, with a large decorated O having a lozenge decorated centre. Painted by Dr Henry's 'Goldsmith'. QUONIAM: Square Q with square U and O inside, gate N, geometric I, ligatured uncial AM.

- 188v. Major title, *FUIT IN DIEBUS HERO(dis regis judae)*: X-link V, square D, B, Z-shape S, square H, D-shape O. Box brackets, X-link V, gate N, geometric B and H.
- 191v. *MAGNI*: uncial M holding geometric A in second arch, half-uncial g, geometric N. C/G/C/G.
- 192r. *MANSIT*: uncial M with Greek A in second arch of M, geometric N. C/G/G/C.
- 193r. *BEN*: large half-uncial B holding geometric EN.
- 193r. *MA(ria)*: uncial M holding a Greek A.
- 196r. *NUNC*: geometric Ns. G/C/G/C.
- 197r. Curvilinear P with geometric bar-serif V inside bowl.
- 197v. *S*: a geometric T on the diagonal; *ANNO*: Greek A overlapping large geometric N, followed by smaller N then O.
- 198r. Compound FA, Greek A.
- 199v. *HE(rodus)*: large uncial H containing geometric E.
- 200r. Genealogy of Christ starts here. Repeated curvilinear Q followed by geometric UI (12).
- 201v. *QUI*: broken left-bowed Q with geometric V (17).
- 202r. *QUI*: repeated square Q (13).
- 203r. *AUTEM PLENUS SPIRITUS SANCTO*: ninth full colour display lettered page, debased curvilinear letters with only seven plain, unadulterated geometric capitals: curvilinear a holding

geometric V and T, geometric LENV and C. No integral frame to lettering: the inter-linear space is framed in double red dots.

205r. *ET*: geometric ampersand.

206r. *SUR(gens)*: geometric V on the diagonal of S, uncial R; *IN (veritate)*: geometric IN.

207r. *FAC(tum)*: curvilinear C with geometric T within. C/G/C.

210r. *DIC(ebant)*: Square D. G/G/C/C.

210v. *FA(ctum)*: Wirework A within F.

212v. Appearance of curvilinear animals in decoration. Curvilinear U containing a Greek A.

213v. *NO(lite)*: geometric N with a square O on the diagonal.

214r. *NON (est)*: three vertical bars, two gate N combined, with a square O on the central downstroke.

214v. *Omnes*: lozenge O.

220v. *IN CA(eteris)*: geometric IN followed by curvilinear C holding a Greek A.

221r. *N(emo)*: geometric N.

225r. *CON(vocatus)*: curvilinear C, lozenge O, gate N. C/G/G/C.

225v. *AU(divit)*: curvilinear A, geometric V.

227r. *DIC(ebant)*: square D. G/G/C/C.

229r. *ST(upebant)*: geometric **T** on the diagonal of **S**; *INTR(avit)*: G/G/C/C.

230v. *ME(ssis)*: geometric **E** in the second arch of large uncial **M**.

231r. *NO(lite)*: geometric gate **N** with square **O** on the second downstroke; *IN* as G/G twice.

NB: At this point in the manuscript there are unusual curvilinear painted infills of cloudy formation.

239v. *NI(hil)*: gate **N** with square brackets at the stroke joints.

240r. *CON(siderate)*: large curvilinear **C** containing lozenge **O**, gate **N**. C/G/G/C.

241r. *NO(lite)*: geometric **N** with square **O** on the second downstroke; *SINT* (etc.): geometric **I** on the diagonal of **S**, gate **N**, uncial **T**. C/G/G/C.

242r. *Q(uod)*: square **Q** with squared infill.

242v. *SI*: geometric **I** on the diagonal of **S**.

244v. *ET*: in wirework followed by *cum haec*; the *ae* of *haec* has the distinctive ligature of *ae* with the *a* attached to the bow of the *e* and descending below the line.

245r. *DI(cebat)*: lozenge **D** with **I** within it; lozenge shape **ET** (twice). Both wirework.

246r. *INI(psa)*: geometric **I**, gate **N** with the downstroke of **I** and the first of **N** plaited to make a lozenge tail.

246v. *ET (factum)*: lozenge **E** with the cross-bar of the **T** done in three small lozenges.

248v. *HANC autem*: **H** made by lapping a lozenge over the downstroke in the style of f. 12r.

- 249r. *QU(is enim)*: lozenge bowl of **Q** with square **U** within it.
- 249v. *SIC (ergo)*: geometric **I** and **C** on the diagonal of the **S**.
- 251v. *DI(xit)*: square **D** with dropped bar, geometric **I** with half-lozenge breaks at the centre of the downstroke.
- 253v. *A(diebant)*: curvilinear **A** followed by geometric.
- 255v. NB: Monk with Roman tonsure.
- 256r. *SI*: geometric **I** on the diagonal of the **S**; lozenge plan *ET*.
- 257r. *NAM (sicut)*: geometric **N** with **A** on the diagonal, uncial **M**. G/G/C/C.
- 257v. *MEO[RU]M*: large curvilinear uncial **M** holding a geometric **E** in the second arch, overlapping with a smaller uncial **M** having a square **O** on its central straight downstroke.
- 258r. *D(uo erunt)*: large triangular-bodied **D**.
- 259v. *AD*: geometric **A** and large uncial **D**.
- 260r. *QVO*: curvilinear **Q** with tail to left, geometric **V** with bar-serif. C/G/C.
- 260v. *QVI*: curvilinear **Q** with straight tail, holding geometric **VI**.
- 261r. Uncial **F** overlapping with geometric **A**.
- 262v. *VEN(it)*: geometric **V** with bar-serifs overlapped by an uncial **E**, gate **N**. G/C/G.
VOC(atus): **V** with bar-serifs overlapped by a triangular **O** with circles at its corners.

- 264r. *A(bierunt)*: decayed decorative Greek A.
- 265v. *ET (ingressus)*: curvilinear E and ligature with T crossbar and double lozenge; *ET (factum)*: another, with the T crossbar rendered as five lozenges.
- 266v. NB: Greek initial three-bar A within the text hand.
- 267r. *LA(pidem)*: large uncial I with overlapping Greek A; *O(mnis)*: lozenge O.
- 267v. *ET O(bservantes)*: curvilinear ampersand with T crossbar completed with double row of triple lozenges.
- 269v. *MA(iorem)*: large uncial M containing Greek A in second arch; *QVI*: curvilinear Q followed by geometric VI; *A(udiente)*: decayed form of A.
- 270v. *IN*: geometric I and N with the first two downstrokes plaited in a lozenge tail; the gate N has boxes at the stroke joins.
- 271r. *SED(ante haec)*: three-bar rectangular S, geometric E, uncial D. *G/G/C/C*. *PON(ite)*: curvilinear P overlapped by lozenge O, gate N.
- 271v. *VAE(autem)*: curvilinear V, geometric A.
- 272r. *ET*: rectangular ampersand.
- 273v. *EA*: curvilinear uncial E with geometric angle-bar A on the crossbar.
- 274r. *EA*: curvilinear E with geometric X-link A on the crossbar.
- 274v. *DIC(o)*: large uncial D with curvilinear I overlapping, lozenge-plan C, holding an O.

275r. *VE(rum)*: V with zig-zag strokes, uncial E; uncial F with overlapping geometric A.

4.2 Hand A: f. 276r - 290r

276r. *QUI (dixit)*: curvilinear Q holding X-link V, followed by geometric I.

277r. Uncial D with ligatured Greek A in the style of the *ae* ligature.

278r. *CON*: curvilinear C holding a lozenge O, gate N. Concentrated decorative work with beasts.

279r. Geometric I on the diagonal of S. Interlaced strapwork with coloured infilling starts.

280r. Debased form of three-bar A.

280v. *ST(abant)*: geometric T on the diagonal of S; initial three-bar Greek A within the text hand.

281v. *AT (illi)*: geometric T within large OC form of half-uncial a.

282r. S formed of beast patterns.

282v. *LA(trones)*: large decorative half-uncial I overlapped with Greek A.

285r. Tenth full colour display lettered page. *UNA*: large decorated U followed by geometric N and A. *AUTEM SABBATI* etc.: lettering strictly geometrical capitals, including rectangular-bodied D, B, and U, with the exception of the opening large uncial U.

288r. *DUM (haec)*: large uncial D holding geometric bar-serif V, followed by uncial M.

288v. TUNC (*aperuit*): large curvilinear Uncial T holding geometric bar-serif V, gate N, uncial C. C/G/G/C.

289r. NB Complex ligatured minuscule line ends.

5. Gospel of St John: f. 290r - 339v

5.1 Hand A: f. 290r - 292r

290r. IO(*hannes*): geometric I with lozenge O. (Picture page.)

292r. Eleventh full colour display lettered page. *IN PRINCIPIO*: Large decorated square IN P. Geometrical plan overlaid by curvilinear decoration and curvilinear deformation of RINCI. Following these there are nineteen plain black geometrical letters. The interlinear space is the framed section.

5.2 Hand C: f. 293r - 306v

293v. SI(*cut*): geometric I on the diagonal of S.

5.3 Hand A: f. 307r - 339v

309v. N(*on quia*): large geometric gate N with box brackets at stroke joins.

310v. SCI(*ebat*): geometric C on the diagonal of S and geometric I.

313v. Three-bar A; IN in geometric letters.

314r. Q(*uidam*): square Q with 4 triangular infills. In this section geometrical letters are rare and not in compendia.

- 322v. Extraordinary rectilinear *EGO* constructed on the plan of the rectilinear *ET*, with the *T* bar doubled to provide reverse-F form of *G*.
- 323r. *EGO*: large half-uncial *e* with a square *O* on its bar, and a reverse-F type of *G* hanging from the lower bar of the *O*.
- 326r. *DI(cit ei)*: square *D* and geometric *I*.
- 326v. *IU(daei)*: geometric *IU*.
- 329r. *CO(gnovit)*: large curvilinear *C* with a half-*O* type normally used for *D*, here as *O*, held within it.
- 330v. *SI*: compound, geometric *I* on the diagonal of a serrated *S*.
- 331r. *CUM (haec)*: geometric *V* with bar-serif, held within curvilinear *C*, uncial *M*. *C/G/C*.
- 332r. *NON*: two geometric gate *N*s, overlapping (sharing the same centre stroke, on which is a round *O*, centre).
- 333r. *QV(ia ego)*: large half-uncial *Q* containing bar-serif *V*.
- 334r. *SI*: compound, geometric *I* on the diagonal of the *S*.
- 335r. *SI*: geometric *I* on the diagonal of *S*; *HA(ec)*: large half-uncial *h* containing geometric *A*; *SI (non)*: double-lozenge *S* with geometric *I* on the diagonal; *Q(ui meo)*: square geometric *Q*.
- 335v. *HA(ec)*: large half-uncial *h* holding a three-bar *A* with curvilinear downstroke.
- 338r. *HA(ec)*: as above with flourished three-bar *A* held in the *H*.

Analysis : Scribes and Illuminators in the Book of Kells

As we saw above (p. 221), it is uncertain whether the display capitals of the Book of Kells were produced by the three or four scribes of the text, A, B, C and possibly D, or by the three painters and decorators of the manuscript, Françoise Henry's 'the Goldsmith', 'the Portrait Painter' and 'the Illustrator'. Bernard Meehan accepts Dr Henry's analysis of the illuminators and decorators who, it is presumed, worked alongside the scribes of the text hands. The craftsmen who executed the art work of the Gospels have always attracted more attention than the scribes of the text hands, who are of less interest to art historians, and the problem of their precise inter-relationship has tended to be overshadowed by discussion of the art work.

The difficulty of fixing upon the style of titling and display letter that is associated with each text hand is immense; there is no set pattern to the amounts of text that each of the scribes wrote, and change-overs do not assort with the endings of gatherings. They were working in a very large scriptorium where, apparently, visiting scribes might contribute a small section and disappear from the scene (ILLUS. 9:9).¹¹ Dr Henry comments on Hand B: 'The illuminated initials in that part are of a completely different type to the elaborate cartouches of the earlier prefaces', and she notes that Hand A wrote 'titles in purple ink'.¹²

The illustration of the first page, showing a systematic presentation of display letters, makes it clear that curvilinear letters are placed alongside geometric by choice, for effect (ILLUS. 9:7). As stressed above, the connection with the earlier epigraphic mixed-alphabet inscriptions suggests itself. Hand A is associated with a display letterer who uses epigraphic capitals of the spare Lichfield type, and letters of the more primitive Type C geometric alphabet: the 'extraordinary kinship' between Hand A and the scribe of the Lichfield Gospels was also noted by Dr Henry.¹³ Within Hand A we also find the epigraphic boxed ET ligature (see f. 8r), adapted and extended to make the triplet EGO (see f. 322v). The listing, above, of the type of geometric letters used by each hand in the Book of Kells, and their use in display

¹¹ The panel of geometric capitals on folio 29r of the Book of Kells is by a hand that does not appear again in that volume; but it is also the hand of the capitals of St Gallen 51.

¹² Henry, *Book of Kells*, p. 155.

¹³ *Ibid.*

design, should help to discern the precise relationship between Hand A and these plain Lichfield-type capitals. In contrast, the second case study, below, presents a considerably simplified range of geometric letters.

Geometric Capitals in the Lindisfarne Gospels

The Lindisfarne Gospels¹⁴ were written c. 715, about two generations before the Book of Kells. That there are far fewer geometric capitals in the earlier work is instantly made clear by a comparison of the amount of time taken to list and sketch such capitals in the Book of Kells and to list and sketch those in the Lindisfarne Gospels: respectively eleven hours and three. Geometric capitals were flourishing in Ireland half a century after their supposed apogee in Northumbria: in other words, their use is connected to a geographic variation within the British Isles, and not to a chronological one,

Carrying out this process with the Lindisfarne Gospels confirmed Julian Brown's division of the Lindisfarne display capitals into two types, which he suggested were the work of two individuals, of whom one was not the main hand of the text.¹⁵ The very consistent main text hand is generally presumed to be that of Eadfrith throughout, although David Dumville has expressed most clearly his reservations about this assumption, which is based on a colophon written long after the completion of the manuscript.¹⁶ Julian Brown describes the capitals drawn by the scribe of the text as 'Anglo-Saxon majuscule', here classified as Type A. The second style of capitals, here classified as Type B, he characterises as those of 'the rubricator': the painter of the high-quality geometric capitals with red dotted backgrounds, and of minor initials.¹⁷ The following listing of the occurrence of geometric display capitals in the Lindisfarne Gospels notes this distinction between the two types: Type A has no visible writing-line bands; it is lightweight and is made with a pen narrower than that used for the main hand of the text (ILLUS. 9:10). Type B lies within strongly-marked bands, bold and massive in contrast to the text hand (ILLUS. 9:11). Type B has clear affinities with the display

¹⁴ Kendrick *et al.*, eds., *Evangeliorum quattuor Codex Lindisfarnensis*.

¹⁵ Brown, 'The Palaeography of the Latin Text', p. 75.

¹⁶ Dumville, *A Palaeographer's Review*, p. 78.

¹⁷ Brown, 'The Palaeography of the Latin Text', p. 78.

capitals of Lichfield and Kells whereas Type A has not (ILLUS. 9:12).

In analysing the capitals of the Lindisfarne Gospels we come up against a difficult problem of nomenclature, particularly in the use of the term 'Anglo-Saxon capitals', whatever precise or imprecise meaning is understood by this term. Elisabeth Okasha uses the phrase to cover a very wide range of letter-forms,¹⁸ as an umbrella term fully as inclusive as Nash-Williams's use of the word 'half-uncial' to include cursive and geometric forms in his *Early Christian Monuments of Wales*. Remarking on the epigraphic interest of the saints' names inscribed in Roman characters on St Cuthbert's coffin (ILLUS. 9:13), Professor R. I. Page comments:

The Roman characters are what Dr Okasha calls, rather unhelpfully, 'A[nglo] S[axon] capitals' but perhaps should be called mixed Insular 'display' letterforms. They are mainly angular, but here and there, in O, P, the carver condescended to curves. There are variant forms of some of the letters used, A, H, for instance ...¹⁹

Clearly the precise nature and proportions of the mixture in what Professor Page here calls 'mixed Insular display letterforms' is of acute interest. The period in which Cuthbert's coffin was carved, at the very close of the seventh century, was one where we might expect the monastic craftsmen of eastern Northumbria to be using the same range of display lettering as we find in the Lindisfarne Gospels. Careful listing of letter-forms can help to discover if this is in fact the case, or if the desire to display knowledge of revived Roman arts introduced a more definitely Roman-based classical type of capital which eschewed the use of peculiar letter-forms belonging to an older Celtic tradition. In the Roman characters of St Cuthbert's coffin, for example, the choice of Greek M with a high V-intersection has been made, rather than three-bar gate M; interestingly, this choice had already been taken by the carvers of the dedication slab at St Paul's at Jarrow,²⁰ dated 685, although it uses lozenge and round O,

¹⁸ Okasha, *Hand-List*.

¹⁹ R. I. Page, 'Roman and Runic on St Cuthbert's coffin', in G. Bonner, D. Rollason, C. Stancliffe, eds., *St Cuthbert, His Cult and His Community* (Woodbridge, 1989), p. 262.

²⁰ Okasha, *Hand-List*, p. 61; *CA-SSS*, vol. I, Jarrow no. 19.

geometric and round C (ILLUS. 10:16A). In the Lindisfarne Gospels this parting of the ways in the making of display capitals is exemplified in the work of the two hands identified by Julian Brown as the main hand, Eadfrith, and 'the rubricator', the as yet unnamed illuminator who worked alongside him. Yet, in the *incipits* and *explicitis* of the display capitals of the presumed Eadfrith, he even-handedly uses three-bar M alongside a display uncial-type M with two round arches, as a deliberate contrast, throughout (ILLUS. 9:11). 'The rubricator' is capable of highly-skilled decorative patterning and display lettering in colour;²¹ his work appears at gospel openings and for important headings, and he also uses the two forms of M. Unlike the later Book of Kells, where all hands seem to be present and contributing throughout the making of the book, it seems that in the Lindisfarne Gospels there was a smaller workforce, for the plain text hand continues for long sections without any decorative letters.

During the eighth century a monastic foundation like Hackness – which, like Whitby, was a dependency of Lindisfarne – could assemble Runic, a cryptic alphabet and Latin in one memorial for the Abbess Oedilburga (ILLUS. 7:11).²² Although it uses rectangular O, Z-shape S, and angle-bar A, overall its effect is that of light, Late Antique square capitals, and it, too, uses only the Greek M with high V-intersection, rather than the three-bar gate form. It is possible that Northumbrian letter-cutters were ahead of scribes in adopting monumental Roman letters used in the Roman manner. Scribes seemed to operate in workplaces where a greater variety of forms were tolerated, and in their display lettering these were deliberately played off against one another. If we compare the Northumbrian type of eighth-century inscription with what we find in Wales in the same period, it is apparent that the Welsh seventh-century mixed-alphabet type never develops into anything approaching the formality of the Northumbrian capital inscriptions in the Roman manner in the following century; instead it, like the Irish, remains fixated on varied bookscripts, including cursive and geometric letters. This would seem to indicate a strong adherence to a tradition – epigraphic as well as written – that was in contrast to productions in the classical Roman manner: analysis of the way in which display letters are used in both Lindisfarne and Kells should illuminate this geographical and cultural signifier. At the time when the Anglo-Saxon glosses were added by Aldred to the

²¹ Brown, 'The Palaeography of the Latin Text', p. 75.

²² Okasha, *Hand-List*, p. 42; *CA-SSS*, vol. III, pp. 135-40.

Lindisfarne Gospels, some time in the 970s, geometric capitals were clearly not easily legible, as Aldred has apparently added commas at the word breaks to aid reading of the continuous script.

The order of the gospels is:

Preliminaries and Canon Tables	1r - 17v
Matthew	18v - 89v
Mark	90r - 130r
Luke	131r - 203r
John	203v - 259r

Listing of the Geometric Capitals in the Lindisfarne Gospels

1. Preliminaries: f. 1r - 9v

3r. First full display page. Whiplash lines from bold geometric Type B to birds' heads and spirals. Open lozenge bar on mid-stroke of E. Interlace bird and beast infill. *NOVUM*: all curvilinear with UM ligatured. V within U. The V, which is angular in Kells is, in Lindisfarne, more often U-shaped. Square geometric forms of M, C, O, S, U, T (see ILLUS 9:14).

3v - 4v. The half-uncial text is stylistically very different from Kells in that it is uninterrupted by large display letters.

5r. *IN canone*: repeated ten times, geometric Type B used for IN, and in all but one instance they are outlined in one line of red dots.

5v. *Plures Fuisse*: curvilinear black skeletons on red dotted background, U/E/S/L, with the large half-uncial I of *Plures* containing the opening stroke of the following u.

8r. Geometric capitals Type A in contrasting red and black, one line above the other.

