TROWEL

VOLUME VII



The Journal of the Archchæological Society University College Dublin

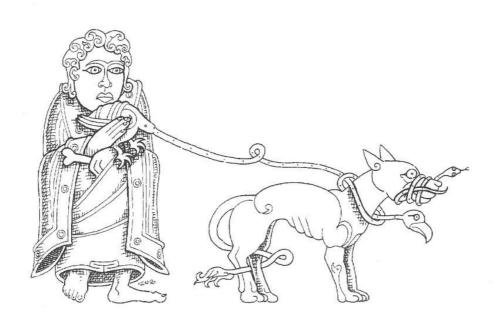
Edited by TERESA BOLGER CONOR BRADY JAMES EOGAN MICHAEL STANLEY

ARCHAEOLOGICAL SOCIETY, UNIVERSITY COLLEGE DUBLIN.

1996

TROWEL

VOLUME VII



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Editors' Foreword

We have great pleasure in presenting this, the seventh, volume of *Trowel* We hope that this publication is now well established and taken for what it is, an annual journal produced by students but with a standard of content that places it alongside the more established archaeological journals.

We would like to thank the following whose help ensured that *Trowel* VII appeared. The Director and staff of the Irish Archaeological Wetland Unit, the Department of Archaeology and the Archaeological Society, University College Dublin have shown a continued interest in and support of *Trowel*.

The current editors wish to acknowledge the contributions of Chris Corlett, Doreen Keating and Séamas Taafe as previous editors of *Trowel*. Again, the help and advice of Conor McDermott is much appreciated.

Trowel has been a vehicle for publication by U.C.D. students. However, the editors have decided that it would be a positive move to accept papers from students outside of U.C.D. For instance, it is hoped that contributors to this year's conference of the Association of Young Irish Archaeologists might consider submitting their papers to the next volume of *Trowel*. We hope that this might lead to greater communication and collaboration between the different universities in this small island.

THREE PERIODS OF ANTIQUARIAN ART IN IRELAND, 1700-1900.

Sharon Wells*

By flowery bank or hawthorn tree,
Glad with the music of the bee;.
By the castle, tower, or hermit cell;
By Druid's cave or holy well;
In deepest, wildest solitude,
For there the musing mind finds food,
Where Nature spreads her mystic tomeThere the Painter finds his home!'

(Excerpt from 'The Painter's Home' by Andrew Nicholl, from Illustrations, Notebook compiled by Mary Anne Nicholl in the Art Department of the Ulster Museum in Belfast)

Introduction

General antiquarian studies became popular as part of the universal search for enlightenment, resulting in the establishment of societies encourage further study of subjects such as science, art, natural history, ancient history and philosophy. Antiquarian art - the depiction of ancient monuments, sites and artefacts -emerged in Ireland, in the late eighteenth century.

This article provides an introduction to the three main periods of antiquarian illustration in Ireland. While antiquarian illustration takes many forms, this article concentrates on the antiquarian depiction of monuments and the work of some of the many artists who produced work during the antiquarian periods. Although antiquarian art has been considered and studied in previous literature, it has usually been from an art-historical perspective. As a result of this narrow approach, implications for archaeology have often been neglected. It is suggested that due consideration of antiquarian art will benefit the study of archaeological monuments.

The contributions of antiquarian art to the study of both archaeology and architecture has been discussed at some length, (Wells 1995). Archaeological studies (including, excavation planning, restoration of National Monuments and site location studies) would all benefit from the use of antiquarian illustration as a source of verifiable archaeological information (Wells 1995). Stuart Piggott highlights the importance of the recognition of the contributions of antiquarian studies to archaeology:

...our approach to archaeology today, whether in the literate or non-literate past, is conditioned by the way in which antiquities have been looked at and thought about during the last three centuries.

(Piggott 1979,101)

^{*}Sharon Wells is a recent archaeology MA graduate from University College Cork.

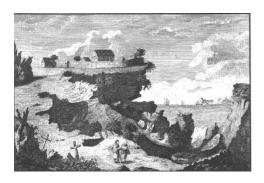


Fig.l Dun Aengus, William Beauford, from Ledwich's Antiquities of Ireland, 1804 ed.

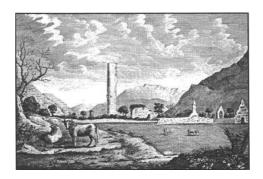


Fig-2 Glendalough, Maria Beauford, from Ledwich's Antiquities of Ireland, 1804 ed.

Three main periods of antiquarian illustration in Ireland become apparent during research of the topic (Wells, 1995). Chronologically identifiable as earlier, middle and later periods, of which the first two of them may be related, in general art terms, to Neo-classicismand Romanticism.

Background to the development of antiquarian art in Ireland

Artistically, antiquarian art in Ireland was preceded by a topographical tradition, though sporadic examples of it do occur during the centuries preceding the eighteenth. The art of topography has been described as the 'portraiture of places' and involved the recording of a scene 'with little or no opportunity' for personal interpretation, (Butler 1990, 25). One of the main artists from this period was the British artist Francis Place, who travelled to Ireland and executed many topographical drawings of Irish towns and cities, and his work must have influenced Irish artists. Antiquarian art developed partly from this topographical tradition and many of the well-known antiquarian artists are described as topographical draughtsmen and landscape artists (Crookshank and Glin 1994 and Strickland 1913).

It was during the eighteenth century, however, that significant interest became structured and organised, and the investigation of many of the human sciences (of which antiquities was one) was favoured and encouraged. The development of interest was supported by the many societies established at this time. In Ireland early antiquarian artists were commissioned by various early antiquarian societies and private sponsors. The Hibernian Antiquarian Society, founded in 1779, was one of the earliest such societies to be established. A main aim of this society was to:

collect existing pictures of historical monuments, send artists through the countryside to draw those never pictured, and to publish them with description and explanation of their significance in a handsome book

(Love 1962,420).



Fig.3 Brehon's Chair, William Beauford, from Ledwich's Antiquities of Ireland, 1804 ed.



Fig.4 Dunluce Castle, Thomas Baynes, from Hall's Ireland: Its Scenery, Character, etc.

The endeavours of the Hibernian Antiquarian Society in the area of book production resulted in the successful completion of a number of publications which featured illustrations of antiquities and accompanying descriptions, and of articles concerning subjects of relevance to antiquarian studies. Although this particular society was disestablished in 1783, the tradition of illustrating sites and monuments was upheld by subsequent societies such as the Royal Irish Academy and the following sixty years were a period of mass-production of books which featured illustrations of ancient and historical buildings many of which were produced by antiquarian artists. Books, such as Rev. Edward Ledwich's *Antiquities of Ireland* (1790) and General Charles Vallencey's *Collectanea de Rebus Hibernicus* (1790), were published and they became extremely popular because of their beautiful engravings and descriptions of monuments.

William Burton Conyngham, while president of the Hibernian Antiquarian Society, commissioned Gabriel Beranger and Angelo Bigari to travel throughout Ireland and to draw antiquities (de Paor 1993, 123 and Harbison 1991, 7).

Beranger's artistic contributions are of a simple and modest style, and typical of the eighteenth-century style. He was an artist and his interest in drawing antiquities was not enough to deem his illustrations as the most reliable. At variance with Beranger's training is that of General Charles Vallancey, who was distinct from many of the other antiquarian artists in that he was a military engineer. His work as a military surveyor was extensive and he was equally dedicated to the recording of antiquities and the Irish language (Nevin 1993).

From the descriptions of Beranger's and Vallancey's work it is obvious that the sources of and influences on early antiquarian art were varied, yet curiously, the results of these individual illustrative efforts were often quite similar:

It is an insoluble problem to differentiate completely the style of the drawings of the eighteenth-century antiquarians

(Crookshank and Glin, 1994, 35).

The early period of Irish antiquarian art

In many cases early antiquarian art in Ireland is a product of a single vivid imagination or the result of a collaboration effort between artist and scholar and, indeed, the early antiquarian style can be related to Neo-classicism. In fact it has been stated that:

Neoclassicists subjected landscape to prescribed ideas of beauty and linked it to historical studies.

(Janson 1991, 639).

Instances of this can be found in the Reverend Edward Ledwich's book *The Antiquities of Ireland*, 1790s and 1804 eds. Many of the illustrations which were included in this book are the work of the artist William Beauford. Although his works are noted as valuable contributions to the legacy of antiquarian illustration (Well, 1995), the content, is in many cases dictated by the beliefs and theories of his friend Ledwich, and a product of an albeit weak Neoclassic influence.

It was the artist William Beauford who produced the illustration of the Brehon's Chair in Ledwich's *Antiquities of Ireland*. This illustration demonstrates the Irish contribution to the druid culture and has specific reference to Celtic mythology. The content of Beauford's illustration is not based on an actual site but serves to illustrate a particular point made by Ledwich in his book on the places which druids preferred to frequent, (Ledwich 1790 and 1804 eds) (fig. 3). Similarly to the illustration of the fort at Dún Aonghasa there are symptoms of a Neoclassic approach.

A significant illustration which demonstrates the influence of a particular set of beliefs is the engraving of the fort of Dún Aonghasa on Inis Mór in the Aran Islands of the coast of Co. Galway. Beauford produced his version of the site in the late eighteenth century for inclusion in Ledwich's Antiquities of Ireland, (fig.l). In this illustration the fort Dún Aonghasa is portrayed as an early Christian mandra (an early Christian monastic enclosure). Ledwich provided an explanation of the site in his publication which clearly served as the source of inspiration for Beauford's illustration:

Though the number of Monks and nuns now recited is by no means to be depended on yet it suggested to their presidents the necessity of stone enclosures or closes, these in the East were called Mandrae. The word originally imported a sheep-fold, and was applied to those monastic buildings, wherein the archimandrate presided over his disciplines, as theshepherd superintended his flock in the fold. There are many of these Mandrae dispersed over the kingdom hitherto unnoticed; one remarkable is Dún Aengus. This is in the greater isle of Arran, in the coast of Galway, situated on a high cliff over the sea, and is a circle of monstrous stones without cement, capable of containing 200 cows.

(Ledwich 1804,140).

Westropp labels Beauford's illustration of Dún Aonghasa as "imaginary', and it is likely that neither Beauford nor Ledwich ever visited the site itself and that the illustration and interpretation is based on a verbal description provided by Roderic O' Flaherty:

on the south side stands Dun Engus, a large fortified place on the brim of a high clift,...being a great wall of bare stones without any mortar,...which might contain 200 cows.

(O' Flaherty in Westropp 1910,41).

In fact, other possible instances where illustrations were based on verbal descriptions and not taken from reality have been noted in previous studies of antiquarian illustration in Britain (Piggott 1978, 8).

Beauford's illustration of Dún Aonghasa contains many aberrations. The fort has been interpreted incorrectly as an early Christian site, the enclosure has been drawn back to front and the stone-walling has been regularised. On one hand, these inaccuracies function as a caution to the viewer. On the other, the illustration should be given due credit for being one of the earliest Irish attempt at archaeological reconstruction drawing.

From a study of this particular illustration it is obvious that antiquarian illustration in general has much to offer as a potential source of archaeological information and as an indication of important influences. However, it is also necessary to extricate and separate those features which are verifiably accurate from those which are not and then to determine the nature of the archaeological potential.

The artistic style of the earlier antiquarian period is lacking in artistic ambition and one which at times reduces the natural dramatic effect of a site or monument's geological location and actual situation. An example of this illustrative technique is demonstrated in Maria Beaufort's illustration of Glendalough (Fig.2).

The Romantic art period and the second stage of antiquarian art in Ireland:

The second main period of Irish antiquarian illustration differs from the earlier period in style and in characteristics. In contrast to the earlier period, the illustration of monuments and their locations is intentionally exaggerated and the nature of sites is manipulated to create amore dramatic effect. These artistic tendencies are in accordance with the Romantic approach:

Romantics modified the appearance of nature to evoke heightened states of mind in accor dance with dictates of the imagination

(Janson 1991, 639).

At this time there was also a major development in the tourist industry with the mass-production of guide book publications advertising 'picturesque sites'. The production of numerous guide-book publications created a demand for a large quantity of illustrations. As a result, thousands of illustrations were produced of ancient monuments and sites of interest.

Antiquities were a very popular source of inspiration and interest for many artists, the opening quote in this article illustrates this fact in the words of Andrew Nicholl, an antiquarian artist from Belfast. One significant publication which contained illustrations of sites and monuments during this period was Mr and Mrs S.C. Hall's *Ireland*,: *Its Scenery*, *Character*, *etc*. a series of volumes, published in the 1840s, which deals with various aspects of Ireland. An example of the romantic style of illustration from this publication is that produced bt T.M. Baynes of Dunluce Castle, Co. Antrim (fig.4). This illustration demonstrates many of the main characteristics of the romantic and antiquarian artistic tradition. The natural drama of sites like Dunluce was, not enough on its own to satisfy the artist's sense of the site; geological and architectural features were purposely exaggerated to heighten dramatic effect. Most immediately noticeable is the artist's intentional choice of angle for the illustration, as, by choosing a point below the castle and its rock pedestal, its dramatic sit-ing is emphasised.



Fig.5 Ross Castle, George Petrie, from Rev. GN Wright, Scenes in Ireland, 1834

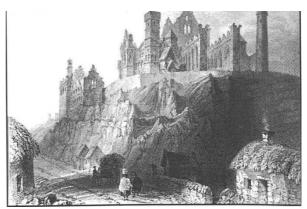


Fig.6 The Rock of Cashel, William Bartlett, from The Scenery and Antiquities of Ireland, 1842

Two of the most famous of the romantic antiquarian artists in Ireland were George Petrie and William Bartlett. Their artistic training and influence is partly as a result of the inspiration of British artists like JMW Turner, whose works Petrie, in particular, became familiar with during his trip to Britain early in his artistic career, (Crookshank and Glin 1994, 309). An example of Petrie's romantic style is that of Ross Castle in Killarney, taken from Reverend GN Wrights' Scenes in Ireland (1834). As a source of archaeological information the illustration is not very forthcoming due to the fact that the castle is depicted in the distance and the wall nearest the viewer is in shadow. Petrie pays as much attention to the depiction of the monument as he does to its siting and its surroundings. He uses the features of Lough Leane and Tork mountain to advantage and creates an appealing romantic landscape (Fig. 5).

The example of Bartlett's work is taken from *The Scenery and Antiquities of Ireland*, written by NP Willis and JS Coyne in 1842. 'The Rock of Cashel' is indicative of the dreamy, hazy quality which is common in Bartlett's painting (fig.6).

This style of antiquarian illustration continued until the late nineteenth and the early twentieth century. Its popularity was encouraged by the demand for information on and illustrations of antiquities created by the upsurge of the tourist industry. Unfortunately, it was also at this time that antiquarian art began to decline, as archaeology, architecture and art separated into distinct disciplines.

The third period

The third and final stage of antiquarian illustration in Ireland coincides with a number of important developments (Well 1995). For example the advent of photography to Ireland occurred in the mid-nineteenth century (Gorman 1971) and had subsequent implications for archaeological recording. From this time onwards photography played an important part in the recording of archaeological sites and monuments. Examples of camera sketches are common in Irish journals and publications from the beginning of the twentieth century.

At the same time and most probably as a consequence, the artistic element changed drastically. The engraved general views and dramatic landscapes in antiquarian illustration of the romantic period were becoming less common:

The minor industry of antiquarian and topographical drawing begins to quickly to diminish, both in scale and significance.

The engraving process was losing favour as there now existed less expensive alternatives for producing visual records. Economically, it was preferable to avoid production of these ambitious and elaborate engravings in publications when photography was available.

From an artistic point of view, however, this period is one where the nature of archaeological illustration changes dramatically. The familiar extended landscape views of monuments became less plentiful and the focus of archaeological drawing began to exclude this facet of antiquarian illustration.

Even though photography had some negative effects on antiquarian illustration, there were also some positive implications for the development of archaeology in Ireland. Photography was an efficient tool which greatly facilitated the recording of archaeological monuments.



Fig.7 General View of the Deerpark monument looking East, WG Wood-Martin, The Rude Stone Monuments

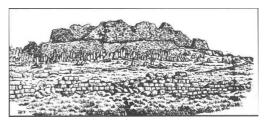


Fig.8 Dun Aengus, Westropp from a camera sketch, Proc Roy Ir Acad 28C, 1910

Many of the archaeological illustrations produced in the latter half of the nineteenth century and the beginning of the twentieth show a considerable lack of artistic quality. This could be explained partly, by the neglect of the potential of illustration in preference for less expensive methods of recording. The activities of the antiquarians in many ways promoted and encouraged this phenomenon by deliberately casting aside the benefits of illustration in preference for photography. As a result of this, illustration became secondary to photography, and archaeological recording suffered as photography was not, in itself, a completely adequate replacement. In fact, Michell says:

There followed a rapid plunge in the standardsof archaeological illustration as dim photographs replaced the work of highly traineddraughtsmen.

(Michell 1982, 50).

In some cases, however, the contributions of antiquarian illustrations in the presentation of archaeological sites were remembered and valued. In these instances camera sketches were often used to aid the later illustration of a site.

The examples of illustrations from the third main stage in antiquarian illustration included in this discussion indicate the above influences. Wood-Martin's book, The Rude Stone Monuments (1888), presents examples of the application of the use of camera sketches to aid

later illustration of a site (fig.7). Westropp during his trip to the Aran Islands in 1878 also produced illustrations of Dún Aonghasa from camera sketches (Westropp, 1910) (fig.8).

For further indication of the fate of grand antiquarian illustration, consultation of A Handbook of Irish Antiquities, by William Wakeman is recommended. The illustrations within it are simple reproductions of wood-cuts. The main determining factors of the nature of these illustrations, are financial and personal; less expensive to produce than steel engravings, lithography or aquatint. Wakeman was able to produce his own woodcuts, in fact he states that "the subjects with very few exceptions, were drawn and transferred to the blocks by myself" (Wakeman, 1891, x). The illustrations in Wakeman's book are a watershed for the new style of antiquarian illustration.

Conclusion

For nearly two centuries antiquarian art in Ireland contributed to the accumulation of information concerning Irish antiquities. During this time a variety of sites and monuments were illustrated, many repeatedly due to their scenic appeal. In these cases it is possible to establish a visual history of a site from 1700 to 1900. This information is invaluable especially in the instances where a site or monument has been destroyed.

Art styles differed during the eighteenth and nineteenth centuries. The earlier antiquarian art period demonstrates a simple and modest style, the content of which was frequently based on theory. During the Romantic period paintings were more elaborate and dramatic. The third period, although not very substantial marks the ending of an era with the displacement of antiquarian art, which constituted one of the most dedicated contributions to the archaeological archive.

The relationship of the first two periods to the general movements of Neoclassicism and Romanticism places Ireland in an universal context and suggests associations and empathy with the search for enlightenment and national identity in other countries.

Almost certainly the main hindrance to art, and most especially antiquarian art in Ireland was financial rather than one based on dedication and skill, of which there seems to have been no shortage. This article mentions only a few of the societies, artists and publications which were part of the Irish antiquarian tradition. However, hopefully it has hinted at the amount of antiquarian art still unstudied and has possibly left an impression of beauty, value, antiquarian skill and archaeological potential on the reader and the viewer.

Acknowledgements

My thanks to Tomas Tyner of the Audio Visual Centre in University College Cork for photographing Figures 1, 2, 3, 4 and 5 in this article. I am also indebted to Teresa Bolger for her helpful comments and suggestions.

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ARCHAEOLOGY FROM GEORGIAN DUBLIN

An original drainage system of an 18th century town house

David J. O'Connor*

The purpose of this article is to record in detail the remnants of a drainage system belonging to a Georgian townhouse in Dublin, recently uncovered during renovations. These drains were built just before the introduction of running water and are a rare survivor, as this type was replaced during the Victorian period with newwatertight segment pipes. Indeed, a large proportion of the system found in this instance was destroyed by such a replacement, leaving only part of the original Georgian system. However, enough remained to get a fairly accurate insight into its design and construction, adding just a little bit more to our knowledge of an often overlooked and forgotten feature of Georgian town houses.

In their book 'Life in the Georgian city', Cruickshank and Burton tell us that

Modern drains, underground pipes carrying off all sorts of household waste in a constant flow of water are a Victorian creation. Their principle requirements are a constant supply of water and a supply of cheap watertight pipes, neither of which was available before 1800. Until the mid-19th century both main sewers and individual house drains were made of brick, and there were constant problems with seepage.

