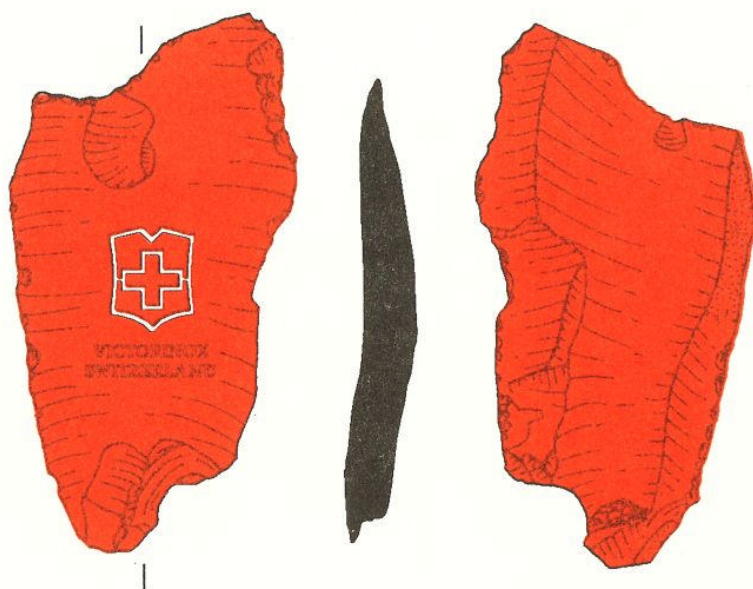


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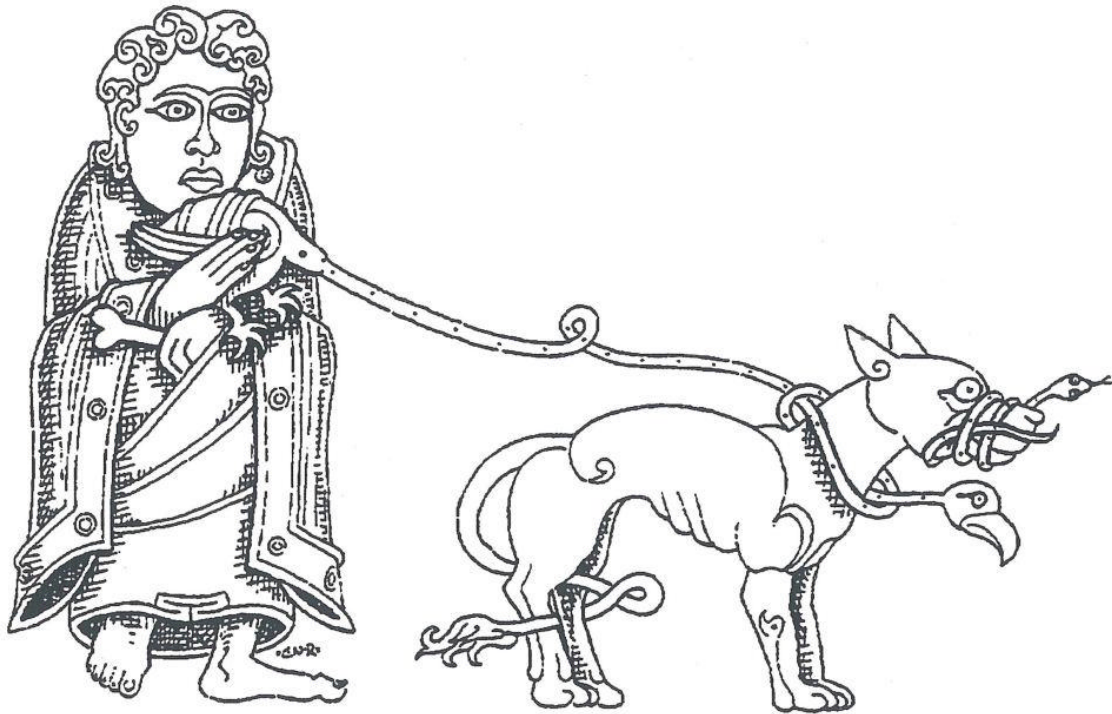
# TROWEL

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Edited by

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ARCHAEOLOGICAL SOCIETY, UNIVERSITY COLLEGE DUBLIN.

1997

## Contents

Editors' Foreword .....	5
IRISH HISTORICAL MAPS AS A SOURCE FOR THE ARCHAEOLOGIST .....	
Sarah Gearty .....	6
QUARTZ: SOME OF ITS USES IN IRISH PREHISTORY .....	
Nina Koeberl.....	15
LOCAL AUTHORITY PROTECTION OF THE ARCHAEOLOGICAL AND ARCHITECTURAL HERITAGE IN DROGHEDA AND KILKENNY.....	
Paddy Mathews .....	22
NEOLITHIC FLINT MINING AT SPIENNES, BELGIUM .....	
Christophe Vantroyen.....	31
A PREVIOUSLY UNRECORDED MEGALITHIC STRUCTURE AT FENNOR, CO. MEATH.....	
by Conor Brady.....	34
THE ARCHAEOLOGICAL MODEL OF THE ROYAL SITES: SOME HISTORICAL IMPLICATIONS .....	
Kevin Lohan .....	37
Theses.....	
THESES HELD IN THE DEPARTMENT OF ARCHAEOLOGY, UNIVERSITY COLLEGE, DUBLIN.....	42
THESES HELD IN THE DEPARTMENT OF ARCHAEOLOGY, UNIVERSITY COLLEGE, GALWAY .....	43
DEPARTMENT OF ARCHAEOLOGY, UNIVERSITY COLLEGE, CORK.....	43

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## Editors' Foreword

It is now ten years since Trowel, the journal of the UCD Archaeological Society, first appeared although it is the eighth volume. Looking back over the contents of these earlier issues (see index, p. 31), one gets a sense of how much work and effort has been put into this publication, both by the contributors and various editors, many of whom have gone on to much bigger and better things.

Trowel has undeniably developed over the past ten years. Many of these changes are, however, superficial and reflect the changing nature of the available technology but the basic philosophy has remained the same - Trowel was conceived of as a students' journal, an opportunity for many to get their first experience of writing for publication, catering in this respect for a variety of different interests and standards. It is hoped that the appearance of the journal does not put off any potential contributors, we would encourage any student or recent graduate to come forward with their ideas, no matter how small or insignificant they may seem. All ideas, from first year students to recent masters graduates, are welcome.

We would like to thank last year's editors who have moved on - James Eogan and Michael Stanley Their efforts are greatly appreciated and their participation is missed. Thanks are due to David Jennings for his help and advice on scanning the images onto disk. We would also like to thank each of our contributors to this volume and we hope that each one has learned something and found the exercise worthwhile.

We are continually heartened by the support that Trowel receives from subscribers both in terms of the number of standing orders now in place and the various encouraging comments we receive. This support is invaluable and without it Trowel would definitely not succeed. Thanks to all those who part with their cash and purchase Trowel each year - this is the best help we can get. Keep it coming and we can keep Trowel going!

Teresa Bolger

Conor Brady

Richard Clutterbuck

# IRISH HISTORICAL MAPS AS A SOURCE FOR THE ARCHAEOLOGIST

Sarah Gearty\*

Few would argue the significance of the map to archaeology; it is indispensable in the presentation of spatial data in any archaeological publication. The distribution map was recognised by archaeologists as an efficient way to display and examine data as early as the 1920s (Reeves-Smyth 1983, 119). However, it is only since the 1960's that maps other than distribution maps have been used to any great degree within archaeology. The rise of contextual archaeology brought with it the growing recognition of the importance of the spatial location of sites and consequently maps took on a primary role in archaeological field work and research (ibid.).

This article deals specifically with historical maps, the term 'historical' simply meaning that the map was produced in history rather than implying that its function was to display historical data. The maps discussed here range from ca. 1550, which is generally taken as the beginning of Irish cartographic history, to the production of the first edition Ordnance Survey (O.S.) maps. Historical maps are a visual record of the landscape providing a static representation of an area at a particular time. The value of this source to the archaeologist is dependent on the function, style, detail, age and accuracy of the map. The aim of this article is to outline the implications involved when using historical maps for archaeological study so that their full potential as a source may be realised. The first edition O.S. maps are dealt with briefly and then there follows a more detailed study of Ireland's earlier cartographic history.

## The first edition Ordnance Survey (O.S.)

In Ireland, the six inch O.S. series was developed as a primary record of archaeological sites alongside the growing use of maps in general as illustrative and analytical aids. The production of the first edition large scale six inch series (1824-1846) was unique not only because it was the first ever countrywide survey but also because of the precision with which it attempted to portray the landscape. Thomas Colby, director of the O.S., gave instructions in May 1826 concerning the representation of "mounds, forts and tombs" and an officer could be quite sharply reprimanded for omitting such features (Andrews 1975, 127-8). The Heads of Enquiry, guidelines issued to officers, listed the principal requirements as drawing, descriptions and a note on local traditions in respect of "ecclesiastical buildings", "military buildings", "remains of pagan or unknown origins" and "miscellaneous", while the survey personnel were well encouraged that "a good drawing is more valuable than an inscription and well preserved tradition than doubtful history" (Heads of Inquiry guidelines, cited in Herity&Eogan 1977, 8).