Red : *INCIPIT PRAEFA* / Black: *TIO EUSEBII*. This sets a pattern followed throughout the tables. On this page Type A and B capitals can be seen alongside one another. On red dotted background, large *EUSE*, with curvilinear *EU* and Type B geometrical *SE*, using a frequent rhythm found in Kells: *C/C/G/G*.

9r. Type A capitals, as 8r. Red: *EXPLICIT PRAE* / Black: *FATIO EUSEBII*.

2. Canon Tables: f. 10r - 18r

10r. Canon tables, Type A capitals, as 8r.

Red: *CANON PRIMUS* / Black: *IN QUO QUATTUOR*.

MAT / MAR / LUC / IOH. All geometric Type A except for two round-arched Ms.

10v. As 8r. Red: *CANON PRIMUS* / Black: *IN QUO QUATTUOR*.

MAT / MAR / LUC / IOH. All geometric Type A with three-bar gate Ms.

11r. Green, red and black used on this page, the clear mid-green not copper-based.

Red: *CANON* / Black: *PRIMUS*

Black: *IN QUO* / Red: *QUATTUOR*

Black: *MAT* Green: *MAR* Black: *LUC* Green: *IOH*

Green: *FINIT CANON PRIMUS*

Black: *IN QUO QUATTUOR*

11v. Red: *CANON SECUNDUS*

Black: *IN QUO TRES*

MAT / MAR / LUC. All geometric capitals Type A with three-bar M.

12r. Red: *CANON* / Black: *SECUNDUS*

Green: *IN QUO TRES*

Red: names under red arches: *MAT / MAR / LUCAS*

12v. *CANON SECUNDUS*

IN QUO TRES

MAT / LUC / IOH. All geometric capitals Type A with three-bar M.

At this point the tables begin to go astray in their divisions: **LUC** is corrected in minuscule to **mar**; **IOH** is corrected in minuscule to **lucas**.

13r. Green: *CANON* / Red: *SECUNDUS*. Geometric capitals Type A with uncial D.

Red: *IN QUO TRES*

Black: names under red arches: *MAT / MAR / LUC*

Black: *FINIT* / Red: *CANON* / Black: *SECUNDUS*

Red: *IN* / Black; *QUO* / Red: *TRES*

13v. Black: *CANON* / Red: *TERTIUS*

Red: *IN QUO* / Black: *TRES*

Green: names under red arches: *MAT / LUCAS / IOH*. All geometric capitals Type A.

FINIT CANON TERTIUS

IN QUO TRES

14r. *CANON QUARTUS*

IN QUO TRES

MAT / MAR / IOH

FINIT QUaRTUS - minuscule a

IN QUO TRES

A rigid pattern has now been set. Anomalies only are noted until the end of the canon tables. These consist of the intrusion of Roman capitals, uncial or Trajan, in favour of the geometric type.

14v. Use of Roman capital **D** rather than geometric or uncial.

15r. *DUO* etc.: Roman Trajan capital **D** (twice). The phrase *FINIT CANON* closes with a miniaturised square **O** between the two **Ns**, fitting under the half-height second stroke.

15v. *DUO*: Roman Trajan **D**.

16r. Boxed **U** for **V** in numbers, as in *CANON III / VIII*. *DUO*: Roman **D** (4 times).

Rounding of strokes which have been squared until this point: *MAT*: round-arch uncial **M**,
IOH: round-arch uncial **H**, *MAR*: round-arch uncial **M**.

16v. Round **U** used in number *VIII*, but in the line below it is squared: *VIII*. *DUO*: Roman **D**.

IOH: round-arch **H**, *MAT*: Type A geometric capitals, *MAT*: round-arch uncial **M**.

17r. Red: *MAR* / Black: *CANON* / Red: *DECIMUS*

Black: *PROP* / Red: *IN QUO* / Black: *PROPRIA* / Red: *LUC*

Under green arches: Red: *MAR* / Black: *LUCAS* / Red: *LUCAS* / Black: *LUCAS*

Here we find letters doubled up in the writing line, often at half-height, but occurring in quartered and other reductions – a Late Antique habit found in Byzantine applied lettering as well as in manuscripts, but already seen in Britain in the epigraphy of the Roman period.

IN QUO has squared **U** over squared **O**; and *MAR* is written over *CUS* as a space-saving device.

17v. *DECIMUS*: Roman **D**, **E** with lozenge bar, all others geometric capitals Type A, apart from the **M**, which has round arches. There are seven instances of *IOH*, six of which have a round-arch **H** and only two **A**s are geometric Type A, with an angle-bar. All **O**s are squared, only the **Q** is round.

3. Gospel of St Matthew: f. 18v - 89v

18v. *MAT(thew)*: uncial **M** overlapped by a Greek **A** and followed by a squared **T**, with spirals at line ends.

19r. *GENERA*, with third-sized *TIONUM* below: large uncials apart from one upright Greek **A** and two gate **N**s.

23v. *EXPLICIUNT / CAPITULA / LECTIUNUM*: Light Type A geometric capitals. NB round O, tall proportions like Rustic.

25v. Full colour picture page. *O AGIOS / MATT / HEUS*.: Type A capitals, unusually well-controlled (ILLUS. 9:12A).

27r. Opening of Matthew. Second full page display letters. *LIBER GENERATIONIS IHU*: Bold Type B geometric capitals, followed by half-size *XRI FILII DAVID PHILI ABRAHAM* with Greek Phi. Eleven quarter-size doubled-up letters: AV inside the D of *DAVID*, I / I above one another in *FILII*, and *ABRA / HAM* with the first four letters above the last three.

29r. Full colour display page. *XRI / AUTEM / GENE / RATIO*: deliberate play with curvilinear and geometric forms of C/O/M and S. No angular P or R. On this page occurs the rectilinear 'boxed' ampersand, which may stand for ET, or be used as part of a word, as in *ESSET*.

Except for gate N, there is a preference for large half-uncial shapes for initials.

Between the entry above and the entry below there is a section of sixty folios on which there is no decorative titling, and the Type B capitals on folio 29r are not completed. This is in the greatest possible contrast to the Book of Kells, which has ambitious titling and decorative capitals throughout. This is a pattern which continues throughout the volume, with the decoration concentrated at the beginning and end of the Gospels.

89v. Light Type A geometric capitals:

<i>EVANGELIYM</i>	<i>INCIPIUNT</i>
<i>SECUNDUM</i>	<i>CAPITULAE</i>
<i>MATTHEUM</i>	<i>SECUNDUM</i>
<i>EXPLICIT</i>	<i>MARCUM</i>

In *Mattheum* the Ts are Roman, but in *Explicit* the T has a square base. In the first column *Secundum* the D is Roman, and in the second it is uncial. The Ms are three-bar gate throughout, and the Cs and Us are squared. This faces the following folio with Type B capitals on a rubricated background.

4. Gospel of St Mark: f. 90r - 130r

90r. *MARCUS* on red dotted background, all curvilinear apart from Type B-style A.

90v. *INCIPIUNT / CAPITULA / LECTIIONUM*: light Type A geometric capitals.

91r. *ESAI AE*: the AI half size above the AE, rhythm: CC/GG/GG.

93r. *EXPLICIT SECUN / DUM MARCUM*

93v. Full colour illustrated page with lightweight Type A geometric capitals.

OAGI / US

MA / CUS

R

95r. Opening of Mark. Full page display letters. *INITIUM / EVANGELII / IHU*: Type B geometric capitals followed by half-size curvilinear / geometric mix with a vertical-backed Greek A, and angular footed T.

Between the entry above for folio 95r and the entry below for folio 130r, no major titling or decorative letters occur. This is a remarkably long section in which the work of a rubricator is absent.

130r. *EXPLICIT / LIBER MAR*: Type A capitals. *CUS*: half-size.

5. Gospel of St Luke: f. 131r - 203r

131r. *LUCAS SYRUS*: Type B. Large half-uncial I holding round uncial U, square geometric capital C, Greek A with upright back, two geometric Ss, cursive y, Roman capital R, uncial U and geometric S. No perceptible rhythm of changes.

131v. *INCIPIUNT / CAPITULA*: Type A.

PRAEFATIONE: Type B. P, decorative beast initial; *RAEFATIONE*: upright back Greek A (twice); the last NE half-size, one letter above the other.

132r. Greek A in the text hand.

133v. Close of column 1 has a decorative minuscule finish.

136v. *JUDAS PACISTITUR*: Type B. Curvilinear decorative JU, uncial D inside the U, geometric capitals until the half-size uncial UR, one letter above the other.

137r. Uncial H with geometric A under the arch.

EXPLICIUNT / CAPITULA / SECUNDUM LUCAM: Type A geometric capitals with three-bar gate M, with the exception of Roman D in *SECUNDUM*.

137v. Opening of Luke. Full colour picture page, lightweight Type A geometric capitals, with curled G.

O AGIOS

LUCAS

139r. Full colour display page. *QUO / NIAM*: Type B. Curvilinear large QUO followed by NIAM in geometric capitals, with round-arch M followed by *QUIDEM*: round QU, then geometric capitals ending with the M consisting of one vertical and three horizontal bars. Followed by half-size *MULTI CONA*: round-arch M, geometric capitals with lozenge O, ending with quarter-size NA, one letter above the other, followed by *TI SUNT ORDINA*: geometric capitals with Roman O and D.

139v. *FUIT IN DIEBUS*: Type B. Large curvilinear uncial FU, geometric capitals until the square B of *DIEBUS* when u and s are placed one above the other in the text hand pen.

With the exception of the two entries below there are no major decorative letters or titling until the end of Luke is marked in light titling in f. 203r. Remarkably, in comparison to the comprehensively decorated Book of Kells, for sixty-two folios the 'rubricator' who executed the decorative letters is not involved.

162r. Large Greek A in text hand.

171v. Large geometric A in text.

203r. Lightweight Type A geometric capitals.

EXPLICIT LIBER: B ascending above line and bifurcated.

EVANGELII: geometric capitals with curly G and high L.

SECUNDUM: geometric capitals with gate M and Roman D.

LUCANUM: geometric capitals with gate M.

6. Gospel of St John: f. 203v - 259r

203v. Type B. *IOHANNES*: Roman IO, uncial H, Greek A, two gate Ns, and ES half-size, one letter above the other.

204r. Column 1. Lightweight Type A geometric capitals.

Red: *INCIPIUNT*

Black: *CAPITULA*

Red: *SECUNDUM*: Roman D, round-arch M.

Black: *IOHANNEM*: square O, tall square H with bifurcated stem, two gate Ns, one three-bar gate M.

Column 2. Type B capitals. *IN PRIN(cipio)*. This is another folio with both styles of capital.

205v. Lightweight Type A capitals.

LEGENDA: curly G, Roman D.

PRO DEFUNCTIS: square O, Roman D, uncial F, ligatured geometric U/N.

LEGENDA IN QUA: curly **G**, Roman **D**, large half-uncial **Q**.

DRAGESIMA: Roman **D**, sickle **G**, the rest geometric capitals with three-bar **M**.

208r. Column 1. *DIC(it simoni)*: curvilinear capitals in diminuendo.

Column 2. *IN SCI* followed by text-size *Iohannis*. Large geometric decorative capital **IN** with geometric infill, the first two downstrokes plaited into a curvilinear interlace, and two spiral finishes on the last downstroke of **N**.

209v. Full colour picture page. Lightweight Type A geometric capitals.

O AGIOS

IOHAN / NES

211r. Full colour display page. Opening of John. *IN PRIN*: Type B. **N** with a **Z**-link.

CIPIO: half-size **I** inside the **C**, lozenge **O** with bar-serifs. *ERAT*: uncial **ER** with half-size geometric **A** over the uncial **T**.

With the exception of one single decorated **M**, there are no decorative letters between the above entry and folio 259.

246r. Initial uncial **M** in *Maiore*. Full uncial with two sets of triple dots in the arches and a single line of red dots around the outline.

253r. Note that from this page to the end of the manuscript there is show-through from the pigment laid as a ground for half-uncial decorative letters.

259r. Lightweight Type A geometric capitals.

EXPLICIT LIBER: Square **B** with top loop right.

SECUNDUM: Roman **D**, three-bar gate **M**.

IOHANEN: Square **H** with top loop right.

Analysis: Differences between Kells and Lindisfarne

The most obvious difference between the Book of Kells and the Lindisfarne Gospels, then, is that Lindisfarne has long tracts, for up to sixty folios, where there is no decorated initial to interrupt the plain flow of the text. The manuscript appears to have been written in a workshop where there was a marked separation between the craftsmen working on it, with decoration from two quite distinct traditions: of Late Antique portrait painting, and of Insular Celtic abstract decoration. Though the traditions combine at some points, each has a distinctive type of capital. Type A 'Anglo-Saxon' geometric display letters introduce and complete each gospel, and each evangelist has his portrait page, with his name in the same style of letter. In comparison, in the Book of Kells, as the norm on each folio, we see between three and five decorated initials, with frequent coloured headings, and the opening pages of each gospel are richly decorated. Portraits are stylised, not naturalistic. The decoration includes complex play with letter-form, where in Lindisfarne there is a preference for bird and beast interlace.

The Book of Kells shows a knowledge of a live tradition of the epigraphic type of geometric capital. In contrast, although the Lindisfarne Gospels are in the process of perfecting the Phase II 'Anglo-Saxon majuscule' used by the hand of the main text, there is in it a definite sub-stratum of the bolder epigraphic display letters, used by 'the rubricator', who is associated with the Celtic decorative schemes. It is he who paints red-dotted backgrounds, puts lines around initials in red dots, and uses bold geometric capitals of a greater variety of form than the Anglo-Saxon majuscule type: all of these are habits which are seen in the Book of Durrow (see ILLUS. 9:2), the first Insular manuscript to place some epigraphic geometric capitals on horizontal banding, written c. 675.²³

If we collect together the letter-forms which clearly belong to the originally epigraphic family whose existence was first suggested by Julian Brown, then we find a letter that is designed with a square or rectangular body rather than the round, double-bow version of uncial or Roman capitals. As Julian Brown described it, this adaptation was for purely practical purposes, being 'enlarged text letters made angular, a usage probably derived from

²³ B. Meehan, *The Book of Durrow: A Medieval Masterpiece at Trinity College Dublin* (Dublin, 1996), pp. 65, 73.

inscriptions in wood or stone.²⁴ As we find many of the geometric forms used in Insular manuscripts of the late seventh and eighth century inscribed on the early Christian monuments of Wales which may be dated to the late sixth century, it is a valuable exercise to assemble alphabets taken from epigraphic sources to compare with alphabets taken from those Insular gospels that make use of the epigraphic type of geometric capital.²⁵

It is important to notice a transition in the making of manuscript geometric capitals, when the letter-form ceases to be drawn throughout with a line of a constant width, and on a writing line of constant width, but instead becomes misshapen at the whim of the scribe. The letter that most frequently betrays departure from strict epigraphic formation is the letter A. This is surely a chronological indicator which distinguishes an early period of use, where the alphabet is used as a live tradition, from a late period, where the letters have become stylized and decadent. In later manuscripts such as the Hereford Gospels, of the late eighth or early ninth century, we find a break in the left bow like a bracket mark (ILLUS. 9:15).²⁶ Southumbrian Anglo-Saxon manuscripts such as the Tiberius Bede of the early ninth century show the extent of whimsical debasement of the primal epigraphic style very clearly (ILLUS. 9:16).²⁷

The mixed-alphabet inscriptions of the seventh century are a vital transitional phase in Insular epigraphy, though they may seem crude in the light of the subsequent calligraphic phase. They are in the tradition of Insular geometric capitals, and, if this is not recognised, it has consequences on the provenancing of Insular books. The epigraphic type of geometric capitals is easily confused with Runic, and in the Lichfield Gospels we find 'lookalikes' of the Runes for D and M used without any relation to their meaning in Runic but as approximate

²⁴ Brown, 'The Palaeography of the Latin Text', p. 75.

²⁵ Higgitt, 'The Display Script of the Book of Kells', lists epigraphic parallels, but fails to take into account any of the geometric capitals in mixed-alphabet inscriptions of the Welsh corpus, noting that 'they are absent from Wales with the exception of one offshore example on Ramsey Island' (p. 216).

²⁶ Hereford Cathedral Library MS P. I. 2; R. Gameson, 'The Insular Gospel Book at Hereford Cathedral', *Scriptorium* 56 (2002), pp. 48-79.

²⁷ M. P. Brown, 'The Tiberius Bede', in *The Making of England* (Toronto, 1991), pp. 215-7.

decorative forms of Roman letters (ILLUS. 9:17). Michelle Brown claims the Lichfield Gospels as an English production on the grounds that its remarkable geometric capitals, the most epigraphic in appearance of all those that survive, use 'full Runic characters'.²⁸ But the habit of using an X-shaped cross bar in A and M is not peculiar to Runic. How far Runic could have percolated into the consciousness of Welsh or Irish letter-cutters at the time of the Ogham / Latin bilingual inscriptions of the sixth century, when mixed-alphabet inscriptions with angular letter-forms first appear, is difficult to ascertain.

Familiarity with the sight of decorative Runes, and an appreciation of their graphic attractiveness, but not of the actual use of the alphabet, could explain the appearance of the Rune-like letter-forms in manuscripts of the Celtic family. We find the same 'Runic' form used among the variations within the geometric display letters of the Book of Kells (ILLUS. 9:18) as those in the Lichfield Gospels. This should not lead to assumptions of anything more than a passing familiarity with one or two Runes that bear a resemblance to Roman capitals.

A, B and C Types of Geometric Display Alphabet

Much more intriguing, and relevant, among the range of variations, are those letters which are deliberately adapted so that the letter-form grew from the same initial vertical stem line in each case (ILLUS. 9:19). Both in early Christian inscriptions and in the Celtic family of gospels we can find the letters A, B, C, D, E, F, H, M, P, R, S, and U treated in this way (see Chapter 7, and ILLUS 7:5). It will be seen that this alphabet has discernible links with the 'barbaric' capitals of those first non-classical capitals that began to disrupt the pattern of recognisably Roman letters in Insular inscriptions of the Group I period.

I have classified this style of capital as Type C. In manuscripts this peculiar design enables the letter to be placed between bold horizontal banding, and yet remain legible. The accompanying diagram demonstrates the illegibility of square capitals placed on strong horizontal bands: the comparison is drawn between Anglo-Saxon majuscule in bands, and Type C in bands (ILLUS. 9:20). The concept of a letter as a device that is constructed on a vertical stem line is an unusual one, but it was used by the framers of the Ogham alphabet, as well as the framers of 'tree' runes. The most obvious of these Type C capitals to suggest that they emerge from a milieu that was familiar with the straight-stroke alphabet of Ogham is the

²⁸ Brown, *The Lindisfarne Gospels*, p. 383.

three-bar M that consists of a vertical stroke crossed by three minor bars: it is a sideways three-bar gate M. (See the Lindisfarne Gospels folios 95 or 139 – ILLUS. 9:21A and B – where the related letters S, C, F, G and E are similarly constructed.) The associated lozenge O shape appears in the Ogham *forfeda* before it is seen in Insular gospels of the eighth century.²⁹ Type C geometric letters are rarely found in manuscripts of the first half of the eighth century, but one such appearance is in the early-eighth-century volume of Pliny's *Natural History* now at Leiden.³⁰ Here they are used in mixed-alphabet display lettering, and apparently in situations where it is advantageous to use them, since their extreme perpendicularity saves space when a letter like C occurs between two letters that unavoidably take up space, such as A and T (ILLUS. 9:22A). Scholastic Ogham was preserved by the learned classes, perhaps as the code of a scholarly elite: for instance, the manuscript of a Gospel of St John³¹ is signed by its scribe, Peregrinus, in Ogham characters. This manuscript is dated to the second half of the eighth century and belongs to a group, including several St Gall manuscripts (see below) and the Books of Dimma and Mulling, that use geometric capitals as display lettering.³² It may be judged more likely that Ogham influenced the creation of geometric display capitals than that Runes did.

In the Lindisfarne Gospels we find a clear division between the two types of geometric capitals, the more 'epigraphic' Type B, associated with the Celtic family of Insular gospels, and Type A, classified as 'Anglo-Saxon majuscule' by Julian Brown. In the Book of Kells we find no Type A capitals, but a greater variety in Type B letter-forms, with included among them the sub-group, Type C, all of which are based on a single upright vertical stroke, as described above. It must be indicative of a difference in background training and tradition of eighth-century scribes working in Britain and Ireland, that we find manuscripts dated by their text hands to the eighth century, that use geometric capitals in a variety of ways. Both the Book of Kells and the Lindisfarne Gospels have display letterers who are very familiar with

²⁹ McManus, *A Guide to Ogam*, p. 13.

³⁰ Universiteitsbibliotheek MS Voss, Lat. F. 4, ff. 4-33.

³¹ RIA MS D. II. 3, fols. 1-11; Alexander, *IM*, no. 47.