(Cruickshank and Burton, 1990)

The house dealt with in this article - 35 North Great George's Street - was built as one of a pair in 1784, roughly three-quarters of a century before running water became standard for most city houses. Provision for drainage was made during the development of the North Great George's Street -a grand oval sewer (still extant) was constructed right down the centre of the road to meet the needs of the houses. However, it was up to the individual house builders to utilise it as there was no standard plan for house-drains feeding the sewer. These were often poorly constructed and inadequate for their intended use. The drainage system recorded at No. 35 remained in three separate sections and was, mostly constructed of brick and mortar with stone slabs and clay tiles also being used, though not throughout.

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^{*}David J O'Connor is a third year archaeology student at University College Dublin.

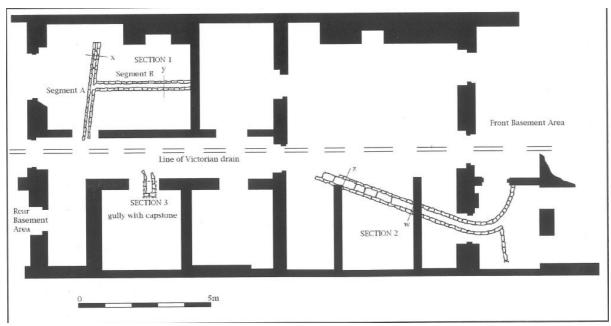


Fig. 1 Basement plan

Section 1

Section 1 is located in a back room of the house (Fig.l). It consists of two segments, A and B. Segment A runs from the side wall straight out through the original doorway of the room. It ends just outside the doorway where it was disturbed by the late Victorian period pipeline. A runs through the middle of the room, starting just short of a dividing wall, and is joined half way down by segment B, which runs perpendicular to it.

Segment A was 13-15cm in width and consisted of an earthen floor with side walls of standard red clay bricks (23 x 10 x 8cm) laid lengthways, one brick high running for a length of 360cm. The bricks were sealed with a light mortar, a thin layer of which, 2.5cm thick, held the stone paving slabs of the floor above. Where A begins - beside the side wall of the house - three square red clay tiles (31 x 31 x 3.5cm) were laid flat and mortared forming a sealed base for the drain. There is no evidence that this continued for the length of the drain. It is quite possible that their purpose was to prevent seepage into the foundation of the house and to help the run-off, which was of quite a gentle gradient (Fig.2).

Segment B is the same length as A (360cm). It also had an earthen floor with mortared brick walls, one brick high, 13-15cm apart. However, unlike A, clay tiles (the same type as those found in A) were mortared over the bricks, sealing the drain from above. A layer of mortar (2.5cm thick) then held the floor slabs. The tiles run for the length of the segment. Despite the differences in form, the evidence from the joint of both drains seems to indicate that they were built at the same time. However, seepage must have been a problem as the run-off gradient was not considerable at all, and the drains had earthen floors. It should be noted that this part of the house drainage system differs both in size and construction to the other sections recorded.

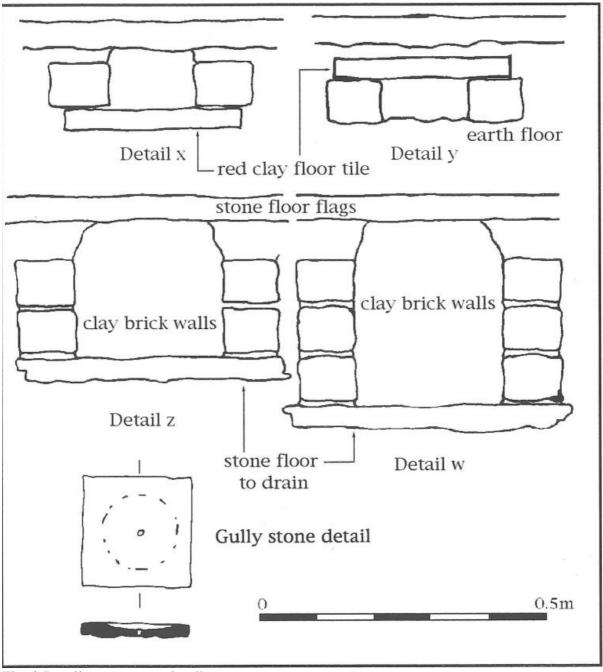


Fig. 2 Details x, y, z w and gully stone

Section 2

Section 2 is situated in the opposite corner of the house (Fig. 1). It runs in a diagonal line from roughly the middle of the house to the front corner, running under two minor walls, and exiting through the front basement area doorway, avoiding the major load-bearingwall of the front of the house. Once out the door, the drain divided in two and went in opposite directions. Firstly, it curved off to the right, to a stone gully in the corner of the basement yard just opposite the door. Only one side of the drain wall survived here. The other and probably more important part, curved away at roughly 90° towards the centre of the yard, where it possibly went out under the road and joined the great oval brick sewer, which was built as part of the development of the street. It has since been replaced by the Victorian pipeline, obliterating its predecessor. It is also quite possible that it did not actually go straight to the

sewer, as the new pipe does, but went next-door to its sister house (built at the same time) joining with its drains before entering the sewer. The path of the drain at its other end (towards the centre of the house) is not that easy to determine either. It also was obliterated by the Victorian pipe and, as shall be discussed later, its obvious path as main drain down the middle of the house is not absolutely certain.

Section 2 has a stone slab base, the slabs being the same as those used to floor the house. The walls were of mortared brick, 26cm in width and 2-3 bricks in height (Figs. 2). There was a 6.5cm deep layer of mortar between the tops of the walls and the floor slabs above. It is possible that there were tiles originally covering the drain (as with section 1, y) on which the floor slabs rested. Certainly measurements correspond exactly to those where the tile was present.

As there is no evidence for tiles and the floor slabsappeared to have been contemporary the drain and as that the drain runs under two walls (where extraction would have been difficult), it is unlikely that this drain was ever tile-covered. There was a very steep gradient to help the run-off, which went towards the front of the house. This can be seen where an extra course of brick was used towards its exit through the doorway (Fig. 2). This drain is twice the width and depth of section 1 and was clearly better designed for carrying water. Interestingly a corner of one of the walls it passes under collapsed into the drain itself blocking it, although this seems to have happened quite recently.

Section 3

Section 3 consisted of a brick made gully with a specially made capstone above. Situated in a room in the centre of the house, beside the original wine cellar. The drain curves out towards the back of the house. The drain's dimensions are similar to those of section 2, but it is not clear if they ever connected. The base of the drain and gully was lined with flat stone slabs. The walls were 26cm apart and of brick and mortar, to a height of 2 bricks. They were then capped with the stone floor slabs. Over the gully itself was a specially made capstone (Fig. 2). It measured 48 x 48.5 x 5cm and had a ground concave centre with a circular hole of 3cm diameter in the centre. This stone was clearly designed to collect waste water from the room.

Discussion

At first glance it seems plausible that the three sections of drain recorded were connected to a drain, followingthe path of the Victorian pipe, down through the centre of the house. However, this is not so certain. Firstly, section 1 drains away towards the back of the house whereas section 2 drains towards the street into the large oval drain. Since it is unlikely that a drain would flow in two directions, it seems quite possible that there was a main drain serving the back area only, into which sections 1 and 3 fed. Where this drain ultimately drained to the rear is uncertain. The only thing we can be certain about for the whole system is that it was not used for sewage. Indeed in London it was illegal to do so, due to the obvious blockage, seepage, smell, etc. (Cruickshank 1990). Sewage was dealt with mostly by cesspits situated at the end of the long town house gardens.

The uses of the individual sections of drain can be interpreted from the examination of the original internal layout of the house. Section 2 was clearly designed for a large volume of waste water -hence its width, steep run-off and sealed base. It most probably served the large kitchen, situated at the front of the house.

The only actual drainage point that we have is the gully capstone of section 3. As this room is identical in size to the wine cellar adjacent, there is the interesting possibility that it was used for brewing beer. It is well known that beer was brewed by the Georgian middle classes -they drank it instead of public fountain water to avoid getting one of Dublin's 'famous and frequent fevers' (Somerville 1988). Finally we have section 1 which serves what would have been the housekeeper's room. No evidence of a drainage point turned up and the poor gradient coupled with its earthen base makes one wonder not only what purpose it served but also whether it was effective or not. It is possible that the servants' washing was done here, although the reason for such a large area to be served by the drain is unsure. One thing that is certain, seepage would have been extensive. It is hoped that this article not only records but also stimulates an interest in the archaeology of the Georgian period. With the growing popularity of industrial archaeology, coupled with the cut-off point of the S.M.R. at 1700, a clear gap is developing in the research and study of this interesting period - a gap that will become more and more evident in future years. After all, there is more to the Georgian period than architecture!

Note

It should be borne in mind that although the author did see the drains as they were uncovered, he was unable to examine them when the decision to write this article was taken, as most had been destroyed in further necessary renovations. The author therefore had to rely on the architect's account and drawings, as well as his own personal recollection.

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CHRISTIAN COMMUNITIES IN FIFTH AND SIXTH CENTURY IRELAND

Cathy Swift*

It has often been assumed that, following Palladius' mission of AD 431, Ireland became entirely or at the very least predominantly, Christian in the course of the remainder of the 5th and 6th centuries (see amongst others Hughes 1966, 39-56, Ó Corrain 1994, 3). Other historians have abandoned the 6th century altogether, taking the view that we simply do not have enough sources to discuss the period (Sharpe 1984, 239-43; Etchingham 1994, 38). The purpose of this paper is to examine some of the archaeological evidence for the existence of Christianity in Ireland during this two hundred year period and to discover whether the material remains can add to our knowledge of this era.

Christian cult objects in the 6th century

Christian cult objects from 6th century Ireland are rare. The six wooden wax-coated tablets, held together with a leather thongs and attached to a shoulder strap, which were found in a bog in Springmount Co. Antrim are dated to the late 6th or early 7th centuries (Armstrong and Macalister 1920). Psalms XXX to XXXII were inscribed in the wax with a stylus, the dating is dependent on palaeographical analysis of the script (Brown 1984). There are no other tablets known from Ireland but similar tablets, bearing secular texts, are known from late Roman Britain (Bowman and Thomas 1983, 34-5). The relatively widespread existence of such tablets in early Ireland is indicated by their Irish name, *polire*. This word has been interpreted as a borrowing of Latin *pugillares* with a postulated Vulgar Latin form **pugllaria* which has gone through the grammatical development in Irish known as syncope. On current thinking, this occurred around the middle of the 6th century (McManus 1983, 37-8, 66; 1991, 89). One can thus assume that there were a number of such writing tablets in existence in 6th century Ireland and that at least a percentage were used for Christian purposes as in the Springmount example. In an early 8th century text, a polire is given to a newly-consecrated bishop as part of the equipment necessary for his ministry (Bieler 1979,176-7, 246), it is reasonable to assume that tools such as these would have been essential from the advent of Christianity in Ireland.

Cormac Bourke has recently suggested that "either an import or a close imitation" of a 6th to 7th century relic box from the Mediterranean was found at Dromiskin in Co. Louth in the 1940s (Bourke 1993,14). This was a stone box with a sliding lid, covered with thin strips of decorative leather, enclosing a similar box of wood(Raftery and Tempest 1942). It was found beside the skull of a male extended inhumation in a cist-grave, with his head to the east, in a churchyard at a site well-documented as an ecclesiastical centre in the 8th century. In the box was found a small ring-headed pin of unknown date, together with some charcoal, it is impossible to tell whether the box was being used as a relic container or was simply viewed by its owner as a small ornamental casket at the time of its deposition.

A Christian cleric is commemorated on an ogam stone from Arraglen in Co. Kerry: *Qrimitir Ronann maq Comogann* or "— of the priest Ronan son of Comgan". The language used in this inscription has been described as belonging to one of the latest groups of ogam inscriptions which are dated roughly to the second half of the 6th century (McManus 1991,

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96-7). Together with the Springmount tablets, this stone provides good evidence for the presence of Christian clerics in Ireland during the 6th century. Other remains, like the Dromiskin box, are less clear-cut sources of information and their precise value for the study of early Irish Christianity is a matter for interpretation and debate.

Linguistic analysis and the dating of ogam stones

Ogam stones are probably the most abundant artefact type known from this era and McManus's (1991) recent study of their inscriptions has the potential to revolutionize the archaeological study of these monuments. Memorial stones bearing inscriptions in the ogam alphabet are found in most counties of Ireland, in Wales, Devon, Cornwall and the Isle of Man. The inscriptions record the name of an individual with or without an indication of parentage and/or community affiliation, the stones may have served either as tombstones or as charters of land ownership; or both (McManus 1991, 44, 154-5, 163-5). The script in which the memorials are written is generally described today as a cipher, possibly deriving from the use of tally-sticks, it was based on the Latin alphabet (ibid., 6-39). McManus believes that the ogam cipher was probably invented in or before the 4th century with the specific purpose of recording the Irish language (ibid., 40-1) but that the stones on which it is first recorded belong in the main to the 5th and the first half of the 6th centuries, with the latest types continuing up to the 7th century (ibid., 96-100).

Absolute dates for individual stones are, however, difficult to isolate. Ogam stones have no palaeographical styles which can be used to provide a relative chronology, the only direct evidence for the evolution of language in this period comes from the inscriptions themselves (ibid., 78-81). Unfortunately, the inscriptions do not present us with this evidence in a consistent fashion; we are dealing with statistical trends rather than absolutes. The possibility exists that the changes which occurred in the Irish language may have developed in different areas at different times, that individual craftsmen may have been more or less conservative than their fellows and that what we identify as consecutive changes may have overlapped to an unknown degree (ibid., 80-1, 92-3).

Moreover, the absolute dates which linguists have provided and which have, to a certain extent, become sacrosanct through time, often stem originally from assumptions made about the historical or archaeological evidence. Thus Jackson's chronology of sound changes (which underpins much of McManus' work) assumes that a bilingual stone with a memorial in Latin letters (*memoria Voteporigis Protectictoris*) and an ogam inscription (*Votecorigas*) can be identified with the Welsh king Guortepir of Dyfed, who is mentioned as a man with whitening hair in a work by Gildas (Jackson 1953, 169-70; McManus 1991, 52-3), which itself is only very roughly dated to the middle third of the 6th century (Dumville 1984).

Again, one of the diagnostic sound changes which provides the relative chronology of Ogam stones, is dated through analysis of an inscription found on a stone in ploughed topsoil inside the defences of the Roman town of Wroxeter (Wright and Jackson 1968). This stone was dated epigraphically to sometime in the 5th or first half of the 6th century but a more precise dating to the second half of the 5th century was put forward on the basis of the historical argument that an Irish warrior could only have been active in Wroxeter after the withdrawal of the Roman legions in AD 408 and prior to the disappearance of Roman Wroxeter sometime in the 5th century. Both premises are suspect. We have references to Irish raids on Britain from the 3rd century (Salway 1981, 241), while Philip Barker's excavations at Wroxeter have shown a substantial post-Roman settlement in the town in the mid-5th century, while such evidence as exists for its abandonment has led the excavator to infer that it

continued to be inhabited until some point between AD 500 and the mid-7th century (Webster and Barker 1991, 28-9). These two absolute dates (of mid-6th century for the Votecorigas stone and mid-5th century for that at Wroxeter) are thus highly questionable and an absolute, as opposed to a relative, linguistic chronology which is based on them seems unconvincing. Archaeologists, searching in the Stygian gloom of our 6th century past, should note that they are quite likely to meet linguists stumbling alongin the opposite direction.

On the other hand, even if one cannot always accept the specific dating ranges postulated for various language developments, there is a broad terminus ante quern for the relative chronology. By the later 7th century texts with early Old Irish forms survive in some numbers; we can, at the very least, say that the language of the ogam stones appears to predate that found in 7th century documents. Thus the relative linguistic chronology has a peg at one end of the chronological spectrum from which to hang. At the other end, the chronological argument remains basically a historical one, it is from the late 4th and early 5th century that we have the most information for Irish contacts with the Roman empire, this provides the most likely context for the development of a cipher based on the Latin alphabet (McManus 1991, 41). The archaeological picture appears comparable: Roman finds in Ireland tend to belong either to a 1st and 2nd century AD horizon (which, on evidence of contemporary Gaulish inscriptions is likely to predate the development of the "ogam language"), or to the 4th and 5th centuries (Bateson 1973). I would argue, therefore, that the series of linguistic parameters provided in McManus' work can be used by archaeologists to break up the vast corpus of ogam stones into more manageable units which can then be matched against arthistorical or other forms of information. Furthermore, while accepting that linguistic analysis cannot provide us with absolute dates, it seems to me that an acceptable shorthand for those linguistic groups which in the relative chronology are "early" is "probably 5th century", while the groups which are "late" can be termed "probably late 6th or early 7th century".

Pillar stones with Maltese crosses

While attempting to isolate evidence for Christianity in early Ireland, two subsets of the ogam stone corpus can be put forward. The first is dependent on the Arraglen stone, mentioned above. In addition to its "late" inscription (second half of 6th century on McManus' absolute chronology), the stone is ornamented with two crosses. One of these is a Maltese cross with a hook-like expansion at the right side of the upper arm, interpreted as a monogram form of the *chi-rho* symbol (Hamlin 1972, 1982, fig. 17.1, Cuppage 1986, 248-50). On the opposite face is another Maltese cross, this time within a circle and without the *chi-rho* "hook". Macalister argued that crosses on ogam stones could not be assumed to be contemporary with the ogam inscription but this was because he was working within the MacNeill model which viewed all ogam writings as essentially pagan (Macalister 1945, passim; MacNeill 1909, 301). McManus has convincingly refuted such arguments (1991, 55-61), Macalister indicates that MacNeill himself had ceased to believe in them by the time of the publication of *Corpus InscriptionumCelticarum* (Macalister 1945, xvii).

Moreover, a Maltese cross of similar style was found at Church Island which is cut by an ogam inscription dated by McManus to the very last phase of ogam production, probably in the 7th century (1991,100; see O'Kelly and Kavanagh 1954). This means that at Church Island, the carving of a Maltese cross must have predated the "late" ogam inscription. Following Lionard's (1960/61) synthesis McManus minimizes the importance of this, arguing that early cross-types continued in use alongside later forms so that no chronological importance can be attached to this early dating for a Maltese cross (McManus 1991, 80). I would argue that Lionard's dating scheme is not relevant to pillar stones as it was developed

to date recumbent cross-slabs only (Lionard 1960/61, 96) and that his scheme is dependent to an excessive degree on dates drawn from the Irish annals (Swift 1996b)., Therefore, the Church Island stone as provides crucial evidence for the production of this cross-form in the late 6th and early 7th century as well as providing support for the conclusion that the Arraglen crosses are probably also contemporaneous with the *Qrimitir Ronann maq Comogann* inscription.

A third stone with a Maltese cross, also with a *chi-rho* "hook" is found on the island of Iona, where a Christian community was founded by Columba circa AD 563. The stone on which this cross is inscribed has an inscription written in Latin and carved in Latin characters, lapis Echodi or "the stone of Echuid/Echoid". Epigraphically, this inscription is dated to the 7th century (RCAHMS 1982, 182-3). A date in the earlier part of the 7th century is perhaps suggested by the only other early inscription which includes the word "stone". This is from Inchagoill in Co. Galway, it is written in Irish but in Latin characters: *Lie Luguaedon macci Menueh* or "the stone of *Lugaedon son of Menueh" and has been dated by McManus to the penultimate phase in ogam production, possibly the late 6th or early 7th century (1991, 96-7). This stone has seven cross forms inscribed on its various faces, including two at one end of the stone above the inscription. In this case the crosses are plain with forked terminals (Macalister 1945,1-3).

The lapis Echodi stone is of rather different shape from the other two stones, being a small grave-marker, 0.36m x 0.27m while the others are narrow pillars, between 1 and 2m in height. The Maltese crosses on all three stones are similar without being replicas of one another. It seems plausible to assume that the Iona stone post-dates the foundation of Columba's community there which gives the monument a terminus post quern of AD 563, this means that dating evidence for all three stones, the one historical, the others based on linguistic analysis of their inscriptions, points to the later 6th century as the earliest possible date for their creation. Furthermore, all three stones appear to belong to the functional contexts identified for ogam stones, being either pillars which marked land boundaries or monuments associated with burial; this, in turn, makes it likely that their production did not long postdate the practice of raising ogam stones. Together with the Inchagoill monument, they indicate that the original practice of raising memorial pillars in honour of the dead was probably being modified in its latest stages in the late 6th and early 7th century, by the use of the Latin alphabet and by the carving of crosses on the monuments. It may be that it was overtly "Christianised" ogam stones such as these that Tirechán had in mind when he wrote in the second half of the 7th century that Patrick had inscribed letters on stones with his own hand (Bieler 1979,146-7).