The O.S. brought an ordered effort to bear on the study of antiquities on a countrywide scale and has been credited with laying "the foundations of the development of scientific archaeology in Ireland" (De Valera & Ó Nualláin 1960, iii). However, the advantages of the six inch series have by now been well documented (Ó Riordáin 1965, xii) but the limitations

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which inevitably exist, although always noted, are rarely explained in any detail and therefore not properly understood.

In the 1837 O.S. Memoranda for Co. Meath, Lieut. Henry James remarked that “a topographical survey is not a piece of field archaeology, but a record of what is conspicuous and of general interest” (Andrews 1975, 128), a reminder that the six inch survey was not primarily designed as an archaeological source but as a aid to land valuation. Often difficulties arose in the field where antiquities lay in awkward terrain and in some cases religious bigotry was a problem, with some non-Catholic officers regarding relics a result of papal superstition and finding the required search for them unnecessary (Philips 1980, 11). Uneven representation is widespread on the maps, an example being the portrayal of a site as a “ruin” in some places where otherwise it would be symbolically depicted (Andrews 1975,86-7).

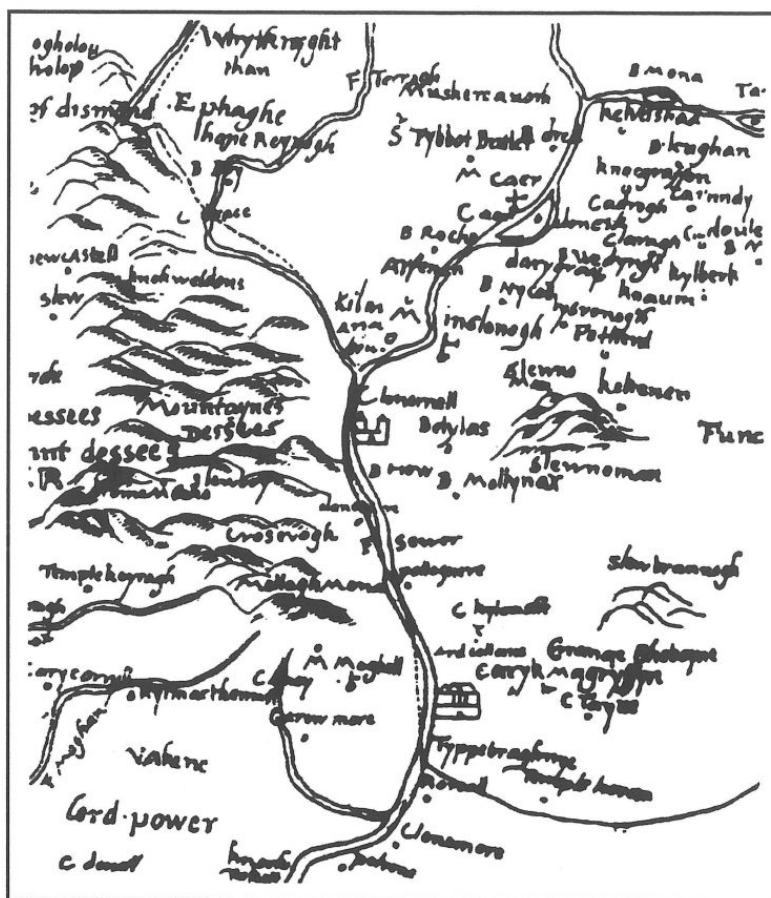


Fig. 1: Extract from Robert Lythe's map of Munster, 1571 (after Andrews 1978)

The benefits and failings of the O.S., however, are not the issue here but rather the de-emphasising of the six inch series so that the merit of alternative cartographic sources may be highlighted. The efficiency and wide availability of the six inch series of maps has resulted in its overshadowing the rest of the cartographic record. Therefore, other historical maps, although containing disparate archaeological information, have not been used to their full potential even though they are a vital component in the attempt to recreate past landscapes. These pre-O.S. historical

maps are discussed in two sections which correspond to different periods and styles of map making in Ireland although some degree of overlap is apparent.

### Plantation maps and the Irish-style estate survey, ca. 1550-1750

Irish cartographic history began about three centuries before the inception of the O.S. and although fragmentary it provides a fascinating visual record of the landscape throughout that period. In order to determine what information historical maps can provide to the archaeologist it is necessary to outline the context from which they came and how antiquities have been represented on them.

Maps of Ireland are rare before the mid-16th century; any spatial representation of the country given on medieval *mappae mundi* or *portolan* charts was dominated by mythical data or restricted to coastal information. It was with the reign of Elizabeth I in England and her ambition to conquer the whole of Ireland that information on the Irish landscape became important. Most surviving maps from this period are town plans, fort plans, military sketches and military surveys done by fast working English soldiers (Andrews 1985, 28). These maps tend to be quite crude but the work of surveyors such as Robert Lythe is worth a mention, especially in the present context.

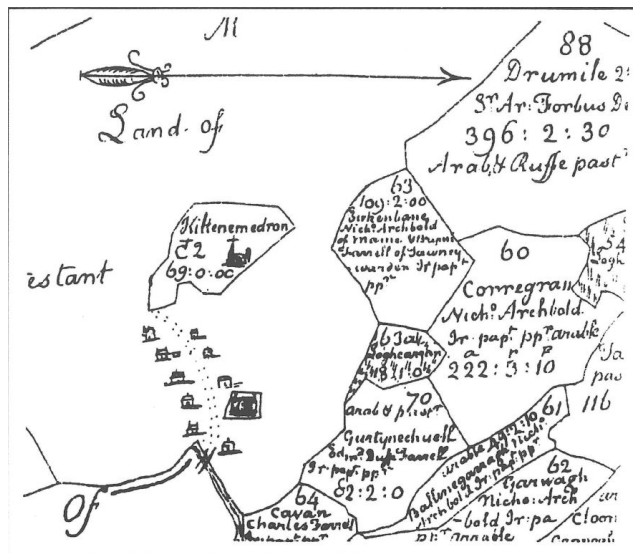


Fig. 2: Extract from the Down Survey Parish map of Clonebroney, Co. Longford, ca. 1655 ■

Lythe was a military engineer commissioned to do a map of the whole country in the 1570s (Andrews 1965, 22). He mapped the landscape visually from high vantage points; some areas, mostly in the south, showing more detail than others. He included placenames, hills, towns and on some maps, roads, individual buildings and churches (fig. 1).

The first major production of plantation maps was for the Munster plantation of the 1580s, and these continued to appear into the seventeenth century. Some very substantial surveys were produced such as that of the six escheated counties of Ulster by Josias Bodley in 1609 (Andrews 1974, 133). Such maps, however, are overshadowed by the near countrywide Down Survey carried out by Sir William Petty in 1654-6 to deal with the 2.5 million acres of land confiscated during the Cromwellian campaign which had to be allocated as payment to anxiously waiting soldiers and adventurers (Ó Domhnaill 1943, 381). Petty was to define the boundaries and profitable lands of all church, crown and forfeited lands in Ireland outside the area already covered by the Strafford Survey, an earlier plantation survey of Connaught, but he also wanted all his maps to include detail on settlement and natural features despite these requirements being outside official terms (Andrews 1970, 4). He instructed his surveyors to record “the situation of townes, castles, mills, raths, notable houses &c.” (Larcom 1926, 123). Pictorial depictions of some of these features are found on the Down Survey (fig. 2) but in general these maps convey the impression of a rather empty landscape because his map makers did not always pay attention to the details Petty considered important.

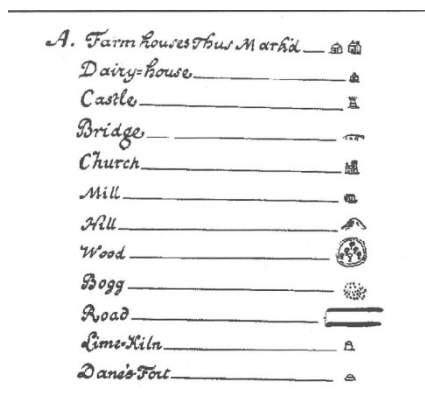


Fig. 3: Symbols used by Josias Bateman in his survey of the lands of Sir Walter Raleigh at Mogeely, Co. Cork (after N.L.1.1980)

Because the landowning classes needed to settle their own tenement boundaries, the private estate survey developed alongside the government plantation survey. In keeping with the dominant Irish style of the time, the topographical content of these maps tends to be limited to what was of concern to the landlord (Andrews 1985, 152-3) and the

map maker. For example, Thomas Moland's survey of the Perceval estate in 1702 included profiles of numerous houses but nevertheless omits a large stone walled house and smaller cabins that are mentioned in his notes (ibid. 157). This irregular representation of detail is a frustrating but common feature of the standard Irish style of map making. However, talented cartographers were also emerging and as early as 1598 Josias Bateman produced a detailed map of the lands of Sir Walter Raleigh at Mogeely, Co. Cork on which features such as "Dane's-fort" and "lime=kiln" were symbolised (fig. 3). Thomas Raven's private survey work of the 1620s and 1630s was also of high topographical quality (Andrews 1978, 13) but such a cartographic trait was rare at the time.