³² The Book of Dimma, TCD MS 59 (*IM* no. 48); the Book of Mulling, TVD MS 60 (*IM* no. 45).

geometric capitals; but we can say that in the earlier Lindisfarne Gospels, with their fine Anglo-Saxon text hand, the geometric display letters are subsidiary to the Roman-style capitals. In the later Book of Kells, the product of Iona and/or of Kells, the geometric capitals are supreme, and of greater variety. In contrast, the Northumbrian Gospel Book, dated by Lowe and Alexander to the first half of the eighth century, attempts geometric capitals without knowing the precise construction of the alphabet.³³ In the example chosen for illustration, the *Christi Autem* is illegible as a result (ILLUS. 9:23A); the *Quoniam* page from the same manuscript (ILLUS 9:23B) shows the strangely muddled effect of mixed geometric and curvilinear letter-forms, as knowledge of the precise use of the display alphabet was lost. There is an O from the Type C alphabet, and a gate M and N, with quite loose curvilinear letters, but they are not arranged in a regular alternating pattern.

In the St Gall library, evidence survives to show that Irish scribes were using accomplished monumental geometric display lettering in the second half of the eighth century, on productions less grand than the Book of Kells. We see this in three manuscripts: St Gall Stiftsbibliothek Codex 51, Codex 60, and Codex 1395 (three leaves surviving). These were brought to St Gall from Ireland in the ninth century.³⁴ Peter Meyer has commented in detail on the geometric capitals of St Gall 51 (ILLUS. 9:24). He does not find their effect aesthetically pleasing:

The verticals and cross-strokes are equal in width, which gives the script a monotonous and 'pasty' look; the spaces are of the same width as the verticals and the letters. This grouping of letters in bands, and their compression between horizontal lines, is thoroughly unclassical. In Roman epigraphy, which offers the best comparison, every letter is an individual in free relationship to its fellows in the picture space. In comparison the letters in these pages look degraded, and robbed of their freedom and mobility. Lines of similar 'pasty' letters are to be found in Coptic manuscripts ... It is possible that they originated in textiles, their geometrical form points to an adjustment to warp and woof ... The St Gall lettering also suggests *appliqué* work. In Kells, where

³³ BL Royal MS I. B. VII ; *CLA* ii, 213; Alexander no. 20.

³⁴ Alexander, *IM*, nos. 44, 60 and 50/57/58.

the script bands are enclosed in a coloured border, the textile quality comes out still more clearly ...³⁵

These are important comments, and confirm that the search for the origins of geometric capitals must concentrate on the writing instruments and writing surfaces that affected their peculiar appearance. Meyer's instinct that this was originally affected by the warp and woof of weaving applies equally well to a letter-form designed to cope with the 'warp and woof' of the graining in wood. The fact that the evidence for the alphabet in manuscript use (as a live tradition during the eighth century) is so very variable may have some connection with the geographical variation in the quality of stone available in particular areas. If the stone was naturally good and easily quarried, this would encourage a move to monuments and building in stone. If not, this would have the practical effect of a continuation of the use of wood for building and memorials. Ann Hamlin speculated on the reason for the lack of inscriptions at known centres of scholarship, and a preference for wood may lie behind the dearth of early monuments and inscriptions at important centres like Armagh or Bangor,³⁶ where the local stone is is not good. It may possibly also lie behind those miracle stories of 'tombstones' that float. A memorial of wood would have a finite life-span, but also, should it fall into the sea, it would float, as a stone version would not.

If we accept that the type, and combinations of type, of geometric capitals used in an Insular manuscript may give some indication of the location of the scriptorium in which they were produced, or in which the scribe using them was trained, and also of the period during which particular combinations or adaptations may have been popular, then it may be possible to refine the chronological listing of manuscripts made by John Higgitt at the close of his article on the display hand of the Book of Kells.³⁷

³⁵ J. Duft and P. Meyer, *The Irish Miniatures in the Abbey Library of St Gall* (Olten, Berne and Lausanne, 1954), pp. 130-4.

³⁶ A. Hamlin, 'Some Little-Known Ulster Inscriptions', in Higgitt *et al.*, eds., *Roman, Runes and Ogham*, p. 64; see also eadem, 'Crosses in early Ireland: the evidence from written sources', in Ryan, ed., *Ireland and Insular Art*, pp. 138-140.

³⁷ Higgitt, 'The Display Script of the Book of Kells', p. 233.

Three Kinds of Insular Manuscripts using Geometric Capitals

Insular manuscripts which use geometric display capitals may be divided into three stylistic families: clearly Celtic, Hybrid, and clearly Anglo-Saxon:

1. Insular Celtic family (**IC**), canonical half-uncial in single column, with use of epigraphic Type B geometric capitals.
2. Hybrid (**H-S**, Hiberno-Saxon), double-column with Type B and Type A capitals mixed.
3. Anglo-Saxon (**A-S**) with double- or single-column text hands clearly transformed from the canonical style of IC Gospels, and use of Type A geometric capitals, whimsically elaborated.

Some well-known manuscripts will now be classified according to this tripartite scheme.

Seventh Century

Trinity College Dublin, MS 57 [the Book of Durrow], c. 675. **IC**.

Durham Cathedral Library, A. II. 17 [the Durham Gospels], late seventh century. **IC**.

BL Cotton Otto C. V. and Cambridge, Corpus MS 197 B [fragments of the same manuscript], later seventh century. **IC**.

Early Eighth Century

Lichfield Cathedral Library, Book of St Chad [Lichfield Gospels]. **IC**.

Freiburg, Universitätsbibliothek MS 702. **IC**.

Augsburg, Universitätsbibliothek, Cod. 1. 2. quarto. 2 (not classified)

Paris, BN. MS lat. 9389 [the Echternach Gospels]. **H-S**.

Bodleian Library, Rawlinson MS. G. 167. **IC**.

Cologne, Dombibliothek, Cod. 213. **H-S**.

BL Cotton Nero. D IV [the Lindisfarne Gospels], c. 715. **H-S**

Mid to Late Eighth Century

Trinity College Dublin, MS 58 [the Book of Kells]. IC.

Trinity College Dublin, MS 59 [the Book of Dimma]. IC.

Trinity College Dublin, MS 60 [the Book of Mulling]. IC.

Late Eighth Century

St Gall Stiftsbibliothek, Codex 51; Codex 60; Codex 1395 [the St Gall Gospels]. IC.

Paris, BN., nouv. acq. lat. 1587 [the St-Gatien Gospel Book]. IC.

Biblioteca Apostolica Vaticana, MS Barb. lat. 570 [the Barberini Gospels]. A-S.

Trinity College Dublin, MS A. 4. 6 ['The Garland of Howth']. IC.

St Petersburg Public Library, Cod. F v. I. 8 [the Leningrad Gospels]. HS .

Early Ninth Century

BL MS Cotton Tiberius C. II [the Tiberius Bede]. A-S.

Cambridge University Library, MS Ll. 1. 10 [the Book of Cerne]. A-S.

BL MS Harley 2965 [the Book of Nunnaminster]. A-S.

Bodleian Library, MS Auct. D. 2. 19 [the MacRegol Gospels]. IC.

Trinity College Dublin, MS 52 [the Book of Armagh]. IC. (Minuscule text.)

Hereford Cathedral Library MS P. I. 2 [the Hereford Gospels]. IC. (Minuscule text.)

Later Ninth Century

Lambeth Palace MS 1370 [the Macdurnan Gospels]. IC. (Single-column minuscule text.)

Conclusion

The manuscript illustrations from the list above clearly show that, from the epigraphic starkness of the capitals of the early-eighth-century Lichfield Gospels to the fantastic elaborations of the early-ninth-century Anglo-Saxon Tiberius Bede, there is a gradual abandonment of strict practice in the drawing and combining of geometric capitals. As the St Gall Gospels, in particular, show, in the second half of the eighth century, the strict epigraphic geometric capital tradition was still alive in the Insular Celtic family of manuscripts. But by the early ninth century, as we see in the Irish MacRegol Gospels, or the Breton St Gatiens Gospels of c. 800 (ILLUS. 9:25), they had entered on a period of debasement even at Birr, a major, and very wealthy, monastic house in Ireland, where the MacRegol Gospels were written (ILLUS. 9:26). The gospel book known as the 'Garland of Howth' (TCD MS A. 4. 6), dated to c. 800, seems to be among the last manuscripts by an Irish scribe to use geometric capitals in an accomplished manner.³⁸ The late-eighth-century Leningrad Gospels are remarkable in that they show a live scriptorium tradition in which three scribes capable of display script contribute to one gospel three quite different styles of capital (ILLUS. 9:28A, B and C), only one of which can be described as strictly geometric.

Gradually geometric capitals begin to lose any recognisable connection with a letter-form executed by cutting instruments. An Irish manuscript of the second half of the ninth century, the Macdurnan Gospels, though it preserves the curvilinear / geometric interchange seen in the Book of Kells, shows a complete debasement of the display script, whereas in the Book of Armagh of c. 807 it is still being used competently; but both of these manuscripts have minuscule scripts of high quality (ILLUS. 9:27).³⁹ Eventually Irish script developed broadly along this 'pointed' minuscule line and abandoned half-uncial, which may be the reason for the gradual redundancy of the display alphabet that was once twinned with the pure Irish half-uncial hand. It is rewarding to draw up epigraphic alphabets from the materials discussed in the next chapter, which are contemporary with the alphabets drawn from manuscripts in this chapter. It is clear that the understanding of angular letter-form in Group I inscriptions is much less advanced, and does not show scribal knowledge in its layout and

³⁸ Alexander, *IM*, no. 59.

³⁹ *Ibid.*, no. 70 and no. 53.

wording; therefore it seems that we can be confident that we are seeing a co-operation of letter-cutter's workshop and scriptorium, at major foundations, for a specific period in the eighth and ninth centuries. Before this we see lettering that is in the hands of craftsmen to whom calligraphy was not relevant, and after it an abandonment of the strictly geometric display letter which became alienated in the scribal world.

Chapter 10

ECMW GROUP II AND III: GEOMETRIC-STYLE INSCRIPTIONS WHICH CAN BE STYLISTICALLY RELATED TO THOSE IN OTHER CELTIC AREAS

This thesis has presented varied evidence to show that the angularisation of Roman letter-forms took place as a natural consequence of local developments within the British Isles during the Group I period. Although the angular letters of the mixed-alphabet style occur in Group I, it is not until the period of Group II that they are used in more ambitious sculptured monuments within a decorative scheme, in which the lettering is conceived of as part of the design, often appearing in a panel or framed layout. Here there are parallels with the layouts of manuscript pages. The use of manuscript terminology, conventions and contractions indicates that the craftsmen who executed this more developed type of memorial were integrated members of a community, familiar with more elaborate book arts than those who executed the Group I memorials. In this chapter the Group II inscriptions from Wales will be compared to contemporary memorials in other Celtic areas (Britain, Ireland and Brittany), and an attempt will be made to show that these kindred inscriptions, as a type, present a distinctive style which may be distinguished from Anglo-Saxon inscriptions of the same period. The aim is to establish clearly that Anglo-Saxon and Celtic epigraphy, though overlapping in certain situations in the seventh century, drew on different sources to evolve different styles of memorial-making.

When Insular craftsmen created an ambitious inscription, they might use elaborate, formulaic Latin to record the fact that they executed their work as a tribute, or offering, to God or to Christ. We find expressions like *in honore*,¹ *in commemoratione*,² or *in nomine dei*³ in these dedicatory inscriptions, with the cross or slab referred to as *signum*,⁴ *imagenem*⁵ [*sic*] and *opus*.⁶ In the Nendrum slab, discussed below, the use of the expression *prim[um]*

¹ Okasha, *Hand-List*, no. 29.

² *ECMS*, Tarbat no. 10.

³ *ECMW* no. 223.

⁴ Okasha, *Hand-List*, no. 21.

⁵ Kermode, *Manx Crosses*, no. 27.

⁶ Okasha, *Hand-List*, no. 68.

opus may be a reflection of the Irish use of the word *prim* with the sense of ‘chief’ or ‘most important’. In other words, the monument, as a work, exemplified the highest quality of which the craftsman was capable.

Some varied inscriptions in geometric letters from Celtic areas

Appendix 2 lists a selection of inscriptions, from a wide geographical area, which may be said to have a resemblance in that they use geometric forms, many of them minuscule in origin. References to this list will be given below. Some newly-found, or re-discovered, inscriptions are beginning to enlarge our understanding of the extent of the repertoire of the geometric alphabet. The Dull inscription, for example, on a grave slab fragment recently found in the infill under the flooring of a rebuilt church in Perthshire dedicated to Adamnán, is the first in geometric style to be recovered from a known Columban foundation in Scotland (see Appendix 2, Perthshire 1; ILLUS. 10:1).⁷ It accompanies a simply-carved outline cross, in contrast to the two other known Scottish inscriptions in the same style at Tarbat and Lethnott, which are on elaborately-sculpted pieces. However, in their different ways, all three are precise and stylish. With its well-shaped wedge serifs, the Dull inscription shows a knowledge of manuscript display capitals, but uses them in a four-line layout, with calligraphic serifs and sinuous pen-formed I; by contrast, the Tarbat and Lethnott inscriptions have epigraphic line endings and more typographic letters. The slab is of garnet-bearing mica-schist, cut extremely well with an edged chisel. The thinness of such slabs, and their suitability for incorporation into later building schemes on the same site, no doubt explains the fact that few have survived intact. These three Scottish examples show that the same style of geometric letter could be used with a mason’s epigraphic understanding, as in the case of Lethnott and Tarbat, or with a scribe’s calligraphic understanding, as in the case of Dull.

As we have seen in Chapter 7, the line endings of inscribed letters can give a guide as to the workshop milieu in which the monument was designed, and, in the case of scribal work, can perhaps suggest a geographical location. The Dull inscription, the Lindisfarne Gospels and the Lichfield Gospels are believed to be roughly contemporary in the first half of the eighth century. But some parts of the Lichfield Gospels differ from the others in the form of display capitals they employ, which are the most severe and epigraphic of all the manuscript examples (see Chapter 9). It is consistent with the argument that the Lichfield Gospels come from a

⁷ Will *et al.*, ‘An eighth-century inscribed cross-slab in Dull’.

scribal centre that is not Lindisfarne that its geometric capitals (there are two types, assumed to be by two hands) have symmetrical serifs top and bottom. This is particularly noticeable in the M of the Chi-rho carpet page (see ILLUS. 9:1A), both in the *autem generatio* and in the *erat cum esset*. The method of making horizontal bars is different, and the rectangular O and A forms of Lichfield do not assort with the Lindisfarne range. But they do assort with the range that we find in the St Gall Gospels, an Irish manuscript of the second half of the eighth century.⁸

In the finish of the line ends of the Lichfield Gospels we have a characteristic that may be compared with the finish of some geometric letters in stone: here the line ends are symmetrical. ILLUS. 10:2 shows, enlarged from the line block of *ECMS*, the serifs of the fishtail-seriffed *ECMS* Lethnott no. 1 (Appendix 2, Forfarshire 1). This was discovered in 1884, in circumstances similar to the Dull inscription above, in the infilling of the floor of the present Lethnott church. The fragmentary inscription, in Old Red Sandstone on a highly-decorated cross-shaft, is cut in very fine style using the scribal alphabet classified as Type C in Chapter 9 for E and C (see ILLUS. 9:19). It is unique in using a lozenge-bodied minuscule d, in the Irish manner, and in using a three-bar M with a half-size central downstroke linked to the outer strokes only by the serifs at its head.⁹

The inscription known as *ECMS* Tarbat no. 10 (Appendix 2, Ross 1; ILLUS. 10:3 with text and translation) has been studied closely by John Higgitt; his association of this geometric style of letter with the Insular manuscripts of the eighth century was further elaborated in his paper on geometric lettering in the Book of Kells.¹⁰ This cross-slab inscription is a seminal one for the understanding of the inter-relationship of manuscripts and inscriptions in the eighth century, and their respective dating. Further fragments of the monument, which is of the highest quality, have been found in the recent excavations by Martin Carver at Portmahomack.¹¹ The inscription is on the edge of the greenish sandstone monument, and is unique in being cut in relief letters. These include lozenge O with strongly-barred horizontals

⁸ MS St Gall 51.

⁹ I am grateful to the National Museum of Scotland for the opportunity to examine closely the Tarbat and Lethnott inscriptions.

¹⁰ Higgitt, 'The Pictish Latin Inscription at Tarbat'; idem, 'The display script of the Book of Kells'.

¹¹ M. Carver, 'An Iona of the East: The Early Medieval Monastery at Portmahomack, Tarbat Ness', *Medieval Archaeology* 49 (2005), pp. 1-49.

top and bottom, gate M and N, half-uncial a, h, x and minuscule r. It will be seen that they sit four-square on horizontal guide-lines; there is no sign of any pen angle, nor any sign whatever of the use of a broad pen. They have the appearance of letter-forms whose shapes are dictated by the tools with which they have been cut. On the other hand, as shown above, those of the recently-discovered Dull inscription are cut forms of a scribally-adapted letter, as they have angled wedge serifs. More significantly, the latter are clearly designed as a four-line book script, and not as two-line display capitals. So they represent a hitherto missing link in the development of Insular geometric capitals, between those many Welsh Group I inscriptions and a few Scottish that are mixed-alphabet but technically minuscule, and those that are two-line capitals on a par with those of the gospel books.¹²

In the light that has been shed by John Higgitt's work, it is now being realised that some long-known memorials may be placed in a grouping of mixed-alphabet style that show definite links to manuscript-style geometric inscriptions. Notably Abbot Samson's cross shaft at Llantwit Major, Glamorgan (Appendix 2, Glamorgan 3; ILLUS. 10:4 with text and translation) can now be linked, through its wording, its letter-forms and an identification of its named ecclesiastics, with a group including the Tarbat and Maughold inscriptions, dateable to the eighth century.¹³ On Abbot Samson's cross-shaft we find scribal terminology like *incipit* and the scribal practice (when presenting a double letter – in this case the ms of *summi*) of rendering two different forms of the letter one after another. This is seen in the Tarbat example in *comm[e]mora[ti]one*.

There are similar new developments in the Irish corpus of inscriptions. Following the recognition of the Toureen Peacaun East Cross shaft inscription (Appendix 2, Tipperary 1; discussed above in Chapter 7) as a complex composition in geometric lettering, two fragments

¹² Will *et al.*, 'An eighth-century inscribed cross-slab in Dull'; K. Forsyth, 'HIC MEMORIA PERPETUA: the inscribed stones of sub-Roman Southern Scotland', in S. M. Foster and M. Cross, eds., 'Able minds and practised hands': *Scotland's early medieval sculpture in the 21st century* [Society for Medieval Archaeology Monograph series] (Oxford, 2005).

¹³ ECMW no. 223. The earlier dating of Abbot Samson's cross-shaft was first suggested by C. A. Raleigh Radford, 'Two dateable Cross Shafts at Llantwit Major', *Archaeologia Cambrensis* 132 (1983), pp.107-115. Radford's dating is used in *CEMISSSW*; see now P. Sims-Williams, *The Celtic Inscriptions of Britain* (Oxford, 2003) pp. 277-8.

from County Down have been identified as belonging to another in the same style.¹⁴ In H. C. Lawlor's 1922-4 excavations of St Mo Chóe's monastery at Nendrum, Co. Down, a fragment of a slab was found with unusual angular letter-forms (Appendix 2, Down 1; ILLUS. 10:5).¹⁵ To interpret them, Lawlor asked for the advice of the expert in the field of inscriptions, R. A. S. Macalister, who read what he supposed were 'runes' as 'of the chief abbot' in Old Norse.¹⁶ When he had first seen an inscription in this style from the 1909 excavation at Toureen Peacaun in County Tipperary, he had felt a similar assurance that he was seeing Runic characters; in Professor Duignan's 1944 excavation at the same place a third example was found, on a small slab.¹⁷ In Volume II of *Corpus Inscriptionum Insularum Celticarum* (1949), Macalister included a notice of this new find and of the cross-shaft from Toureen Peacaun, described above.¹⁸ At this stage he admitted that he had at first taken the cross-shaft lettering to be an inscription in Runic, but had been corrected later by H. G. Leask, and convinced otherwise.¹⁹ Nevertheless, the Macalister label of 'Runic' has been difficult to detach from the Nendrum inscription. John Higgitt appears to have been the first to suggest, in print, that it was executed in Insular display capitals.²⁰ In 2001 Ann Hamlin made it quite clear that the Runic theory was doubtful, and closed her comments with: 'It would be interesting to know if any epigrapher would be prepared to attempt a reading of this puzzling stone.'²¹

The inscription is on one of two surviving fragments of a very large decorated slab, expertly designed, the arcs of its circular device apparently cut with mechanical aids.²² Crosses

¹⁴ G. Charles-Edwards, 'The Nendrum "runestone"', forthcoming; I am grateful to Mike King of the Downpatrick Museum, Betty O'Brien, Katherine Forsyth and Cormac Bourke for assistance and discussion.

¹⁵ H. C. Lawlor, *The Monastery of Saint Mochaoi of Nendrum* (Belfast, 1925), pp. 70-1.

¹⁶ *Ibid.*, p. 70.