Other pillar stones with similar inscriptions and Maltese cross forms carved on them may provide us with evidence of the wide distribution of Christian communities in this period. One from Aglish, Co. Kerry has a Maltese cross within a circle and an ogam inscription which includes the 6th century form MAQI (Cuppage 1986, 258-9) although McManus is careful to stress that this is a formulaic word and as such, could be resistant to change (1991, 96). There is also the small boulder with a Maltese cross at Maumanorig Co. Kerry with an ogam inscription including the form Anm which McManus would see as a relatively late development, characteristic of the last phases of ogam, at some point after the middle of the 6th century (1991, 73, 95; Cuppage 1986, 332-4). A pillar stone with a Maltese cross and a chi-rho "hook" at Whithorn is inscribed in Latin letters with the words hoc Sti Petri apvstoli "The place of St Peter, the apostle" (Allen and Anderson 1903, iv 496-7). This may be connected with the establishment of the first Anglian bishopric before AD732.

Finally, there are also pillar stones and boulders with Maltese crosses which have no dating evidence but where the cross is similar in shape and is inscribed in roughly the same position as in the preceding examples e.g. Knockane and Coumduff, Co. Kerry, both with chi-rho "hook" (Henry 1937, pl.XXVII; Cuppage 1986, 280), St Gobnet's stone, Ballyvourney, Co. Cork (Henry 1937, pl.XXX), Caherlehillan Co. Kerry, with what appear to be corrupt Alpha and Omega symbols (Crawford 1980 pl.XII); Caher Island, Dooghmakeon, Inishkea North and Duvillaun More, Co. Mayo (Henryl947, 29-32; 1937, pl.XXIX, XXXI; Macalister 1945,11), Cloghan and Dunlewy Far, Co. Donegal (Lacy 1983, 253, 265), Faha, Co. Kerry (Cuppage 1986, 283-4) and possibly Drumnacur, Co. Antrim (Hamlin 1982, pi. 17.2c). If one included Maltese crosses with stem elements attached, one could add still further examples, including the Reask pillar stone A which stood on the north-eastern boundary of the lintel-grave cemeteryfound on that site (Fanning 1981, 86, 139-141; Cuppage 1986,336-45).

In short, we appear to have a group of monumentswith a current distribution in Kerry, Cork, Donegal, Mayo, Galloway and the southern Hebrides. Theremay be many more: historically, stones such as thesehave been studied far more extensively in the westernparts of Ireland, there is obvious potential for new finds in the eastern half of the country (see Fenwick 1996 fora possible example in Co. Meath). They are characteristically pillar shaped, with a Maltese cross being foundon one of the wider faces, either centrally-placed or atthe upper end of the stone. A number are inscribed with ogam inscriptions of the normal memorial type. The two Scottish examples have inscriptions in the Latin alphabet; they appear to parallel the ogam stones in function, one being a grave-marker while the other proclaims the patron of the area. In date these monuments with Maltese crosses may belong to the later 6th, 7th or even early 8th centuries. They would appear toprovide good evidence for the relatively widespread existence of Christianity at this period, at least in western Ireland, a more detailed analysis of these crosses and their parallels could prove to be a rewarding apostgraduate research topic.

Pillar stones with KOI-iorm inscriptions

Another small sub-grouping within the corpus of ogam stones also appears to portray strong ecclesiastical influence. These are the stones with inscriptions which incorporate the element KOI. McManus, following previous scholars, identifies this as a word defining locality, "here", from which the later Old Irish $c\dot{e}$ is developed, he suggests the KOI inscriptions correspond to the use of HIC IACIT on memorial stones in Britain (1991, 51,119). This formula was developed by 4th century Christians in the Roman empire in substitution for the earlier pagan formulae such as DIS MANIBUS "to the spirits of the departed" (Nash-Williams 1950, 8). In contrast to the Maltese-cross memorials, the two KOI inscriptions for which McManus provides linguistic dating belong to the earliest phase identifiable in the ogam stone corpus, probably sometime in the 5th century (1991,94,97).

The Irish stones are found in Killeen Cormac, Co. Kildare; Legan and Ballyboodan, Co. Kilkenny; Donard, Co. Wicklow; Monataggart, Co. Cork; and Ballintaggart, Co. Kerry (Macalister 1945, 26-7, 38-9, 42-4, 52, 119, 152, 156-7). Readings of KOI inscriptions which McManus would classify as doubtful are also given by Macalister for the stones at Donaghmore, Co. Kildare and Ballyhank, Co. Cork (1945, 30-1, 94-6; McManus 1991, 79, 96). Of these, Killeen Cormac, Monataggart, Ballintaggart and Ballyhank have all provided more than oneogam stone butonly atBallintaggart do two stones with KOI inscriptions survive from the same site. Three pillar stones are ornamented with small simple cross forms in the central position (Macalister 1945, 39, 152, 157; Cuppage 1986, 264-6) again, the probability that these are contemporary with the inscriptions is strengthened by an inscription

from Dingle, where an ogam inscription from this earliest linguistic horizon (but without the KOI element) cuts a similarly plain cross (McManus 1991, 94; Cuppage 1986, 255). The presence of such crosses can be seen both as supporting McManus' interpretation of KOI and as strengthening the case that they reflect the existence of Christian communities in 5th century Ireland. The stone at Killeen Cormac is found on the site traditionally associated with Cell Fine, which the 9th or 10th century Vita Tripartita links to mission by Palladius. However, Nicholls has argued persuasively that a more plausible etymology for the English name is Cell ingen Cormaic or "the church of the daughters of Cormac" and that no direct association between Palladius and this Kildare site can be made (Mulchrone 1939,19; Hogan 1910,192; Nicholls 1984, 547-8).

Though McManus has postulated that KOI inscriptions represent a parallel for the HIC IACIT formulae in the Latin alphabet on monuments from south-west Britain, the KOI formula does not occur on the ogam stones in Britain. On the other hand, many of the HIC IACIT stones in south-west Wales commemorate Irishmen who had settled there and intermarried with the Romano-British inhabitants (Richards 1960, 141-3). This would appear to imply that Irishmen resident in Wales were content to adopt the HIC IACIT formulae without translating it into Irish although they did, in many cases, modify the Roman style by using the personal name in the genitive case, as was the normal (though not invariable) custom in Ireland (Nash-Williams 1950, 9-10). This may, in turn, mean that we should see the KOI formulae as representing an adoption of the HIC IACIT style from its Continental home-land.

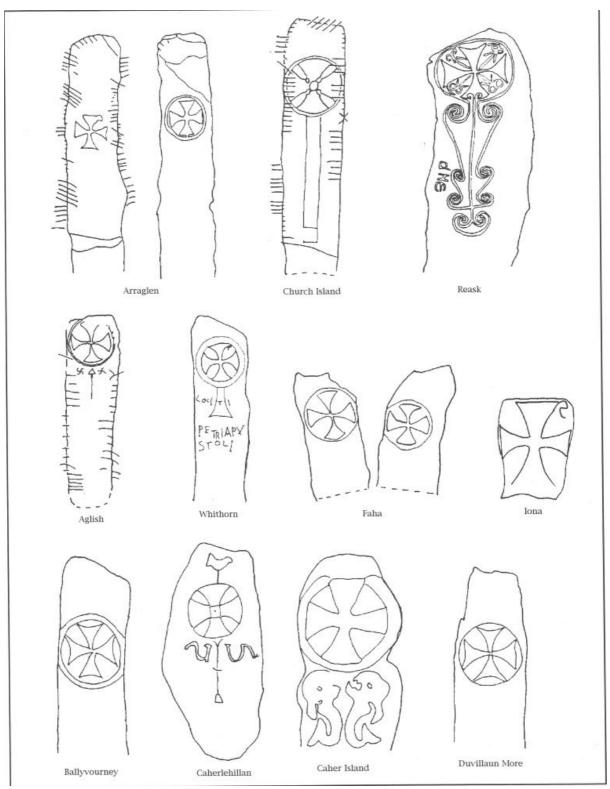


Fig. 1 Illustration is based on drawings in Allen & Anderson 1903, O'Kelly & Kavanagh 1954, Henry 1936,1937, Crawford 1980, RCAHMS 1982, Cuppage 1986. Figures not to scale.

Nash-Williams pointed out that the HIC IACIT formula had begun in 4th century Italy. It had a restricted vogue in Gaul in the first half of the 5th century, centred on the two foci: in the Rhone valley, around Lyon and Vienne; and in the Rhineland (1950, 55). In a recent paper, Jeremy Knight has pointed to scattered examples of HIC IACIT stones in Bordeaux, the

Gironde, the Vendee and Haute Garonne (1992, 48). Accepting that these Gallic stones may have provided the initial inspiration for the Irish KOI stones, they would be but one of a number of varied indications for sub-Roman Gaulish influences reaching Ireland in the 5th century. Palladius, sent as the first bishop of the Irish, is normally identified with the deacon of Auxerre, who encouraged the Pope to send missions to combatPelagianism in Britain (Charles-Edwards 1993, 1). Palladius's own mission to the Irish is recorded in the works of Prosper of Aguitaine. In his *Confessio*, Patrick refers to his wish to visit brethern in Gaul while in the Letter to Coroticus, he shows a knowledge of Gallic Christians who ransom captives (Conneely 1993, 44, 72, 54, 79). The 7th century writer Muirchu gives a garbled account of Patrick's conversion at the hands of a bishop, *Amathorege nomine*. This has been taken to be a Celticised version of "Amator", bishop of Auxerre, to whom the 5th century basilica of Auxerre was dedicated (Bieler 1979, 74; Binchy 1962, 86). Southern Gaul was a hive of political and intellectual activity in the early 5th century (Collins 1991, 64-90). It has been shown that the papal mission to the Irish remained a matter of concern at the highest political level within the Church for ten years or more (Charles-Edwards 1993). It seems likely that one of the Christianising influences on 5th century Ireland stemmed from Gaul and that, as archaeologists, we should be looking to the material culture of that area in our quest to recognise the earliest stratum of ecclesiastical material in Ireland.

The nature of the 6th century church in Ireland

What then do these stones indicate about the nature of the 6th century church in Ireland? The Springmount tablets and the Arraglen ogam stone, the one inscribed with verses from the Psalms and the other the memorial of a priest, both provide conclusive evidence of Christian communities at either end of the country in this period. If the linguistic dating of ogam stones provided by McManus is seen as having archaeological validity (there seems little reason not to accept it as an approximate guide), a group of sites marked by pillars ornamented with Maltese crosses can be identified in the western half of the country and tentetively dated to the late 6th and 7th century. At an earlier date, probably in the 5th century, there are sites with ogam stones bearing KOI inscriptions scattered over the southern half of the country; it is suggested here that these may reflect 5th century influence from Roman Gaul in Ireland although influence from south-west Britain is also possible.

Despite the claims of a recent authority, there is no reason to assume that late Roman influence on Ireland is inextricably inter-twined with the fate of the Church in the same period (De Paor 1993, 38-9). Neither the burial of gold coins and jewellery, at what seems likely to be a site of contemporary pagan veneration at Newgrange (Swift 1996a, 1-3); nor the large, 5th century hoards of Roman silver from Balline Co. Limerick and Ballinrees Co. Derry; nor the scattered finds from high-status hill-top sites (Raftery 1994, 210-7), show signs of being anything other than non-ecclesiastical deposits. Like the ecclesiastical evidence, they are scattered across the island, while no one area appears to have had exclusive control of foreign goods the bulk isfound in the eastern half of the country. In a summary of the evidence for secular contacts between Ireland and the Roman world in the 4th and 5th centuries (Swift 1996a, 3-7), I concur with Harold Mytum's opinion that the best parallels for this material occur in Britain (Myturn 1992, 23-43). The meagre documentary sources are clear that Irish raiding took place primarily in the western half of Britain while ecclesiastical activity in Ireland stemmed from both Britain (Patrick) and the Continent (Palladius).

The sites on which 5th and 6th century Christian memorial stones are found appear to vary widely in status. On the one hand there are sites such as Iona which has a good historical

record as a royal ecclesiastical settlement of high status. The site of Killeen Cormaic in Co. Kildare, produced only one stone with a KOI inscription but it has a variety of other ogam stones, it is likely that it represents an important local cemetery of approximately 5th century date. Church Island, which produced a Maltese cross predating an ogam inscription, has been interpreted as a local church serving the community in the nearby settlement site at Beginish, which may even have housed some of the church tenantry (O'Kelly 1957-9, 55; 6 Corrain 1980, 327). The status of other church sites with Maltese crosses is even less clear while the Arraglen pillar currently stands in an isolated position in the centre of a high pass over Mount Brandon [See note below].

The over-riding impression left by the sources for 5th century Irish Christianity is one in which Christian communities were in relatively close contact with their local pagan counterparts but were isolated from each other. Palladius was sent as first bishop of the Irish and, given the Church administrative structure of the day (Jones 1964, 874-9), this probably means that he was being sent to a single community. Patrick makes no mention of Palladius' mission and states that he was the first to bring Christianity to certain areas within Ireland (Conneely 1993, 40-7, 70-4). Again this would lead one to infer that he was probably working in communities which had not been visited by the Auxerre deacon. The KOI stones are widely scattered, though few in number their current distribution covers the southern half of the island, from Wicklow to Kerry. Only with the chronological horizon represented by the Maltese crosses do we begin to see a number of sites in relatively close proximity to one another and it is only at this stage, I would argue, that one may, perhaps, begin to think of institutional links connecting individual Christian communities. This has implications for the ongoing debate about the nature of island-wide organisations in the early Irish church, be they monastic or diocesan (Hughes 1966, 57-90; 6 Croinin 1995, 145-54 v. Sharpe 1984; Etchingham 1993,1994).

Note: The western face of the Arraglen pillar stone, with its chi-rho symbol, is currently facing directly into the prevailing winds and is now almost impossible to see, as is much of the ogam inscription itself. A local suggestion that the stone should be moved to Cloghanehas not, as yet, garnered much support. If this important monument is to be preserved for posterity, it behoves all interested parties to argue for its removal from its current position as soon as possible.

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THE BLACK MARKINGS: RESEARCHING THE PREHISTORY OF CANTABRIA

Carmen Leal y Soria*

Introduction

One of the best known features of European prehistory is the Franco-Cantabrian Palaeolithic cave art. It is named after the cave paintings first discovered in the early 19th century, mainly in the northern Spanish region of Cantabria (Santander), but also in southern France, it includes such significant sites as Altamira and El Castillo caves in Spain, and Lascaux & Trois Freres in France.

Altamira, discovered by Sainz de Sautuola, was the first European cave with man-made art, which archaeological research tried to relate to early prehistoric times. The dating of this cave art to the Palaeolithic era caused major controversies among the 19th century scientists about the ability of, so-called, primitive man to create such artistic masterpieces.

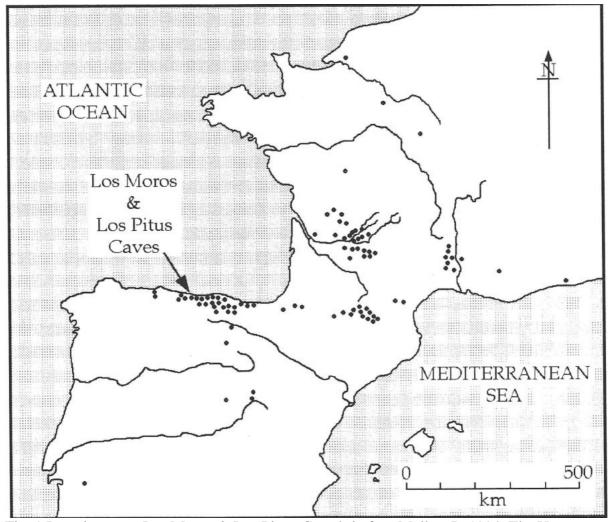


Fig. 1 Location map, Los Moros & Los Pitus, Cantabria fromMellars, P, 1994, The Upper

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Franco-Cantabrian cave art is a well catalogued, geo-graphically defined style of cave painting. It is found in an area from the northern Cantabrian coast of Spain, to western and central France. From the beginning of this century, this style of cave painting has had its chronological niche well established in the Upper Palaeolithic period. The "style" was studied and redefined in the early 1960s by the French archaeologist Leroi-Gourhan, who viewed it as a complex image language.

In Spain, Cantabrian cave art is clearly distinguished from the later "Schematic" style of art, both on chronological and geographical grounds. Schematic cave paintings are mainly found in the eastern Mediterranean areas of Spain, and are dated (on typological grounds) to Neolithic and Early Metal Ages.

Now in Cantabria, the very spot were Palaeolithic art was first identified, recent discoveries are forcing archaeologists to ask new questions. Black markings and schematic Art, first found by amateur sport-cavers and potholers in a handful of Cantabrian caves, are heightening archaeological interest in this small Spanish region and advancing prehistoric studies in the area.

These discoveries were the subject of a recent (12th -14th October, 1995) international conference which was held in Vitoria (Alava, Spain), organized by The Society for Basque Studies; Alava Institute of Archaeology, Alava University; and ATTICA (Prehistory and Cave Studies Center, Santander), to which the author belongs.

In this short article I will discuss some of the new discoveries and assess their implications for future studies of cave painting in this region of Spain.

History of discovery

One new feature on the archaeological map of Cantabria is the discovery of increasing numbers of charcoal paintings in many of the region's caves.

At the beginning of this century, archaeologists who were carrying out research into cave paintings in this area, such as Alcalde del Rio, Breuil and Serna, mentioned the existence of charcoal markings in the caves of Covalanas and El Castillo. Obermaier and Breuil studied them at Altamira, and dated them to the Palaeolithic era, referring to them by the name we still use today: "Black Markings."

In the 1960s they were found in a few caves, such as Solacueva and Lazalday, in the province of Alava. There, A. Llanos coined the term "Abstract-Schematic Painting" to refer to them. However, he dated them to the Late Bronze Age and Iron Age based on archaeological evidence from a few of these caves.

While most researchers believed the markings to have originated in Palaeolithic or post-Palaeolithic times, the studies carried out by Emilio Munoz and Peter Smith (Group for Further Studies in Prehistoric Archaeology, now working on cataloging Prehistoric art in Cantabrian caves) added a new dimension to the question. They pointed to the frequent appearance of handmade ceramics and iron or copper objects next to the paintings and

probably related to them in some way. This led them to date the black markings to the Iron Age.

Other material also found nearby, such as Celto-Iberian style painted pottery or common Roman and late sig-illata ceramics, leave the question open as to whether these paintings might be proto-historic in origin. However, they bear no resemblance whatsoever to any known Roman or Medieval grafitti.

Location & Characteristics

The location of these paintings basically runs (westward) from Alava to Cantabria. There do not seem to be any in Asturias.

The markings are small and appear both singly and in panels. They are black and they form dots, circles, straight or curved lines (separately or in combination with others), spots and schematic drawings (similar to stick figures of human beings) and many smears. These markings frequently show adhesions of the carboniferous material which gives them their characteristic colour. Thin spreads of charcoal are often found on the cave floors below the markings, these are probably related to the creation of the paintings.

In spite of one's first impression that these might be accidental soot marks or attempts to rekindle torches against the wall, the presence of these motifs in remote and hidden places indicates quite another intention on the part of those who made them.

Normally, the markings are drawn in such a way as to make use of natural features of the rock face (hollows, crests etc.) and on both smooth and rough surfaces. They are generally close to the ground but can also be found in hard-to-reach or dangerous areas.

The markings can be found anywhere from the cave mouth to the very end of the cave. Sometimes they can even be found along shafts within the cave. This attests to authentic cave explorations in ancient times, but itspurpose is still not clear.

In spite of the geographical extent of the markings and the diversity of their motifs, they all have in common the "certain conventional character" that Obermaier and Breuil referred to when they discovered them. This underlying commonality, together with the frequent appearance of material associated with them, seems to indicate that the markings are roughly contemporary with one another.

The Caves of Los Moros & Los Pitus

The caves with black markings in Cantabria are located from the coast to the mountains. In western Cantabria, in the district of La Liebana, within the town limits of Pesagiiero but near the town of Caloca, there are two prime examples of caves with black markings: Los Pitus and Los Moros. Both caves are located in the karstic area of Pena Cigal at a height of about 1400 metres above sea level, which places them among the highest rock paintings in Europe.

Los Moros is the westernmost cave, it was carved by water, and has a large downward sloping opening which reaches an angle 55 degrees. Beyond the slope there is a chamber running horizontally and ending in a large chamber, partially filled by a pile of stone blocks, some 210 metres from the mouth. On the right of the chamber is a narrow, winding gap which becomes impassable 70 metres along.

In the 1960s, members of the S.E.S.S. (Sainz de Sautuola Speleological Seminaries, at that time an active branch of Regional Archaeology Museum in Santander) explored the caves and found ceramic fragments in Los Moros which Prof. Ramon Bohigas (Cantabria University) dated to the Early Middle Ages.