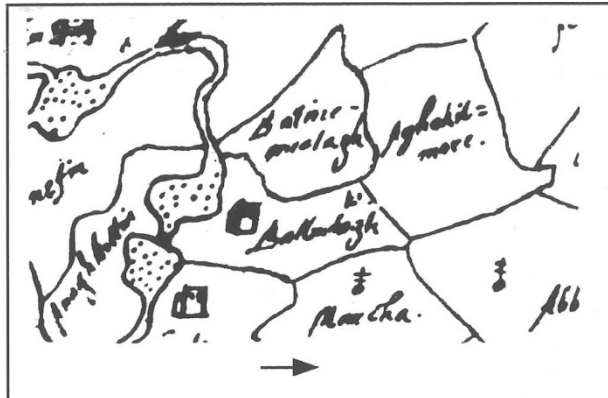


Fig. 4: The townland of Ballinlough, Ware's map of the Barony of Granard, Co. Longford, ca. 1630

The Irish-style plantation /estate survey usually dates from the late 16th to early 18th centuries, therefore, any representation of settlement should be of great interest to the archaeologist. Not only does the very existence of a man made feature on a map

of this age qualify as archaeologically relevant but the stylised nature of the symbols also portray a basic representation of the architectural attributes of various structures. However, the inaccuracies associated with boundary outline measurements, the general lack of landscape detail and the difficulties involved in tracing the 17th century mapped features successfully to their location on the ground today act as disincentives for archaeologists to use these sources comprehensively. This is understandable when it is considered that historical maps are only one of many sources used to supplement the archaeological field record. What is presented here, however, is a cartographic analysis of how archaeological features have been depicted on historical maps. By treating the map as the primary source it is intended to illustrate their full scope.

As examples, two features on a characteristic early 17th century map of the Barony of Granard, Co. Longford are interpreted. Longford was planted from 1611-25 and a set of barony maps was produced which survive in the form of simplified reductions of the original surveyors plots (Andrews 1985, 58). They are now part of the Cottonian manuscript collection in the British Museum and were presented to Sir Robert Cotton by Sir James Ware ca. 1630 (Flower 1931, 292). The map of the barony of Granard despite being almost devoid of interior detail includes the names of townlands and pictorial representations of castles, churches and mottes. Townland and barony boundaries are representative, having probably been traced with the chain.

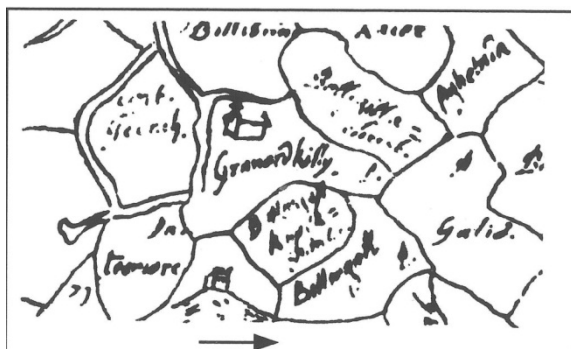


Fig. 5: The townland of Granardkilly, Ware's map of the Barony of Granard, Co. Longford, ca. 1630

A castle/house feature is depicted in the townland of "Ballinlough" which has a lake feature to the south and the townland of "Aghakillmore" to the north (fig. 4). Accordingly, the modern-day townland of Ballinlough has Ballin Lough lake to its south

and Aughakilmore townland to its north. Its boundaries correspond to those represented on Ware's map. There is only one site for the townland of Ballinlough recorded in the Sites and Monuments Record (SMR): a partially destroyed ringfort in its northern section. As can be seen from fig. 4, the maker of Ware's map depicts the castle/house site very much to the south of the townland, just north of the feature which is taken to correspond to Ballin Lough. Today, "Ballinlough house" is situated only 150 metres from the north eastern bank of Ballinlough. This cartographic evidence, given the absence of any evidence on the ground, suggests the possibility that the present-day Ballinlough house stands on the site of a more ancient house (Gearty 1996, 86-7).

The townland of "Granardkilly", corresponding to modern Granardkill, contains a basic pictorial depiction of a church (Fig. 5). The only evidence of a church at Granardkill today is a nineteenth century chapel and the SMR does not record any ecclesiastical sites in the townland. O'Donovan, in 1837, on visiting the site of the old town of Granard locates the "site of the original church built by St. Patrick, its graveyard and a possible round tower" in the ruins of the medieval town at Granardkill (O'Donovan 1837, 24). Bradley also located the site of the pre-Norman monastery at Granardkill (1982, 22). The evidence from Ware's map suggests that some form of ecclesiastical structure existed in Granardkill in the early seventeenth century and whether it was a south facing rectangular building with a window and cross on top or not is a notion worth cautious consideration. The other representations of church buildings on the map vary so we can, at the very least, assume that the architectural features represented give an idea of what the map maker thought the structure actually looked like.

These are just two out of about twenty features depicted on just one seventeenth century historical map. The examples show how these early maps have the potential to cast a whole new perspective on an archaeological site if the limitations are understood.

### **The influence of the French school of Cartography, ca. 1750-1825**

The paucity of topographical detail associated with the maps of the 17th and early 18th centuries disappears with the arrival of two immigrant cartographers to Ireland, John Rocque and Bernard Scale, who developed the "French school" of cartography in Ireland. Their work was of high aesthetic quality but was also functional and has been described by Andrews as "intellectual" and "almost academic" (1985, 163). The underlying philosophy in producing such highly topographical maps was "a dislike for written explanations, its symbolism being either self-evidently realistic or easily interpreted on the basis of circumstantial evidence" (ibid., 164). The maps of Rocque and Scale attempted to show the contents of the whole terrain which was being mapped and therefore included archaeological remains. This is particularly useful for rural settlement studies as the depictions are morphologically detailed (fig. 6).

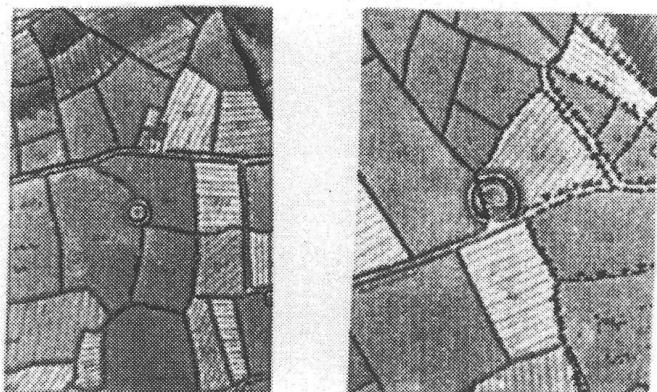


Fig. 6: Extracts from Scale's survey of the manor of Tallow, Co. Waterford, 1774 (after Andrews 1978)

The "French School" had a great effect on Irish estate mapping in general. Thomas Sherrard and

John Brownrigg are recorded as Scale's apprentices and are responsible for a succession of partnerships which transmitted their master's legacy into the nineteenth century (Andrews 1967, 287). Brownrigg has been described as a professional cartographer with a bent for historical detail (Andrews 1986, 44-5) and in 1788, after winning acclaim for his find of several ancient spearheads, published a paper on the fort of Ardnurcher in Co. Westmeath (Brownrigg 1788). This flair for antiquity was transmitted to his partner John Longfield and it is reflected in many of their maps (Andrews 1986, 45). These maps are preserved as part of the Longfield Collection in the National Library of Ireland.

Apart from a cartographer's interest in depicting archaeological sites, there were a number of advantages to be gained from marking antiquities on estate surveys. As well as being a complimentary reminder of the land owning family's history, antiquities may have been an aid in valuing a tenant's improvements by enabling the identification of areas of clearance, i.e., the creation of more productive land by destroying antiquities (ibid. 46).

Parallel to the production of more advanced estate maps in the late eighteenth and nineteenth centuries is the appearance of small scale county projects and some thematic maps which included antiquities on their agenda of representation. Taylor and Skinner's "Mapsof the Roads of Ireland" published in 1778, were a response to the growing importance of routeways at the time and objects of antiquity and natural curiosity were included on the maps to entertain travellers on their way.

The Grand Jury county maps were produced from the 1770's to the first decades of the nineteenth century. At scales of one and two inches to the mile, these maps give a clear picture of relief, water, roads and principal buildings and were drawn by professional cartographers who were "more than well placed for making discoveries on land than the more bookish map makers [who] would never trouble to walk over..." (ibid., 43). Several of these surveyors came together between 1809 and 1814 in a project to map Ireland's peat bogs with results that give a good deal of information about settlement, placenames and industries (Andrews 1978, 25). The Bog Commission had ordered that "all remarkable objects which are likely to be permanent such as raths, castles, towers, cairns, hilltops, market houses etc." were to be recorded (Andrews 1985, 204). This marks the growing awareness of antiquities in the landscape in the 19th century and such features were now being entered on maps in response to specific requests rather than being unconsciously or incidentally included.

In the 16th and 17th centuries topographically detailed surveys had only been carried out by innovative cartographers such as Raven and Bateman but by the mid-18th century such maps were common. These are a rich source of archaeological data for a number of reasons different to those discussed in reference to the Irish style plantation/estate maps.