¹⁷ *CIIC* II, p. 213; Okasha and Forsyth, *ECIM*, Toureen Peacaun 16; Waddell and Holland, 'The Peakaun Site'.

¹⁸ *CIIC* II, no. 924b.

¹⁹ *CIIC* II, p. 101.

²⁰ Higgitt, 'The Display Script of the Book of Kells', p. 212.

²¹ Hamlin, 'Some Little-Known Ulster Inscriptions', pp. 56-7.

²² The design of arcs seems to be related to a smaller slab at Clonmacnoise, *CMS* no. 82.

of arcs are found in manuscripts and inscriptions from the early to the mid-sixth century.²³ Complete, estimated at more than 3ft (1m.) across and longer on the vertical measurement, it would have been a major monument. Two fragmentary lines of the inscription survive (ILLUS 10:5, A: inscription and B: device); it can be seen that the last character in the topmost line is indeed 'rune-like'. But there is an alternative explanation for the apparent 'rune'. The line may be read, in Insular display capitals, as *PRIM[um] OPUS I[nter]*; the lower line may read *SACR*, if the first letter is a Type C alphabet three-bar S. There is an interlinear square O. A possible translation might be: 'the chief work (of a named craftsman) etc'. The symbol of a downstroke, crossed from right to left by a downwards diagonal, represents the Celtic abbreviation for *inter*.²⁴ The rune for N consists of a downstroke with a diagonal crossing downwards from left to right. Hence they look very similar, except that the diagonal stroke is different. Rather than constructing a theory that involves Viking or Anglo-Saxon craftsmen appearing at Nendrum in the second half of the eighth century and creating a major monument, decorated with a cross-of-arcs pattern previously associated with the native population,²⁵ we may feel that there is an alternative explanation. Nendrum's connections with foundations across the Irish sea in Scotland and on the Isle of Man have been discussed by Professor Bowen; Fiona Edmunds has recently completed a re-examination of these ecclesiastical links.²⁶ The Nendrum inscription, like the one from Dull, adds to a growing body of inscriptions from Celtic areas that come from a Latin-using milieu and that employ geometric display capitals for grand monumental letter-forms. They seem to indicate high-grade scriptorium activity in co-operative association with the workshops of artificers.

Staying with the examples of the Toureen Peacaun and Nendrum inscriptions, it is possible to link eighth-century scribal practice with epigraphy quite precisely. H. G. Leask persuaded Macalister that the angular style of the Toureen East Cross lettering was that of 'the decorative form of Roman capitals which we may see on the cup commonly called the

²³ Milan, Biblioteca Ambrosiana MS D. 23 sup. folio 1v; *ECMS* Whithorn no. 1, fig. 537.

²⁴ Dumville, *Abbreviations used in Insular Script*, pp. 3, 14, 18, 21.

²⁵ Hamlin, 'Some Little-Known Ulster Inscriptions', p. 60, pl. 23; D. Craig, 'The sculptured stones', in P. H. Hill, *Whithorn and St Ninian: The Excavation of a Monastic Town 1984-91* (Stroud, 1997), p. 439, no. 16.

²⁶ E. G. Bowen, *Saints, Seaways and Settlements* (Cardiff, 1969), pp. 191-6; F. Edmunds, forthcoming (in Proceedings of British Academy Conference on British-Irish Relations).

Ardagh chalice, or in the opening pages of the Lindisfarne Gospels',²⁷ but cut in stone. Furthermore, the third example in this style mentioned above, excavated by Duignan in 1944 at Toureen Peacaun (Appendix 2, Tipperary 2), demonstrates, beyond a shadow of doubt, that the 'rune-like' angular characters are the display capitals employed by eighth-century Insular scribes to accompany high-grade half-uncial pen letters.²⁸ Here we see the name *CUMMENE* in display capitals above another name, *LADCEN*,²⁹ in half-uncial (ILLUS. 10:6); the same contrasting of angular capital forms with curvilinear half-uncial occurs in the East Cross inscription, discussed and illustrated earlier in Chapter 7.

Contemporary with Nash-Williams's Group I, three inscriptions from Kirkmadrine, all with a circular rim and a Latin cross with open rho, show the evolution towards angular display capitals (Appendix 2, Wigtonshire 1-3; ILLUS. 10:7).³⁰ In these we see the boxed ET ligature that will appear later as a decorative ampersand in the Book of Kells (see ILLUS. 9:7, f. 8r, end of third line up); these squared pairings of ET, LI, and FI are cloned from the common epigraphic versions of FILI seen in *ECMW* Group I. Crudely as these angular letters were cut, there is a discernible continuum in their evolution; and the Nendrum inscription is clearly part of it. The fragmentary inscription to Saturnbiu, found on Ramsey Island off the Pembrokeshire coast in 1967 (Appendix 2, Pembrokeshire 3) is of a type closely related to the Nendrum inscription.³¹

²⁷ *CIIC* II, p. 101; E. Rynne, 'The date of the Ardagh Chalice', in M. Ryan, ed., *Ireland and Insular Art*, pp. 85-9.

²⁸ Okasha and Forsyth, *ECIM*, Toureen Peacaun no. 16. Four other fragments at Toureen Peacaun employ display capitals: *ECIM*, nos. 8, 22, 37, 39.

²⁹ The medial stop between the d and the c noted by K. Forsyth in the *ECIM* drawing is rather, in my opinion, a flaw in the stone, of which there are other examples.

³⁰ *CIIC*, nos. 516, 517, 518; Thomas, *Whithorn's Christian Beginnings*, pp. 3-13.

³¹ Okasha, 'A New Inscription from Ramsey Island'.

Geometric lettering in Insular epigraphy: why it might be used for a grand *opus*

Though no other example of the style has been found, so far, on the site, the Nendrum inscription does have a kindred of related inscriptions, and its style of lettering, peculiar to a certain time, is deliberately chosen for a grand memorial. In its manner of cutting, the inscription has much in common with some Breton examples, in light angular letters that are scored in a friable slate, with bored line ends to guard against any accidental elongation of the downstrokes.³² The manner of cutting of the elaborate design on the Nendrum fragments, to which the lettering appears as a form of caption, is tightly controlled, with the use of a compass-like instrument to score the triple band that bounds the design.

The surviving fragments of the decorative device on the Nendrum slab demonstrate that it is complex and ambitious, which might be expected from a designer familiar with geometric capitals. An attempt to reconstruct the design (see ILLUS. 10:5B), by extending the arcs present on the fragments, produced an inconclusive result.³³ The design appears to be an ambitious variation on the common cross-of-arcs, quatrefoil or hexafoil. Though there is an example at Clonmacnoise, Macalister noted it as 'very uncommon'.³⁴ It may be of a cross-type, known from the Isle of Man, having a multiple hexafoil as an overall ground.³⁵ This is made more likely since the style of lettering, the use of elaborate language and a design utilising the cross-of-arcs within a triple rim link the Nendrum example to a memorial to a pre-Viking Bishop of Man at Maughold (Appendix 2, Isle of Man 2; ILLUS. 10:8).³⁶ Its text, read by Macalister as *XPI NOMiNE ITSPLI EPPS DE INNSUL* [illegible] and *IN IHU XPI NOMINE* and *CRUCIS XPI IMAGENEM* [*sic*], utilises *nomina sacra* and scribal superscript contractions, and attempts ambitious letter-forms that are now unreadable.

Quatrefoil cross-of-arcs designs are found on early stones in the Western Isles, at Whithorn and Kirkmadrine (ILLUS. 10:7) in Galloway, in south-west Wales, in Ireland, and

³² *IEMB* Ille-et-Vilaine, Il Bais (1).

³³ As executed by the writer, the design may have had a Latin cross on a ground of hexafoils, but the line ends of the cross-arms, in this case, were bifurcated.

³⁴ *CMS* no. 82.

³⁵ Kermode, *Manx Crosses*, p. 112, Maughold 28.

³⁶ Kermode, *Manx Crosses*, p. 111.

on the Isle of Man.³⁷ If it can be shown that the Nendrum fragments employ the rarer hexafoil design, then there may be a link with Maughold 27, though, as craftwork, this is not at all accomplished in comparison. It is much smaller than the Nendrum slab, and its less accomplished lettering is set vertically in relation to the design, rather than horizontally. Verticality seems to be characteristic of pillar-stones rather than of slabs; John Higgitt comments: 'The vertical arrangement of the lettering has parallels in the Irish Sea area and is very probably Celtic in origin'.³⁸ However, the phraseology of Maughold 27 is grander than the execution of its letter-forms, which are of a similar geometric style, but use more minuscule forms. At Nendrum we have capital A (uncial), P and R (Roman), whereas the Maughold inscription uses squared minuscule a, d, r and p. It is the Isle of Man example that uses a systematic design of squared minuscules in a two-line layout, suggesting links with the Welsh corpus rather than with the Northumbrian or North British.

Interchange between scriptorium and sculptural workshop, between calligraphic and epigraphic lettering

As we have seen, at the beginning of the seventh century, although letter-cutters showed no interest in replicating high-grade scribal half-uncial, they did use non-scribal display letters and heightened language, demonstrating knowledge of florid Latin vocabulary. A grandly-expressed epitaph such as that at Llangadwaladr, Anglesey, for Catamanus, a king of Gwynedd (Appendix 2, Anglesey 1; see Chapter 4, ILLUS 4:2), was obviously designed in a manner thought appropriate to that language and acceptable to his status.³⁹ Whatever model was in mind, it was not that of a high-quality gospel book. Nash-Williams's contention that high-grade scribes had a hand in the laying out of inscriptions on stone, as the model for the letter-cutter to follow, is not demonstrable during the period of his Group I, nor in the period shading into Group II. But at some point during the seventh or eighth century, we begin to see the use of manuscript terminology, contractions and ligatures in inscriptions. It may be no

³⁷ Fisher, *Early Medieval Sculpture*, pp. 12, 169; Thomas, *Early Christian Archaeology*, pp. 120-1. R. Trench-Jellicoe, 'The Skeith Stone, Upper Kilrenny, Fife, in its context', *PSAS* 128 (1998), pp. 495-513.

³⁸ Higgitt, 'Words and Crosses', p. 138; idem, 'The Thornton le Moors inscription', in M. Brown and D. Gallagher, 'An Anglo-Viking Cross Shaft from Thornton le Moors, Cheshire', *Journal of the Chester Archaeological Society* 66 (1983), pp. 26-9.

³⁹ *ECMW* no. 13. See Chapter 4.

coincidence that it was also at about this time, the late seventh century, that scribes began to adapt geometric letters for use as display capitals. As suggested in Chapter 8 in the case of Clonmacnoise, if this interchange arose from a newly-established closeness between workshop and scriptorium, it might be that major monastic houses had so grown in size that they had come to include a settlement of lay craftsmen dependent on the monastery, who, in time, interacted with the existing personnel of the scriptorium.⁴⁰

It is rare to find an inflected scribal half-uncial letter rendered on stone; especially in Wales, letter-cutters continued to use a minimalist uninflected monoline for their letter-forms. When we see an Insular symbol that represents an abbreviated word, as we do in the Nendrum inscription, it tells us that the work comes from the period of Irish, and presumably Welsh, pocket book production which used many such symbols in the text, as well as angular display capitals to mark important *incipits*.⁴¹ On the mixed-alphabet Llanwnnws inscription (Appendix 2, Cardigan 4; see ILLUS. 10:13) in Cardiganshire,⁴² for example, we find the abbreviation of *q* with a superscript *i* for *qui*, *h* with a superscript dot for *hoc* and *no* with a superscript bar for *nomen*. Although the layout is four-line, with provision of space for ascenders and descenders, some of the letter-forms are squared minuscule: *h*, *u* and, critically, *a*. This is less grand in style than a geometric capital inscription like the Toureen Peacaun or Nendrum examples, but it is representative of the large body of such inscriptions at Clonmacnoise (see Chapter 8), where there are apparently no homogeneous geometric capital inscriptions, but many mixed-alphabet ones with angular adaptations of minuscule. To use geometric capitals on a memorial, then, might suggest special distinction in communities that were accustomed to high-quality gospel books with elaborate compositions in geometric letters at the gospel openings.

The dating of geometric-style inscriptions

If we associate geometric letter-forms with the highest book arts of the eighth century, we must do so in the knowledge that, for a much longer period, such angular letter-forms were used by letter-cutters before scribes utilised their sharply architectural forms to contrast with the full curves of the Phase II half-uncial hand. For about a century there may have been

⁴⁰ Edwards, 'Early-Medieval Inscribed Stones', pp. 33-38.

⁴¹ E.g. The Book of Dimma, TCD MS 59.

⁴² *ECMW* no. 125.

an overlap between epigraphic and calligraphic practice, when we see scribal knowledge shown in cut lettering. But by the mid-ninth century, scribes had allowed the geometric capital form to become decadent. Increasingly, as is clear from the great sequence of stones at Clonmacnoise, letter-cutters were able to render, well-spaced, the calligraphic forms of pen-lettering on stone.⁴³ The geometric capital, with its tight massing of forms, goes out of fashion. It is last seen in Welsh inscriptions in mixed-alphabet compositions such as that on Eliseg's pillar, Llandysilio yn Iâl (Appendix 2, Denbighshire 1), from the second quarter of the ninth century, which may be a deliberate antiquarian attempt to compose an inscription in 'old style'.⁴⁴ When we see an inscription composed entirely in a homogeneous geometric alphabet, with elaborate Latin and signs of scribal knowledge, as, for example, at Toureen Peacaun and probably at Nendrum, it should date from a period when the alphabet was a live tradition, of use and interest to letter-cutters and scribes alike.

The late alphabet in calligraphy and epigraphy

From Françoise Henry onwards, scholars have recognised the influence of decorative metalwork on Insular display lettering; like George and Isabel Henderson, she did not find it difficult to see that influences travelled from the applied art of metalwork to the scriptorium.⁴⁵ The decorative capitals of the *Cathach* have been studied in depth by Nordenfalk, and may be compared with succeeding styles of display lettering.⁴⁶ We find capitals that have been embellished with fanciful spirals and whorls drawn away from the points of their serifs, a fashion that begins in the *Cathach* and reaches a peak in the Lindisfarne Gospels. In the latter such embellishments are added to geometric capitals, an embellishment that I suggest would not have been made by any scribe who understood the alphabet to be an epigraphic one. A careful comparison of some scribal and cut forms illustrates the difference in scribal treatment over time: the adapted scribal letter is free to be expanded in ways in which it could not have been in stone, while the prototype epigraphic form remains angular, unembellished and graphically more powerful. It remained in practical use by stone-cutters in Wales, as on King

⁴³ Macalister, *CMS*.

⁴⁴ *ECMW* no. 182.

⁴⁵ Henry, *Irish Art*, p. 98; Henderson and Henderson, *The Art of the Picts*, pp. 87-121.

⁴⁶ Nordenfalk, 'Before the Book of Durrow'; Herity and Breen, *The Cathach*.

Samson's Cross at Llantwit Major (Glamorgan), into the tenth century.⁴⁷ If we look at cut letters in comparison with drawn ones, the decline in control of geometric letter-forms is striking, a decline that does not occur in the control of the inflected pen-formed letters of the text hands (ILLUS. 10:9).

Table 1. Key to ILLUS. 10:9 : epigraphic and calligraphic geometric letters compared

Stones	Manuscripts
A. Tarbat no. 10	B. Durham Gospels
C. <i>Saturnbiu</i> , Ramsey	D. Lichfield Gospels
E. Toureen Peacaun	F. Book of Armagh (dateable to 807)
G. <i>Gallmau</i> , Brittany	H. St Gaten Gospels
I. <i>Tome</i> , <i>ECMW</i> no. 259	J. Macregol Gospels (dateable to before 822)

ILLUS. 10:9 clearly shows that, between c. 700 and the first half of the ninth century, the manuscript forms became bolder and heavier, to the point of grotesqueness: the relationship to an obviously epigraphic letter-form was lost. Such a letter as the M, among others, of the Macregol Gospels would have been unreadable if it were inscribed on stone. It seems that, at the beginning of the eighth century, scribes were aware that geometric capitals were drawn from a cut form of lettering, but, as the century progressed and the alphabet developed a decorative life of its own in the scriptorium, the epigraphic prototype was gradually obscured by the flamboyance of its calligraphic offshoot. It is, apparently, an offshoot that has lost all connection with written majuscule pen forms.

Here the wide acceptance of the term 'half-uncial' in comparing epigraphy and palaeography has not been helpful. A better term is 'bookscript'; this covers the fine minuscules of manuscripts such as the Antiphonary of Bangor and Schaffhausen MS Generalia I. It also makes it easier to recognise and include, within the classification of epigraphic geometric letters, angular letters that are in origin quite grand set minuscules. A suggested sequence of types is shown in ILLUS. 10:10, 1-4:

⁴⁷ *ECMW* no. 222.

1. Angularised minuscules within capital inscriptions.
2. Angular minuscules within mixed-alphabet inscriptions.
3. Angular-bodied majuscules and minuscules with symmetrical serifs set clear of additional strokes to the downstroke.
4. Angular minuscules and majuscules mixed as two-line capitals, on marked horizontal banding, analogous to the display pages of eighth-century Insular scribes.

During the evolution from type 1 to type 4, there is a noticeable development in the spacing of the angular letter-forms. They are increasingly densely massed, and are conceived of as an overall pattern on the stone or the vellum; legibility becomes of less consequence than effectiveness of display.

The examples of geometric capitals cut on stone discussed in this chapter illustrate the nature of the long-standing difficulty of the precise analysis and dating of letter-forms which cannot reliably be compared to pen-formed letters. If we separate those inscriptions that are clearly influenced by manuscript practice into a typographic class and a calligraphic class, then it becomes clear that the former class benefits more from being compared to epigraphic lettering than to any product of a scriptorium. It also becomes clear that the shaping of geometric letters, with their unusual rectangular bodies, employs an understanding of repeat pattern-making that conceives of each letter as a block; in comparison, calligraphic letters that are broad-pen-formed have a horizontal flow and an inter-connectedness that marks them out as unrelated in origin. It was not necessary for the geometric letter to be instantly legible: it was supremely decorative, but in the hands of scribes it flourished for a relatively short period. When it ceased to be a revered element of book arts, it ceased to appear in inscriptions in any recognisably homogeneous style. It is thus one of the few chronological aids that exists in the related fields of Insular palaeography and epigraphy.

In *ECMW* Group II, c. 600-800+, there was therefore a transition to a more ambitious form of monument, as an *opus*, with decorative carving and a conception of the lettering as something that might be worked alongside it, which presented a deliberate display of craftsmanship. In this Group we find both mixed-alphabet inscriptions designed on a two-line layout, and inscriptions emulating manuscripts that are designed on a four-line layout (ILLUS. 10:11). The latter are much rarer than the former. Among the two-line inscriptions are some, listed below, that may be related to the geometric inscriptions from other Celtic areas, some of which have been discussed above, and which are listed more extensively in Appendix 2.

Taking into consideration the evidence put forward in Chapters 3 and 7, some suggestions may be made about the different transitions taking place in this period in the inscriptional lettering of Wales and England. We have seen that there was no standardised form of Insular half-uncial until the end of the seventh century, and that 'pocket' manuscripts in circulation in the next century, like the Book of Mulling, were commonly written in minuscule hands, of an angular tendency, even if their titling lettering was geometric. The combination of geometric titling with a text hand was not restricted to grand gospels, but may have been seen in books with a wider circulation. Evolved Insular minuscule of the eighth century included a squared form of the O body, giving a 'boxed' a; but this type of a is already found in prototype half-uncial as early as the *Cathach* of c. 600 (ILLUS. 7:1A). Therefore from the beginning of the seventh century, in Welsh mixed-alphabet inscriptions, we might find 'boxed' minuscule letters like h, d, n and m which may have their origins in a minuscule rather than a majuscule hand. It might be, in this case, that craftsmen could acquire knowledge of a display form of angular lettering from manuscripts, but not associate it with majuscule. We shall see below that strictly canonical Insular majuscule is extremely rare in inscriptions, both in England and Wales.

The movement to calligraphic four-line layouts may have coincided with that period when we begin to see what are, in effect, manuscript layouts. This seems to occur in Wales in the second half of the eighth century and in the early ninth, during which period the previous two-line mixed-alphabet style was not abandoned.⁴⁸ In the period of Group III of the tenth and eleventh centuries we find ambitiously-planned but poorly-lettered inscriptions that are, in effect, land charters engraved on stone – at, for example, Merthyr Mawr in Glamorgan (see number 15 in the list below).⁴⁹ These suggest the workings of a provincial secretariat. The transition to four-line manuscript style, which cannot be said to be general, seems to be limited to areas with a monastery large enough to support a scriptorium with scribes who are of good standard, capable of adapting, and of writing with a broad-edge instrument on stone (see Chapter 8). As we see from the list of geometric, mainly two-line Group II and III inscriptions below, the geographical distribution is quite limited.

⁴⁸ *ECMW* no. 125. Described by Nash-Williams as a Latin ring-cross with double ribbon bands, in the Irish manner, it has Greek XPS on one side of the cross and probably bore IHS on the other, where there has been a fracture.