In 1985, the Group for Further Studies in Prehistoric Archaeology (CAEAP), from Santander, explored the caves in order to get background information on a Palaeolithic finding at the Regional Archaeology Museum whose label said it had come from the cave of Los Moros in Caloca. There they found the black markings.

Subsequently, various researchers working under Mr. Fernando Pellon created a detailed catalogue of the markings, together with measurements of the cave itself and photographic documentation. They also found ceramic fragments similar to the Early Medieval ones previously mentioned.

The paintings are located all along the cave. They begin with a single black dot on the left wall 20 metres from the cave mouth and finish in small verticle lines in a hard-to-reach place on the other side of the pile of stone blocks. The motifs consist of dots, lines, spots, both individually and in groups, amounting to a total of about 40. It should be noted that some of the motifs are quite complex.

Los Pitus is also water-carved, though more noticeably so. From the mouth one climbs a slope to where the cave forks into a rising gallery 18 metres long and into the main gallery which continues downwards on the other side. There are many tube-like areas and galleries formed by rock falls, ending in a chamber with curved walls which opens into tunnels and smaller chambers on the right and into a chasm 33 metres long and 85 metres deep on the left.

The paintings in Los Pitus are similar to the ones in Los Moros and are found throughout the entire cave. There are about 100 of them. The deepest are found in the chasm about 10 metres down the rock face. In Los Pitus there are verticle lines forming a sort of upside-down "W," anthropomorphic figures and "sawteeth" together with the usual horizontal and vertical lines and dots.

Bits of charcoal have been found on the cave floor below some panels of lines and dots. Charcoal samples have been sent to the Smithsonian Institute laboratories in the United States for radio-carbon dating. The results should go some way towards establishing the date of these paintings.

Conclusion

There is a lot of work yet to be done on the "Black Markings" in Cantabrian caves. A catalogue of all known occurrences needs to be made, and the corpus of motifs and designs will have to be compared with other corpora of schematic post-Palaeolithic art. Through such detailed study the relationships between the art and the medieval pottery and the Metal Ages artefacts should be explained. The radio carbon dating of the charcoal samples will give us an absolute date for some of the markings. Personally I believe them to be late, providing evidence for almost modern use of the caves, possibly related to the search for new sources of metal. Further study of this style of cave painting should be a significant step forward in our understanding of the archaeology of Cantabria.

POLITICS AND THE PAST

Michael Stanley*

"Intellectuals are in a position to expose the lies of government, to analyze actions according to their causes and motives and often hidden intentions. In the Western world at least, they have the power that comes from political liberty, from access to information and freedom of expression. For a privileged minority, Western democracy provides the leisure, the facilities and the training to seek the truth lying hidden behind the veil of distortion and misrepresentation, ideology and class interest through which the events of current history are presented to us."

(Chomsky 1987, 60)

Introduction

Over the last decade or more there has been a growing recognition and appreciation of the influence exerted on the archaeological discipline by socio-political factors and the inevitable socio-political implications of the knowledge produced by archaeological research. The notion that archaeologists, or indeed anyone engaged in the production and dissemination of knowledge, should be cognisant of their social responsibilities is difficult to gainsay. Events in the former Yugoslavia supply ample evidence of the dangers when the past is appropriated as an ideological tool, as Chapman notes, the civil war there was "more than incidentally about objects from the past and proofs of past possession"(1994,120).

Until recently Irish archaeologists have displayed scant regard for how political objectives might influence their work, that archaeology is "socially situated in the present" is not deemed to be particularly germane (Cooney 1995b, 264-5). However, consideration of archaeology in its socio-political context and its bearing on contemporary society is not a new endeavour (e.g. Clark 1957). Archaeology is a social practice operating in a social context, thus one must conclude that it will have a propensity to address those questions raised by the contemporary society in which it is practised. In this sense, it follows that it will preoccupy itself with producing what will be, in essence, a contemporary past. The ramifications of this, that archaeology "is a making of a past in a present" (Shanks & Tilley 1989, 7), are reflected in current misgivings about the prospect of archaeology being a dispassionate and disinterested discipline if it cannot distance itself from the social milieu in which it is practised and the innate subjectivity that stems from that relationship (Trigger 1984, 356; 1990, 778; Hodder 1984,29).

From what follows it will be seen that archaeology has not operated, nor does it operate, in an apolitical vacuum divorced from national, ethnic, class and personal bias, but rather that its claim to pure objectivity is fallacious and that its interpretations have serious socio-political consequences. Hopefully this article will make clear that the notion of the archaeologist as an "impartial, value-free observer and scientist...[is] a dangerous myth" (Shanks & Tilley 1989, 2) and that socio-political concerns do impinge on the work of the archaeologist. As an amenable and efficacious propaganda tool, whether based on their own convictions or under the coercion of the state, archaeology and its practitioners have played a role in the vilification of indigenous peoples; archaeology has been misused to justify conflict; and has assisted, to a degree, in the process of colonial domination and subjugation.

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Archaeology and Totalitarianism

Without question the most notorious and explicit instance in which knowledge of the past has been appropriated for political and ideological legitimation is that of Germany in the 1930's under the National Socialist party. During this period vast resources were given over to the study of prehistory with the aim of enhancing a sense of national solidarity and using archaeological material as a manifestation of the racial purity and cultural superiority of the German people. Prominent Nazi leaders such as Himmler were quick to seize upon the propaganda value afforded by the misuse of archaeological research which was tailored to National Socialist ideological requirements.

The fascist exploitation of archaeology drew heavily upon the work of Gustav Kossinna, whose book Die deutsche Vorgeschichte: eine hervorragend nationale Wissenschaft (German prehistory: a supremely national science) published in 1912, emphasised the primacy and cultural superiority of the Germans in prehistory (Renfrew 1973, 38). His views proved to be widely influential bolstering, as they did, the growing sense of nationalism before and after WW I. The impact of his archaeological thinking is evident after WW I at the Versailles peace conference where he utilised his theories to substantiate territorial claims where Germany and Poland laid claim to the same areas (Dolukhanov 1995, 329). His efforts to rejuvenate national pride can be seen in the dedication of the 1921 edition of his book.

To the German people, as a building block in the recon-struction of the externally as well as internally disintegrated Fatherland' (Arnold 1990, 465). Following his death in 1932 the National Socialist party began to utilise Kossinna's ideas to provide intellectual justification for their policies, for instance, their expansionist aims were cogently argued via the use of distribution maps which claimed ownership of ancient German territory wherever Germanic artefacts were shown to be present (ibid.). However, although archaeologists were culpable of assisting the Nazi appropriation of the past there was resistance evidenced, for example, when "dissenting archaeologists" on the editorial staff of various journals were replaced by 'right-thinking' party liners' in the mid-thirties

(ibid. 467,472).

The regrettable legacy of Kossinna's ideas and its exploitation by Nazi leaders who accentuated its inherent chauvinism is still keenly felt in contemporary German archaeology. It has resulted in what has been coined the 'Kossinna syndrome', modern day archaeologists having recoiled against excessive interpretation opting instead for an atheoretical, empiricist stance which, as Harke observes, "facilitated the Nazi exploita-tion of archaeology in the first place, and which may still have undesirable political consequences in spite of its claim to objectivity" (1995, 56). Sensitive political concerns of a similar variety were in evidence more recently during the debate about how WW II should be commemorated in Germany and what should be the fate of Hitler's bunker complex in Berlin. In 1990 a newly discovered bunker for SS chauffeurs, with its murals and 1940's paraphernalia still intact, was surveyed and recommended for preservation by the city's archaeological department. However, resistance to the proposal was expressed, believing the material to be inconsequential, while other objections feared the bunker might become a shrine for neo-Nazis. In any event, the incident testifies to the political implications of archaeological research and how objects from the past can be imbued with their own political connotation, as the director of the survey Dr. Kernd'l remarked, the objects were "a potent reminder of the evil of Nazism" (editorial in Archaeology Ireland, Vol.9, No.2 1995).

The manipulation of archaeology by a fascist regime can also be demonstrated in Japan during the 1930's and 1940's when ultra-nationalist sentiments exerted a considerable influence on research into the country's past. Under this regime the research of both archaeologists and historians was severely curtailed. For instance, investigations of eight century A.D. chronicles detailing the divine origin of the Imperial household carried out by a number of historians resulted in their removal from academic posts and even imprisonment in some cases for casting doubt on the divinity of the Imperial household (Tsude 1995, 303; see also Ikawa-Smith 1982, 297). Diffusionist theories which maintained the conviction that ethnic groups were static; unprogressive and could only advance when in contact with culturally superior groups afforded justification for the regime's expansionist policy. Such thinking seems all the more sinister with the revelation that many archaeological investigations abroad were closely associated with Japanese military expeditions. Examples of this occurred both before and during WW II - e.g. Taiwan in 1896, Manchuria in 1905 and Indochina and the Pacific islands in the forties (Ikawa-Smith 1982, 303-4).

The notion of political interference has been recognised in Japanese archaeology and it has been argued that all archaeologists have furthered political causes to some extent, whether "consciously or unconsciously" (ibid. 302). Presently, the primary concern of Japanese archaeology is that it should elucidate the homogeneity and continuity of the Japanese people (Anderson 1987, 271), thus cultivating a belief in the superiority of Japanese culture and its people, as reflected in their current economic success. As Tsude observes, the "conservative politicians and business people are prone to want Japanese people to believe that they are members of a homogenous and harmonious group, naturally unified under the rule of the Emperor" (1995, 302-3). The issue of the Imperial mausolea (huge burial mounds of ancient emperors constructed in A.D. 270-600) lends considerable credence to such a view and exposes the ideological manipulation of the past by the Imperial household. These mausolea are looked upon as symbols of the continuity and hence, legitimacy of the Imperial system in Japan, for this reason the Imperial household has forbidden any archaeological excavation or assessment of the monuments that might prove otherwise (ibid.).

Diaz-Andreu has shed some light on the "lack of political innocence" in Spanish archaeology, namely, its vulnerability to political pressures under the Franco regime after the civil war, although it is noted that the analysis of archaeology's political role is still in its incipient stages (1993, 74). Officially prehistory was regarded with indifference since fascism in Spain validated its totalitarian rule by reference to historic events, such as the Union of Faith and its imperial past. The Union of Faith refers to the theoretical union of Spain under the Catholic Kings in the fifteenth century, made possible by the expulsion of Muslims and Jews, therefore, prehistory did not seem to be particularly serviceable to the needs of nationalistic propaganda. Despite this indifference, however, a number of archaeologists did endeavour to validate the Union in prehistoric times (ibid. 75-6).

After the civil war Spanish archaeologists were cut off from external developments in the subject, a situationmade worse by the exile of prominent figures in the discipline (e.g. Barandiaran and Obermaier) and the centralisation of administration and research. This centralisation entailed the dissolution of non-state ethno-national institutions in regions such as Catalonia, Galicia, Valencia and the Basque country, which were thought to be detrimental to national unity. Everything was to be directed from Madrid (ibid.). However, political interference was at its most conspicuous in relation to the granting of key archaeological appointments based on fidelity to the regime. The case of Julio Martinez Santa-Olalla illustrates this point well, he administrated Spanish archaeology through the Comisaria

General de Excavaciones Arqueoldgicas, directed the Sociedad Espanola de Antropologia, Etnografia y Prehistoria, occupied the chair of Ethnology and Prehistory in Madrid and also controlled a large number of publications. He was also a pro-German fascist and the son of a high-ranking military officer who had fought for Franco (ibid. 76-7).

Dolukhanov contends that from its beginnings early in the eighteenth century Russian archaeology was "strongly ideologically biased" (1995, 327). This can be seen in the form of official support for Classical archaeology in pre-1917 Russia, linked to the sixteenth century 'Third Rome' theory which regarded Muscovy as the heir of the classical Byzantine heritage and hence the spiritual leader of the orthodox world or the Slavic archaeology of the late nineteenth century influenced by Pan-Slavic nationalism which viewed the Slavic people as belonging to a 'new and superior type of World Culture' (ibid. 328). With the advent of the USSR a Marxist oriented archaeology evolved which was commonly perceived as an element of communist indoctrination (Cleere 1993, 121), "promoting Marxist dogmas in relation to the socio-economic development of pre-class and early class societies" (Dolukhanov 1993, 150). Soviet archaeology was restricted to the use of Soviet-style Marxism and archaeological theory, having a deleterious influence in other countries such as China, North Korea, Vietnam and Central and Eastern Europe. A number of Central European archaeologists have recently commented on the rigidity of the system under which they had to conduct their research, noting that it hindered foreign travel, promoted a xenophobic attitude towards the use of data from outside the Soviet bloc, restricted access to foreign publications and demanded that lip-service be paid to Soviet ideology for any of their work to be published or continued, e.g. "facts being included which had nothing to do with the basic archaeology" (Miraj & Zeqo 1993, 123; Schild 1993, 146). In former Czechoslovakia though journals were not censored archaeologists operated under self-censorship for fear of the consequences, some even became agents of the secret police (Neustupny 1993, 131).

While the break-up of the Soviet bloc has ended restrictions on intellectual freedom it has brought new political and economic problems. In Russia, for instance, moves towards a free market economy have caused an economic crisis which has resulted in a diminution in the funds available for research and publication, with no indication that the situation will be ameliorated in the near future (Dolukhanov 1993, 154). Similar socioeconomic developments have afflicted Central Europe -less funding, redundancies, looting of sites, illicit export of archaeological material and problems with the protection of monuments on the now privatised land (Miraj & Zeqo 1993; Neustupny 1993; Schild 1993; Velkov 1993). A more disturbing outcome has been the rise of nationalism, sometimes utilising cultural-ethnic archaeological arguments to substantiate claims to disputed territories in ethnic conflicts. In conjunction with this, the work of Gustav Kossinna is receiving a positive re-appraisal in Russian archaeology and the literature on ethnogenesis, which is often "openly racist", is rising in popularity (Dolukhanov 1995, 337, 339).

The re-unification of Germany has, of course, had political ramifications for archaeologists from East Germany, causing some to remark that they are now "paying the penalty for their over-enthusiasm" in adhering to Soviet ideological requirements (Cleere 1993, 121-2). Western organisational structures have since been applied to the East. This has entailed academic evaluation and political screening resulting in large scale dismissals, alienation and charges of justice being meted out by the victors (Harke 1995, 57, see also Gringmuth-Dallmer 1993,137).

Archaeology and Colonialism

It is now widely conceded that archaeologists played a substantial part in the legitimation and justification of the colonial enterprise conducted by Europeans in various parts of the world. Thus facilitating the denigration, displacement and subjugation of native peoples by substantiating racist myths engineered by colonists (Trigger 1990, 778, 783; see also 1984, 360). Africa is a key example, as Andah observes, "much of Africa's written and unwritten history has sided with its rulers rather than with that of its people" (1995, 107), such rulers bringing with them an "innate sense of superiority, tinged with a strong degree of racism...Few seemed to be worried by the decline of native culture" (Ponting 1991, 138). The investigations carried out at the site of 'Great Zimbabwe' from the late 19th century onwards provide an instructive lesson on the racial assumptions that pervaded European archaeology, assumptions that were both pejorative and tendentious. Cecil Rhodes commissioned a number of archaeologists of varying ability to provide archaeological evidence that would attribute the ruins to Semitic colonists from biblical times, as opposed to the indigenous Bantu people who, it was felt, could not have accomplished the feat of construction without external inspiration. These archaeologists proceeded to interpret the ample evidence for a Bantu origin as a late, historically unimportant, occupation (Trigger 1990, 781). It was not until the work of Caton-Thompson in 1929 that the site was stratigraphically proven to be the cultural remains of the Bantu. However, while Trigger maintains that this work was a "triumph of archaeological technique over politically-inspired fantasies", proving that "archaeological interpretation is not merely a reflection of political and social prejudices" (ibid.) Hall has called attention to the implicit racism of Caton-Thompson's work. He cites her description of the architecture at Zimbabwe as being "the product of an infantile mind, a pre-logical mind, a mind which having discovered the way of making or doing a thing goes childishly repeating the performance regardless of incongruity" (1995, 37). As Hall intimates, claims of empiricist objectivity did not prevent archaeology's collusion, "deliberate or inadvertent", in racist interpretations of Africa's past to assuage the colonial conscience (ibid. 43-4).

However, criticism of archaeology in Africa is not limited to its conduct during colonial times but also to its practice in contemporary Africa. It is Andah's contention that archaeology, as seen in its relation to western social sciences in general, continues to operate as an extension of a power system which endeavours to "impose its will, as well as its socioeconomic and overall cultural system, as the one valid worldwide system" (1995, 98). With this in mind he criticises the disproportionate resources given over to the study of early hominids rather than pre-industrial societies or the tendency to visually represent earlier hominids as black and Homo Sapiens as white. Similarly, the portrayal of Africans as mere pawns to environmental determinism or to the innovations of foreign invaders serves only to perpetuate the impression of an Africa, past and present, "peopled mainly by hunter-gatherers and primitive peasant folk" (ibid. 99-100).

The adequacy and applicability of western concepts and theories to alien cultures has often provoked criticism (e.g. Andah 1995) and has been considered to be a potential threat to indigenous cultures. India during the archaeological survey of the 1860's demonstrates the veracity behind this perceived threat when British rulers were at the forefront in deciding what was Indian in an "official and 'objective' sense. Indians had to look like Indians" (Cohn cited in Ucko 1995, 3). It was the British not the Indian population who decided what artefacts were to be collected and displayed, which monuments were of the highest standards and which monuments were to be recorded or preserved.

In Paddayya's historical review of Indian archaeology he concedes that the activities of European archaeologists were motivated by, or inadvertently contributed to, the domination

and exploitation of India by adding to the information necessary to rule it more efficiently (1995, 119) yet he pleads against the total negation of colonial scholarship. This in itself is a commendable and prudent approach, however, while he adopts a positive attitude one cannot wholly agree with the uncritical view he promotes in its stead, whereby we should cease "arguing about the approaches and motives of scholarship [and] concentrate our criticism on the results" (ibid. 111). Surely, the results are a direct reflection of, and are contingent upon, the intentions that went into their production. Furthermore, his approach does not tally well with his own attitude to "the motives of the contemporary anti-western critical enterprise" which in his opinion "are not always genuine" (ibid.). A statement upon which he does not elaborate. One is dubious of his own intentions and where his preferences lie, or indeed if he is not merely perpetuating the racism and elitism of the British themselves. For instance, his references to the accomplished field archaeologist Col. Meadows Taylor who initially expressed contempt for the Indian population ("the black fellows are such queer 'jummies'"), only later seeing the Indians as "a reasonably civilised people, not painting their faces, carrying tomahawks, marching on war trails and dancing war or peace dances, according to the customs of North American Indians", betray a clear disregard for the racism that belies such statements. Paddayya is equally selective in his citation of Wheeler lauding India's heritage, where it is "possible to dig almost anywhere below a living level and to discover the vestiges of civilization layer by layer" as opposed to, say, Africa where "large expanses...would be singularly unresponsive to a crude test of this kind" (ibid.). Ucko, however, notes the plausible racist undertones to which Paddayya seems oblivious, or simply disregards in the light of India's favourable depiction (1995,12). One finds it difficult to avoid the conclusion that had India's heritage not been appraised so positively by European archaeologists, "an attitude of mind which many parts of Asia and Africa clearly failed to evoke" (Paddayya 1995,143), then perhaps he would be among those debunking colonial scholarship.

Of more immediate political concern in Indian archaeology is the conflict centred on the sacred site at Ayodhya, holy to both Hindus and Muslims. The origin of the conflict might conceivably be attributed to the legacy of the British divide and rule policy and their division of history into religious epochs (ibid. 141). In 1992 a mosque on the site was demolished by Hindu extremists, riots ensued and ultimately resulted in a number of fatalities. Paddayya has apportioned a degree of culpability to historians and archaeologists who were partisan to one or the other politico-religious groups and disseminated competing versions of so-called historical fact (ibid.). More recently the volatile

political nature of the Ayodhya controversy was in evidence at the World Archaeological Congress III held in New Delhi in December 1994. Fearing the withdrawal of government support and funding, in addition to fears for the delegates safety, the Indian organisers had to persuade the WAC international executive to refrain from any discussion of Ayodhya (Cooney 1995a, 6).

Archaeological evidence was never used as a vehicle to legitimise the lethal impact of Spanish colonisation on the indigenous people and societies of South America, indeed, the Spanish archaeological tradition has had a less than negligible bearing on the continent's archaeological development (Politis 1995, 223). Encroachments of a political character have been due to the region's penchant for frequent and violent changes in government, often of a repressive, authoritarian nature with predictable results for academic freedom. For instance, the authoritarian social system that operated in Brazilian archaeology after the 1964 coup

rendered it impossible for alternative discourses or practices to develop other than those that adhered to non-historical, ecological determinism (Funari 1995, 242).