Archaeology was developing as a discipline at the time and antiquities were therefore being recognised as intrinsic components of the landscape. Map makers were now striving to represent reality whereas previously only selected features of the countryside had been chosen for display on maps. This resulted in a surge in the number and range of antiquities being depicted especially on the large scale estate maps of the period.

Estate maps are recognised and used by archaeologists, but only as a supplementary source to O.S. maps as a means of locating sites which may have been destroyed before the 1820s. In an Office of Public Works (O.P.W.) leaflet "A guide to the Sites and Monuments Record" it is stated that "each county listing was compiled using various sources, including select archaeological and historical documentation, together with all editions of the O.S. maps". No

mention is made of the use of historical maps other than the O.S. even though some references are made to estate maps and the Down Survey in the unpublished SMR files (Gearty 1996,136).

Similarly, the published county inventories seem not to make consistent use of non-O.S. historical maps as a source. The Co. Cork (West) inventory includes “estate maps or published allusions in its list of sources used” (Power 1992a, 11) whereas the Co. Cork (East and South) volume makes no reference at all to maps other than the three O.S. editions (Power 1992b, 11). However, there is evidence that in areas with good cartographic sources available, estate maps are just as valuable as the O.S. maps in terms of the archaeology they represent. O’Flanagan (1981) drew attention to estate maps and used a case study to prove the value of such sources to Irish settlement analysis, in particular to the problematic field of ringfort studies. The study involved analysis of Bernard Scale’s map of the Duke of Devonshire’s estate in Waterford and East Cork (1774-5) and an earlier survey of part of the same estate by Josias Bateman (1616-7). Both maps show antiquities including ringforts. O’Flanagan selected five different areas and compared the depiction of ringforts on both maps to their depiction on the first and second editions of the six inch O.S. sheets. The results showed “a considerable disappearance of ringforts from 1774-1841, that is from Scale’s survey to the appearance of the first edition of the O.S.”, a total loss of 50% being recorded (ibid. 323).

Whether the stark results of O’Flanagan’s survey are the fault of farming intensification or of the surveyor, they highlight the importance of the pre-O.S. maps as an integral part of the cartographic record of the ever changing archaeological landscape.

## **Conclusion**

The maps dealt with offer a rich visual source for the archaeologist that note not just prominent monuments and buildings but ordinary domestic sites too. This is demonstrated by the evidence for ringforts on estate maps and for 16th and 17th century houses on plantation maps. By de-emphasising the O.S. series it is hoped that the earlier sources have been brought to the fore. Access to pre-O.S. historical maps is still quite difficult but with the constant conservation of maps being undertaken by the National Library of Ireland and the continual work of many local libraries in building up their collections, these sources are becoming increasingly available to researchers.

The problems associated with the interpretation of archaeological information on historical maps has resulted in such sources being used mainly as an indicator of the number of particular site types. Even the six inch O.S. maps are rarely studied in any more detail than is deemed necessary for a quantitative or perhaps locational analysis. The variety of archaeological information that is presented and the way in which it is symbolically shown on these maps offers an opportunity to gather more detailed archaeological information. The specific meanings of individual symbols used to depict archaeological features on historical maps has only been touched on here but the potential that such information holds for the archaeologist has been highlighted. There is no doubt that historical maps are a valuable record of archaeological information but it is hoped that this article while illustrating the weaknesses that often cause researchers to shy away from using the available maps to the full has also shown the merit of a more in-depth approach when using such sources for archaeological purposes.

## **References**

- Andrews, J H, 1965 The Irish surveys of Robert Lythe, *Imago Mundi*, 14,22-31
- Andrews, J H, 1967 The French school of Dublin land surveyors, *IrGeog*, 5, no. 4, 275-92
- Andrews, J H, 1970 Introduction in Sir William Petty, *Hiberniae Delineatio: Atlas of Ireland*, reprint of the 1685 edn. Shannon: University Press.
- Andrews, J H, 1974 The maps of the escheated counties of Ulster, 1609-10, *Proc Roy Ir Acad*, 74C, 133-70
- Andrews, J H, 1975 *A paper landscape: the Ordnance Survey in nineteenth century Ireland*. Oxford: Clarendon Press.
- Andrews, J H, 1978 *Irish maps: The Irish heritage series, no. 18*. Dublin: Eason & Son.
- Andrews, J H, 1985 *Plantation acres: an historical study of the Irish land surveyor and his maps*. Belfast: Ulster Historical Foundation.
- Andrews, J H, 1986 Mapping the past in the past: the cartographer as antiquarian in pre-Ordnance Survey Ireland in Thomas, C, (ed.), *Rural landscapes and communities: essays presented to Desmond McCourt*, 31-63. Dublin: Irish Academic Press.
- Bradley, J, 1982 *Co. Longford urban archaeological survey*. Dublin: Office of Public Works.
- Brownrigg, J, 1788 A descriptive account of the fort at Ardnurcher of Horseleap, *Proc Roy Ir Acad*, 1,43-50
- De Valera, R, & Ó Nualláin, S, 1960 *Survey of the megalithic tombs of Ireland, Vol. 1*. Dublin: Stationery Office.
- Flower, R, 1931 Manuscripts of Irish interest in the British Museum, *Analecta Hibernica*, 2,292-7
- Gearty, S, 1996, A pre-Ordnance Survey cartographic analysis of the archaeological landscape of the barony of Granard, Co. Longford. Unpublished MA thesis, University College, Dublin.
- Herity, M, & Eogan, G, 1977 *Ireland in prehistory*. London: Routledge
- Larcom, T A, 1926 The history of the Down Survey. Dublin: *Irish Archaeological Society*.
- National Library of Ireland, 1980 *Ireland from maps*. Dublin: Rialtas na hÉireann.
- O'Domhnaill, S, 1943 The maps of the Downe Survey, *IrHist Studies*, 3,381-392
- O'Donovan, J, 1837 Letters containing information relative to the antiquities of Co. Longford. Reproduced under the direction of Rev. Michael Flanagan, 1927, Bray.
- O'Flanagan, P, 1981 Surveys, maps and the study of rural development, in D Ó Corráin (ed.), *Irish Antiquity*, 320-7. Dublin: University Press.
- Ó Ríordáin, S P, 1965 *Antiquities of the Irish countryside*. London: Methuen.
- Philips, C W, 1980 *Archaeology in the Ordnance Survey, 1791-1965*. London: Council for British Archaeology.

- Power, D, 1992a *Archaeological Inventory of Co. Cork (West), Vol. 1.* Dublin: Stationery Office.
- Power, D, 1992b *Archaeological Inventory of Co. Cork (East and South), Vol. 2.* Dublin: Stationary Office.
- Reeve-Smyth, T, 1983 Landscapes in paper, cartographic sources for Irish archaeology, *BAR*, 116,119-77

# QUARTZ: SOME OF ITS USES IN IRISH PREHISTORY

Nina Koeberl\*

## Introduction

There are many instances throughout the archaeological record where the use of quartz is attested. It occurs in both ritual and domestic contexts. The deliberate selection and utilisation of quartz is a custom that clearly has its roots in prehistory and which can still be observed to this day.

## Quartz and Megalithic Construction

O’Kelly recorded in his report on the excavations at Newgrange the occurrence of a quartz /granite water-rolled boulder layer, 8m wide directly along the front of the mound and extending somewhat further along the sides (O’Kelly 1982). It was noted that the layer gradually thinned out as one moved away from the entrance in either direction and was entirely absent from the north side of the mound. Thus, not only was the use of quartz important but so was the way in which it was utilised. In this case it emphasised the entrance feature. The use of quartz was also noted in the ‘roof-box’ construction. Two “fairly small blocks of quartz” were used in the ritual blocking of the roof box (O’Kelly 1990). That this was an on going practice is suggested by the presence of scratch marks which had presumably occurred during the replacement of the blocks.

There are other passage tombs which display the same quartz affiliation as at Newgrange. At Knowth quartz and granite boulders were scattered outside both entrances and on the southern side the spread extended as far as Site 17. Quartz was noted in a disturbed context at Site 16 (Eogan 1984). Quartz was also present outside the southern entrance at Dowth (Herity 1974). At Lough Crew, Co. Meath Conwell recorded a quartz layer around the base of Cairn T (O’Kelly 1982). Quartz was again found at Baltinglass Hill, Co. Wicklow near the southern entrance (Walshe 1941). Seefin, also in Co. Wicklow, displayed blocks of quartz intermingled with granite (Macalister 1932). At Crockaunadreenagh, Co. Dublin quartz was noted in the cairn (Mount 1988). At Kilmonaster near Castlefin, Co. Donegal, some of the kerb stones of Site A were quartz blocks. The possible presence of quartz was further noted at Site G (Ó Nualláin 1968). Quartz was present in both cairns at Tureagh and Carranmore, both in Co. Antrim (Herity 1974). In Co. Down a mound in Keentagh townland was noted as having a covering of white pebbles (Herity 1974). At Knockroe, Co. Kilkenny quartz was present in front of the entrance area outside the eastern tomb (O’Sullivan 1996). Two blocks of quartz were discovered near this entrance and, although firmly set, were thought not to be structural (Ó Nualláin and Cody 1987). The evidence suggests that quartz was not incorporated into the construction of all tombs and one must ask why this was the case. The visual impact upon the landscape must have been striking and as quartz also occurs as ritual deposits it must also have been interpreted as having special properties.