⁴⁹ *ECMW* no. 240.

Geometric-style mixed-alphabet inscriptions in *ECMW* Groups II and III

1. *ECMW* no. 46. Llanddetty, Breconshire

Inscribed: *GAUDAN SACERDOS / FECIT CRUX P(ro) AN(ima) NI(n) / ID ET GUURHI / GUADAN*. Translated by Nash-Williams as: 'Guadan the Bishop (or priest), made this cross for the soul of Ni(n)nid and (for) the soul of Gurhi'. The inscription accompanies an ambitious, but poorly-executed, sculpted decorative scheme on a tall, roughly quadrangular pillar. It is cut in very crude, two-line, squared minuscules. Nash-Williams classes this as 'transitional Groups II and III. Ninth century'. It has a square minuscule *a*, *u* and *n*, and places the minuscule *g* of *Guadan* to line up with the following *u*. Minuscule *h* is lined up with the preceding *r*. It uses manuscript contractions and the abbreviation for *pro*, cut incorrectly. The ordinator was not a scribe, for the *ss* are cut sideways, but a written model must have been supplied, perhaps one from which the sculptor worked.

2. *ECMW* no. 59. Llangors, Breconshire

A crudely-decorated pillar with a ring-cross and scroll pattern. The accompanying *GURCI* inscription in contrast is neat, two-line, in squared minuscules, with *g* lined up with the following *u*. The following name *BLEDRUS* does not seem to be cut by the same hand, and may be later. Placed by Nash-Williams firmly in Group II.

3. *ECMW* no. 62. Llanlleonfel, Breconshire (ILLUS. 10:16B)

Pillar-stone with inscription presumed to begin with a now illegible opening word: *IN (S)IN(D)ONE MUTI IOR / UERT RUALLAUNQ(ue) / SEPULCRIS* [equal armed cross with splayed ends] *IUDICI / ADVENTUM SPECTA(n)T / I(n) PACE TREM(en)DUM*. Translated by Nash-Williams: 'Silent in the shroud Iorwert and Ruallawn in the tomb await in peace the dreadful coming of the Judgement'. Ambitious Latin text, seen by some as a kind of anomalous singleton, using manuscript contraction superscript bars over *A* (in *SPECTA[n]T*) and *M* (in *TREM[en]DUM*). Mixed-alphabet with a roughly four-line layout. The ascenders of *I* and *d* are above the line, and the descenders of *p* and *q* are below the line. Capital *E* throughout, minuscule *r* and *s*. The *A* is bar-less in the manner of a Rustic capital. Angular three-bar *m*, *c*, two-bar *n*. Placed firmly in Group II by Nash Williams, though he notes the other equally ambitious metrical epitaph of Paulinus in Group I (*ECMW* no. 139).

4. *ECMW* no. 72. Vaenor, Breconshire (*CEMISSW* no. B48)

Now lost, but recorded by Edward Lhuyd and published in Gibson's edition of Camden's *Brittania* in 1695. Pillar-stone(?). With Latin formula *In nomine d(e)i sum(m)i* and possibly *filius*, incomplete and defaced when recorded in the late seventeenth century. Two types of three-bar M, half-uncial d, minuscule and majuscule S. Squared u.

5. *ECMW* no. 108. Henfynyw, Cardiganshire

Pillar-stone fragment, part of inscription *TIGER[N]* with the last letter damaged. Mixed-alphabet inscription with a later insertion of I in between the E and the R. Of interest in that it shows deliberate choice of geometric and curvilinear letters in alternating sequence, as employed by the display letterers of the Celtic family of Gospels.

6. *ECMW* no. 113. Llanddewi-aber-arth, Cardiganshire

Two fragments of a possible cross-shaft, decorated with a fret pattern and interlace. The inscription may be classified as two-line geometric minuscules, as the letter combination *qu* places the *q* high, with its downstroke coterminous with the downstroke of the following *u*. Nash-Williams classifies it further as one of those influenced by manuscript terminology, and links it with the style of Abbot Samson's cross-shaft at Llantwit Major, *ECMW* no. 223 (see below, no. 10). Nevertheless he dates it in Group III, as ninth to tenth century. A recent re-dating of Abbot Samson's cross shaft, to the mid-eighth century, raises some questions about the later dating of this stone. On the basis of the ornamentation, it may be ninth century.

7. *ECMW* no. 120. Llanddewi Brefi, Cardiganshire

Pillar-stone with cross-crosslet and inscription *CENLISINI*, a personal name, followed by the manuscript contractions of abbreviated *bt* for *benedicat?* and *ds* for *deus*. Boxed minuscule *e*, two-bar *n*, two instances of majuscule *S*. Placed firmly in Group II by Nash-Williams.

8. *ECMW* no. 124. Llanllŷr, Cardiganshire (ILLUS. 10:12)

Pillar-stone with Latin ring-crosses and inscription: *TESQUITUS DITOC / MADOMNUACO / AON FILUS ASA / ITGEN DEDIT*. (New reading by Patrick Sims-Williams.⁵⁰) Translated by Nash-Williams as : 'The small waste plot of Ditoc (which) Aon, son of Asa Itgen, gave to

⁵⁰ P. Sims-Williams, *The Celtic Inscriptions of Britain* (Oxford, 2003), p. 209.

(Saint?) Madomnuac'. He places the monument in Group II. This is an ambitious inscription which records the giving of a piece of land to the church of Madomnuac, a name of Irish derivation. It is lettered in two-line layout with a manuscript form of M, but also two-bar n and three-bar m. Squared a, d, e, t; g occurs in the height of the t, q in the height of the s. It shows a cutter quite familiar with letter-forms, but who deliberately places them in a two-line layout rather than four. He may be a craftsman who is familiar with pages of geometric display letters so arranged, as a decorative opening to a text, or he may have been given a model text so arranged.

9. *ECMW* no. 125. Llanwnnws, Cardiganshire (ILLUS. 10:13)

Pillar-stone with an Irish-style Latin ring-cross and inscription: *Q(ui)CUNQ(ue) / EXPLICAU(er)IT / H(oc) NO(men) / DET B / ENE / DIXIONE / M PRO ANI / MA HIROID / IL FILIUS CARO / TINN*. Translated by Nash-Williams: 'Whoever shall (have) explain(ed) this name, let him give a blessing for the soul of Hiroidil son of Carotinn'. Inscription in four-line layout, with the ascenders of l and h above the writing line, and the descenders of q, p, and a flourished x below it. Squared a, u, h and n. Two majuscule Ss. Manuscript contractions on *quicumque*, *hoc* and *nomen*, and a ligatured et. As the manuscript knowledge seems to be good, but the writing-line ruling is non-existent on the stone, possibly the letters were painted on before cutting in a haphazard way from a very well-written model.

10. *ECMW* no. 133. Tregaron, Cardiganshire

Pillar-stone, decorated on two faces, with one inscribed panel *ENEVIR*, a personal name. Squared minuscule e and r with a two-bar N. Well-carved in local grit-stone. Placed firmly in Group II by Nash-Williams.

11. *ECMW* no. 223. Llantwit Major, Glamorgan (ILLUS. 10:4)

Cross-shaft decorated with a panel of ring-twist. Inscription: *IN NOM / INE D(e)I SU / MMI INCI / PIT CRU / X SAL / VATO / RIS QUA / EPREPA / RAVIT / SAMSO / NI APA / TI PRO ANIMA / SUA (ET) P / RO ANI / MA IU / THAE / LO REX / ET ART / MALI ET / TEC [AI] / N*. Translated by Nash-Williams: 'In the name of God the Most High begins the Cross of the Saviour, which Abbot Samson prepared for his own soul and for the soul of King Juthael and (for the souls of) Artmail and Tecain'. The inscription is ambitious, with a two-line layout, though badly executed. Squared h placed in the height of the squared a. Three-bar M.

Squared u and minuscule angular s throughout. Although Nash-Williams dates this inscription as tenth to eleventh century, it can now be approximately dated to the mid-eighth century by the connection of the King Ithael, his son Arthfael and Abbot Samson with the witness lists of the Llancarfan charters, and by the recorded death-date of Arthfael's brother, Ffernfael, in 775.⁵¹

12. *ECMW* no. 231. Margam, Glamorgan

A disk-headed slab cross, elaborately decorated, known as the cross of Enniaun. Inscription: *CRUX XPI / ENNIAUN / P(ro) ANIMA / GUORGORET / FECIT*. Translation by Nash-Williams: 'The Cross of Christ. Enniaun made (erected?) it for the soul of Guorgoret'. Inscription in two-line layout with manuscript contractions for *Pro* and *Christi*. Ligatured et and fe. Squared a, u and c. Three-bar m. Nash-Williams dates this to the late ninth or early tenth century, thus placing it in Group III.

13. *ECMW* no. 233. Margam, Glamorgan

Pillar-cross, known as the cross of Grutne. Inscription: *I(n) NOMI / NE D(e)I S / UM(m)I / CRUX / CRIZDI / PROP / ARABIT / GRUTNE / PRO AN(i)MA / AHEST*. Translation by Nash-Williams: 'In the name of God Most High. The Cross of Christ. Grutne prepared (it) for the soul of Ahest'. If *ECMW* is correct, then this is a late example of mixed alphabet, with poor spelling. Layout veers between two-line and four-line; g within the height of the following r, but d with ascenders above the line. Majuscule and minuscule S. P within the height of the following r. Nash-Williams dates this to the tenth or eleventh century.

14. *ECMW* no. 239. Merthyr Mawr, Glamorgan

Pillar-cross, similar to no. 15 below, in a mixed two-line and four-line layout with two panels and framing bands. Inscription: *[CO]NBELANI [P]OSSUIT HANC / CRUCEM PRO / ANIMA EIUS / SCI G(?)LIUISSI // NERTTAN ET FRATRIS EIU / S ET PATER / EIUS A ME / PREPARA / TUS SCILOC*. Translation by Nash-Williams: 'Conbelan placed this cross for his (own) soul (and for the souls) of Saint Glywys(?), of Nerttan, and of his brother and his father. Prepared by me, Sciloc'. Minuscule and majuscule S. Ligatured et twice, and one ligatured em. T-shaped g. Placed by Nash-Williams in Group III.

⁵¹ See note 13 above.

15. *ECMW* no. 240. Merthyr Mawr, Glamorgan

Slab-cross. Inscription: *I(n) NOMINE D(e)I PAT / RIS ET FILI (et) SPERI / [TUS SAN(c)TI*
... [Four lines defaced] ... *GRE / FIUM IN PRO / PRIUM USQ(ue) / IN DIEM IUDIC(i)*

Suggested interpretation by Nash-Williams: 'In the name of God the Father and the Son (and) of the Holy Spirit ... (is hereby assigned?) ... in this writing (deed) into its possession until the day of Judgement'. Though the decoration appears similar to that of no. 13 above, the much less controlled lettering is not by the same hand. This is a two-line layout only, increasingly irregular going down the second, lower panel. Placed by Nash-Williams in Group III.

16. *ECMW* no. 255. Ogmore, Glamorgan

Fragment of the base of a cross-shaft patterned on two sides. Inscription: *[SCIENDUM] / EST*
[OMNIBUS] / QUOD DEDIT / ARTHMAIL / AGRUM D(e)O / ET GLIGUIS / ET NERTAT /
ET FILI EPI. Translation by Nash-Williams: 'Be it known to all that Arthmail has given a field to God and to Glywys and to Nertat and to Fili the Bishop'. The inscription is very irregular, but appears to be on a two-line layout with q in the height of the following u, d in the height of the following capital E. A knowledge of manuscript contractions is shown in the superscript bars over the I of *EPI* (= *episcopi*), and in the ampersands. This is a mixed-alphabet inscription dated by Nash-Williams to the eleventh century.

17. *ECMW* no. 259. Port Talbot, Glamorgan (ILLUS. 10:14)

Cylindrical pillar-stone decorated with outline crosses. Inscription of *TOME*, '[cross] of Thomas', a personal name, with squared display capitals in tall, Rustic-proportioned style. Square-footed T and three-bar M. Placed firmly in Group II by Nash-Williams.

18. *ECMW* no. 260. Port Talbot, Glamorgan (ILLUS. 10:15A and B)

Upper fragment of a pillar-stone. Well-cut and four-line layout with the letters of *GELUGUI* and *CRUX CHRISTI*, with scribal abbreviation, rapidly written, apparently by an experienced scribe. The letters u and g are cut in an angular fashion, but the two xs and the bows of the e and l are well-rounded in the most successful rendition of scribal bows in the whole corpus. Placed firmly in Group II by Nash-Williams. ILLUS. 10:15B shows the wording of this inscription written with a cored elder-stem and dilute earth paint, to demonstrate that, with a sufficiently smooth stone surface, an attempt might be made at an inflected letter. This produced an image far sharper than any attainable by brush.

19. *ECMW* no. 265. Resolven, Glamorgan

Fragment of cross-slab. Inscription: *PROPARAVIT GAI* 'Gai prepared [this]'. Mixed-alphabet with irregular placement of letters; g with descender below the line, but p in the height of the following r. Straight-backed a. Dated by Nash-Williams to the late tenth or eleventh century.

20. *ECMW* no. 301. Caldey Island, Pembrokeshire

Pillar-stone with earlier Ogham inscription, re-used for Latin crosses and inscription in eight lines. Inscription: *ET SINGNO CR / UCIS IN ILLAM / FINGSI ROGO / OMNIBUS AM / MULANTIBUS / IBI EXORENT / PRO ANIMAE / CATUOCONI*. Translation by Nash-Williams: 'And by the Sign of the Cross (which) I have fashioned upon that (stone) I ask all who walk there that they pray for the soul of Catuoconus'. Well-designed, two-line layout, with b in the height of angular u, l in the height of the preceding u and the following a, triangular g in height of preceding two-bar N and following angular minuscule s. Three-bar 'trident' M throughout. Manuscript usage: ligatured ae, et and ex. This is the Welsh inscription which most closely resembles a manuscript page of display capitals of the eighth or early ninth century. Dated by Nash-Williams to the early ninth century.

21. *ECMW* no. 376. St David's, Pembrokeshire

Pillar-stone with wheel-cross 'of characteristic Irish type'. With alpha and omega, I(H)S and XPS with the name *GURMARC* lying below the wheel-cross, g in the height of the following angular u, and rmar followed by a rounded c. Dated by Nash-Williams to the ninth or tenth century.

22. Ramsey Island, Pembrokeshire⁵²

Fragment of slate slab, perhaps part of a sundial, with a geometric-style, single-line inscription *SATVRNBIV*. Rare three-stroke construction for the S, from the Type C alphabet (Chapter 9). The A and the V use a triangular finial, a closed version of the 'wigwam' serifs of the *Catacus* inscription at Llanfihangel-Cwmdru. In epigraphy this is used several times on the East Cross inscription at Toureen Peacaun and once on a fragment from Whitby.⁵³

⁵² Okasha, 'A New Inscription from Ramsey Island'.

⁵³ G. Charles-Edwards, 'The East Cross inscription from Toureen Peacaun'; Okasha, *Hand-List*, Catalogue No. 134.

Geographical comparisons within Wales

We may compare the geographical spread of Group I mixed-alphabet inscriptions, listed at the end of Chapter 2, with the geographical spread of the Group II and III inscriptions listed above. It is immediately apparent that by the Group II period, epigraphic innovation and accomplishment – such as it was – has swung to the south, with a strong preponderance in Glamorgan. Anglesey, Caernarfonshire and Carmarthenshire, represented in Group I, fade away to nil in Group II. Breconshire, Cardiganshire and Pembrokeshire, with their Irish contacts, remain roughly stable in both periods.

Table 2. Group I and Group II / III mixed-alphabet inscriptions in Wales, by county

COUNTY	GROUP I	GROUP II / III
Anglesey	2 *	0
Breconshire	4	4
Caernarfonshire	2	0
Cardiganshire	3	6
Carmarthenshire	6	0
Flintshire	1	0
Glamorgan	2	9
Merioneth	1	0
Pembrokeshire	6	3
TOTALS	27	22

* including the *Catamanus* inscription, *ECMW* no. 13.

There are nearly fifty mixed-alphabet inscriptions in *ECMW* Groups I, II and III. Yet, during the Group II and III period, when we know that Insular display capitals and majuscule text hands were being used together in manuscripts, there are only two instances where we can compare a scribal, calligraphic four-line layout, with an epigraphic, two-line layout, made in the same area.

The first pairing is from Port Talbot, in Glamorgan, where we may compare the remaining shaft of the cross of Thomas (*ECMW* no. 259, no. 17 above), inscribed in geometric

capitals, with the pillar-stone inscription to Geligui(n) (*ECMW* no. 260, no. 18 above) in a quickly-written accomplished majuscule, with bows (*ILLUS.* 10:14; 10:15).⁵⁴ The latter is outstanding in comparison to the style of the remainder of the Glamorgan mixed-alphabet inscriptions, nos. 11-16 and 19 above. These are clearly related to the non-calligraphic style of the Port Talbot cross shaft in their two-line layout, mixture of alphabets and total failure to represent scribal bowed letters.

The second example is a pairing from Cardiganshire (*ILLUS.* 10:12; 10:13) where we see an apparently similar 'scribal' style in two pillar-stones. But the first, from Llanllŷr (*ECMW* no. 124, no. 8 above), has a two-line layout; the second, from Llanwnnws (*ECMW* no. 125, no. 9 above), has a four-line layout. In the style of a page of Insular display letters, the Llanllŷr inscription has a tight pattern, with no interlinear spaces, so that the ascenders and descenders remain trapped in a rough two-line banding. Insular *g* is in the height of the square-footed *T*; *a*, *d*, *e* and three-bar *m* accentuate the packed angularity of this work. There are no scribal contractions. The second inscription, from Llanwnnws, though roughly laid out, has ascenders and descenders using an interlinear space and Irish or Welsh manuscript contractions. Although some of the letters are cut in an angular fashion, as in the *h*, the script was written on the stone with a bowed majuscule *s* and a bowed *m*. The *os* are round with a vertical axis.

Differences between Celtic and Anglo-Saxon inscriptions

Although we find some of the two-line inscriptions from Glamorgan borrowing scribal contractions, as we see in the late examples that Nash-Williams places in Group III, nevertheless their adherence to two-line layout, close spacing, and avoidance of bows marks them out as non-scribal, and, as we have seen, members of a large body of such apparently crude Welsh inscriptions. In them we have seen that calligraphic influences, in the main, failed to travel to epigraphy. If we now compare their selection of letters, their layout and their angularity with the body of inscriptions presented by Elisabeth Okasha in her *Hand-List of Anglo-Saxon Non-Runic Inscriptions*, we find that the Anglo-Saxon choice of letter was different, with repercussions that travelled from the palaeographic to the epigraphic.

⁵⁴ The Geligui(n) inscription is discussed in G. Charles-Edwards, 'The Epigraphy of Wales', pp. 116-8. It was the only inscription where an attempt to replicate it, with a cored-elder stem 'pen' on smooth sandstone with an earth colour, was successful.

In the corpus of 158 Anglo-Saxon inscriptions assembled by Okasha, only a handful are described as being lettered in 'Insular majuscule'.⁵⁵ In the Dewsbury inscription (ILLUS. 10:16A), for example, we see the two-line layout and mixed-alphabet 'chaos' familiar from the Welsh style; but in the bi-alphabetic Falstone inscription (ILLUS. 10:16B) we see a strict ruling, obviously influenced by the accompanying Runic text on the right-hand side of the inscription.⁵⁶ The mixed-alphabet (Roman letter) Anglo-Saxon text, described by Okasha as Insular majuscule, remains, nevertheless, in a two-line layout. At Hartlepool we have a series of stones roughly dated by Cramp to the second half of the seventh century.⁵⁷ These are also described as employing 'Insular majuscule' by Okasha although in them we see mixed-alphabet letters with Insular g in the height of d and t.⁵⁸ These are quite early Anglo-Saxon experiments in epigraphic letter-form.

As in the case of the Welsh examples, high-grade calligraphy in the form of Insular text letters does not seem to have proved popular with Anglo-Saxon letter-cutters. In general we do not find Insular g, three-bar m or the strange two-line layout finding favour in the seventh and eighth centuries. What we do find is a tendency towards light Roman capitals of a type favoured by Continental scribes for titling; these are the style of drawn capital described in Chapter 9 as Type A, and are likely to be the source of what Okasha logically describes as 'Anglo-Saxon' capitals.⁵⁹ If we list the distinguishing features of this capital style, we can see that Anglo-Saxon letter-cutters, like the Welsh, deliberately chose letters that could be rendered angular, but they were taking them from a different source, higher in the hierarchy of scripts, and at a later period. Desiring to emulate Roman style, a fashion encouraged by the Continental manuscript importations of such churchmen as Wilfred and Benedict Biscop,⁶⁰ they turned to Roman capitals as they found them drawn by scribes in manuscripts. Here we find the Lindisfarne Gospels a revealing example, in its style of drawn Roman capitals, so very different from the angular geometric display capitals of its decorated title pages. We have

⁵⁵ E.g. Okasha, *Hand-List*, nos. 30, 36, 39, 48, 125 and 145.