The politics of U.S. imperialism has also played a part in dictating archaeological conduct in South America. The consolidation of North America's hegemony in the region after WW II is a period that has been labelled the 'crisis of the neo-colonial order' by Halperin Donghi (Politis 1995, 207). Politis summarises the situation -"research topics, objectives and methodologies have basically been produced in the United States and secondly in Europe" and consequently "viewed as parameters for the scientific validation of local research. Standards regarding what is right and wrong, out-of-date or fashionable, methodologically correct or incorrect, are established outside South America" (ibid. 226-7). Funari, for example, notes a 1964 agreement between the Education Ministry of Brazil and the United States agency for Inter-American Development which re-organised the Brazilian university system in line with the 'National Security' ideology. This was during a period in which U.S. scholarship was being rallied for ideological pursuits, "parading disinterested objectivity as one of the West's distinctive values and institutions" while some U.S. archaeologists operated in association with the Central Intelligence Agency and the State Department (Funari 1995, 239).

As one element of a much larger, complex and general process, New Archaeology or Processualism has been interpreted as the "archaeological expression of postwar American imperialism" (Trigger 1984, 366-7), furnishing an explicitly non-historical and anti-national theoretical framework. Such a framework has obvious appeal given its efficacy for legitimising extensive U.S. economic activity and political influence elsewhere in the world.I would suggest that the U.S.'s archaeological activity in Indonesia during the 1970's is a case in point (see Chomsky 1987, 303-11 for background to U.S. involvement in the region). In 1975 Indonesia invaded the former Portuguese colony of East Timor, the U.S. had considerable strategic concerns in the region and its complicity in the action is well documented (Chomsky 1993, 60; Pilger 1992, 368). Tanudirjo's historical review of Indonesian archaeology reveals that prior to 1975 the nature of archaeological theory in Indonesia was essentially stagnant, based on culture-historical paradigms. In 1977 'A Short Course in Archaeological Method and Theory' was held in the Indonesian capital, Jakarta, in which the principle literature was that of U.S. processualists. This was just one element of a wider, concerted effort by the U.S. to support the development of Indonesian archaeology by promoting processual thinking. Contemporaneously, the Ford Foundation was providing grants which enabled Indonesian archaeologists to study in the U.S. and facilitated the purchase of foreign books and archaeological journals. In response, U.S. scholars were invited to lecture and assist research in Indonesia (Tanudirjo 1995, 71-2). All of this activity coincided with a large-scale increase in financial and military aid from the U.S. under the Carter administration (Chomsky 1987, 306). The connections may appear tenuous and the long term influence of processualism on Indonesian archaeology debatable, however, I believe the connections are not wholly without significance.

Social Responsibility

The growing involvement of archaeologists in sociopolitical issues and their awareness of the political dimensions of their work is perhaps most obvious with regard to their associations with native people, whether it is the incorporation of Aboriginal interests in Australian archaeology (Moser 1995, 151) or combating the marginalisation of Indians in the Jesuit mission establishments of Brazil (Funari 1995, 245).

With the increasing politicisation of Aboriginal groups in Australia from the early 1970's onwards Australian archaeologists have become more cognisant of their obligations to the sensitivities and interests of Aboriginal people. The Australian Institute of Aboriginal Studies was instrumental in fostering Aboriginal involvement in Australian archaeology. When P J Ucko became Principal of the AIAS in 1972 he expressed misgivings about the deep rooted Eurocentric character of its structures, fearing it could "silence the voice" of the Aboriginal population and its culture. He responded in 1974 with a programme of Aboriginalization', giving more opportunities for membership, representation on committees, training and employment of Aborigines, in addition to tackling politically sensitive fields and funding research requested by Aborigines (Moser 1995, 154-5). In addressing the implications of Aboriginal ownership of archaeological remains the AIAS has played a pivotal role in negotiating the return and reburial of skeletal remains, as well as opposition to the excavation of burial sites. Webb has noted the mistrust on both sides concerning reburial and how anthropologists have had to re-evaluate the ethics of their work. Aborigines have held the conviction that had they desecrated white cemeteries they would have been imprisoned but "when it came to whites digging up black cemeteries, however, that was in the name of science and therefore, quite all right" (1987, 294). The situation has become more conciliatory with Aborigines acknowledging the value of archaeology in restoring their heritage and participating in the process. Moreover, anthropologists and archaeologists are now essential as expert witnesses in substantiating Aboriginal land claims (Moser 1995,157-9).

Similar developments are discernible in U.S. archaeology, Native Americans sharing many of the concerns of the Aborigines. Zimmerman has expressed dismay at the patronising attitude of his colleagues while working on behalf of American Indians Against Desecration in the early 1980's. In their negotiations with the Native Americans concerning reburial he has noted fellow archaeologists using "self-protective tactics and rationales" and acting in "unintentionally racist ways", while an executive committee member of the Society for American Archaeology stated that "the only good Indian is an unreburied Indian" (1987, 462-3). The Native Americans have held considerable resentment towards archaeology. demanding the right to approve and license excavations in addition to calling for the return and reburial of skeletons (Trigger 1990, 779). However, active participation in the decisionmaking and execution of archaeological research, combined with archaeologists involvement in land claim cases has produced an awareness of archaeology's positive value among native people (ibid. 782). Canada too has been effected by such issues. Currently, the Aboriginal Heritage Committee of the Canadian Archaeological Association is examining ethical guidelines for archaeology similar to those of the World Archaeological Congress (Mackie 1995, 188) and Australia's Association of Archaeology (Moser 1995, 171). Like their colleagues in the U.S. and Australia, Canadian archaeologists have acknowledged "whether we like it or not, what we say matters, and can profoundly affect the hopes and aspirations of living people" (Mackie 1995,189).

Irish Archaeology and Conclusion

Cooney has defined the internal view of Irish archaeology as an "objective presentation of a fractured past", while externally it is perceived as a "highly politicised discipline" (1995b, 263). As a profession it has operated under the assumption that "the data is primary, speaking for itself" (1993, 632) and in the process has failed toparticipate in any debate concerning its bearing on con-temporary socio-political issues, unlike Irish historical research (e.g. Dunne

1992). As uncomfortable as the notion may be there is clear evidence for political influence, varying in subtlety, on Irish archaeological and historical research.

As Woodman points out some of Ireland's early medieval history is mere propaganda, pseudo-history used to vindicate economic or territorial gains made by both secular society and the church (1995, 279). However, it is the history of the last two hundred years or more and our relations with Britain that is of greater pertinence. For instance, the failure to publish the Ordnance Survey memoirs in the 1830's has been interpreted by some as an act of 'cultural warfare'. There is a belief that the memoirs were suppressed so that the historical and social sections of it would not foster or accentuate nationalist sentiments (Andrews 1975, 173-4). More recently, diffusion and migration theories have been utilised to explain culture change for various periods by looking for European origins, "admittedly preferably anywhere but England" (Woodman 1995, 286). It has also been suggested by E. Evans that de Valera's French origin for Irish court tombs may have desired to undermine a British connection (Cooney 1995b, 272). On the other side of the border Jan Adamson's book, 'The Cruithin', has offered an appealing version of history to a loyalist audience. He has intimated that the presence of Scottish planters in Ulster is merely a re-occupation of lost territory since the Cruithin (Pictish tribes of the north) had been supplanted by midland Gaels and forced into Scotland (Woodman 1995, 294). The Wood Quay controversy and, until recently, the reluctance to study the archaeology of medieval Ireland are also indicative of political concerns encroaching on the study of Irelands past (ibid. 285-6).

In conclusion, it is by now well established that socio-political issues do have a palpable influence on the conduct and use made of archaeological research, specifically, and the study of the past, generally. Examination of this phenomenon is at various stages of evolution throughout the world of archaeology but its study is gaining momentum, demanding critical and continuous investigation. Unless archaeologists conduct their research in a critically, self-aware fashion they may be offering an opportunity to others to justify their actions, past and present, with reference to archaeological research that claims academic respectability. If archaeologists do not seek to combat the 'veil of distortion and misrepresentation' then they must accept their complicity for the uses to which others put their work and its consequences.

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THE PAGAN/CHRISTIAN TRANSITION IN IRELAND REFLECTED IN THE BURIAL RECORD

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Syntheses of Irish archaeology have traditionally divided the archaeological record into prehistoric (Herity and Eogan 1977; Harbison 1988; O'Kelly 1989; Cooney and Grogan 1994) and historic (Edwards 1990; Mytum 1992) periods. The transition between these two periods is signalled by the arrival of a new religion and written records. The division between Iron Age and Early Christian is not a technological convention, but is simply based on the fact that the introduction of a new religion has introduced the use of historical references as a tool for the archaeologist. For many people the change from prehistoric to historic and from pagan to Christian is symbolised by the easily identifiable arrival of St. Patrick. All archaeologists and historians would admit that St. Patrick was not the first Christian to set foot on Irish soil and that there is historical evidence (de Paor 1993, 79) for the presence of Christianity, in Ireland, before his arrival. However, the dynamic impact of his cult on the historical record has created the perception of a dramatic social event. Instead, as with every other transition period in Irish archaeology, change was probably slow and allowed time for native adaption of an intrusive theme. The Irish transition from paganism to Christianity is an extensive and largely undeveloped study. In this article I would like to use the native burial record of this period in order to examine briefly the reaction of Irish society to introduced changes in religion.

The most popular burial rite in Early Christian Ireland was unaccompanied, unprotected extended inhumation, head to the west, though, exceptions to this rule are not uncommon (O'Brien 1990). The formal Christian burial rite is best represented at cemeteries which appear to have been reserved for ecclesiasts, such as Church Island (O'Kelly 1958), Illaunloughan (Marshall & Walsh 1994) and possibly Reask (Fanning 1981). These sites have been ignored in this article. Instead, the present writer has concentrated on cemeteries which appear to reflect non-ecclesiastical burial practices during the pagan/Christian transition (see also O'Brien 1992). These are discussed below in alphabetical order and span the time frame from the beginning of the fifth century to the beginning of the ninth century.

At Curragh, site 6, county Kildare a ring-barrow type monument was excavated (Ó Riordáin 1950). The initial phase of this site consisted of a primary extended burial covered by a low mound enclosed by a series of banks and ditches. Subsequently a wide ditch and outer mound was constructed (32m overall diameter). The excavator associated fourteen burials (representing twelve inhumed individuals) with this phase. Many of the burials were disturbed by later grave digging. The excavator suggested a later Medieval date based on the presence of eighteen fragments of glazed pottery at the basal fill of the ditch and from within the matrix of the later mound which covered the secondary phase of burials at the site. However, it is suggested by the present writer that this pottery must belong to a later phase of activity at the site. It is clear from the disturbance of several burials by later interments that burial activity took place over a significant length of time and that the central mound was the latest structure built on the site, and does not provide conclusive dating evidence for the secondary burials at this site. Also, the backfilling or silting of the ditch may have taken place at a later date than the burials themselves. Indeed, an Early Christian glass bead was also recovered from the basal fill of the ditch. It is therefore suggested by the present writer that

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the primary burial monument at this site belongs to the Final Iron Age (see also O'Brien 1990, 39), and that the subsequent use of the site as a cemetery probably belongs to the earliest Christian period.

At Furness, county Kildare a circular flat-topped mound 17.5m N/S, 17m E/W and surviving to a height of 60cm was excavated (Grogan 1983-4). The site was delimited by a stone kerb. Burial at the site was represented by at least two deposits of cremated bone. A radiocarbon date from a sample of charcoal from a central stake hole produced a date c. AD 410.

At Gracedieu, county Dublin a cemetery and enclosing bivallate enclosure were partially excavated (Gowan 1989,15-6). Excavation revealed 65 individuals. A trial cutting revealed the two enclosing fosses. The innermost fosse was 2.2m wide and 1.4m deep. 2.5m outside this feature was an outer larger fosse 5m wide and 2.15m deep. The trial trench failed to identify an enclosing bank feature and the original nature of the enclosing elements remains uncertain. The excavator suggested that the site and enclosure represent an Early Christian ecclesiastical foundation, despite the lack of historical reference to such a site. It seems equally possible that the enclosure represents the remains of an early ritual or defensive site the enclosing elements which were re-used to define a subsequent cemetery.

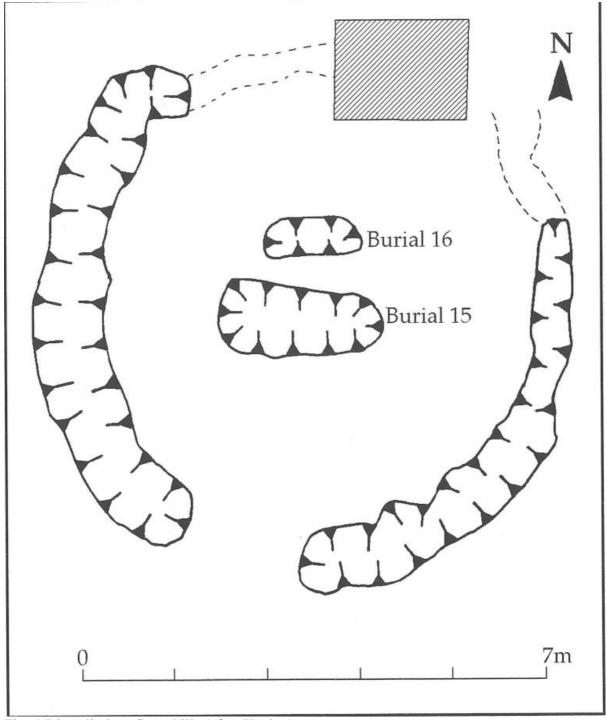


Fig. 1 Ring-ditch at Greenhills (after Keeley)

At Greenhills (Fig. 1), county Kildare an unenclosed cemetery was excavated (Keeley 1987-91). A penanular fosse 1.35m wide, 36cm deep and 8m diameter, open at the south/south-west, enclosed two central burials placed side by side. Fourteen further burials extended to the north over an area 31 x 13m. All were single unaccompanied extended inhumation burials in shallow pits, predominantly articulated and primarily adhered to the W-E orientation. Radiocarbon samples produced dates of 1610 +/- 35 BP and 1535 +/- 35 BP.

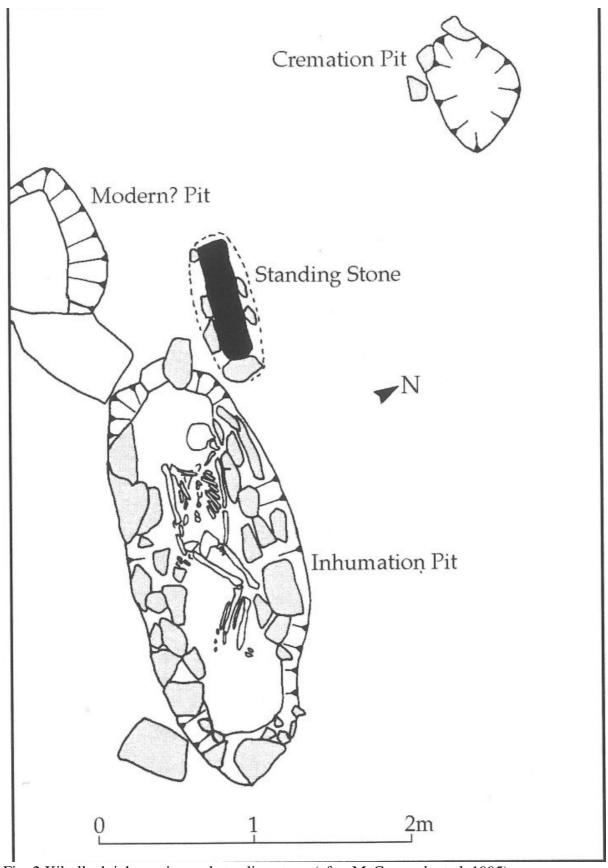


Fig. 2 Kiltullagh inhumation and standing stone (after McCormack et al. 1995)

At Kiltullagh (Fig. 2) on the border of counties Mayo and Roscommon a standing stone was excavated (McCormack et ah 1995). Adjacent to the standing stone was an unaccompanied

inhumation aligned W/E, slightly flexed, perhaps protected by a timber extending across the grave. Adjacent to this inhumation was a pit cremation burial, perhaps a token cremation of unknown date, but appears to pre-date inhumation burial. The standing stone which marked the inhumation was aligned E/W. Local prehistoric standing stones are generally aligned N/S. This may indicate that the orientation of the Kiltullagh standing stone was influenced by incoming Christian traditions. The inhumation has been radiocarbon dated to AD 418-442 (McCormack et ah 1995). Nearby are two ring-barrows.

Knockea (Fig. 3) in county Limerick was excavated by O'Kelly (1967). The site consisted of a square area (8.3m x 8.3m internally) defined by a bank and outer ditch, with an entrance and causeway in the west. The remains of sixty-six individuals were found, all unprotected extended inhumations in pit graves, predominantly aligned W/E. The site failed to produce conclusive dating evidence, though a mid-first millenium AD date was suggested by the excavator.

At Knoxspark, county Sligo a cemetery was located within an inland promontory fort (Mount 1994). Following the abandonment of the promontory fort an oval cairn of massive boulders was constructed on which was placed a cremation deposit. Subsequent burials on the site were inhumed, and at least 187 burials have been recognised. Burials were predominantly extended, though several flexed and crouched examples were found. Heads were generally to the southwest and north-west. One burial group consisted of an adult lacking a head accompanied by three infants, of which only two had heads. One of the infants was crouched and its head was found lying on the arm of the adult. Another burial was accompanied by a socketed spearhead related to Anglo-Saxon types, suggesting a 6th to 7th century AD date. At some stage following the initial use of the cemetery a sub-rectangular stone enclosure (23m N-S, 19m E-W internally, entrance at the west) was constructed to define the primary burial area. The site continued to be used in the 8th century, however, radiocarbon dates for the primary use of the site have yet to be published.

Lough Gur, Circle J, county Limerick was excavated by S.P. Ó Riordáin in the late 1940's, though the report was subsequently published by Grogan and Eogan (1987). The enclosure proved to be a Late Neolithic settlement site used as a cemetery during the Early Christian period. The enclosure consisted of an oval area (max. ext. dims 30m N-S, 26m E-W) defined by a double kerbed wall. The enclosure appears to date to the Final Neolithic/Early Bronze Age as a habitation site. The enclosure was re-used during the Early Christian period as a cemetery. Much of the enclosure was excavated and fifty-eight burials were excavated and the remains of at least eighteen other individuals were identified. All but eight occurred within the enclosure. Nine inhumations occurred within slab-lined graves and nine further such structures were either empty or only produced fragmentary skeletal remains. The remaining inhumations were placed within simple pit or dug graves. A feature of the cemetery was a standing stone (h 85cm; aligned NNW-SSE) which Eogan and Grogan (1987) suggested was contemporary with the cemetery phase of the site.

At Ninch, county Meath, a gravel mound 24m diameter, 5m high which had been disturbed was partially excavated (Sweetman 1982-3). Two burials were noted by the excavator, though only Burial I was examined in detail. This was an extended articulated inhumation aligned W-E. Thin strips of organic remains identified as fern or bracken were found lying along the left hand side of the skeleton. Perhaps this was a votive offering, a lining for the grave or a wrapping for the body. A radiocarbon sample of the body produced a calibrated date AD 460 +/- 85. The covering mound denoted at least one other burial for which the director had no brief to excavate. This suggests that the site should be considered a cemetery.

At Westreave, county Dublin an Early Christian cemetery was excavated without an overall enclosing element. To date only a preliminary report has been published (Gowan 1989, 18). Fifty-seven burials were revealed. A penannular fosse (overall diam. 9.5m) which appeared to enclose one or a group of unlined pit graves.

Discussion

Before discussing these earliest Christian burial sites it is worth considering briefly the evidence for the burialrites reflected in the archaeological record during the centuries before the arrival of Chritianity, much of which has been discussed previously in greater detail by B. Raftery (1981). Ring-barrows were common burial monuments during this period, including Carrowjames site 8 (J. Raftery 1940-1), Oranbeg (Rynne 1971) and two examples at Grannagh (Rynne 1972; B. Raftery 1994). A ring-ditch with a central mound at Cush county Limerick (Ó Riordáin 1940) also appears to date to around the first century AD (B. Raftery 1981, 197). The re-use of earlier mounds, such as a Passage tomb at Kiltierney county Fermanagh (Foley 1988), was also common during this period. The primary burial rite at all these sites is cremation.