Adolf Mahr interpreted the use of quartz at Baltinglass Hill as adding: “...another analogy with the Boyne Valley tumuli, as Newgrange and Dowth both once had a coating of shining white quartz stones” (Mahr 1937 350). There are however numerous other megalithic structures that display a use of quartz. In counties Cork and Kerry monuments known as boulder burials also display a quartz association. At Cloghmacow, Co. Cork, one of the

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support stones is of quartz and measures 1m by 0.50m and is 0.30m high (Ó Nualláin 1978, 84). At Dane, near Kilmicheal village, Co. Cork, the western support stone is a block of quartz with a flat top (Ó Nualláin 1978). A quartz conglomerate measuring 1.80m by 1.60m was used as a cover for a boulder burial at Ballycommene, Co. Cork, (Ó Nualláin 1978). A flat-topped slab is used as the cover of the burial at Raheen, near Ballincollig, Co. Cork. This slab has a vein of quartz running through it (Ó Nualláin 1978). However, it is noteworthy that not all boulder burials utilise quartz. Was the presence of quartz used to signify the status of the burial or used as a means of expressing a ritualistic belief?

The most striking utilisation of quartz comes in the form of standing stones and stone rows. Standing stones, may have functioned as either territorial-markers or grave-markers (Collins 1957) and may have been given an extra dimension by the use of quartz monoliths. The use of quartz has already been mentioned at the passage tomb cemetery of Loughcrew. Further usage is evidenced by a standing stone on the periphery of Carnbane West. A quartz monolith that would have originally stood over 2m high now lies on the ground, having been deliberately knocked (Cooney 1996). Clearly, a ceremonial value must underlie the decision to erect such a monument in the landscape.

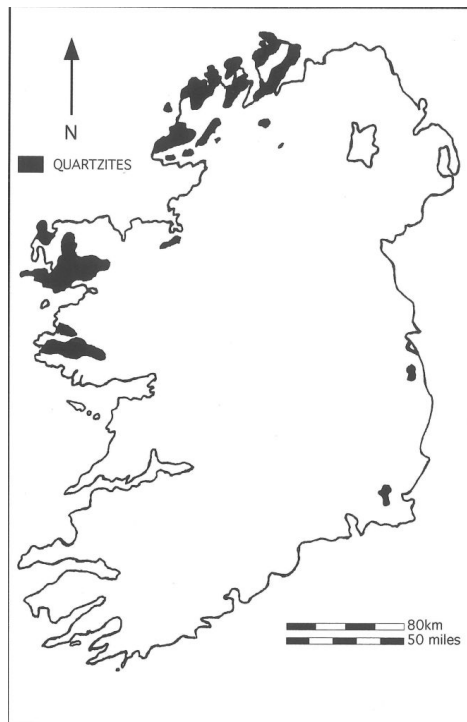


Fig. 1: Quartzite distribution in Ireland from Geological Map of Ireland, 1962.

It is, however, in the west of Ireland where quartz standing stones play a more prominent role. This is not surprising considering the wide availability of this material, especially in counties Galway and Mayo (see map - fig. 1). On the Mullet Peninsula, Co. Mayo, two standing stones of quartz have been located. They lie 400m apart and are of similar proportions.

County Galway provides numerous examples most notably from the Connemara region. Standing stones of this area come in the form of single standing stones or paired standing stones. At Cloon and Rosleague there are quartz standing stones. At Crocknaraw there is another example and a further example includes the standing stone at Garraunpaun (Gosling, 1993). Stone pairs of quartz include those situated at Ballynew and at Ballynahill, now incorporated into a stone wall. A

common denominator of the north Connemara group of standing stones is their siting on high ridges and surrounding hills which would have maximised their visual impact.

Stone rows are another feature of the Connemara landscape with the most notable example occurring at Gleninagh (Gosling 1993). Situated on a natural rise are six prominent quartz boulders. Another stone row can be found at Poundcarton, this time of four quartz boulders (Gosling 1993).

In counties Cork and Kerry quartz monoliths have been erected in association with stone circles. Usually occurring in the centre or slightly off it, they have been termed internal quartz monoliths. Five examples have so far been recorded from Co. Cork. (Ó Nualláin 1984). Examples include Currabehea, measuring 70cm by 40cm and 60cm in height, and Templebryan North measuring 90cm by 70cm with a height of 80cm. An example of a stone

circle with quartz monoliths used in the stone circumference is at Castleruddery, Co. Wicklow. With a diameter of almost 100ft (30m) and a surrounding bank, the most prominent feature are the two quartz boulders which seem to act as entrance markers (Leask 1945).

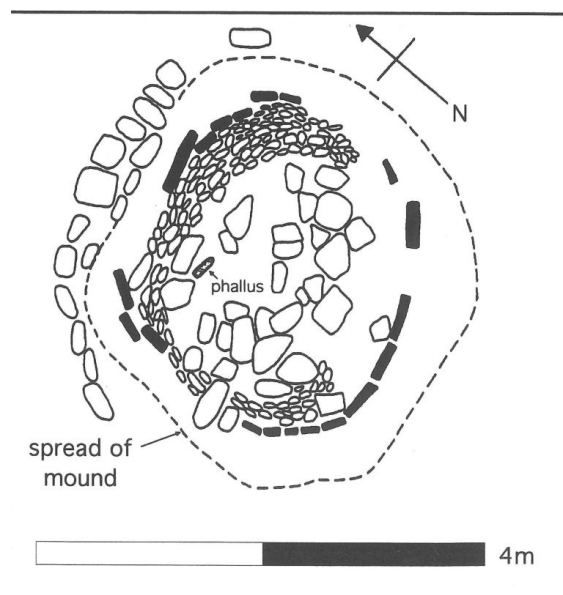


Fig. 2: Stone setting outside Newgrange (O'Kelly 1982)

### Quartz and Ceremonial Deposition

Ceremonial or ritual deposition of quartz is evidenced in two ways. It was either incorporated into a ritual setting or was deposited as an object, for example as a pendant. The ritual setting of quartz occurs predominantly at passage tombs. At Newgrange east of the entrance and two metres away from Kerbstone 97 a mound of small water-rolled quartz pebbles and quarried pieces of quartz was deposited (O'Kelly 1982). Small granite boulders were also strewn throughout the small mound. On excavation it was further revealed that

these stones covered a setting of small thin slabs which formed an oval (fig. 2). This was paved and cobbled and it contained a phallus of polished sandstone. It was noted that a setting was reported from Cairn T at Loughcrew (Eogan 1984). At Knowth Site 4, again two metres outside the entrance were "the remains of a circular area paved with quartz and enclosed by two closely-set concentric circles of stones averaging 20cm in length" (Eogan 1984, 38). The northern half of this setting was destroyed to accommodate the foundation pit for Kerbstone 8 (fig. 3). At Fourknocks III, Co. Meath a possible variation of the stone settings was discovered under the mound which covered a central pit deposit. This consisted of a setting of small stones around the edge of the pit with pieces of quartzite lying on top (Harnett 1971).

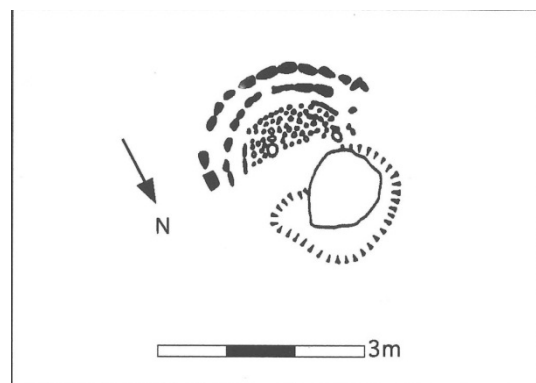


Fig. 3: Stone setting outside Site 4, Knowth (Eogan 1984)

Quartz also features among the grave goods of various megaliths. Ceremonial depositions include the discovery at Drumholm, Co. Donegal where over 40 white rounded stones, varying from the size of a gooseberry to that of a goose egg, lay underneath the sod layer of a megalithic burial-chamber, (anon., 1928 358). At Baltinglass Hill there is further mention of quartz. At the base of a

stone near the entrance to the southern chamber various pieces of quartz were found (Walshe, 1941). Quartz was also found mixed with cremated bone and charcoal in Chambers I and III. At Knowth two inhumation burials (Nos. 10 and 11) were accompanied, amongst other things, by five quartz pebbles (Eogan 1984). A rounded pebble of quartz was also found on top of the outer spread of the cairn at Fourknocks II passage tomb (Harnett 1971). Further examples of the deposition of single white quartz pebbles include Kilbarry, Co. Cork and also Tara, Co. Meath. Both examples were found associated with encrusted urn burials (Kavanagh 1973). Quartz pebbles were also noted at Edmondstown, Co. Dublin. At Annaghkeen, Co. Galway, a

white pebble was found with a pygmy cup (Kavanagh 1977). This feature is a “well established practice amongst Urn users in Britain and Ireland and it may be the continuation of a much earlier practice” (Kavanagh 1977). At the site of Bavan, Co. Donegal, the cairn base at the southern end of Chamber II provided a clear quartz crystal (Flanagan & Flanagan 1966). Other sites that have produced quartz crystals include Carrowmore (P3 and P27), Co. Sligo (Ó Nualláin 1989). Carrowmore (P49) also produced a circular flat quartz stone. In the nearby cemetery of Carrowkeel there was further evidence for the use of quartz. From Cairn G came two water-worn quartz pebbles discovered in the central recess (Macalister et al 1911/12). A collection of white quartz pebbles were also discovered outside the doorway of Cairn F. A number of quartz pieces were also discovered here and showed signs of having been split by the action of fire. At Moneen, Co. Cork, two pieces of quartz crystal were found in the primary stratigraphy of the cairn (O’ Kelly 1951/52). Another possible example of quartz deposition comes from the megalithic tomb at Harristown, Co. Waterford. Rounded quartz pebbles and quartz fragments were located throughout the fill of the main chamber. The excavator does, however, note that the presence of the quartz may be due to the local conglomerate from which most of the monument is built (Hawkes 1941). Yet, as there is evidence to suggest that quartz deposition was a common practice, then perhaps it can be counted as a further example.