⁵⁶ Okasha, *Hand-List*, no. 30 (Dewsbury I) and no. 39 (Falstone).

⁵⁷ *CA-SSS*, vol. I, part I, pp. 97-101.

⁵⁸ Okasha, *Hand-List*, no.48 (Hartlepool VI).

⁵⁹ E.g. the cross-shaft lettering at Hackness: Okasha, *Hand-List*, no. 42.

⁶⁰ *HE*, Introduction, pp. x-xi.

seen, in Chapter 9, that the mixed-alphabet Type B capitals of these pages preserve a quite different range of letter-forms from the Type A, which are light Roman capitals, apparently made by the writer of the main text. It is clear that this single volume contains two different titling styles; these differences may be seen also in Okasha's corpus of Anglo-Saxon inscriptions, but there they are all included under the heading of 'Anglo-Saxon capitals'.

Table 3. Anglo-Saxon and Welsh epigraphic and calligraphic practice: letter-form variations clear by the ninth century

ANGLO-SAXON	WELSH
A Greek Angle-bar; light Trajan	A Greek Angle-bar; boxed minuscule
B round minuscule; light Trajan	B boxed minuscule
C squared capital; curly	C Greek capital; boxed minuscule
D minuscule; light Trajan	D boxed minuscule
E Greek uncial; light Trajan	E Greek uncial; boxed minuscule
F minuscule; light Trajan	F boxed minuscule
G curly; squared light Trajan	G half-uncial; angular minuscule
H minuscule; light Trajan	H boxed minuscule
L half-uncial; light Trajan	L half-uncial
M three-bar; Greek / light Trajan, high V	M three-bar; boxed minuscule
N two-bar; light Trajan	N two-bar; boxed minuscule
O diamond; light, tall Trajan	O Rustic; half-uncial; boxed
P half-uncial; light Trajan	P half-uncial; boxed
Q half-uncial; light Trajan	Q half-uncial; boxed
R uncial; light Trajan	R Rustic; boxed minuscule
S half-uncial; Z-shape; Trajan	S Z-shape; half-uncial; boxed minuscule
T half-uncial; Trajan	T Rustic; boxed minuscule
U half-uncial; Trajan	U half-uncial; boxed minuscule
V Trajan	
Z Light Trajan	

Conclusion

ILLUS. 10:17 shows that the epigraphic traditions of the Welsh and the Anglo-Saxons were different by the end of the seventh century; at that stage, the Anglo-Saxons had been cutting inscriptions in stone for less than a century, and the Welsh for considerably longer. We have seen that at the root of this divergence lay a reliance on quite different strands of the Roman script system, the Welsh having its roots in a more cursive and demotic tradition, very possibly inherited from the Romano-British period, which contributed to the high status of minuscule as a written and a cut letter-form. Thus minuscule letters were upgraded and included in a style of display capitals used for memorials. Although the Welsh style of mixed-alphabet epigraphy is certainly not aesthetically pleasing to the modern eye, its 'ugliness' should not prevent recognition of its significance as a very large body of early epigraphic evidence that outweighs any other in the British Isles.

As we have seen in Chapter 9, a discernible and distinctive Anglo-Saxon display capital form had made its appearance in epigraphy and calligraphy by the beginning of the eighth century, in Northumberland and in the southern and eastern areas of England. The Anglo-Saxon lettering that accompanies Trewhiddle-style⁶¹ metalwork is also accomplished. We may describe the style as homogeneous. The equally accomplished epigraphy that we see at Clonmacnoise is utterly different from the Anglo-Saxon, and is easy to classify as Irish or 'Celtic'. Where we have problems of classification is in borderland Celtic / Anglo-Saxon areas and in Wales, where the epigraphy of the early period is so crude and 'mixed' in comparison that its value as evidence has hardly been appreciated. During the seventh century we find hybridisation between Celtic geometric and Anglo-Saxon runic lettering styles on monuments such as the Ruthwell Cross;⁶² the mixed nature of these grand monuments is in contrast to the mixed nature of the early Welsh inscriptions, where we find an adherence to the use of angularised minuscules in mixed-alphabet inscriptions that is not shared by the Anglo-Saxons. The Flixborough plaque (ILLUS. 5:28A), with a palimpsest of an Anglo-Saxon-style inscription over an earlier geometric one, is an important indicator that, in time, the Anglo-Saxons favoured their own style and abandoned an earlier one.

⁶¹ K. Leahy, *Anglo-Saxon Crafts* (Stroud, 2003), pp.159-60.

⁶² W. R. Lethaby, 'Is the Ruthwell cross an Anglo-Celtic work?', *Archaeol. Journal* LXX (1913), pp. 145-161.

This earlier style of geometric letter, which may haphazardly mix majuscule and minuscule, corresponds with an alphabet of letters which we can see emerging as angular minuscule intrusions into the debased Roman capital style of the Welsh Group I monuments. They occur on those that are bilingual Ogham / Latin, and may be dated to pre-600 AD. Monuments of similar style in the Welsh Group I period are found at Whithorn and on the Isle of Man, and in the Welsh Group II period at Toureen Peacaun and Nendrum in Ireland, and at Portmahomack, Dull and Lethnott in Scotland. The wide circulation of the homogeneous geometric alphabet in the Group II period was certainly achieved through manuscripts and scribes in the network of church foundations; but in the Group I period, where much of our evidence is Welsh, the mixed-alphabet classification presents us with a body of inscriptions the styles of which are intensely localised in their choice of stones, decoration, and letter-form.

In the same period of Group I, the families of grand personages honoured with a memorial might choose, and find acceptable in terms of design and craft, inscriptions that vary wildly. There is no overriding aesthetic such as the model supplied to a society in church service books, which would have a family resemblance and would utilise the same alphabets. The explanation for this intense localisation might be that we see in this variety of approaches to applied lettering a confidence in local tradition that has evolved in different ways in various centres where one might find craft workshops operating under a local patron, who was basically literate. In such a case this might suggest that memorial inscriptions were made by craftsmen who were members of secular households of landholding families. The smith, with his honoured position at court, would be the most obvious candidate to execute such commissions; we might expect him to be an efficient pattern-maker, but perhaps not literate. The Group I inscriptions present many cases where letters have been reversed, incorrectly ligatured or botched. To transfer our attention from the ecclesiastical world to the world of secular leaders and their entourages would, in dealing with the difficult problems besetting the definition of the crucial difference between Welsh Group I and II inscriptions, bring a better understanding of the level at which literacy survived from the Roman period into the early medieval in Wales. If we compare the relative purity of Anglo-Saxon inscriptional lettering with the contemporary Group III period of *ECMW*, it is clear that it reflects a Caroline model of classicism, whereas the Welsh inscriptions, unlovely and chaotic as they are, persist in memorial tastes and practices which did not attract Anglo-Saxon craftsmen to emulate them. As these tastes and practices are a matter of deliberate choice within the *ECMW* Group I period, we may conclude that the ingredients of the Welsh mixed-alphabet range were largely

present and still in working order during the sixth century in those crafts where commemorating, naming and marking were practised. The gauche peculiarity of the Group I inscriptional end product should not prevent recognition of its origins in low-grade monoline letter-forms that would have been common currency in any interaction between the Roman army and the native population on whom it was quartered and with whom it intermarried.

We have seen that the mixed-alphabet style was adopted by scribes and utilised as a display alphabet of some finesse, which is reflected, palely, in the inscriptions of *ECMW* Groups II and III, where peculiar letters like gate M and N survived as shibboleths. Although the geometric letter is generally seen as a scribal phenomenon, to recognise the field of craft practice from which it emerged, as Julian Brown suggested, can provide dating evidence in an Insular epigraphic field where fixed points are rare indeed. The dating of Insular manuscripts is notoriously difficult and the chronology built up is relative, heavily based on the aesthetic arguments of palaeographers and art-historians; the opportunity exists for a more practical approach from epigraphers, utilising alphabetical typology, which may provide solid data.

CONCLUSION

Angularisation of the Roman alphabet, both in upper and lower case, was a phenomenon that took place in Britain and Ireland during the *ECMW* Group I period of 400-600 AD. As we have seen, there is a good deal of evidence for it in the British and Irish inscriptional corpora, but no evidence for Anglo-Saxon inscriptional practice in the Roman alphabet before the middle of the seventh century. A taste for the mixing of majuscule and minuscule forms to make a display letter in 'mixed alphabet' for grand inscriptions was one that survived in Celtic areas in epigraphy and calligraphy after Anglo-Saxon display lettering had discarded the mixed-alphabet style and evolved its own, with a preference for the Roman capital form. Therefore it seems probable that the mixed-alphabet style both began and ended as a peculiarity of that British and Irish culture which preserved the Roman alphabet as a legacy of the Roman occupation.

We have also seen that the making of a link between the mixed-alphabet inscriptions of the Group I period and the display capitals of the great Insular gospel books of the eighth century has been suggested by independent scholars from the time of Lewis Morris, as yet to no avail. Analysis of these display letter-forms by dividing them into (1) those clearly of unmodified Roman origin, and (2) angularised minuscules with a rectangular body core (see Chapter 9, pp. 241 and 256 above) is rewarding. In this regard the case of the display capitals of the Lichfield Gospels is most revealing, these having been claimed as Mercian on account of their use of 'pure Runic forms'. It should be remembered that Françoise Henry linked the text hand of the Lichfield Gospels with Hand I of the Book of Kells.

Below is a table showing the number of angular minuscule, Roman model and 'Runic' letters in surviving display pages of the Lichfield Gospels: the *incipit* of St Luke's Gospel, the *incipit* of St Mark's Gospel, the *incipit* of St Matthew's Gospel and its *Liber Generationis*. The two pages including the 'Runic' forms have the calligraphic rather than the epigraphic type of serif, suggesting advanced scribal adaptation of the alphabet, in contrast to the more massive symmetrical serifs of the *incipit* of the gospel of St Matthew and its *Liber Generationis*, which suggest an epigraphic model. (See also ILLUS. 9:1.)

Table 4: Display letters from the Lichfield Gospels

	Roman model	Angularised	Rune forms
St Mark	18 (including half-uncial)	16	2
St Luke	11	20	2
St Matthew	15	13	0
Liber Generationis	10	19	0
Totals	54	68	4

It will be seen that what is remarkable about the display capitals of the four pages analysed above is not that they include Rune-like forms – for of these there are only four, used for varied purposes unrelated to their phonetic value as Runes – but that, in total overall, angularised minuscule display letters are in the majority. The existence of the mixed-alphabet tradition, evolving from the epigraphy of Group I into the calligraphy of the Group II and II periods, should at least be acknowledged as an important and peculiar element of British and Irish lettering history. To overlook it neglects valuable evidence that may contribute more definition to an early Insular chronology that has long been obscure.

Appendix 1

PRACTICAL EXPERIMENTS

A series of experimental letters was made with different instruments on different surfaces, to ascertain how much the shape of the letter-form was influenced by the limitations of the tools and materials worked. In Chapter 1 a strong emphasis was laid upon the significance of this little-examined facet of palaeography and epigraphy, and it was noted that some scholars, such as Hans Meyer, combined practical knowledge of lettering with scholarly research. It is clear that, even at the present time, historians may develop misleading theories on the nature of letter-form which would be modified and improved by testing in practical experiments. A recent case in point is Charles Thomas's extraordinary analysis of the *Catamanus* inscription on Anglesey, which is discussed in Chapter 4.

It seems fairly certain that scaling up written letters to four or five times their normal size was at first generally achieved by the use of a brush with paint of a thick consistency. The inscriptions of *ECMW* group I are incised on undressed stone, which did not present a plane surface, and it was not possible to write a broad-pen letter with a cored wooden bamboo-type pen on any such surface. Experiments with brushed letters showed that inflection of line was impossible on these rough surfaces, and that the greatest clarity was achieved when the stock of the brush was firmly pressed, giving a line of constant thickness (Illustration 1). Writing at fair speed with a brush on rough stone, lobed line ends were produced when the attacking stroke drove into the downstroke, and also when the brush was lifted from the surface with a pause at the close of the movement. This produced a puddling effect similar to the spread of ink at the end of a line when an ink-loaded pen halts, flooding into the absorbent paper. An inscription that has been brushed onto the surface of the stone, and then cut by a cutter capable of following the painted outline precisely, is very different from the effect produced when the inscription has been written on the stone by a scribe who has been provided with a surface smooth enough on which to execute an inflected line, and an instrument that is edged in the manner of a quill, but four or five times broader. Chapter 8 discusses the finely-executed inscriptions at Clonmacnoise that employ this calligraphic method. These two different techniques seem to belong respectively to an early stage of epigraphic development, where high-grade scribes were not involved, and to a later stage, where there was co-operation between mason's workshop and the scriptorium.

It is clear that many craftsmen had a rudimentary knowledge of writing, and that efficient, workaday wax-tablet writing was a more widespread skill than that of the scribe. Chapters 2 and 3 attempt to show how a simplified tablet hand might have influenced the development of a monoline letter. New Roman Cursive is suggested as the root from which Insular peculiarities sprang. Experiments with a stylus in modelling clay were particularly revealing when undertaken at speed (Illustration 2). The angular turn out of a down-stroke, which is a diagnostic feature of Rustic script, was produced when lifting off; loops were formed on entering into strokes. If the craftsmen involved in the laying out and cutting of an inscription were familiar with tablet stylus-writing rather than with broad-pen writing, then the perceived crudity of *ECMW* Group I craftsmanship is based upon a misconception. They were not attempting to make a version of pen letters, and failing. Rather they were employing lower-grade letters which had looped entries and ligatures, and, most crucially, which were not inflected. This was a characteristic that suited the manner of cutting of the time: both ordinator and cutter were familiar with a letter that was monoline.

The question of which model influenced the Insular choice of angular monoline letters as the display capital to accompany rounded half-uncial pen letters has exercised many scholars. Experiments in wood-cut letters (Illustrations 4, 5 and 6) and in letters and devices cut in modelling clay (Illustration 3) with a chip-carving knife showed that though craftsmen may not have been able to control sharply angular letters in stone, they were able to achieve them in wood and in clay moulds. Therefore scribes may have been exposed to such letter-forms in wood and metal; they began to use them in manuscripts towards the end of the seventh century, but epigraphically they appear almost a hundred years before. The model had been exploited first by monument-makers for a large-scale letter. The sharp, symmetrical line ends that are necessitated by the nature of the grain of wood (Illustration 4) are alien to the repertoire of scribal serifs. They appear also in metalwork at their highest Insular development in the inscription around the rim of the Ardagh Chalice, which is discussed in Chapter 5.

The sharpness of knife-cuts possible in wood and the comparatively blurred edge of a letter cut in hard stone with a punch-like chisel are well illustrated in experiments shown in Illustration 7. It is extremely unlikely that letter-cutting chisels were edged during the period of Groups I and II, and that monoline 'U' section cuts were the accepted norm in the medium of stone. Illustration 8 shows a letter A knife-cut in steatite, from which repeat moulds could

have been taken; the standard of letter cut in such more amenable materials would have been far sharper than the epigraphy that survives in stone.

A series of experiments (Illustrations 9 and 10) involved the cutting of Ogham characters along the arris of one of the very hard stones that was preferred for monumental pillars, and along the arris of a medium-hard stone. It became clear that the choice of the hardest stone available was practical, due to the enormous stress that was placed upon the arris when the strokes were punched rather than scored. But scoring was totally ineffectual on the whinstone shown in Illustration 10B, where only violent punching produced results. Rubbings off the arris of an experiment on Sutton stone (Illustration 9) show that, replicating the inter-linear gap of an existing inscription, destruction of the arris was inevitable. Such experiments help us to understand why early Insular epigraphy is of such a different nature from the later, scribally influenced style.

Bore and score techniques (Illustration 11) may have been used by stone-cutters as a means of starting an inscription off: many Group I inscriptions from Wales, and others from Brittany, still show their join-the-dot beginnings. The boring could have been done manually with an awl, or with a drill. I am grateful to Ian G. Scott for discussion and co-operative experiments on this, and to Mark Handley for his interest in the subject.

Illustration 12 shows letters cut with a blunt round-end chisel in Bloomhill sandstone, from Clonmacnoise, showing the quality of the local stone and the finish which is possible with a tool that is not sharp-edged. The experiment was partly a time test and it proved that angular letters were significantly easier and quicker to incise than seriffed letters.

APPENDIX 2

British Isles and Brittany:

Select list of angular epigraphic inscriptions, non-calligraphic

These inscriptions are classified in Styles 1-4. Style 2 may have developed from Style 1 during the sixth to seventh centuries, but Styles 2, 3 and 4 may have been contemporary with one another roughly in the seventh to ninth centuries, Styles 2 and 3 perhaps being peculiar to Celtic areas and Style 4 being peculiar to Anglo-Saxon areas. Where a particular inscription has been mentioned or discussed in the main text of this thesis, it is marked with an asterisk, and footnotes in the text give references to published material on these inscriptions. The classification of Style 4, Anglo-Saxon capital inscriptions, exists as a touchstone to which the style of the other classifications may be compared; they are designed in a homogeneous, crisp and accomplished style, lightweight with slightly splayed line ends and very little line-inflection, which is clearly stylistically distinct from the others.

A few of these inscriptions are classified as intermediate between two styles, a phenomenon which may have arisen in borderland areas where Celts and Anglo-Saxons co-existed. Where they include letter-forms that may coincide with a form used by scribes in manuscript display capitals, this is noted. The unusual type of scribal display capital classified as Type C in Chapter 9 has a definite distribution pattern and is paralleled in the epigraphic examples listed below in both Style 1 and Style 2.

Abbreviations

<i>CIIC</i>	R. A. S. Macalister, <i>Corpus Inscriptionum Insularum Celticarum</i>
<i>ASNRI</i>	E. Okasha, <i>Anglo-Saxon Non-Runic Inscriptions</i>
<i>MC</i>	P. M. C. Kermode, <i>Manx Crosses</i>
<i>ECMW</i>	V. E. Nash-Williams, <i>Early Christian Monuments of Wales</i>
<i>ECMS</i>	J. Romilly Allen and J. A. Anderson, <i>Early Christian Monuments of Scotland</i>
<i>IEMB</i>	W. Davies et. al <i>The Inscriptions of Early Medieval Brittany</i>
<i>NMI</i>	National Museum of Ireland
<i>NMW</i>	National Museum of Wales

Styles

Style 1

Mixed-alphabet and monoline, with upgraded angular minuscules or half-uncials placed within the letter-height of an accompanying capital, i.e. a two-line inscription with four-line lower-case letters placed at half-size within it. Apparently dependent on the workability of the stone, line endings may be plain, fish-tail or bar, with a preference for leaving them clear of secondary strokes. Not rigidly ruled. Letter placement may be eccentric. Round forms may appear alongside angular, indicating a deliberate choice rather than necessity dictating completely angular forms. The letter-cutters are working with letters and tools in a manner alien to scribes; the reduction of M and N to barred 'gate' forms, and the use of Z-form S alongside angular minuscule s, takes place within the time-span of *ECMW* Group I and carries over into Group II.

Style 2

Homogeneous design, within a two-line layout, of angular letters from both majuscule and minuscule alphabets. Lower-case commonly b, d, g, h, p, q, r, s. Line endings may be epigraphic (symmetrical), or scribal (asymmetrical). There is an understanding of ruling. Scribal understanding of contractions may be shown. There is some evident interchange between letter-cutters and scribes.

Style 3

Degenerate majuscule and minuscule design with recognisably scribal and geometric letters mixed. Lack of strict ruling. Loss of strict control of a homogeneous alphabet of geometric letters.

Style 4

Anglo-Saxon capitals, homogeneous design, with a preference for using lightweight Roman capital forms for B, D, G, H, O, Q, R, S. There is an understanding of ruling. See discussion of the scribal manifestations of these capitals in Chapter 9 where they are seen in Types A and B.

ENGLAND

Cornwall

1 *CIIC* no. 1044. Camborne.

Cut on granite. Neat square frame. Ruled. Minuscule **r**, **s**, severely angular **h**, **m**, **t**, **u** with Greek capital **A** and a round **O**. Lower-case **h** within the height of the following **e**. Style 2.

2 *CIIC* no. 1047. Chapel Close.

Cut on granite. Neat square frame. Ruled. Superscript **n** over **u**. Minuscule **r** and **s**. Round **o** with a Roman **D**. Greek capital **A**. May be by the same cutter as no. 1044 above. Style 2.

3 *CIIC* no. 1048. Madron.

Cut on granite. Primary inscription, name of commemorand on a irregular rule. One fish-tail serif, ligatured angular **cr**, minuscule **r** and **s**. Style 1.

4 *CIIC* no. 1050. Waterpit Down.

Cut on the central panel of an elaborate cross. Square **c** with minuscule **r**, capital **e** in the same height as a monoline angular **m**. Style 2.