O'Brien (1990) has argued that new burial rites were introduced to Ireland around the 1st century A.D., probably from Roman Britain. The processes which influence this change of burial rite have yet to be adequately explained. Examples of such intrusive burials feature at Bray (Davies 1989) and Lambay Island (Rynne 1976). This new burial rite is characterised by unprotected, extended or crouched inhumation, head to the west. Evidence for local adoption of this intrusive burial rite features at native burial monuments such as a bowl barrow at Knocknashammer (Timoney 1984), two ring-barrows at Curragh, sites 4 and 6 (6 Riordain 1950). At Knowth Passage tomb (G. Eogan 1968, 1974) and Carrowbeg North site 1 (Willmot 1938-9) the Iron Age inhumations surround the burial mounds in the same way that cremations occured around the Kiltierney Passage tomb. At a large enclosure at Carbury Hill, site B (Willmot 1938) there occurred four cremations and fifteen inhumations. The excavator suggested that the two burial rites were chronologically separate and that the cremations were primary. It is striking that despite the change in the actual form of burial, there is no significant change in the place of burial, i.e., the types of monuments either constructed or reused.

This trend can be extended into the Early Christian period. At Furness the pagan burial rite of cremation is retained despite the widespread introduction of Christianity. At Ninch the inhumations are marked by a substantial mound reflecting a characteristic pagan special treatment of individuals in death. At Kiltullagh an apparently Christian burial is placed within a pagan cemetery and is marked by a pagan standing stone. At Knoxspark a Christian cemetery is focused around a pagan boulder cairn. At Curragh site 6 there is a reuse of an earlier burial monument, and this subsequent Christian phase is itself defined by a pagan ring-barrow type burial monument. At Greenhills and Westreave Christian burials are enclosed within a ring-ditch. These latter examples are particularly interesting given the historical reference by Tirechan to the burial of the two daughters of king Loiguire, Ethne and Fedelmwithin a "round ditch after the manner of a ferta because this is what the heathen Irish used to do" even after their baptism by St. Patrick (Bieler 1979, 144-5). The characteristic reuse of pre-existing monuments as burial sites during the Late Iron Age also continues into the Early Christian period, for example, the Late Neolithic enclosure at Lough Gur and the Iron Age inland promontory fort at Knoxspark. It is possible also that the cemetery at Gracedieu was located within a pre-existing enclosure. All these examples suggest a continuity of the Iron Age burial rites and the pagan concept of a burial space during the Early Christian period. Several sites feature characteristics of more conventional Christian cemeteries defined by some form of overall enclosing element, and in particular providing evidence for long-term and communal use. These include Knoxspark, Gracedieu, Knockea and Lough Gur. The vast majority of burials at these sites were unmarked. Perhaps such a lack of burial marker could be used to argue that these cemeteries differ from the preceding pagan burial rites which features a range of burial markers such as standing stones, ring-barrows, ring-ditches or preexisting burial monuments. However, the overall enclosing elements at Gracedieu, Knockea, Lough Gur and Knoxspark indicate a desire to create or provide a defined burial space within the landscape similar to the function of pagan burial monuments. Knockea in particular appears to represent a purpose-built funerary monument (J. Eogan 1995, 20). Instead, an important difference between these Early Christian burial monuments and their pagan predecessors is that they appear to function as a communal form of burial monument. This is a point worth noting, given the Christian teaching that all men are considered equal in the eyes of God. Such a concept may have been best exemplified in the burial rites even if this was not a social reality. The concept of social equality in death, and therefore, the communal function of Christian cemeteries may have been an important tool used by ecclesiasts to convert the ordinary people to Christianity given that such people appear not to have received the right to burial previously within a purpose-built burial monument. Such conversion was possibly made easier given that the essential ingredients of the Christian burial rite, i.e., extended, unprotected and unaccompanied inhumation, head to the west, was already widely practised by the social elite in Ireland even before the arrival of Christianity.

The two notable exceptions to the need for an enclosed cemetery are Greenhills and Westreave. However, both these sites feature a ring-ditch which enclose a minority of burials and suggest the continuity of the pagan concept of special treatment of individuals in death by the construction of a pagan burial monument. During the preceding pagan period formal burial appears to have been reserved for the social elite, often reinforced by the accompaniment of grave goods. According to Christian burial rites such grave goods were no longer acceptable, and it could be argued that the special treatment of the social elite within and outside communal cemeteries became increasingly dependent on burial markers, initially by the construction of pagan burial monuments such as ring-ditches (Greenhills and Westreave), ring-barrows (Curragh, site 6), standing stones (Kiltullagh and Lough Gur) and earthen mounds (Ninch), and subsequently by the erection of ogham stones and crossinscribed pillars. For example, an ogham stone noted by Knox (1914, 42) on a barrow at Island near Ballyhaunis. Cross-inscribed pillars may have functioned as Christianised standing stones and several examples, such as Dunfeeny near Ballycastle (Crawford 1913, 156) and Cloonlaur near Louisburgh (Herity 1989) the inscribed crosses appear on previously pagan standing stones. Such crossTinscribed pillars may not necessarily have been reserved as burial mark-ers for ecclesiasts, and may on occasions have been commissioned to mark the burial sites of the secular elite.

The development of the burial space into a more elaborate religious and political focus which is characteristic of the later prehistoric period continues into the early Christian period. St. Patrick, according to Tirechan, built an "earthen church" at the site of a pagan burial, in a round ditch, at Cruachu (Bieler 1979, 144-5). In general, however, the Christian church appears to have successfully shifted religious focus away from these pagan 'royal' sites. Even so, it seems that the Christian church could not undermine the political importance attributed to many of these sites throughout much of the early Christian period. Bhreathnach (1995, 25-6) has warned against assuming that Tara was in decline and has shown that historical references suggest that the site remained an important political centre into the 9th century.

Swift (1996) has shown from historical references how prehistoric pagan burial mounds such as Knowth (see also Eogan 1968) continued as high profile centres well into the early Christian period.

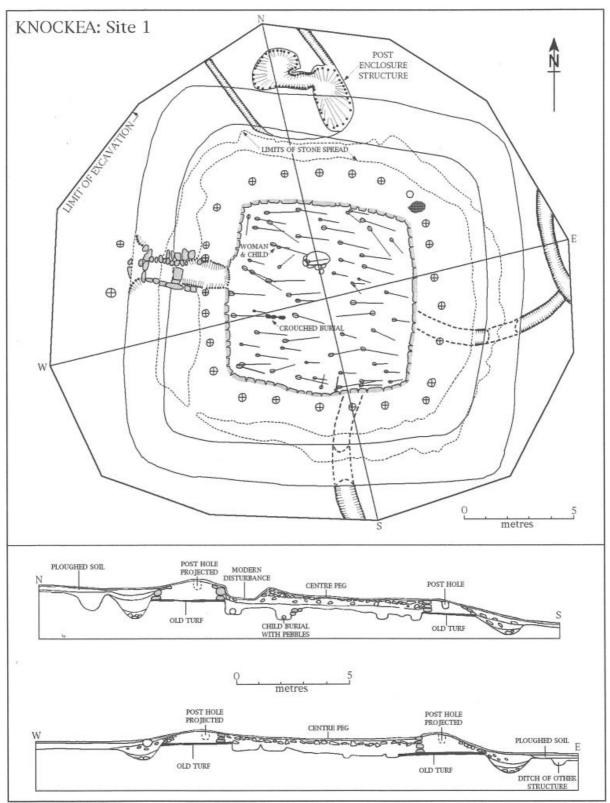


Fig. 3 Knockea (after O'Kelly, 1967; J Eogan 1995)

Conclusion

It is suggested above that much evidence is provided by non-ecclesiastical cemeteries to show how the native Irish reacted to the introduction of Christianity to this country. All archaeologists would agree that the transition from pagan to Christian was a slow one, however, few attempts have been made to show this archaeologically. This is largely the result of the traditional convention of Irish archaeology treating this period as signalling the end of the prehistoric period and hailing the beginning of a new era. In reality, this period should not be seen as a beginning or an end of a sequence of

social development. Instead, the archaeological evidence provided by secular cemeteries suggests that many of the old traditions continued alongside native innovations and adoptions of an introduced theme. This is characteristic of social development throughout Irish history and prehistory. Therefore, if anything, the pagan/Christian transition is only one event of a long history of social development, and there is a need to examine this development in its entirety if the processes behind the development are to be understood.

Traditionally it has been suggested that every story has a beginning, a middle and an ending. However, social development is not a fictional novel, and also should not be treated as based on a true story. There is a need for a synthesis of Irish archaeological social studies which should be presented as an epic and told in its entirety. The archaeological record of the pagan /Christian period no longer deserves to be told as a sequel.

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A RUNE-INSCRIBED CROSS FRAGMENT FROM KILLALOE

James Lyttleton*

On the banks of the river Shannon as it leaves Lough Derg there is the County Clare town of Killaloe where a see was founded by Pope John IV who also consecrated St. Flannan the first bishop. A Romanesque cathedral in Killaloe was replaced in the thirteenth century by a Gothic cathedral but the Romanesque doorway situated in the wall of the nave presumably belongs to the previous building constructed in circa 1160 A.D. by Donal Mór O'Brien. Inside there is a twelfth century cross with a depiction of the crucifixion but what concerns us here is a fragment of another cross, probably one of the arms. It is 45.7 cm broad at one end with the sides parallel to each other though there is a gentle curve at the other end. The length of the stone, which may be sandstone, is 65.8 cm but it is clear that both ends are broken (Fig. 1). It is an interesting point that this cross fragment not only contains an ogham inscription but also a runic inscription. The Killaloe stone has the inscription in runes, according to Marstrander (Haugen 1976, 181)," Thorgrim raised this cross" (*Thurkrim risti [k]rusthina*), while the ogham inscription gives "a blessing on Thorgrim" (beandac[h]t [ar] Toreaqr[im]). As MacAlister (1917, 495) admits, the Killaloe runes have few test letters to let us study the palaeography of the inscription - most of the runes are common to all varieties of the futhark (the runic alphabet).

Runes are a system of angular letters used in Germanic areas, created probably sometime around the birth of Christ. Various scholars have sought the source of inspiration for the runes from a variety of different peoples such as the Phoenicians, Greeks, Etruscans and Romans. It is of interest that there was an attempt within academia to see runes having an influence on the development of the ogham script and vice versa (Jensen 1970, 581). The oldest ogham inscriptions probably date from the fourth century A.D. and were considered to have faded from use by the year 700 as the commemoration in ogham stones was of a very archaic form. However, it is clear that ogham continued in use well into the Christian era. According to Harbison (1991, 207) thirty Irish ogham stones bear a cross as well as an inscription.

The Germanic *futhark* itself has long antecedents for which we do not have solid information on but our knowledge of the traditional 24 letter futhark comes from seven whole or part inscriptions of runic alphabetranging from the Gothic stone of Kylver in Gotland, Sweden of the early fifth century A.D. to the fibula of the late sixth century A.D. found in a grave at Breuchte (near Goslar, Germany). However, the seventh and eight centuries saw rapid linguistic change which resulted in the evolution of the futhark where letters were altered, old ones made redundant and new ones adopted. The 24 letter futhark was gradually replaced by the 16 letter futhark. This new alphabet is known to us in two, not dissimilar, versions although there were further developments in the later Viking age. The earliest complete example of this new so-called Danish futhark appears on the Gorlev stone in Sjaelland, Denmark with a date of circa 900 AD. The second version, the Swedish-Norwegian *futhark*, also known as the Rok-runes or the Stut-runes, is a simplification of the above *futhark*. It is dated to the first half of the ninth century. Here, for example, we can see runes like s and R being denoted by '1' and ' | ' respectively. This *futhark* was developed by the Swedes in the Danish town of Hedeby where the increasing use of runes lead to people looking for more economical ways to write runes and hence the simplification the alphabet. This trend was

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continued with the development of the *Halsinge* runes which are dated from the tenth to the twelfth centuries. These runes were also known as Staveless-runes because in this *futhark* all vertical strokes were omitted and what remained of the runes with their appropriate position between ruled lines indicated their meaning.

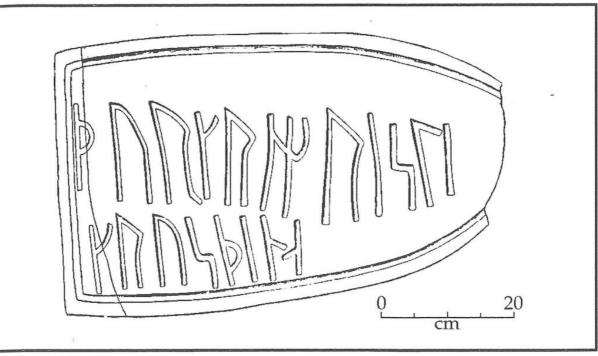


Fig. 1 Killaloe Runic cross slab (after MacAllister 1917)

The Norwegians used both the Danish and Swedish-Norwegian (Stut-runes) futharks which led to the development of a more native form of runic writing. This *futhark* is closely related to a *futhark* used in the Isle of Man during the previous century where scholars believe there was a mixing of native and Viking cultures (Elliot 1989, 27). There are a number of inscriptions including many gravestones which use the term *krus*, "cross", like the Killaloe cross fragment rather than the more usual Scandinavian formula *steinn*, "stone". These grave inscriptions usually commemorate relations in families such as father, mother, brother, grandmother etc. The Norwegian *futhark* gave rise to the idea of adding dots to particular runes to indicate a different phonetic value. This process of dotting runes illustrates a more obvious phonetic approach like that of the Latin alphabet. For instance, in this new sequence Bp was used to create 'Bb' simply by adding a dot (*ibid*.) these runes now adapting the Latin sequence of letters instead of the older Germanic *futhark* sequence.

Runes in Scandinavia survived the advent of Christianity due to the fact that people were converted at a late stage in a piecemeal process unlike Anglo-Saxon England where renewed religious activity on behalf of Rome saw the extinction of Anglo-Saxon runic traditions. There are many medieval Scandinavian churches and ecclesiastical objects such as reliquaries and censers inscribed with runes. From the runes a, s and h we can see that the Killaloe runes belong to a late derivation of the *futhark*, either the mixed Norwegian *futhark* which was developed early in the eleventh century and which was also closely related to a *futhark* used in the Isle of Man during the tenth century, or the "dotted"-rune *futhark* which the mixed Norwegian *futhark* gave rise to between circa 1000 and circa 1200. The t rune is unusual in that the side-stroke points in the wrong direction arid signifies 1 instead but the context in which this occurs leaves us in no doubt that the carver intended the t rune. It is not unusual to

find mistakes in runic inscriptions, presumably due to the carvers lack of experience or illiteracy.

The orthography of the runes may also give us means for dating the inscriptions. MacAlister (1917, 496) notes the omission of the final R nominative masculine in the name Thurkrim and the forms *risti thina* for *raisti* and *thana* which have Swedish analogies. The evolution of the Danish word *sten* for stone from *stainaz* in the oldest Primitive Norse, in late Primitive Norse it was *stainaR* which then became *staein* and later *sten*, illustrates the process of monophthongisation. The first instance of monophthongised forms - *risthi stin* on the Gorlev stone in Sjaelland, Denmark instead of the older *raisthi stein* is dated to the ninth century. However, it is important to note that for a long time after the Gorlev stone was carved 'rune-makers' continued to write *raisthi stein* in the same way we keep on writing 'write' and 'thought' and say 'rite' and 'thawt'. One must be careful in using orthography to date runes (Moltke 1985,164).

Such pagan inscriptions like the runes might seem out of place in a church but one must remember that runes continued in use in Scandinavia well into the Middle Ages and beyond when they had died out elsewhere in the Germanic world. During the Romanesque period in one of the Scandinavian homelands, Denmark circa 1050-1250, runes flourished on gravestones; on ecclesiastical objects like reliquaries, censers, crosses and bells; and even on the church buildings themselves, where they could be found carved onto plinth stones, lintels, plaster work etc.

This brings us to the question - how did these runes end up in the company of ogham strokes on a cross fragment inside an Irish Gothic cathedral with a Romanesque predecessor? The tradition of pilgrimage in Ireland goes back to circa 600 A.D. with many surviving monuments and objects pointing out the ancient routes taken by pilgrims. Ogham inscriptions can be found in pilgrimage contexts such as the cross carved stone with an ogham inscription in Templemanaghan and the cross carved boulder at Kilcolman with an inscription which says "Colman the pilgrim", both of which are situated on the Dingle Peninsula, which reinforces the importance that pilgrimages held for medieval Christians. Harbison (1991, 177) believes that there is a correlation between pilgrimage activity and the building of churches with Romanesque features. Indeed the Annals of Tigernagh record that a Connor MacDermod O'Brien, king of Thomond and Desmond died in Killaloe while on pilgrimage in 1142. In Clonmacnoise the many inscribed cross slabs have been thought to mark the graves of various distinguished people, ecclesiastical and lay. Harbison (ibid. 202) believes that the slabs were kept in stock until such time as a client came to have his name inscribed on the cross slab - asking for a prayer on the occasion of their visit to the place of pilgrimage and that these slabs were not necessarily put down on the occasion of someone's death and burial. The same scenario can be put forward for the Killaloe stone where a ThorkrimR recorded his pilgrimage, just like his counterpart Rognvaldr Kali did during the winter of 1151-2, after his pilgrimage to Jerusalem, on one of the stones at Maeshowe in the Orkneys with the help of 'that man most skilled in rune-craft west over the sea...' (Magnusson 1980,196).

The use of the two different scripts and language in Killaloe reveal Thorkrim's Hiberno-Norse background. A second phase of Viking settlement in the early tenth century, following a native onslaught on previous settlements saw a renewed vigour in the establishment of trading ports along Ireland's coast. The archaeological records for these towns such as Dublin are not as distinctively foreign as one would expect as a degree of assimilation and coexistence had been achieved between the two races. The fact that large monastic foundations

like Finglas in Fingal (land of the foreigners) thrived under the so-called blood thirsty pagan threat reflects this.

A rune and ogham inscribed cross at Killaloe brings us nearer to the truth than the ecclesiastical records which portray the Vikings destroying the religious and social fabric of Ireland, such as the famous Viking pirate Turgesius desecrating monasteries like Clonmacnoise until given a murderer's execution by being drowned in a lake by a powerful Irish king in the ninth century. Instead we should see the cross as representative of how Thorgrim's people had integrated themselves into a new country, converting to a new religion, fulfilling the desire to go on pilgrimage and yet still possessing something of their own culture. The cross fragment with it's multi-ethnic inscriptions reflect this. It must be said there is nothing of the form of the fragment that could provide a date, however, from what has been said above it is possible to place the embellishment of this cross fragment between the tenth and twelfth centuries.

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SURFACE-COLLECTED FLINT FROM SITE A, NEWGRANGE, CO. MEATH.

Conor Brady*

Introduction

The Boyne Valley area is well known for its Neolithic passage tomb cemetery but there was also extensive activity in the area in almost all subsequent periods. Excavations at Newgrange have uncovered evidence of activity not only from the Neolithic but also from the Beaker period, the Bronze Age and the Iron Age. While both Dowth and Knowth, neighbouring passage tombs, served as settlement sites in post Neolithic times it is interesting to note that Newgrange appears to have retained its ritual importance with the erection of a pit circle/woodhenge, great circle of standing stones (O'Kelly 1982, Sweetman 1985) and the deposition of a hoard of precious gold objects, discovered in 1842 (the Coyningham find), including a number of Roman coins, deposited during the late Iron Age.

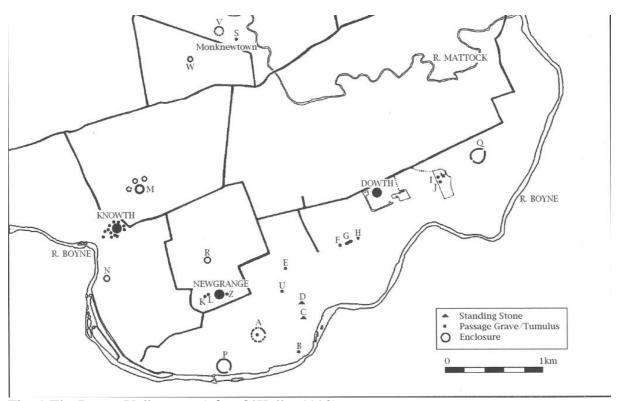


Fig. 1 The Boyne Valley area (after O'Kelly, 1990)

The flint under discussion was collected in a field opposite the main mound at Newgrange in which stands site A (Coffey 1912, 42), a tumulus nearly 6 metres high and 25 metres in diameter. Herity (1974, 247) listed it as a possible passage tomb. It is surrounded by, though not centrally located within, an oval earthen bank approximately 122 metres in diameter only traces of which are still visible (Herity 1974, 247, Coffey 1912, 42). A possible ditch feature, a 13m wide opening to the east and a 5 metre wide linear feature inside the line of the bank at the west of the enclosure were revealed by a resistivity survey (Stout 1991, 247, 268). From the entrance area of the main mound at Newgrange, the tumulus can be seen clearly

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approximately 500 metres to the south-east on a terrace above the river Boyne, which flows a further 400 metres to the south-east. South-west of site A close to the bank of the river is site P, the remains of another enclosure, discovered in 1953 by aerial photography (O'Keily 1968,117). To the east of site A there are two standing stones, C and D (Coffey 1912, 42). Standing stone C was excavated in 1965 in advance of possible development of the gravel ridge on which the stone stands as a quarry. Eighty pieces of flint were found, five of which showed signs of having been worked and a further twelve displayed evidence of having been utilised. While the flint was taken to be an indicator of human activity in the general area of the stone, the excavators could not conclude that habitation took place nearby or that the flints could be associated directly with those who erected the stone (Shee and Evans 1965).