### **Quartz as a material for Tools**

It can be stated that quartz was perceived to possess qualities that deemed it worthy of use in a ceremonial context. However there is also evidence for its use in a day to day context. In areas where good quality flint was unavailable quartz was often used as a substitute (Herity&Eogan 1977, 42). The greatest evidence comes from the sites of Lough Gur, Co. Limerick. “A feature of the sites excavated on Knockadoon was the occurrence there of microlithic implements made from quartz crystals” (Ó Ríordáin 1954, 308). From Site A the number of quartz implements was thirty-five. Site B produced nine chips of quartz as well as unworked pieces. Site C produced by far the most numerous examples of worked quartz. Roughly one hundred and fifty pieces were recovered. They included pieces with secondary working and also numerous waste flakes. Site D produced one hundred and twenty examples, one of which was shaped like a tanged arrowhead. Quartz was also noted at Site F, Site H and Site I. The quartz implements tended to be small points and a suggested use was to provide the tips of darts (Ó Ríordáin 1954). At Rathjordan, also in Co. Limerick, a number of excavated barrows produced quartz points (Ó Ríordáin 1947/8).

The examples from the Knockadoon peninsula are clearly from a domestic context but there is also evidence for worked quartz in a deposition context. It is difficult to know whether the quartz implements were used ceremonially, yet clearly they must have been regarded as different to everyday tools as examples turn up in non-domestic contexts. The use of quartz as a tool for engraving passage tomb art has been noted (Herity&Eogan 1977, 76). From Rathjordan I two quartz points were recovered from a central pit under the mound (Ó Ríordáin 1947/8). From the second barrow, again from the fill of a central pit, three quartz points were retrieved. Twelve other pieces were also found in the mound of the barrow. From the third barrow thirteen examples were excavated and again, from Rathjordan IV, a dozen pieces of quartz were discovered (Ó Ríordáin 1947/8). Further examples include the sixty-four pieces of worked quartz from the cairn at Knockiveagh, Co. Down (Collins 1957). The sites of Fourknocks I and II have also produced evidence for quartz working. From Mound I a rock crystal was worked into a scraper by the removal of thin flakes and was discovered on the floor of the central chamber (Harnett 1957). From the fill of the ditch of Mound II came a

fragment of quartz which was worked into a sharp edge (Harnett 1957). Fragments with evidence for working were also discovered at Bavan, Co. Donegal. At Drung, also in Co. Donegal, a female skeleton was accompanied by a piece of rock crystal. The author states that this piece has possible signs of having been artificially worked (Rynne 1963). A long rounded white sea-pebble which displayed signs of use as a hammer came from Cairn V at Loughcrew, Co. Meath (Herity 1974). A further example of quartz hammer-stones comes from the cairn Barnasrahy, Co. Sligo, where two examples of quartz hammer-stones were recovered during Wood-Martin's investigations of the site (Ó Nualláin 1989).

## Conclusion

Quartz was clearly a much sought after material. The distribution map shows that quartz is often used in monuments where it is not indigenous to the area (fig. 1). It can also be clearly illustrated that certain monuments were 'allowed' the use of quartz while others were not. Its visual impact on the landscape and on the peoples who used it must have been considerable and in turn this must have been a deciding factor in its deliberate use. That quartz was deemed to have certain 'powers' is concluded from its deposition as a grave good with the dead. "A very singular custom was followed by our ancestors in each stone lined grave they place a white pebble" (O'Lavery 1879). It has been well documented that there is an association between quartz and copper-bearing areas and that the presence of quartz was used to indicate this ore (Ó Nualláin 1975). Hence its association with Bronze age monuments such as stone circles. It is worth bearing in mind that the tradition of quartz offerings still continues into modern times. At 'Friars Grave' at Lisfannan, Co. Donegal, a small pool described as a holy well was "evidently still in use, for beside the usual display of votive rags tied to a stick over the Well, the pool is surrounded by white stones brought from elsewhere to the site" (Sommerville 1929, 164).

Another dimension is added to the significance of quartz when one considers that its use can also be observed abroad, lending quartz a wider context of distribution. "The custom common among primitive peoples, of placing white stones and sea-shells as funerary offerings was commented on in the pages of *Antiquity* nearly ten years ago, when in addition to examples of Bronze Age and Early Iron Age date in Britain, instances were cited of the continuance of the custom in Baluchistan and, nearer to home, on the west coast of Scotland" (Piggott 1937, 354-5). Evidently it is a custom that has its roots in prehistory. "The custom of placing white stones in interments seems to have been common in prehistoric times, and has been frequently noted. It is possible that the stones were believed to have some magical significance" (Macalister et al 1911/12, 340).

## References

- |                                           |                                                                                             |
|-------------------------------------------|---------------------------------------------------------------------------------------------|
| Anon., 1928                               | Notes and news, <i>Antiquity</i> , 2, 358                                                   |
| Collins, A, E, P, 1957a                   | The excavation of round cairn on Knockiveagh, Co. Down, <i>Ulster J Archaeol</i> , 20, 8-28 |
| Collins, A, E, P, 1957b                   | Excavations of two standing stones in Co. Down, <i>Ulster J Archaeol</i> , 20, 37-41        |
| Cooney, G, 1996                           | Standing stones, <i>ArchaeolIr</i> , 10, (36), 29-30                                        |
| Eogan, G, 1984                            | <i>Excavations at Knowth. Vol. I.</i> Dublin: Royal Irish Academy                           |
| Flanagan, L, N, W, & Flanagan, D, E, 1966 | Excavation of a court cairn at Bavan, Co. Donegal, <i>Ulster J Archaeol</i> , 29, 16-28     |

- Gosling, P, 1993 *Archaeological inventory for Co. Galway, Vol. I.* Dublin: The Stationery Office
- Harnett, PJ, 1957 Excavation of a passage grave at Fourknocks, Co. Meath, *Proc Roy Ir Acad*, 58C, 197-277
- Harnett, P, J, 1971 The excavation of two tumuli at Fourknocks, Co. Meath, *Proc Roy Ir Acad*, 71C, 35-89
- Hawkes, J, 1941 Excavation of a megalithic tomb at Harristown, Co. Waterford, *J Roy Soc AntiqIr*, 71, 130-147
- Herity, M, 1974 *Irish passage graves.* Dublin: Irish University Press
- Herity, M, & Eogan, G, 1977 *Ireland in Prehistory.* London and New York: Routledge
- Kavanagh, R, 1973 The encrusted urn in Ireland, *Proc Roy Ir Acad*, 73C, 507-617
- Kavanagh, R, 1977 Pygmy cups in Ireland, *J Roy Soc AntiqIr*, 107, 61-95
- Leask, H, G, 1945 A stone circle at Castleruddery, Co. Wicklow, *J Roy Soc AntiqIr*, 75, 266-7
- Macalister, R, A, S, 1932 A burial cairn on Seefin Mountain, Co. Wicklow, *J Roy Soc AntiqIr*, 62, 153-7
- Macalister, R, A, S, Armstrong, E, C, R, & Praeger, R, 1911/12 Report on the exploration of Bronze Age cairns on Carrowkeel Mountain, Co. Sligo, *Proc Roy Ir Acad*, 29C, 311-47
- Mahr, A, 1937 New aspects and problems in Irish Prehistory: Presidential Address for 1937, *Proc Prehist Soc*, 11, 261-436
- Mount, C, 1988 A passage grave at Crockaunadreenagh, Co. Dublin, *Trowel*, 1, 16-8
- O' Kelly, C, 1990, *Concise guide to Newgrange.* Cork: Claire O' Kelly
- O' Kelly, M, J, 1951/52 Excavation of a cairn at Moneen, Co. Cork, *Proc Roy Ir Acad*, 54C, 121-59
- O' Kelly, M, J, 1982 *Newgrange archaeology, art and legend.* London: Thames and Hudson Ltd.
- O'Laverty, Rev. James 1879 Peculiar forms of christian interments, *J Roy Soc AntiqIr*, 15, 103-8
- Ó Nualláin, S, 1968 A ruined megalithic cemetery in Co. Donegal and its context in the Irish passagegrave series, *J Roy Soc AntiqIr*, 98, 1-29
- Ó Nualláin, S, 1975 The stone circle complex of Cork and Kerry, *J Roy Soc AntiqIr*, 105, 83-131
- Ó Nualláin, S, 1978 Boulder Burials, *Proc Roy Ir Acad*, 78C, 75-114
- Ó Nualláin, S, 1984 A survey of stone circles in Cork and Kerry, *Proc Roy Ir Acad*, 84C, 1-77
- Ó Nualláin, S, 1989 *Survey of the Megalithic Tombs of Ireland, Vol. V.* Dublin: The Stationery Office
- Ó Nualláin, S, & Cody, E, 1987 Passage tombs in the Suir valley region, *J Roy Soc AntiqIr*, 117, 69-83
- Ó Ríordáin, S, P, 1947/8 Further Barrows at Rathjordan, Co. Limerick, *J Cork Hist and Archaeol Soc*, 53, 19-31