5 *CIIC* no. 1051. Penzance.

Cut in granite; the inscription on two panels, one pair of ten on the front face of an elaborate cross. Mixed alphabet. Though the lettering is not rigidly ruled, the panels and overall design are neat and well worked-out, and it should be included in Style 2

6 *CIIC* no. 1053. Biscovey.

Similar to no. 1051 above, a panelled cross cut in coarse-grain granite; mixed-alphabet letters with rough ruling for the lettering itself. Style 2.

7 *CIIC* no. 1054. Redgate.

Cut in granite, a panel of lettering in an ornamental cross-base. Roughly ruled with loss of

ruling at close and one line end; mixed-alphabet letters with a **d** in the height of the accompanying round **o**, a half-uncial **g** in the height of the accompanying **a**, in the manner of Welsh inscriptions. Style 2.

8 **CIIC* no. 1058. Sancreed [NB comp Kirkmadrine 3]

Elaborately carved cross. Sculptor's name in panel, also seen on no. 1047 above. Style 2.

9 **CIIC* no. 1059. Trevena [NB comp Dallus Dumellus]

Granite pillar with elaborate carving. Mixed alphabet with scribal contractions for **per** and superscript bar for **n** in **hanc**. Roughly ruled for lettering, but straight-ruled for the decorative work. Style 2.

Cumberland

1 **ASNRI* no. 23. Carlisle I, cross-faces a and b. Well-cut in sandstone.

Face 23a: epigraphic, symmetrical line endings. A mixture of Anglo-Saxon and Celtic letter-forms. The example of Type C manuscript **S** is apparently unique in Anglo-Saxon memorials. It has a square **D**; the **G** is of a drawn, rather than panned, Anglo-Saxon manuscript Type A. Roman **T** and **E**.

Face 23b: Anglo-Saxon light Roman capitals. The **F** shows a secondary horizontal stroke added without disturbing the line ending of the main downstroke; this is a characteristic of Style 1 epigraphy seen in ECMS Whithorn no. 1, and in the Welsh Capel Anelog inscriptions, ECMW nos. 77 and 78. Mixed Styles 1 and 4.

Devon

1 *CIIC* no. 1060 Stowford.

Cut in sandstone. Roughly two-line layout with a miniaturised, half-sized **u**. Eccentric monoline and serifless mixed-alphabet inscription with angularised, possibly half-uncial **g**, **u**, **e**, an angular minuscule **r** and **s** and a looped-entry **l** placed in the letter-height of the preceding **g** and the following **s**. Style 1.

Dorset

1 *CIIC* no. 1061. Wareham.

Irregularly ruled inscription with straight bar-serifs on **l** and **d**. Mixed-alphabet; the squared **d** has an ascender protruding above the line, but the layout is roughly two-line. Style 1.

2 *CIIC* no. 1062. Wareham.

Single-line inscription in mixed alphabet with extreme angularisation of **g**, **o**, and one capital **E**. Style 1.

3 *CIIC* no. 1064. Wareham.

Inscription on the shaft of a column. Mixed alphabet, fish-tail serifs. Roughly two-line layout with a looped-entry **l** in the height of the preceding capital **E**, but a descender on the **p** of the second line. Epigraphic Style 1 and scribal Type C low joins or left unjoined on the secondary strokes of **n** and **f**. Style 1.

Durham

1 **ASNRI* no. 34. Durham I.

Inscription in wood on the coffin of St Cuthbert; scratched only as a guide to the cutter of the figures. Light Roman capitals, Roman capital **M** with high **v**-link. Style 4.

2 **ASNRI* no. 35. Durham II.

Inscription cut firmly in the wood of St Cuthbert's portable altar. Between two cut rules. Secondary strokes placed on low, i.e. below the line endings of the primary stroke, in **N**, **R**, and **P**. The **O** is a lozenge, and the **S** is set skew in order to be legible. A mixture of Styles 1/2 and 4.

3 *ASNRI* no. 62. Jarrow II.

Slab fragment in panel. Roman capitals **B**, **R**, **E**, **T**, **V**, but square **C**, gate **M**, half-uncial **h** and **d**. Mixed Styles 2 and 4.

Hampshire

1 *ASNRI* no. 15. Breamore I.

Arch of a south porticus doorway. Light Roman capitals with adaptations for the wyn and thorn. Capitals **H, E, R, S, D, O**, with angularised forms for **G** and **S**. Type 4.

Isle of Man

1 **CIIC* no. 1066. Maughold; MC Maughold 48.

Tall slab in whinstone with superbly-cut cross design having raised bosses and a small inscription on its edge. The slab is 5 inches thick. Mixed alphabet with angularised half-uncials **u, r** and **a**, but round **c** and **t**. Style 2.

2 **CIIC* no. 1067. Maughold; MC Maughold 27.

Slate slab with foliated hexagon and inscription in homogeneous style of angularised mixed alphabet; symmetrical epigraphic serifs, three-bar **m** with Type C scribal display capitals **A, P**, and a square **O**. Comparable to the bolder display capitals of the type seen in MS St Gall 51. Style 2.

3 **MC* Santon no. 34. [N.B. cf. Llanilterne]

Pillar of whinstone. Well-cut capitals with symmetrical serifs. Ligatured **AV** with two final horizontal **Is** in the manner of ECMW Group I inscriptions. Mixed-alphabet on account of a manuscript uncial **m** similar to that used on the ECMW Group I mixed-alphabet stone at Llanilterne in Glamorgan. Exceptional but may be included in early Style 1.

Kent

1 *ASNRI* no. 99. Orpington.

Circular sun-dial. Light Roman capitals adapted for Anglo-Saxon use in the style of the Hampshire Breamore arch above. Style 4.

Lancashire

1 *ASNRI* no. 67. Lancaster I.

Cross-shaft. Light Roman capitals, round **O**, one angle-bar **A** and one uncial manuscript **M**. Mixed Styles 2 and 4.

Lincolnshire

1 **ASNRI* no.18 Caistor.

Lost slab fragment. Known only from a drawing made by Gough, published in 1806. Mixed alphabet with angular minuscule **s**. Unusual manuscript Type C squared **O**s. Severely boxed **Q**, **U**, **P**, **D** but has light Roman **R** and **B**. Mixed Styles 2 and 4.

2 *Making of England* no. 69a. Flixborough.

Inscribed leaden plaque (ILLUS. 5:28A), mid-eighth century with an inscription of the late 8th or early 9th century. Four lines of text cut with a V-shaped chisel; lightly incised horizontal lines. Palimpsest (older inscription underneath). Cross plus seven or eight personal names (liber vitae?). Scribal hand, ligatures, lentoid **A**.

Northamptonshire

1 *ASNRI* no. 85. Little Billing.

Light Roman capitals for **B**, **R**, **H**, **M**, **T**, **E**, V-shaped **U** but with **Z**-shaped **S** and lower case **q** in the height of the following capital **V**. Mixed Style 2 and 4.

Northumberland

1 **ASNRI* no. 2. Alnmouth.

Cross shaft. Cut by a sculptor with a Celtic name, Myredah/Muiredach, who cut the front inscription in Anglo-Saxon Style 4 but the back, where he put his maker's inscription, in a more relaxed mixed-alphabet Style 2, using three-bar **M** and a wyn.

2 **ASNRI* no 75. Lindisfarne I.

Red sandstone slab. Severely boxed forms of **B**, footed **T**, **C** and **D** in manuscript Type B of the early eighth century. With light Roman capital **E**, three examples, and one Anglo-Saxon display **A** of Style 4. Mixed Style 2 and 4.

3 **ASNRI* no. 76. Lindisfarne II.

Red sandstone slab. Round **O**, square **D**, **Z**-shaped **S** angular half-uncial **g**, and miniaturised scribal **y**. Mixed Style 2 and 4.

4 **ASNRI* no. 83. Lindisfarne X.

Slab fragment. Severely angularised lower-case **h** and **d** with angle-bar **A** and light Roman capital **R**. Mixed Style 2 and 4.

5 *ASNRI* no. 96. Norham II.

Lost, but known from a mid-nineteenth century drawing. Light Roman capital **P** and **I** with Anglo-Saxon display **A** and 'gate' **N**. Style 4.

Suffolk

1 *Making of England* no. 66a. Brandon.

Gold plaque, almost square, with picture of St John with human body and eagle head. Early ninth century. Inscription down left and right sides in squared Anglo-Saxon capitals: *SCS / EVA / N / GE / LI / ST / A / IO / HA / NNIS*. No minuscules. **Z**-shaped **S**, two unusual thrown-over tops on angle-bar **As**. Epigraphic style with symmetrical serifs. Style 4.

Yorkshire

1 *ASNRI* no. 30. Dewsbury I.

Sandstone cross-shaft, fragment. Attempt at scribal lettering, in the Welsh manner, with a two-line layout including letters with ascenders and descenders half-sized, within the height of the following full-size letter, as in **d** before **a**, **b** before **e**, **h** before **t**. Light Roman capitals **R** and reversed **S**. Half-uncial double-c form of **a**. Round **O**. Uncial **e**. Mixed Styles 2 and 4.

2 *ASNRI* no. 32. Dewsbury III.

Slab carved with figures, having two lines of inscription. Light Roman capitals including **M** and **D**, with a **Z**-shaped **S**. Mixed Styles 2 and 4.

3 **ASNRI* no. 42. Hackness.

Limestone cross-shaft. Mixed-alphabet with light Roman capitals including **M**, **P**, **E**, **T**, **R**, **N** and **V** with angle-bar **A**. Minuscule boxed **d** as at Toureen Peacaun, rectangular **O**, **Z**-shaped **S**. Mixed Styles 2 and 4.

4 **ASNRI* no. 44. Hartlepool 0.

Circular-stone known only from a rubbing preserved in the Society of Antiquaries. Light Roman capitals **V**, **E**, **C** and **T**, with **Z**-shaped **S**, lower-case **q** in the height of the following **V**, and a lozenge **O** of a Type B scribal style. Mixed Style 2 and 4.

5 **ASNRI* no. 46. Hartlepool IV.

Slab. Mixed, severely rectangular **O** with half-uncial **v** and **h** and light Roman capital **R**, **T**, **P** and **E** with angle-bar **A**. Mixed Style 2 and 4.

6 **ASNRI* no. 47. Hartlepool V.

Limestone slab, much deteriorated. Severely rectangular **O** with light Roman capitals for **P**, **T**, **E** and **R**. Apparently three minuscule rectangular-bodied **ds** half-size occurring within the two-line layout. Mixed Style 2 and 4.

7 *ASNRI* no. 64. Kirkdale.

Sundial with rectangular panel of inscription to right and left. Light Roman capitals with lozenge O, angle-bar A, Z-shaped S set skew in the manner of the inscription on St Cuthbert's portable altar, and a Type A scribal G. Style 4.

8 *ASNRI* no. 116. Thornhill.

Sandstone slab. Light, tall Roman capitals M, E, F, B with squared C, lentoid O and Z-shaped S. Style 4.

9 **ASNRI* no. 120. Wensley I.

Sandstone slab, fragment. Relief-lettered panel with a name, possibly DONFRID; lentoid O, uncial F, gate N. Late Style 4.

10 **ASNRI* no. 121. Wensley II.

Sandstone slab, fragment. Relief-lettered panel with Roman capitals E, T, R, angle-bar A and two half-uncial letters half-sized to fit in the two-line layout of the accompanying capitals: h and b. Mixed-alphabet Styles 2 and 4.

11 *ASNRI* no. 133. Whitby DCCXXXII.

Slab of millstone grit, fragment. Elaborate mixed-alphabet inscription. Uncial E, angle-bar A, light Roman capitals F, T, R, with unusual lentoid minuscule d, half-uncial b and q, all three half size to fit in the two-line layout of the accompanying majuscules. Mixed-alphabet Styles 2 and 4.

12 *ASNRI* no. 134. Whitby DCCXXXIII.

Red sandstone slab, fragment. Light, tall Roman capital V, B, E, R with Z-shaped S, angle-bar A and round C or O. Style 4.

13 *ASNRI* no. 148. York II.

Gritstone shaft. Well-designed light Roman capitals, neatly seriffed, with round O, straight-bar A and one Z-shaped S. Style 4.

14 *ASNRI* no. 151. York VII.

Limestone slab, fragment. Mixed-alphabet light, narrow Roman capitals **L**, **B**, **D**, **E**, **H** with one rectangular **O**. Hybrid Styles 2 and 4.

15 *Making of England* no. 47. York.

Late-eighth-century metal helmet from Coppergate with mixed-alphabet inscription, probably *pressblech* rather than *repoussé*. Epigraphic layout with dot between each word. Curved uncial **A**.

BRITTANY

1 **IEMB* Finistère F2 Lanrivoaré.

Cut in granite, with symmetrical, epigraphic line endings. Two-line inscription stylistically homogeneous with half-uncial calligraphic letters **g** and **l** reduced in size to align with the display capitals **A** and **M**. Style 2.

2 *IEMB* Côtes-d'Armor C1 Louannec.

Cut in granite, with no attempt at serifs. Designed in the manner of Welsh Group I inscriptions that are beginning to employ non-capital letter-forms, it has **B** with disassociated bows and three letters that may show the intrusion of half-uncial or minuscule forms: the second two **ds** may be a lower-case form rather than a reversed capital, the **g** is placed in the two-line layout to align with the preceding round **O** and the following gate form of **N**. Style 1.

3 *IEMB* Côtes d'Armor C2 Plouagat.

Cut in granite, well-finished with symmetrical epigraphic line endings. Stylistically homogeneous with minuscule **r**, gate **M** and **N** and a rectangular **O**. Style 2.

4 *IEMB* Côtes d'Armor C4 Sainte-Tréphine.

Cut in granite with mixed-alphabet letter-forms, angular **u** and **c**, capital or bungled uncial **E**, minuscule **r**, half-uncial **m**, **l**, **h** and **x** with three epigraphic symmetrical line endings, otherwise plain. Loose, non-homogeneous layout. Style 3.

5 **IEMB* Morbihan M1 Crac'h (1).

Cut in granite with an attempt at a two-line layout, for example placing the **p** and **d** of **lapidem** to align with the intervening **i**, trident **M** and gate **N**, a boxed, flat-topped minuscule **a**, with minuscule **s** and **r**. Line endings: five epigraphic, one calligraphic, the rest plain. An ambitious but poorly-executed inscription. Style 2.

6 *IEMB* Morbihan M3 Guer.

Cut in a cylinder of granite. Roughly two-line layout, mixed-alphabet inscription. The **T** has a boxed foot throughout (four examples). Two examples of minuscule angularised **s**. Half-uncial **h**, **e** and **l**. Style 1.

7 *IEMB* Morbihan M4 Landaul.

Cut in granite. Mixed-alphabet with a slapdash attempt at a two-line layout, letters with ascenders and descenders positioned to align with full-size letters without them, in the manner of Welsh examples in Glamorgan. Although the **c**, **u** and **t** are squared, the **O** remains round; there is a manuscript uncial **M** as well as a trident **m**. Style 3.

8 *IEMB* Morbihan M5 Languidic.

Cut in granite. Mixed-alphabet with a layout that is mostly four-line, giving ascenders their correct position above the line for **h**, **l** and **b**. The minuscule **a** has a flat top and boxed body. Gate **N** placed beside a miniaturised **h**. Two attempts at epigraphic symmetrical serifs. Non-homogeneous design in Style 3.

9 **IEMB* Ille et Vilaine I1 Bais (1).

Cut in slate. Capital inscription showing intrusion of non-Roman lettering style. The line ends are bored and, in the case of the E, for example, project beyond the secondary horizontal strokes of the letter. The D is ligatured to the following rectangular O. Style 1.

10 *IEMB* Ille et Vilaine I2 Bais (2).

Cut in slate in similar lettering style to the above, but with plain line ends. Ligatured MAO with angle-bar A and lozenge O, minuscule r and two 'gate' ns. Style 1.

11 *IEMB* Ille et Vilaine I3 Bais (3).

Cut in slate. Similar lettering style to the above, but with bored line ends as in Bais (1). Miniaturised lozenge O, minuscule angularised r and s. Style 1.

12 *IEMB* Ille et Vilaine I6 Retiers.

Cut in slate in a similar style to the above with bored line ends, ligatured ME, and an angle-bar A. Style 1.

SCOTLAND

Dumfriesshire

1 *ECMS* Ruthwell.

Anglo-Saxon 'Dream of the Rood' in Runes, but Latin tituli in mixed alphabet with gate M and N. Sculptural subject of St Paul and St Anthony in the desert dividing bread ; this, as a subject, is peculiar to Celtic areas. Mixed styles 2 and 4.

Forfarshire

1 **ECMS* Lethnott.

Old Red Sandstone cross-shaft fragment. Two lines surviving in good homogeneous style with symmetrical epigraphic serifs. The E and C have secondary horizontal strokes added without

making contact with the serifs in the manner of scribal display capitals Type C. The M is an unusual version of the gate form, ingeniously constructed entirely from vertical strokes.

Minuscule d with lozenge body. Style 2.

Peebleshire

1 *Cross Kirk.

Kite-shaped water-worn boulder. Two-line inscription, in non-homogeneous style, fitted around a cross with barred terminals. Freely written before cutting, with very rough two-line layout. Mixed alphabet, gate N, uncial e, angle-bar A with flat top, one round, one oval O, minuscule d, open-looped R, two light Roman Ss. Style 3.

Perthshire

1 *Dull Kirk.

Recently-discovered fragment of cross slab with well-cut geometric letters in homogeneous style having unusual calligraphic, asymmetrical serifs. The name of the commemorand, Becli, is rendered with a boxed half-uncial b in the letter-height of the following boxed e. Style 2.

Ross

1 *ECMS Tarbat no. 10.

Sandstone fragment, inscription on the side of a large decorated slab. Letters in relief in homogeneous geometric style with interlinear bands as in manuscript examples. The symmetrical, epigraphic serifs flow into the bands. Like ECMW 223, it follows the scribal convention of differentiating between two gate Ms when they occur together, as in **SUMMI**. Style 2.

Selkirkshire

1 **ECMS* Yarrow Kirk, *CIIC* no. 515.

Slab with worn lettering of extended memorial text. Mixed-alphabet in the manner of Welsh Group I inscriptions: gate and Roman N, minuscule s and half-uncial d, contraction for 'per' used in *perpetua*. Ligatured UM and UE. Style 1.

Wigtonshire

1 **ECMS* Kirkmadrine 1, *CIIC* no. 516.

Upright pillar with encircled Chi-rho cross, open rho. Light Roman capitals showing the intrusion of unusual forms: ligatured ET with the T half-size and depending from the cross-bar of the E in the manner of Welsh Group I inscriptions. Superscript bar for letters in suspension over SCI. Angle-bar A, ligatured NT, MAV and R with horizontal finishing stroke. Style 1.

2 **ECMS* Kirkmadrine 2, *CIIC* no. 517.

Upright pillar with encircled Chi-rho cross, open rho. Light debased Roman capitals with a boxed ligature of ET similar to Kirkmadrine 1 above. Looser in style and with angled secondary strokes on F, L and a compressed angular loop on R. Style 1.

3 **ECMS* Kirkmadrine 3, *CIIC* no. 518.

Upright pillar with encircled Chi-rho cross, open rho. Rough two-line layout, but with homogeneous style, using gate N, trident M. Ligatured ET and FI with the second letters half-size in the manner of Welsh Group I inscriptions. Style 2.

4 **ECMS* Whithorn 1, *CIIC* no. 519.

Pillar with encircled Chi-rho cross, closed rho. Carefully-wrought capitals of non-classical type. Bifurcated serifs in the manner of *ECMW* nos.77 and 78 at Capel Anelog, Caernarvonshire. Serifs that are left clear of secondary strokes. Style 1.

IRELAND

Down

1 *Down Survey, Nendrum.

Fragments of a sedimentary slab bearing a large cross-device and an inscription in lightweight angular capitals. Lightweight Roman capitals P and R with gate M, boxed U, minuscule right-angled s, Type C manuscript display capital S, angular uncial A, squared capital C, and the scribal manuscript symbol representing the contraction for 'inter'. Mixed styles 2 and 4.

Galway

1 *CIIC no. 1. Inchagoill.

Pillar of gritstone. The inscription, described as 'half-uncial' by Macalister, shows the mixture of alphabets and angularisation of forms seen in the later Welsh Group I inscriptions. Angular and round l, Z-shaped g aligned with the preceding and following u, uncial e, a, h, d and o, trident m. Two bar-serifs on the ls, but fish-tails on the two accompanying crosses. Style 1.

2 CIIC no. 532. Killeany, Aran Mór.

Water-worn lump of black limestone, later identified by Macalister as a cresset lamp, excavated from the grave of Saint Breacan in 1822. Perhaps among the earliest examples to show the Irish fashion for extreme angularisation and use of mixed-alphabet letters. Minuscule triangular a, r, l and t, with angularised half-uncial h, n, and lentoid o. Two-line layout, h in height of i, b in height of minuscule r. Style 1/2.