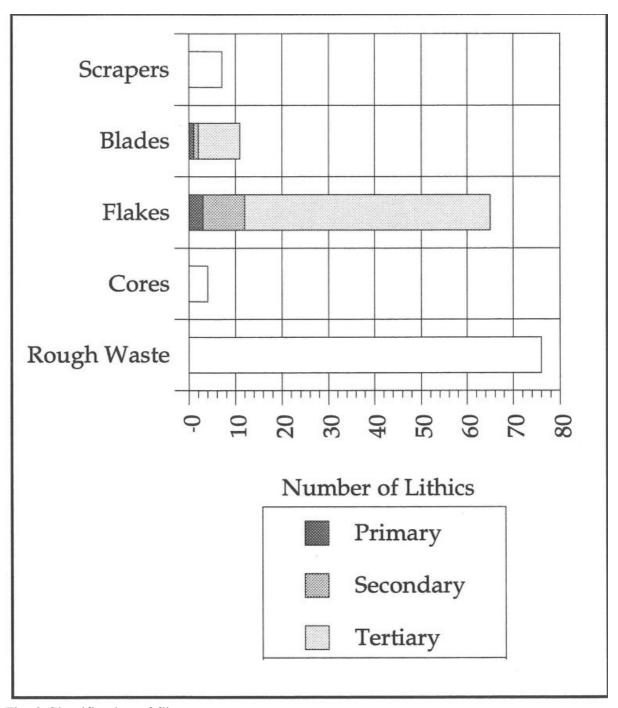


Fig. 2 Classification of flint

Coffey (1912) indicated that the bank around Site A was incomplete, but that a portion of it was still present. (See map; Fig. 1) According to O'Kelly one third of this monument remained in 1965, but this portion was bulldozed by the then landowner as it constituted a major obstacle to tillage. O'Kelly walked the area a number of times in 1967 and collected some 165 pieces of flint, most of which came from the recently destroyed portion of bank which lay to the east of the tumulus. Ten pieces were found to the west of the tumulus in the area where the bank would have originally stood. He speculated that the flint was associated with the bank but the exact relationship remained unclear (O'Kelly 1968).

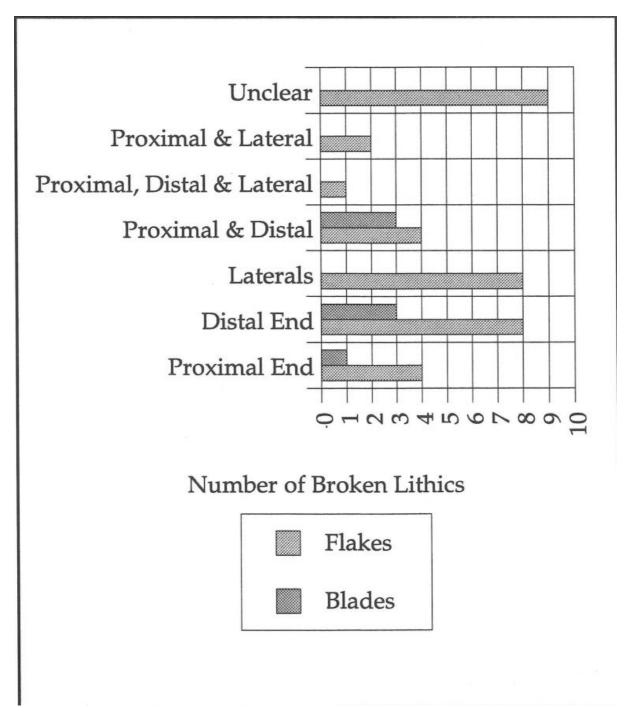


Fig. 3 Parts missing from incomplete blades and flakes

While the pieces collected by O'Kelly had no context, he did note the similarity of a number of pieces from site A (scrapers, Nos. E.80:1, 2, 3, 8,10,11,16, 20, 21 and 23) to those

excavated from the Beaker horizon at Newgrange. However, one of the pieces was identified as a plano-convex knife and assigned a possible Neolithic date because it retained cortex on its upper surface unlike the more numerous Bronze Age examples found in association with Food Vessels (O'Kelly 1968,117).

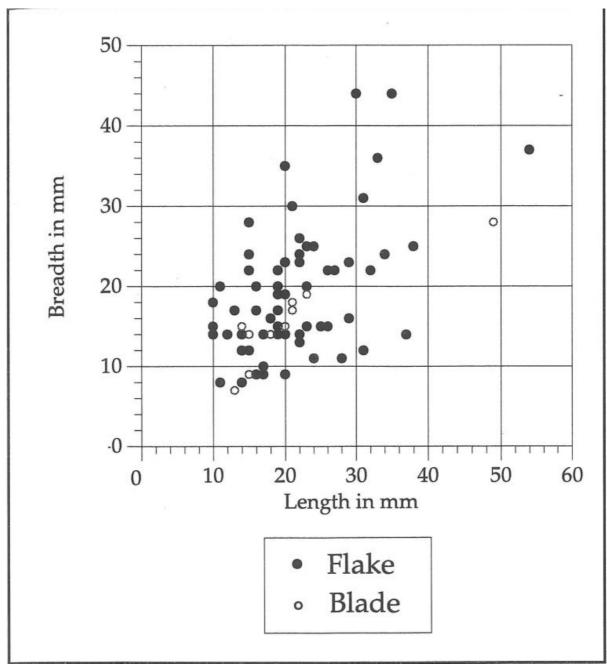


Fig. 4 Breadth/length plot of complete blades and flakes

The collection of flint described in this article was gathered over a number of visits in early September 1992 shortly after the field had been ploughed. No systematic sampling strategy was used, though all visible flint was collected. In contrast to O'Kelly's observations, it was noted that there were no apparent concentrations of flint, the material being well scattered within the field. This is probably due to the frequency with which the field has been ploughed since the destruction of the bank. The material displayed much damage possibly due to ploughing.

The collection was reported to the National Museum and assigned the collection number C96.2. It was catalogued, measured and analysed following the methodology set out by Guinan, McDermott and Wood (1994). The variables used in this analysis were arranged on a Microsoft Works database. The analysis was limited by a number of constraints and the need for simplicity was paramount. The small size of the sample and the lack of context precluded a more detailed and thorough assessment of the material.

Three of the pieces came from different locations - two having been found in gravel banks in the river and one having been found in the middle of a minor road near Newgrange, presumably transported and deposited there by farm machinery. The find locations of these pieces have been recorded in the database.

Assessment of the Material

The collection consists of 163 pieces of flint. The raw material used appears mainly to be glacial erratic flintwhich was deposited in considerable quantities all along the east coast of Ireland during the last Ice Age. However, there is some indication of the use of fresh flint which must have been gathered from Co. Antrim -the only place in Ireland where flint occurs in situ. Some of the pieces are relatively large and display the characteristic grey colour of Antrim flint rather than the brown of small pebble flint and there is also a number of cores indicating that pieces of flint larger than pebbles were being worked.

The material has been classified into five categories: The first, and largest, is rough waste and was defined as any irregularly worked material, which did not display the characteristic features of a systematic reduction strategy. 48% of the collection was rough waste (76 pieces).

Fig. 5 Examples from the collection: C96.2:61, concave scraper; C96.2:72, blade; C96.2:75, scraper; C96.2:90, scraper; C96.2:129, thumbnail scraper; C96.2:157, scraper; C96.2:139, scraper.

The second category is flakes and the definition used here was any piece displaying a clear bulbar /ventral surface (Guinan et al., 1994). There were 65 flakes, com-prising a further 40% of the collection. The third category is blades and these were defined as any piece with roughly parallel sides and with a clear ridge on the dorsal surface (*ibid.*, 1994). While many writers take a length to breadth ratio of 2:1 as the main prerequisite of classification of a piece as a blade, due to the amount of damage visible, pieces displaying a clear break, but adhering to the other elements of the definition, were included in the classification. There were 11 blades, making up 6% of the collection. 57% of the blades and flakes were damaged in some way. The graph in Fig. 3 gives a breakdown of the parts missing from these pieces. While it was unclear what parts were missing from many of the flakes, the most common parts to be identified as absent were the distal end and laterals. The most common parts to be identified as missing from blades were the proximaland distal ends.

The fourth category is scrapers and these were defined as retouched flints which had a concave or convex working edge. There were 7 scrapers, (4%), all complete, one of which was a hollow scraper. This is an interesting piece in that it can be dated generally to the Neolithic and it corresponds to the plano-convex knife found in 1965 by O'Kelly. Because of the lack of context, this find cannot be used to date the rest of the collection. A number of the scrapers recovered are similar to those found by O'Kelly during his field-walking and during the excavation of the Beaker horizon at the edge of the Newgrange mound. These are scrapers Nos. 114 (not illustrated), 129 and 157 (see Fig. 5) and are comparable in that they

have a steeply angled working edge, a feature noted by O'Kelly (1968, 117). It appears from the material under discussion in this article and that collected by O'Kelly, represents activity over a number of phases. Perhaps the plano-convex knife and the hollow scraper represent activity during the Neolithic, and date to the time when site A, a probable passage grave, was first built and used. The scrapers which O'Kelly noted as being similar to that excavated from Beaker levels at Newgrange, may date to the time when the bank was erected around site A. Circular enclosures in the Boyne valley like the woodhenge at Newgrange, the henge at Dowth and site P, a ploughed-out enclosure by the riverbank due south of Newgrange, appear to have been built during the Beaker period (Sweetman 1974, 71; Stout 1991, 225). Without proper excavation, however, it is not possible to date these monuments conclusively.

The fifth and smallest category is cores. There were also 4 cores, 2% of the collection. Fifteen of the pieces, or 9% of the whole collection were burned - 10 pieces of rough waste, 2 cores, 2 flakes and 1 blade.

Although the collection is uncontexted and therefore undateable except in very general terms, it is of some value for comparison with other collections of flint from the Boyne Valley which may have a better context and date. The value of the collection is limited to some degree since it was recovered using an non-systematic sampling strategy. As Boismier points out research design is an essential element in any fieldwork project. Questions must be established in advance in order to better understand the distribution of artefacts, long before any interpretation can take place (Boismier 1991).

While most of the surviving monuments in the Bend of the Boyne area are now protected by law, many sites, like the bank around site A, have been destroyed. As Shee and Evans (1965, 129) pointed out "in a casual walk through any field in the Newgrange area during ploughing, similar flints can be picked up." A systematic programme of field-walking may be of value in any thorough assessment of human activity in the area. As the material did not display any marked spatial concentrations in contrast to that which O'Kelly noticed in 1965 and as much of it was damaged by ploughing, scientific recovery of further material would appear to be desirable sooner rather than later.

Acknowledgements

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INDUSTRIAL ARCHAEOLOGY OF AN ENGINE HOUSE IN SLIEVEARDAGH, CO TIPPERARY.

Richard Clutterbuck*

Introduction

This article, presents the layout, function and design of an engine house in the townland of Mardyke, Killenaule parish in the Slieveardagh hills, Co. Tipperary. The building is one of two engine houses in the old colliery of Mardyke, on the land of Mr Phil Kelly.

Mardyke colliery is nestled in the rolling hills of Slieveardagh, approximately two miles from the town of Killenaule in south east Tipperary (Fig. 1). Close to the colliery is the abandoned mining village of Mardyke where the workforce of the colliery was housed. This was a sizeable village, containing an station of the Royal Irish Constabulary and a school house. Derelict buildings and foundations are all that remain of the site. The main focus of this article is the better preserved of the two engine houses in the colliery.

The engine house complex consisted of the engine house, the chimney and the pit shaft (Fig. 2). The engine house is a tall structure, approximately 15 metres high, with stout walls approximately 0.7 metres thick. The eastern wall is considerably thicker then the other walls, because it was built to take the weight of the massive beam connecting the engine to the crank. This feature will be explained later in the article. The building apparently contained two floors and a possible attic judging by the number of beam slots along the inside wall, the upper windows and the ledge at roof level. The structure had a ridge roof. The eastern gable end is where the engine beam exited the building. The roof is now gone, but the slates on the floor of the engine house floor indicate that there was once a slate roof.

The building is constructed of rectangular blocks of finely dressed cut limestone. There are two cut stone arched entrances, one at the west and the other at the east of the building. The key stone of the western entrance has collapsed, leaving a gap reaching up to the window above, but otherwise appears to be structurally sound. The eastern entrance arch is still in place, although the entrance sill, which was originally above ground level is broken down. This entrance leads into the engine pit, where the steam engine was housed, and the sill was possibly broken down during the removal of the engine for scrap metal.

The west door is the main entrance to the building and is large enough to accommodate a cart. The eastern entrance, situated above ground level, would seem to be an access point for the maintenance of the engine.

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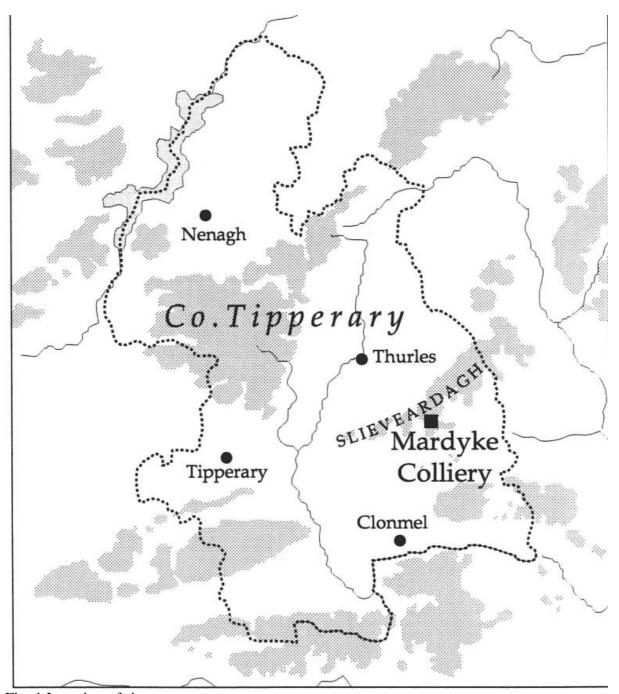


Fig. 1 Location of site

There were three windows at ground level, two on the northern side (A and B) and one on the southern (C). The smaller of the two on the northern side, 'A', is square in shape, and may have been used as an outlet for the exhaust from the boiler to the chimney. The other two windows (B and C) face each other across the engine pit. The base of the northern window 'B' was broken down, either during scrap salvage or by cattle. These windows may have given access to the engine for maintenance.

The engine pit (1.7m by 5m originally) was approximately a metre and a half deep, and was originally stone lined, although the western side is now much denuded of stones. Only one possibly original piece of machinery remains; a bar 0.83m long with a diameter of 0.065m. This bar may have been used as part of a set to anchor the engine to the ground although no other bars were present. The disturbed state of the engine pit is probably due to salvage

operations and cattle action. A large, irregular flag stone is situated on the edge of the slope into the engine pit. This stone possibly stabilised the engine, or was placed in front of the boiler. On the same level as the floor are two beam cavities in the western wall, which suggest that there was some sort of flooring about the engine, or possibly supports for a vertically mounted boiler.

The beam engine consisted of a vertically mounted cylindrical boiler that drove a shaft up and down. This was attached to a massive beam connecting the shaft of the boiler to an outside shaft, in turn connected to either a pump or a crank wheel for winding. The beam was supported by the massive east wall known as the, "bob" wall after the bobbing action of the beam. A low collapsed wall runs south from the south west corner of the engine house for 12.10m until it is obscured by grass and thick thorns.

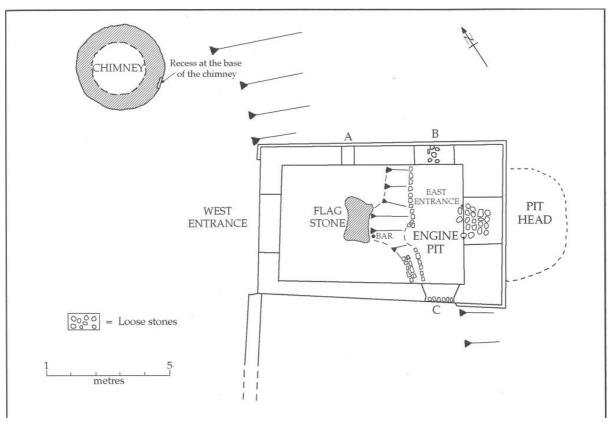


Fig. 2 Plan of the engine house

The chimney is situated 5m to the North West of the engine house (fig. 2). It has a circumference of 10.7m with an approximate height of 20 metres. It is still almost completely intact and is taller than the engine house. Its purpose was to provide good draft for the boiler because the higher the chimney, the better the draft. Chimneys usually cleared the height of the engine houses. The chimney may have been attached to the engine house by a pipe from its base (where there is cavity stained black), to the boiler through window 'A'.

The pit has been filled in since the colliery fell out of use, and is now discernible as a water-logged area of black-flecked soil directly in front of the eastern side of the building. No other structures are associated with the pit head.

Comparisons with British Examples

The engine house is a tall impressively built structure, in design built much like those of the late 18th and 19th century in Cornwall and Devon. Major developments in the early 19th century mining industry occurred in Cornwall. In a region without coal resources, the industry had to develop cost efficient methods of utilising coal to compete. This placed the Cornish engineers and at the cutting edge of mining technology. The Cornish design of engine house, built to facilitate the beam engines used by the copper and tin mining industry are still to be seen in large numbers in the West Country. An example was built in Allihies, Co Cork, where copper was discovered in the 19th century. These engine houses may have held Newcomen's vertically mounted atmospheric engine, or later a Boulton and Watt single action beam engine (Hudson 1976, Burton 1983).

The engine house at Mardyke strongly resembles the Cornish model both in form and in proportions, for example the restored engine house at Camborne, Cornwall, (Hudson 1976), and the Wheal Betsy lead mine on the west coast of Dartmoor, Devon (Burton 1983). The position of doors and windows, the small ledge around the base of the windows, and even the manner in which the building stones were cut at Mardyke illustrate the influence Cornish Design had on this engine house.

As in British examples, two engine houses were present at the Mardyke Colliery; one for winding (bringing men and material up and down the shaft of the mine), and one for pumping. The engine housed in the building at Mardyke was probably a pump because the structures needed to support a crank wheel are not evident over the pit head. The bob wall of the other engine house, which was probably used for winding, is still standing, though it is obscured by ivy.

Coal Deposits in the Area

Coal measures were laid down in what is now the Slieveardagh hills in the Lower Carboniferous era. The type of coal found in the Slieveardagh hills is anthracite; a long burning fuel with little flames, but producing a lot of heat, with low gas emissions.

In the Civil Survey of 1656 (Petty 1654), a coal mine was mentioned at only one site in the Barony of Slieveardagh; Coolquill indicating that coal was exploited in the region since at least the 17th century. The coal mine at Coolquill was next to the Castle, and thus was obvious to the Civil Survey. It may be that other small scale extraction of coal took place in Slieveardagh, and went unnoticed.

Coal was found by the Langley's of Coalbook in the early 19th century, but they did not exploit it immediately. Coal was exploited on a private basis until 1825 by the local landlords and land owners. Where the seams were near the surface, pits called 'bell pits' were sunk. The method of extraction (similar to Neolithic flint mining at Grimes Graves in Britain) involved digging a pit to the coal deposit and following the seam until the roof was in danger of collapsing. The miners then dug another pit in close proximity. The resultingfeatures on the landscape are clusters of depressions with circular heaps of slag surrounding them. These are easily identified on the first edition 6" and 25" maps for the region (Ordnance Survey of Ireland 1841, Ordnance Survey of Ireland 1905). Drift Mining, or the practice of digging into a hill at an angle to follow a seam was also carried out in Slieveardagh.