- Ó Ríordáin, S, P, 1954  
Lough Gur Excavations: Neolithic an Bronze Age  
houses on Knockadoon,*Proc Roy IrAcad*, 56C, 297-  
459
- O' Sullivan, M, 1996,  
A platform to the past-Knockroe passage tomb,  
*ArchaeolIr*, 36, Vol. 10,11-3
- Piggott, S, 1937,  
White quartz pebbles as funerary offerings,  
*Antiquity*, 11,354-355
- Rynne, E, 1963  
Bronze ageburials at Drung, Co. Donegal, *J Roy Soc  
AntiqIr*, 93,169-79
- Sommerville, B, 1929,  
Ancient stone monuments near Lough Swilly, Co.  
Donegal,*J Roy Soc AntiqIr*, 59,149-17
- Walshe, P, T, 1941  
The excavation of a burial cairn on Baltinglass Hill,  
Co. Wicklow,*Proc Roy IrAcad*, 46C, 221-36

# LOCAL AUTHORITY PROTECTION OF THE ARCHAEOLOGICAL AND ARCHITECTURAL HERITAGE IN DROGHEDA AND KILKENNY

**Paddy Mathews\***

This paper sets out to assess the ability of Planning Authorities to effectively manage and protect the archaeological and architectural heritage. This will be achieved firstly through examination of the organisational structure which has been established to deal with the discharge of Local Authority functions and secondly by assessing the use by Planning Authorities of the Development Plan as a tool with which to protect this heritage. It focuses on the role of Local Authorities as managers of this heritage through the powers of protection and enforcement conferred on them under the Planning Acts 1963-1993, and how these functions relate to the other areas of responsibility of the Authorities. For the purposes of this paper, the Borough Corporations of Drogheda and Kilkenny will be examined, given that both administrative areas are subject to rapid development and expansion.

## Functions of Local Authorities

Local Authorities are multi-functional organisations which deal with the management and development of the physical environment. The organisational structure of Local Authorities and the level of internal planning adopted by such a multi-purpose organisation are, therefore, important elements in any examination of how effectively the physical environment is being managed.

Local Authorities have no constitutional or intrinsic functions. They have received their powers through statutory authority, and their functions are defined by such statutes. Until 1991, they could not act outside of their statutory functions, but this rule of ultra vires was relaxed following the Local Government Act, 1991 (Section 6). The functions of Local Authorities fall into eight programme groups:

1. Housing and Building
2. Road Transportation and Safety
3. Water Supply and Sewerage
4. Development incentives and controls
5. Environmental Protection
6. Recreation and Amenity
7. Agriculture, Education, Health and Welfare
8. Miscellaneous Services.

There are 88 Local Authorities in Ireland today which have been designated as Planning Authorities, comprising:

- 29 County Councils
- 5 County Borough Corporations
- 6 Borough Corporations
- 49 Urban District Councils.

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Planning for the development of the physical environment is a relatively recent function of Local Authorities. All of the above Local Authorities were designated as Planning Authorities under the Local Government (Planning and Development) Act, 1963. Each Planning Authority is required to produce a Development Plan for its area within three years of the Act and every five years thereafter. The Development Plan is the policy framework document within which the Authority discharges its functions. It is a means of co-ordinating the short and long-term objectives of the various departments of an Authority, which are then implemented under the Manager. Under the terms of the act, all development, by both the public and private sectors, carried out within a Local Authority's area is meant to be monitored and managed by referring to the policies and objectives set out in the Plan.

With the passing of the Local Government (Planning and Development) Act 1963, the responsibility for protecting much of the nation's architectural and part of its archaeological heritage was conferred on the Local Authorities. The powers of protection and enforcement contained in this ground-breaking piece of legislation went part of the way in assisting Local Authorities to carry out their new functions effectively. This role will be discussed further in the section on the Development Plan.

### **Operational Procedures of Local Authorities**

In order to more easily manage its functions, Local Authorities may appoint any number of committees of the Council comprising elected members, as it sees fit, to carry out certain duties and functions (Local Government Act, 1925, section 58). The elected members of the Council perform the reserved functions of the Authority including drawing up the Development Plan, adopting the annual estimate and formulating the policies within which the Manager performs his executive functions (The County Management Act, 1940, Schedule 82, sets out the initial list of reserved functions).

Departments are also established, comprised of professional and administrative staff, which operate under the direction of the County Manager, mediated to a large extent by the Town Clerk in the case of Borough Corporations such as Drogheda and Kilkenny.

In general, direct reporting procedures tend to be between related committees and departments, with the Planning Department reporting to the Planning Committee and the Housing Department reporting to the Housing Committee, etc. The opportunity for broader interdepartmental discussion usually arises at the quarterly meetings, in the case of Borough Corporations. It is also supposed to be an opportunity for discussion of the wider implications of the Authority's actions, for example, the possible implications of infill housing objectives or proposed road widening schemes for the historic built environment.

However, within the departments of a Local Authority, there are obvious difficulties with integration of objectives given the vertical hierarchy of the organisation. This problem was recognised by the Council of Europe in 1985: "There is inevitably a discrepancy between the conception of policies and their actual implementation, which remains subject to fluctuations in the economic situation. While there is now a consensus on the principles of integrated conservation, the application of those principles at the planning stage in co-operation between departments had not everywhere been fully developed" (Council of Europe 1985, pll).

### **Interdepartmental Integration**

In Borough Corporations, such as Drogheda and Kilkenny, the propensity for a more “horizontal” approach with regard to interdepartmental communication is greater than in a large County Borough Corporation. Effective communication is the basis of good integration and the information flow in a small authority outside of any formal communication plan is naturally more fluid. However, it does not automatically follow that a high level of integration will be achieved with regard to their policies and objectives. Good integration between departments from the point of view of conservation also depends on two other important factors:

1. the degree of importance placed on conservation of the archaeological and architectural heritage by the County Manager and the Town Clerk; and
2. the role and status of the planner within the organisational structure of the Authority.

### **The County Manager and the Town Clerk**

Although the formulation of policy is a reserved function of the elected members, the Manager is often relied heavily upon for guidance in policy issues, given his expertise in this field and the limited amount of time which each Councillor has to devote towards his/her position. This, coupled with the fact that the conservation of the historic built environment is not a mandatory function of Local Authorities, means that the level of commitment for the conservation of this heritage can often depend on the priority placed upon it by the Town Clerk or the County Manager. In 1976, Zimmerman (1976, 498) claimed that “managers are convinced that Councillors devote too much of their official time to the constituents service role and would welcome greater participation in the policy development process”. Matters in this regard have improved somewhat over the past 20 years, but the majority of policy initiatives still come from the County Manager rather than the elected representatives.

In Britain, all important technical and administrative posts in Local Authority departments are filled by specialist professionals. They, in turn, are overseen by the Chief Executive who has a purely administrative role. In Ireland, however, the level of professional and technical posts within the various departments is dependent upon the County Manager and his perceptions of the Authority’s professional staffing needs, having regard to the financial and staffing constraints imposed by the Department of the Environment.

### **The Role and Status of the Planner**

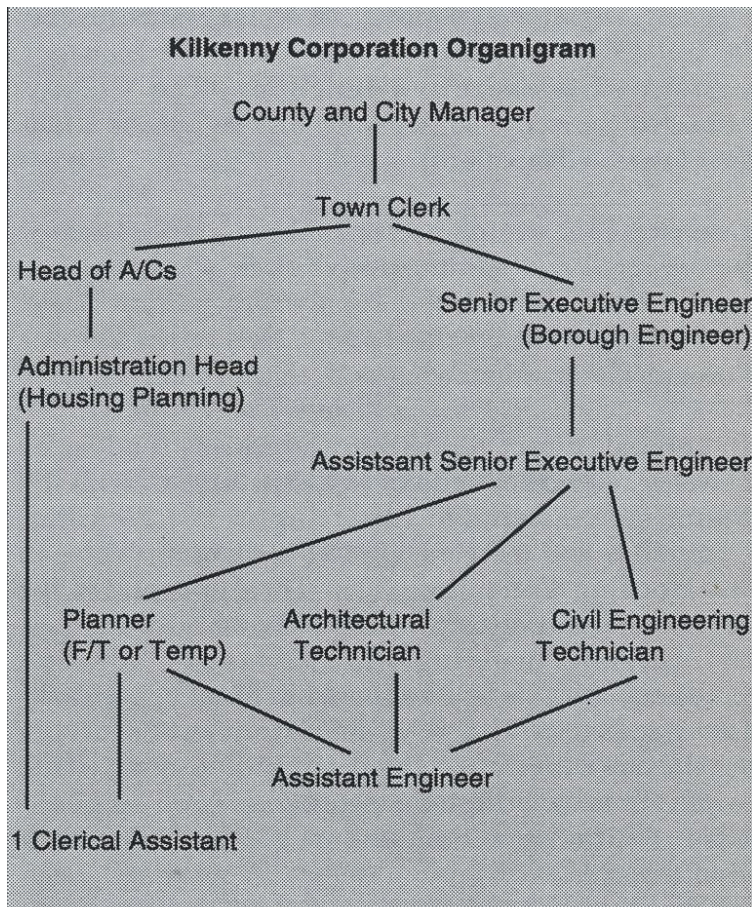
Following the passing of the Local Government (Planning and Development) Act, 1963, there were very few trained planners in the country, due firstly to there being little demand for them and secondly, to the absence of a third level course leading to a professional qualification. This led, in the years following the 1963 Act, to a high proportion of the top professional posts within the newly formed Local Authorities going to engineers, an imbalance which tradition has preserved up to the present day. This has resulted in the underuse of so many of the conservation planning tools provided in the 1963 Act, such as the provision, under section 42, for a Special Amenities Area Order, which has rarely been used by Local Authorities.