Kerry

1 *ECIM Kilmalkedar 1; CIIC no. 913. Kilmalkedar.

Pillar of gritstone. The inscription showed a complete alphabet when first recorded in 1804, and the whole alphabet is drawn in Margaret Stokes' illustration. However, now a fragment sheared away is lost, removing the top of the pillar and the letter a. The alphabet is mixed,

with minuscule **r** and **s**, trident **m** angularised half-uncial **q**, **d**, **n**, **h**, and a display manuscript form of **b**. The layout is unruled and eccentric, though the letter-forms are controlled.

Transitional Styles 1 to 2.

Kildare

1 *CIIL* Plate 3. Killeen Cormac.

Lost stone. Claimed by Petrie to be among the remains of the earliest period, this stone was a memorial to Dufthach, and was noted by Petrie as employing the lozenge **O**, which he saw as indicating a date of 'the seventh century and before it'.

Limerick

1 **NMI* 1874:99. Ardagh.

Excavated from Reerasta Rath in 1868, the 'Ardagh Chalice'. Silver chalice with an inscription in mixed-alphabet geometric lettering engraved under the rim. Symmetrical epigraphic serifs, letter-forms from half-uncial alternating with geometric capital forms. Type C scribal display form of **S**. Greek pi; oval and rectangular **O**. Strictly controlled and homogeneous Style 2, comparable with the display pages of the most accomplished eighth-century gospel books. The letters have a dotted background similar to the red-dotted grounds of the manuscripts.

Tipperary

1 **ECIM* Toureen Peacaun 40; *CIIC* II, p. 213.

East Cross shaft inscription. Mixed-alphabet with a section of half-uncial. Minuscule angled **s** but also Type C scribal **S**, and **A** and **V** with marked cross-overs at the junction of angled strokes in the manner of the Type C scribal **S** on the Welsh Ramsey Island inscription in slate (see below).

2 **ECIM* Toureen Peacaun 16.

Slab with bi-alphabetic inscription in two lines: the upper in geometric capitals, with gate M and N, the lower in a free half-uncial. Style 2.

3, 4, 5, 6 *ECIM* nos. 8, 22, 37 and 39. Toureen Peacaun.

These also show the use of a mixed-alphabet combination of geometric capitals with half-uncial.

WALES

Anglesey

1 **ECMW* no. 13. Llangadwaladr.

Large slab or pillar of hard conglomerate. Placed by Nash-Williams in the transitional period from Group I to II. A mixed-alphabet inscription, aligned vertically, with gate M and N.

Minuscule r and s, ligatured, cursive forms of ex, eg and ti. Disarticulated half-uncial p and e. Greek three-stroke A, seen in manuscripts like the *Cathach*. Non-homogeneous, prototype Style 2.

2 **ECMW* no. 35. Newborough.

Pillar of whinstone (?). Inscription seemingly cut by the letter-cutter of the above, *ECMW* no. 13, but aligned horizontally, it has the same Greek three-bar A, also square C, gate M and N, squared half-uncial h and u, round half-uncial manuscript d, minuscule s. Capitals S, F, R and V. Non-homogeneous prototype Style 2.

Brecknockshire

1 *ECMW* no. 46. Llanddetty.

Decayed mixed-alphabet inscription with flat-topped angular minuscule a, and angularised half-uncials with ascenders and descenders reduced in size to align with capital letters. Loss of strict control of layout. Style 3.

2 **ECMW* no. 54. Llanfihangel-Cwmdu.

Pillar with deeply picked inscription in capitals with geometric intrusions. Square capital C, angle-bar A with the angled strokes allowed to cross over at the apex; a characteristic which became a decorative feature in Style 2. Squared lower-case h placed in the letter-height of the following capitals IC. Square-footed T. Half-uncial g in the height of the following E. Well-designed, but with incomplete control of ruled layout. Late Style 1.

3 *ECMW* no. 59. Llangors.

Pillar stone with primary name, five letters in homogeneous geometric style. Squared half-uncial G, U, minuscule r, squared capital C. Well-designed, Style 2.

4 **ECMW* no. 62. Llanlleonfel.

Pillar with extended inscription. Mixed-alphabet in homogenous style. Barless A in the manner of Rustic capitals, with all letters in the tall proportion of that hand. Squared bodies to P, C, T, U, minuscules n, r, trident m and s, d with an ascender, like the I. Roman capital E. Three manuscript-style superscript bars. Not perfectly ruled. Prototype Style 2.

Caernarvonshire

1 **ECMW* no. 77. Aberdaron.

Water-worn boulder. Inscription with fish-tail serifs and two letters E and B, superscript bar for a suspension over PBR. Angle-bar A. Style 1.

2 **ECMW* no. 78. Aberdaron.

Similar in style to the above, suspensions bar over PRSB. Angle-bar A. Style 1.

Cardiganshire

1 *ECMW* no. 113. Llanddewi-aber-arth.

Two fragments of decorated cross-shaft. Part of lettering in panels, apparently in the mixed-alphabet style, with **q** placed to align with the following **u**. Flat-topped minuscule **a**, squared minuscule **r**. Style 3.

2 *ECMW* no. 120. Llanddewi-brefi.

Pillar stone. Single-line inscription beneath incised cross; aligned vertically. Mixed-alphabet, squared minuscule **e**, gate **N**. Change of scale from display capital to half-uncial to close with two manuscript-style superscript bars over **btds**. Prototype Style 2.

3 **ECMW* no. 124. Llanllyr.

Pillar stone, damaged. Mixed alphabet in two-line layout. Opens with square-footed **T**, minuscule **s**, squared half-uncial **t**, **d**, **a**, with gate **M** and **N**. Two-line layout shown by half-uncial **g** in the height of a square-footed **T** and uncial **E**; **d** in the height of **a** and **o**; **l** in the height of **i**. Style 2.

4 **ECMW* no. 125. Llanwnnws.

Pillar of gritstone. Four-line layout showing scribal knowledge in contractions **qi** (for **qui**) and **h** (for **hoc**) and two superscript bars. Ligatured **et**. Squared forms of **a**, **h**; Irish-style half-uncial **d**. Loss of control of ruling and hold of writing instrument. Style 3.

5 **ECMW* no. 133. Tregaron.

Pillar of gritstone. well decorated. The mixed-alphabet lettering is in good homogeneous style. Two-line layout. Squared minuscule **e**, gate **N**, minuscule **r**. Style 2.

Carmarthenshire

1 *ECMW* 159. Llanfynydd.

Cross-shaft in loose style. Lettered panel with name in two-line layout; uncial E, squared half-uncial u, d placed in the height of the preceding u, squared n, miniaturised round o.

Style 3.

Glamorganshire

1 **ECMW* no. 214. Llanilterne.

Pillar-stone. Mixed-alphabet with capitals C, angle-bar A and V; angular half-uncial g in the height of angle-bar A; d with line endings clear of the secondary stroke and in the height of the preceding N and following V. Half-uncial h and l with symmetrical epigraphic serif.

Square-footed T and horizontal final I in VENdVMAGl-. The most interesting letter is the scribal uncial M, similar to the AVITI MONOMENTI inscription at Maughold on the Isle of Man. Style 1.

2 **ECMW* no. 222. Llantwit Major.

Cross shaft. Well decorated with two panels of lettering in loose geometric style. Erratic two-line layout with use of gate M and N, minuscule and angular Roman s. Debased capitals P, R, T and C. Debased half-uncial u, e, a and g. Style 3.

3 **ECMW* no. 223. Llantwit Major.

Cross-shaft of quartzite sandstone. Inscription in a panel with two-line layout, neatly executed for the first three lines and deteriorating erratically thereafter. Flat-topped a, some rectangular-bodied, gate and trident m, angular minuscule s only, angular h within the height of the following a, d within the height of the following is. Ligatured ex. The design may be firmly associated with mid-eighth-century scribal practice, as it shows the occurrence, in double m, of differentiation between two forms, avoiding repetition of the same letter-form. Style 2.

4 **ECMW* no. 231. Margam.

Disc-headed slab cross in Pennant sandstone. Inscription in two-line layout with scribal contraction for *pro*, superscript bar over *xri*, ligatured *ret* and *fe*. Flat-topped *a*, half-uncial *g* in the height of the following round *o*, *f* in the height of the following *e*. Squared *C* and square-footed *T*. Loose and non-homogeneous. Style 3.

5 **ECMW* no. 233. Margam.

Pillar-cross with inscription on shaft. Badly executed and eccentrically laid out in a roughly two-line layout; *d* in the height of the following *i*, *g* in the height of the following minuscule *r*. Squared *u*, *h*, *n* and square-footed *T*. As in *ECMW* 223 above, the only ascender downstroke on which the letter-cutter has attempted a serif is the *d* of *dei*, which is perhaps deliberate. Degenerate Style 3.

6 **ECMW* no. 237. Margam.

Cross-slab in Pennant sandstone. Fragmentary inscription. Mixed-alphabet with square *C* and square-footed *T*, trident *m* and angular minuscule *s*. The scribal conventions of the mid-eighth century no longer apply, and *summi* has two *ms* of the same design. Style 3.

7 **ECMW* no. 239. Merthyr Mawr.

Pillar-cross with inscription on shaft. Mixed-alphabet with minuscule and majuscule *s*; square-footed and Roman *T*. Trident *m*, ligatured *em*, *et* and a conscious attempt to adhere to a two-line layout, the first and last lines of text are parallel with the frame. Scribal background shown, loose but homogeneous style. Style 3.

8 **ECMW* no. 240. Merthyr Mawr.

Slab-cross with inscription on shaft; like *ECMW* no. 223 above, it begins in parallel ruling, but deteriorates. Two-line layout with mixed-alphabet letters, trident *m*, occurrence of *EdIpa* in first line shows the angularisation and miniaturisation of *d* and *p* to suit the design. Half-uncial letters reduced in size and placed to align with adjacent letters: *g* and *p* in the height of minuscule *r*, *d* in the height of the following *IEM*. Style 3.

9 **ECMW* no. 255. Ogmore.

Fragment of shaft in quartzite sandstone with inscriptions in panel on the front and back. Crudely executed, but retains the rudiments of the angular mixed-alphabet style. With bizarre ruling that curves, and eccentric placement of letters. In quod the squared and miniaturised q and d sit on either side of a full-sized squared **UO**. Trident **M**, with g in the height of l and u. Degenerate Style 3.

10 **ECMW* no. 259. Port Tabot.

Cross-inscribed slab. Inscription **TOME** on either side of cross stem. Square-footed **T**, tall **O** with flattened arcs, gate **M** and angular uncial **E**. Style 2.

Pembrokeshire

1 **ECMW* no. 301. Caldey Island.

Pillar with incised cross and eight-line inscription in geometric letters with a two-line layout in good style. Minuscule r and s. Angular g in the heights of o, gate **N** and minuscule angular s; b in the heights of u and i; l in the heights of u and a. Trident m, flat-topped a. Style 2.

2 *ECMW* no. 376. St Davids.

Water-worn boulder. Irish-style encircled cross with Alpha and Omega and inscription in mixed-alphabet letters. Trident m, minuscule r, flat-topped a. Style 2.

3 **NMW*. Ramsey Island.

Slate fragment with inscription in two-line layout. **SATURNBIU**. Monoline in good style. Type C scribal display capital **S**, angle-bar **A** with a cross-over at the apex (both letters seen on the Toureen Peacaun East Cross), stylistically related **V** with a cross-over at the base. Gate **N** and boxed half-uncial b. Comparable with manuscript-standard display letters. Style 2.

CONCORDANCE OF NUMBERS IN MACALISTER, *CIIC*, NASH-WILLIAMS,
ECMW, OKASHA, AND TEDESCHI, *CONGERIES LAPIDUM*

PLACE	MACALISTER	NASH-WILLIAMS	TEDESCHI
<i>Anglesey</i>			
Llanbabo	318	6	Gn-5
Llangeinwen	322	27	Gn-3
Llantrisant	325	33	Gn-6
Bodedern	[2027]		Gn-7
Llanfaelog	319	9	Gn-21
Llanfaelog	[2007]	10	Gn-22
Llangadwaladr	970	13	Gn-25
Llangefni	320	26	Gn-26
Llansadwrn	323	32	Gn-30
Penrhosllugwy	326	39	Gn-36
<i>Caernarvonshire</i>			
Aberdaron	391	78	Gn-1
Aberdaron	392	77	Gn-2
Bryncir	380	84	Gn-8
Llanaelhaearn	382	86	Gn-14
Llanaelhaearn	381	87	Gn-15
Llanbedrog	390	96	Gn-16
Llanbedrog	389	97	Gn-17
Llanfaglan	385	89	Gn-23
Llangian	386	92	Gn-27
Llannor	387	95	Gn-28
Llanrhos	384	83	Gn-29
Penmachno	393	101	Gn-31
Penmachno	394	103	Gn-32
Penmachno	396	104	Gn-33
Penmachno	395	102	Gn-34
Penmorfa	397	105	Gn-35
Treflys	398	106	Gn-38
<i>Denbighshire</i>			
Clocaenog	399	176	Gn-9
Gwytherin	400	177	Gn-11
Pentrefoelas	401	183	Gn-37
<i>Flintshire</i>			
Whitford	402	184	Gn-39
<i>Merionethshire</i>			
Llanaber	413	272	Gn-12
Llanaber	414	271	Gn-13

Llandanwg	416	279	Gn-18
Llandanwg	416	278	Gn-19
Llanfor	417	282	Gn-24
Trawsfynydd	[2019]		Gn-4
RIGELLA ... [fake: Nancy; genuine Tedeschi]			
Trawsfynydd	420	289	Gn-10
PORIVS			

Montgomeryshire

Llanerfyl	421	294	Gn-20
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Shropshire

Wroxeter	[2006]		Gn-40
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SOUTH WALES

<i>Brecon</i>	MACALISTER	NASH-WILLIAMS	TEDESCHI
Crickhowel	327	43	Gse-1
Defynnog	328	44	Gse-5
Defynnog	329	42	
Faenor (lost)	330	66	
Faenor, Abercar	331	41	Gse-15
Faenor, Abercar	332	40	
Llandyfaelog Fach	333	50	
Llanfihangel Cwmdu	334	54	Gse-6
Llanfihangel Cwmdu	335	54a	
Llanddeti	336	67a	
Llangors	337	60	
Llangynidr	338		
Llansantffraid, Scethrog	339	68	Gse-2
Llanspyddid	340		
Trecastle/Llywel	341	71	Gse-9
Trallwng	342	70	Gse-17
Ystradfellte	343		
Ystradfellte, Maen Madog	344	73	Gse-10
Ystradfellte, Pen y Mynydd	345	74	
Ystradgynlais	346	75	Gse-18
Ystradgynlais	347	76	Gse-19
Nant-Crew	2032		Gse-4

Cardigan

Llanarth	348	110	
Llandysul	349	121	Gso-29
Llanddewi Brefi	350	116	
Llanddewi Brefi	351	115	Gso-25

Llanddewi Brefi	352		
Llangwryfon	352A	122	Gso-4
Llanwenog	353	127	Gso-6
Penbryn	354	126	Gso-41
Silian	355	128	Gso-42
Tregaron	356	132	Gso-5
<i>Carmarthen</i>			
Abergwili	357		
Castell Dwyran	358	138	Gso-8
Cynwyl Gaeo	359	141	Gso-3
Cynwyl Gaeo, Maes Llanwrthwl	360	139	Gso-7
Cynwyl Gaeo	361	140	Gso-11
Eglwys Gymyn	362	142	Gso-20
Egremont	363	143	Gso-28
Henllan Amgoed	364	144	Gso-21
Llanboidy	365	149	Gso-23
Llanboidy	367		
Llandawg	368	150	Gso-24
Llandeilo Fawr	369	153	
Llanfihangel-ar-Arth	370	157	Gso-30
Llangan	371	322 (Pem.)	
Llangeler	372	160	Gso-31
Llannewydd	373	171	Gso-13
Llannewydd	374	172	Gso-10
Llansadyrnin	375	166	Gso-32
Llansaint	376	174	Gso-33
Llansaint	377	175	Gso-34
Llanwinio	378	169	Gso-12
Merthyr	379	170	Gso-38
Llanllwni	998	164	Gso-9 SN 47 41
<i>Glamorgan</i>			
Llangattwg	403	268	Gse-16
Brithdir	404	270	Gse-3
Casllwchwr (Loughor)	405	228	
Llanmadog	406	215	Gse-8
Port Talbot>Margam	407	258	Gse-11
Mynydd Margam	408	229	Gse-13
Margam	409	198	Gse-12
Merthyr Mawr	410	238	Gse-14
Aberafan, > Newton Nottage	411		
Llanilterne	1028	214	Gse-7

Pembroke

Brawdy, Caswilia	422	298	
Brawdy, Caswilia	423	296	
Brawdy, Rickardston	424	299	Gso-2
Brawdy	425	297	Gso-1
Bridell	426	300	
Caldey Island	427	301	
Cilgerran	428	305	Gso-16
Clydai	429	307	Gso-19
Clydai	430	306	Gso-18
Clydai	431	308	Gso-17
Jordanston	432	312	Gso-22
Llandeilo Llwydiarth	433	313	Gso-36
Llandeilo Llwydiarth	434	314	Gso-35
> Maenclochog			
Llandysilio	435	315	Gso-27
Llandysilio	436	316	Gso-26
Llandysilio	437	317	
Llanfyrnach	438	320	
Llanfyrnach	439	319	
Llanychaer	440	335	
Maenclochog	441	345	Gso-15
Mathry	442	346	Gso-37
Meline	443	349	
Arberth	444	352	
Nyfer/Nevern	445	354	Gso-39
Nyfer/Nevern	446	353	Gso-40
Punchestown	447	369	
St Davids,			
Carnhedryn	448	370	Gso-14
St Dogmael's	449	390	Gso-44
St Dogwell's	450	213	Gso-45
St Nicholas	451	401	Gso-48
St Nicholas	452	400	Gso-47
St Nicholas	453	399	Gso-46
Spittal	454	402	Gso-43
Stackpole Elidir	455	403	Gso-49
Steynton	456	404	

SOUTH-WEST

<i>Cornwall</i>	<i>CIIC</i>	<i>Okasha</i>	<i>Tedeschi</i>
Lancarffe	457	18	C-10
Cardynham	458	9	C-2
Tawna	459	63	C-4
Welltown	460	75	C-3
Cuby, Tregony	461	66	C-31
Gulval, Blue Bridge	462	14	C-7
Gulval, church	463	15	

Lanhydrock, Trebyan	464	65	
Lanivet, church	465	21	C-11
Lewannick, churchyard	466	23	C-13
Lewannick, church	467	24	C-12
Madron, 'Men Scryfa'	468	31	C-16
Mawgan, village	469	34	C-15
Camelford, Worthyvale Manor	470	78	C-1
Phillack, church	471	39	C-18
Saint Breoc, Nantscow	472	35	C-20
Saint Clement	473a	46	C-22a
Saint Clement	473b	46	C-22b
Saint Columb Major, Indian Queens	474	17	C-9
Saint Columb Major, churchyard	475	47	
Saint Columb Minor, Rialton	476	45	C-33
Saint Cubert, church	477	11	C-5
Saint Endellion, Doydon	478	48	C-24
Saint Erth, Hayle	479	16	C-8
Saint Ewe, Lanhadron	480	19	
Saint Hilary, church	481	49	C-25
Saint Hilary, Trevenage	482	71	
Saint Hilary, Saint Just	483	51	C-27
Saint Kew, church	484	52	C-28
Scilly, Tresco	485	68	C-32
Southhill, churchyard	486	56	C-29
Tywardeath, Castledor	487	10	C-6
Madron	1048	32	C-14
Newbridge	1055	3	C-17
Sancreed	1057	54	C-19
St Buryan	1202	2	C-21
St Columb Major, Bosworgey	1206	4	C-23
St Ives, Trevarrack	-	70	C-26
Tintagel	2028	-	C-30
DEVON			
Buckland Monachorum	488	60	DSD-12
> Tavistock, SX 48 74			
Ivybridge, Fardel	489a	13	DSD-3a
> BM			
Ivybridge, Fardel	489b	13	DSD-3b
Lustleigh, church	490	29	DSD-8
Sourtown	491	55	DSD-10
Tavistock, vicarage	492	59	DSD-14
Tavistock, vicarage	493	58	DSD-13
Yealmpton, church	494	79	DSD-17
Buckland Monachorum	1208	6	DSD-1
East Ogwell, church	1209	12	DSD-2
Lundy Island, Beacon Hill	1401	27	DSD-4

Lundy Island, Beacon Hill	1400	28	DSD-5
Lundy Island, Beacon Hill	1402	26	DSD-6
Lundy Island, Beacon Hill	1403	25	DSD-7
Lynton, Sixacres	1404	30	DSD-9
Stowford, churchyard	1060	57	DSD-11

DORSET

Wareham	1061	Dor iii	DSD-15
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SOMERSET

Winsford	499	77	DSD-16
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495 = *RIB* 191

Silchester	496	Hants	
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