In 1825, the anthracite in Slieveardagh was worth £10,000 to £12,000 (Neely 1983). Most of the local landlords in the area owned mines. In the case of Mardyke, the mine was owned by

Colonel Palliser who leased it to the Mining Company of Ireland (Griffith 1850). Other families owning mines were the Langleys of Coalbrook, the Goings of Ballyphilip, the Vere Hunts of New Birmingham (which was an attempt to create an industrial town which surprisingly failed) and the Pennefathers of Ballingarry. Mining families with names like Ivors, Condon, Pembert, and Cleere were tenants of the Mining Company of Ireland and came from places like Wales and Cornwall.

The coal in Slieveardagh is deposited in synclines lip to lip (Commission of Inquiry 1921). There are three workable strata. The advent of the steam engine allowed the deeper strata and centres of the synclines to be exploited, opening the way for the establishment of collieries such as Mardyke. However, a number of factors worked against the success of the industry. The mines tended to flood (necessitating pumping); the anthracite quality varied from hard two foot seams, to culm (broken and dusty anthracite); the method of extraction was in some collieries uneconomic; and the strata tended to fault. Also, the mines were 4.5 miles from the local train station, Laffansbridge. The coal mined here was often more expensive to produce than imported British coal.

An important by-product of the mines was 'culm'; coal dust mixed with local yellow clay to give balls which were then burned to dry grain, burn lime or heat homes. The local grain industry benefited greatly from the convenient supply of cheap fuel. Farmers in the area benefited from the colliery because it provided cheap fuel for drying grain and burning lime in the many local lime kilns, and local farmers' incomes were boosted by casual work provided in the mines.

Mining in the Slieveardagh hills has suffered varying degrees of success and failure over the years, under public and private ownership. First opened in 1826, Mardyke colliery worked two strata of coal at 50 yards and 90 yards deep. The second seam was lost in 1842, but engineers thought they knew where the seam would be picked up again (Neely 1983, Commission of Inquiry 1921). The mines were eventually to close down in the early 1980's under a cloud of controversy.

Coalbrook, Copper and New Birmingham. The remains at Slieveardagh provides a rich source of information about one aspect of Ireland's industrial heritage and more recent archaeological past.

The industrial heritage has left a legacy of engine houses, slag heaps and ghost towns more suited to the West counties of England; agri-industrial structures such as lime kilns, water mills and drying kilns; English, Welsh and Cornish surnames, foreign place names like

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IRELAND ON THE EVE OF THE NORMAN INVASION:

An historical perspective

Brian Shanahan

The Norman invasion of 1169AD is a defining point in Irish history and archaeology. The invaders left an enduring imprint on the archaeology and history of this island. This Norman inheritance tends to overshadow the evidence, both archaeological and historical, for the preinvasion period, making it an understudied and undervalued area of research. At the beginning of this century Ireland immediately preceding the Norman invasion was perceived as a land of a hundred kingdoms festering in tribal anarchy, a culture in terminal decline - a barren wasteland after a Viking holocaust, a prelude to the Norman civilising mission.

Modern historical research has revealed a very different picture of the three hundred years preceding the arrival of the first Normans at Bannow bay. It shows a society undergoing change linguistically, politically and economically. This was encouraged through foreign contacts, stimulated by Viking traders and settlers and through links with the European Church. The tenth, eleventh and twelfth centuries witnessed the consolidation of power among a shrinking number of Irish kings.

Ó Corráin (1978) states that "What we can say with any certainty is that there were no more than a dozen overkingdoms of any political consequence in the tenth century, and these were drastically reduced in number by the mid-twelfth century". The ri tuaithe or tribal king of the seventh century law tracts was already in decline at the time of the writing of the law tracts (ibid. 1978). By the eighth century some of these ri tuaithe and even some kings of large kingdoms (*ruiri*) are referred to by the inferior title dux (ibid. 1978). By the eleventh and twelfth centuries the ruler of a territory similar in size to the old tuath was styled *tigerna*, *toisech* or *toisech dutchais*, all meaning lord' (ibid. 1978).

The provincial kings of the eleventh and twelfth centuries were the real powerbrokers of the island. Their ambitions could engulf the whole island in warfare. They granted large parcels of land to the Church and were the first patrons of Church reform. They were the people who gradually came to dominate the Vikingtowns exploiting their economic and military wealth so that they attained new heights of power. They tended to rule large areas such as Munster or Connacht. These provincial kings always had their rivals. For example, the kingship of Munster in the eleventh and twelfth centuries was contested by two rival dynasties, the Ua Briain who held Tuad Mumu (Thomond) and the Mac Carthaig who held Deas Mumu (Desmond). The kingship alternated between the two families according to who was strongest at the time. Loose succession laws led to the constant threat of fratricide within dynasties from the level of lowly tuatha to that of provincial kingdoms. This led to an apparently fluid situation where powerful kingdoms could implode temporarily on the death of the king, making it difficult to pass on a kingdom intact from generation to generation. For example Ua Briain dominance of the island in the eleventh century never translated into a kingship of Ireland because a series of dynastic struggles depleted their power, allowing the Ui Chennselaig kings of Laigin (Leinster) to become the most powerful kings on the island, for a while. There was literally a see-saw effect where a number of regional dynasties fought for

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overlordship of the island gaining and losing power but never consolidating their gains into a kingship of Ireland.

The concept of an ard ri of the island, however, was formulated by the learned classes (Byrne 1987). They endorsed this political prize by projecting it back to the mythological dawn of Ireland. Their claim that high kingship of Ireland was an ancient tradition was an attempt to accommodate the new realities of power which were here to stay.

Brian Boruma epitomised the new style of ruler. His obscure Dal gCais sept came to prominence under the auspices of his father Cennetig Mac Lorcain (Ó Corráin 1972). Brian continued their spectacular rise to power by usurping the kingship of Mumu, traditionally held by the Eoganachta, a group of related dynasties, from whom the Mac Carthaig among others were to emerge in the eleventh century. He completed his ascent by subjecting most of the island to his overlordship. His secretary, on his behalf, signed the Book of Armagh *Imperator Scottorum* - 'Emperor of the Irish' (Byrne1973). This indicates a crystallising of ambition on behalf of the major Irish kings, who were drawing on continental concepts for prestige and to express the new role they aspired to. Brian's death at the battle of Clontarf in 1014, was a far cry from Gaelic patriotism in the face of a Norse onslaught. In fact he died leading a Munster and Limerick Norse army to subdue Mael Morda, rebellious king of Laigin and his ally Sitric king of Dublin with his supporters from Man and the Scottish Isles. The nebulous relationships of this aristocratic world are exposed in this confrontation as Mael Morda was Brian's brother in law and Sitric's father in law, while Brian was Sitric's stepfather.

Historical proof of the importance of Ireland in the Norse world is provided by the description of the battle of Clontarf in the thirteenth century Icelandic Njal's Saga. It has been suggested that this passage was lifted from a lost Brjan's Saga, written in Dublin under Ua Briain patronage in the late eleventh century. This would correspond to the extant *Cogad Gdedel re Gallaib*, or 'The war of the Irish against the foreigners', written under Ua Briain patronage to boost their ambitions by claiming Brian to have been the benevolent King of Ireland who died defeating the assorted hordes of the Viking world. This sophisticated work of propaganda was hardly produced in a society of rustic petty chieftains.

This leads to the wider topic of learning in the eleventh and twelfth centuries. Fragments of a schoolbook from Glendalough, written in 1106, contains the De Abaco of Gerbert d'Aurillac, which introduced Arabic numerals to the West and a Twelfth century manuscript of Gregory the Great's *Moralia In lob* written in Armagh, contains Arabic signatures (Byrne 1987). In 1169, the Annals say Ruaidri Ua Conchobair granted ten cows yearly to the lector of Armagh for teaching students from Ireland and Scotland, while in 1162, the Synod of Clane declared that only an alumnus of Armagh could hold that job of lector in any church in Ireland (ibid. 1987). This suggests some royal patronage of education and a royal bureaucracy to receive income and then redistribute it.

There is also evidence for the development of royal bureaucracies in the three centuries preceding the Norman invasion. The blueprint for this came from the efficiently run monastic *paruchiae* and their estates. As kings spent more time warring or attending to regional interests royal agents were necessary to manage their increasing resources. The *maer*, 'steward', collected revenues, the *muire* was responsible for maintaining law and order, the *airri* was a viceroy or governor, while the *rechtaire* was a royal appointee with many possible tasks, such as governing the kings household, holding fortresses or managing a fleet. Minor

kings and lords tended to hold these positions in the entourage of the provincial kings (Ó Corráin 1972).

There is a tantalising glimpse at the system of land holding in the twelfth century Ua Heiderscoil territory of Corco Loigde. Apart from Ua Heiderscoil's estates there were six lordships each ruled by a *toisech* or Lord, while there were five to fifteen oclach, or warriors below each toisech (ibid. 1972). The term oclach came to mean vassal (Byrne 1987). They must have had serfs or slaves to work their land during their long absences. In this period there seems to be a growth in lordship based on land rather than men. These powerful kings with large landholdings were acting as *domini terrae*. For example Donchad Mac Domnaill Remair, King of Laigin granted the land of Clonkeen in south county Dublin to Christchurch, though his familial lands were in the Ui Chennselaig heartland in the south of Leinster (ibid. 1987).

Perhaps the two most influential factors in the development of the island at this time were the large monasteries and the Vikings. The monasteries, such as Armagh were repositories of wealth for local kings. They had large, well-managed estates, while the monastic centres themselves became centres of population, monks, students, craftsmen, traders and dependants (O'Corrain 1972). The Annals mention that the monastery of Kildare had the workshops of combmakers (Barry 1988), while annalistic entries for the years 1031 and 1097 indicate that there was a cash trade in mast (mainly acorns). The price of a sesedach (a unit of measure) of mast doubled in the Armagh market between 1031 and 1097, despite a bumper crop in the latter year (O'Corrain 1972). Wine merchants frequented the large monasteries, such as Lismore even though it was close to the Viking towns of Waterford and Wexford (ibid. 1972). According to the annals many houses were burnt in Armagh in 912 AD. Three streets were destroyed by fire in 1112 AD, while twenty houses and four streets were burnt down in 1166 AD (Barry 1988) and the same monastery was divided into 'thirds' or suburbs. Kings often had royal residences in these monastic centres. For example Ua Mael Sechlainn had royal residences at Durrow and Clonard (Byrne 1987). There has been much debate on whether the larger monasteries were indeed towns or proto-towns in this period and what their relationship was to the developing Viking towns. Only extensive and comprehensive excavation will reveal their true nature.

Research on the Vikings has been more productive to date, although our information is strongly urban based, with little known about possible rural settlement. Viking towns such as Dublin are an example of how history and archaeology have met to form a more comprehensive picture. Silk from the east, pottery and glass from the continent, amber and walrus ivory from the north, have been found in Dublin (Roesdahl 1987),

while a lot is known about the Dublin houses of the period, due to excavation. The documentary sources remind us that it was also a thriving centre for the slave trade. Another item which was traded in great quantities was wine. Giraldus Cambrensis at the end of the twelfth century remarked, "Imported wine is so abundant that you would scarcely notice that the vine was neither cultivated nor gave its fruit there". This massive trade network led to a influx of silver, which was not so commonly used in the pre-Viking period (6 Floinn 1991).

By the eleventh century these vast repositories of wealth were fought over by Irish kings. The Ua Briain, descendants of Brian Boruma, built on his domination of Limerick and became kings of Limerick, building a residence there (O'Corrain 1978), while Dublin became a necessary possession for any king aspiring to the overlordship of the entire island. Ruaidri Ua Conchobair, for instance, was inaugurated high king of Ireland in the town of Dublin after

granting the citizens four thousand cows (Byrne 1987). Historical sources portray an array of Norse christian names among the Irish nobility and *vice versa*. Giraldus Cambrensis also remarked that the Irish had adopted the Viking battle axe so thoroughly, that they carried it as other people would carry staffs. Navies became increasingly important in Irish military campaigns. They were used particularly by the Ua Briain and Mac Carthaig dynasties who utilised the native fleets of their maritime vassals such as the Corco Mruad, while kings from the whole Irish sea area hired the Viking war fleets of Dublin and Waterford (ibid. 1987). These references are tantalising and we can only speculate on the nature of these vessels. There was extensive borrowing of nautical terms from Norse, the most obvious being bad for boat from the Norse *bátr*. This makes it likely that Norse sailing technology was also utilised. We can only speculate on whether the Irish also adopted Viking type longships. Substantial ships were certainly being used because in 1151 AD Ua Conchobair Ciarraige brought seven ships on wheels from Eas Duibhne to Loch Lein (ibid. 1987).

The Viking towns also provided Irish kings with an effective gateway to the wider Irish Sea world. In 1111 AD, after gaining control of Dublin, Domnall Ua Briain tried unsuccessfully to dominate the strategic sea kingdom of Man, when his kinsman Domnall Mac Taidg was invited to act as regent to the infant king Olaf Godredsson (ibid. 1987). Later Muirchertach Ua Briain married a daughter to Magnus Barelegs, king of Norway and another daughter to Anglo-Norman Arnulf De Montgomery, brother of the rebellious Earl of Shrewsbury. Leinster kings sheltered the sons of Earl Godwin of Wessex in 1051 and the sons of Harold Godwinson, the last Anglo-Saxon king of England, sometime after 1066 (Byrne 1987). These connections, no doubt, served to bring new ideas and influences toIreland. According to Byrne (1987), the twelfth century sagas show that *franc-amuis*, 'Frankish mercenaries', and *ritiri*, 'knights', were not unfamiliar at the courts of Irish kings.

The historical sources show that the more powerful kings were also patrons of Church reform as it gathered pace in the twelfth century, holding reforming synods, introducing foreign orders of monks, such as the Cistercians (*ibid.* 1987) and building churches with a mixture of Irish, Norse and Romanesque elements (Stalley 1991). The first Cistercian foundation was at Mellifont, Co. Louth, in 1148. The remains indicate that it was a large stone construction built around a courtyard with a large Romanesque church, very unlike traditional Irish foundations, no doubt requiring some foreign craftsmen. This is equally so of the unique midtwelfth century Cormac's Chapel on the Rock of Cashel. It combines pure Romanesque decoration on a small church of Irish scale with a high pitched roof. It has a 'made to order' quality, which epitomises the eclectic mix of native and foreign influence in twelfth century Ireland. Clearly the most powerful kings had the resources for large-scale, imposing buildings, but how exactly were these resources channelled into the secular world?

It is still not known for sure what sort of 'palaces' these powerful kings of the twelfth century lived in. These kings had increasing entourages and resources at their disposal. Is it reasonable to believe that they lived in small undistinguished houses? According to O'Corrain (1972) Ua Ruairc, king of Breifne and Mael Sechnaill, king of Meath demolished Diarmait Mac Murchada's stone house in the 1160's. This suggests something substantial. The main passage tomb at Knowth is particularly interesting. The mound was fortified in the Early Christian period and served as the seat of the kings of Northern Brega. It was still a royal residence in the twelfth century. It would have appeared very imposing, looking superficially like a motte.

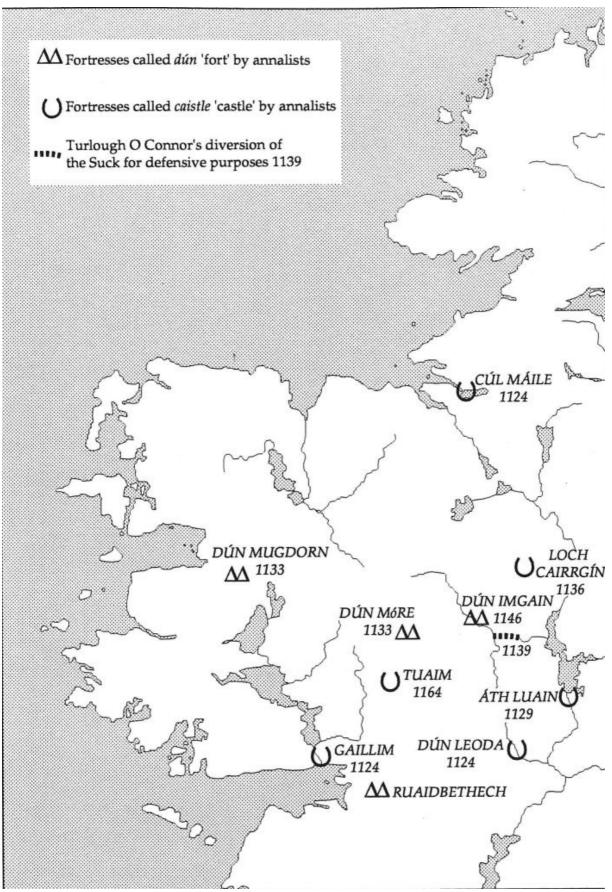


Fig.1 Map of the Ua Conchobair fortifications (after 0'Corrainl978)

There should be ample evidence in the archaeological record for military fortifications in this period. Here again we know that large kings had the potential to erect imposing structures. A new term, caistel (or caislen) is used to denote military strongholds in the early twelfth century. It replaces the terms dun and rdith (Barry 1988). A clue as to the nature of the caistel could be provided by the way the term was used by native annalists after the Norman invasion. They used the term to denote Norman mottes, suggesting little difference in function if not in form between the two types (ibid. 1988). Turlough and Ruaidri Ua Conchobair, in particular, relied more and more on these fortresses, ringing Connacht with defences and even diverting the river Suck (Fig.l). According to Ó Corráin (1972) Turlough erected three *caistel* in 1124, one at Galway, atthe mouth of the Corrib, another at Collooney, about five miles from Sligo and a third at Dunlo near Ballinasloe. In 1129 he built another one at Athlone, the gateway to Connacht from the east, while in 1136 he had another caistel near Roscommon. They appear to have been built at least partly of timber as the annals refer to the burning of some of these caistel (ibid.). F J Byrne (1987) points out that the Anglo-Normans had penetrated Wales at the beginning of the twelfth century, that the Welsh were copying Norman fortifications a decade later and that Ua Conchobair's caistel were being built shortly after these developments in Wales. Another fortification associated with the native Irish is the raised rath. It is a monument which seems to appear at the end of the Early Christian period. Raised raths appear to be distributed mainly in eastern Ulster, though more fieldwork in the rest of the country could expose the current map as merely a distribution of interested archaeologists. The raised rath at Big Glebe, Co. Derry comprises of an oval mound, twenty metres in diameter and over seven metres above the surrounding land, with an unmortared wall enclosing the summit (Barry 1988). They look like small mottes, while defence and assertion of status seem paramount in the construction of these imposing structures. They could prove to be very relevant to our understanding of pre-Norman fortifications. Ua Conchobair also erected bridges at strategic locations, such as Athlone (Ó Corráin 1972) allowing their armies to march out of Connacht and to return with plunder. This is particularly interesting considering the recent discovery of a substantial timber bridge at Clonmacnoise. This bridge it seems runs close to the Anglo-Norman ringwork. Is it possible that this 'ringwork' is Irish, or at least on the site of an Irish earthwork. As the earthwork is on the Leinster side of the river could it have regulated traffic, particularly traffic coming from the Leinster side? F J Byrne (1987) has raised some awkward questions with regard to Connacht's twelfth century rise from obscurity. He contends that the rise of such a provincial backwater implies that Ireland shared in the European population expansion of the eleventh and twelfth centuries. The large armies raised by the big Irish kings would seem to support this.

It is clear that eleventh and twelfth century Ireland was a period of political consolidation and great change in Ireland. The Viking towns influenced economy and culture and greater resources were available to increasingly militaristic kings. The effect of increasing resources in the hands of fewer, more powerful kings should be detected in the archaeological record, for example in palaces and fortifications. The great kings were erecting substantial religious buildings, most notably Cormac Mac Carthaig's chapel at Cashel. Archaeology has corroborated some historical assertions on topics such as the Viking towns, but much remains in the realm of speculation - neither archaeological fact nor fiction. Subjects such as pre-Norman castles, likely monastic towns and royal residences are still vastly understudied and have great potential for the future. Without more study on these subjects we cannot claim to have a clear picture, either archaeological or historical, of Ireland on the eve of the Norman invasion,

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Synthesise, categorise, classify and then, Associate, postulate and start all over again. Typify, identify, so that when you die We will read your thoughts in JRSAI.

Redivide and subdivide all objects into classes Not because they're meant to be but to confuse the masses. Argue over little things like notches or incisions, Taking always greatest care to reach no firm conclusions.

Your life will be a happy one: just keep these golden rules. Half the world don't really care; the other half are fools. Then steal awayfrom Botany, Biology and Geography And wonder if it does exist - that thing called

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Dr Rhoda Kavanagh recently found the following poem, dated 1975 with the initials E M B. The editors would like to hear from anyone who might know who composed the above.

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