Planners are specifically trained in the areas of land-use planning and strategic decision making, and, therefore, have the ability to integrate the policies and objectives of the various departments of the Local Authority within the Development Plan. The planner, mainly by

default, is also the professional officer within the Local Authority, with the exception of the County Manager or Town Clerk, whose responsibility it is to provide for the conservation of the historic built environment. This is particularly so in both Drogheda and Kilkenny Corporations, where neither planner has recourse to the advice of an architect on a full-time basis, and so has responsibility for the visual amenity of the town as well as advocating the protection of the historic built environment.

Engineers, whose skills are construction based, do not generally possess the skills necessary for such a sensitive area as conservation of the historic built environment. Architects, on the other hand, have a design-based training and possess the ability to judge the suitability of a proposed development from a visual viewpoint and evaluate how conservation of the built environment will contribute to the appearance of the urban area. Planners, however, are somewhere in the middle. Generally they will have a certain amount of training in design and often possess a limited training in dealing with the sensitive historic built environment. Their skills lie essentially in land use planning and strategic decision making. Where there is a high number of design staff, such as architects, within a Local Authority, it is more likely there will be a high level of concern for the appearance of the built environment and conservation of the historic elements within it.

Although the planner with Kilkenny Corporation has a background in archaeology, this educational mix, whilst ideal from a conservation point of view, must be viewed as an exception rather than the norm. Furthermore, whilst it may be argued that planners do have a good general grounding in conservation issues through the various planning courses both in Ireland and abroad, it must be remembered that this is not what they are trained specifically for and, therefore, conservation is only one element of their portfolio of duties.



As mentioned earlier, it is, therefore, mainly by default that the responsibility for conservation often falls to planners. Given this situation, they must be competent to argue the case for the conservation of the historic built environment and for the integration of conservation policies into the Development Plan as well as in individual cases of development control. This responsibility places a heavy burden on any planner, particularly if they do not have the general support of the County Manager or Town Clerk in conservation issues.

Fig. 1: Kilkenny Corporation organigram

The Borough Corporations of Drogheda and Kilkenny are the only two Municipal Boroughs to have appointed qualified planners, and there are no planners at Senior

Executive level in any of the Borough Corporations or the Urban District Councils. There is an absence, therefore, of a proper career structure for planners within the Local Authority system, compared to that for engineers for whom there is a hierarchy of positions in almost every Local Authority.

As can be seen from both organigrams (figs. 1 & 2), engineers have a significant responsibility for, and input into, the Planning Department. In Kilkenny Corporation there are two engineers between the planner and the Town Clerk and there is no planner at either Senior Executive level or Assistant Senior Executive level. The fact that the one Senior Executive Engineer is head of both the Planning Department and the Engineering Department may seem to heighten the level of co-ordination between the two departments, but this may, in fact, serve to swing the balance towards the priorities of the Engineering Department when direct conflict arises between the two. The strength and status of the Planning Department of Drogheda Corporation is not sufficient, therefore, in order that its conservation policies and objectives gain interdepartmental support.

### The Development Plan

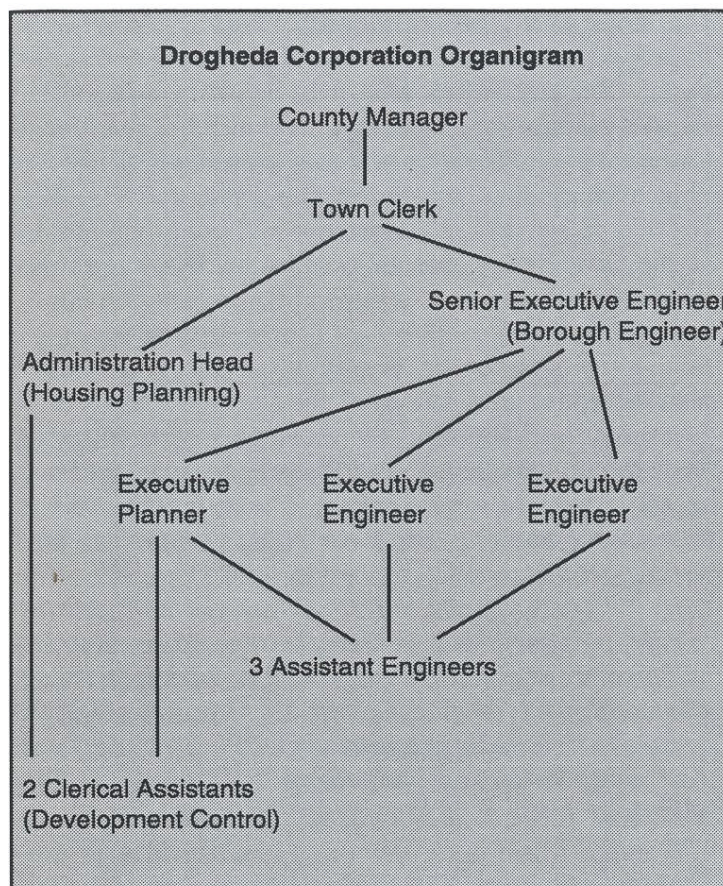


Fig. 2: Drogheda Corporation organigram

The Development Plan sets out the policies adopted by the Local Authorities which affect the physical environment. It also contains guidelines and standards for all development and sets out the particular objectives of the Local Authority for the period of the plan.

The objectives to be included in the Development Plan are outlined in Section 19 and in the Third Schedule of the 1963 Planning Act. Section 19 specifies the development objectives which must be included in an urban Development Plan, while the Third Schedule outlines purposes for which objectives may be included in the Plan. The preservation of buildings of artistic, architectural or historical interest, including their

interiors, together with the preservation of caves, sites, features and objects of archaeological, geological or historical interest, are all non-mandatory objectives of the Local Authority listed in the Third Schedule (paragraphs 5 and 6) to the 1963 Act.

By not making all the objectives outlined in the Act mandatory, it was intended to introduce an element of flexibility into the preparation of the Development Plan. Each Planning Authority is, therefore, enabled to produce a plan designed to suit its own needs rather than consisting of unsuitable stock objectives. Each area is different and, therefore, not all plans

should take the same form. Patrick Ledwidge, speaking as president of the Irish Planning Institute at its conference in 1994 stated that “it may not be desirable that the same type of plan would be in operation in every part of the country -rural Mayo will have different requirements to an inner city urban area” (Ledwidge 1994, 3). These differences

should be reflected in the form and content of the Plan. The Council of Europe recommends that “the objectives should be chosen and stated as to serve the identified needs of the parts of the town affected, rather than to comply with preconceived standards” (Council of Europe 1985, p7). This applies to the conservation policy and objectives in particular. The Local Authority must be able to identify the conservation needs of a town and thus formulate a conservation policy. It is essential, therefore, for the Authority to know why it has chosen to conserve the archaeological and architectural heritage. If this is not done, the conservation policy cannot be integrated fully into the Plan and conflicts will arise with other parts of the Plan.

### **The Importance of the Integration of Conservation and Development Issues**

Following the World Summit in Rio de Janeiro in 1992 there is a heightened awareness of sustainable development. As this emphasis on sustainable development grows, there is clearly a need for greater integration of conservation and development issues in Development Plans. This approach to planning involves the formulation of a Development Plan which is not development-led but is led rather by environmental issues, ensuring that the quality of the natural and historic built resources of an area is not endangered through the provision for new development. However, there will be an inevitable time lag between this change in planning philosophy and its actual implementation through the formulation and execution of Development Plans, given the difficulties which Local Authorities will experience in adapting their organisational structures to this change.

The long-term objectives of conservation must be integrated into the ongoing process of urban planning. The conservation policy, therefore, must have regard to the “planned future of the remainder of the town”. (Lichfield 1988,92)

### **The Conservation Policies in the Development Plans for Kilkenny and Drogheda**

Stating the conservation policy in the Development Plan without reference to the other policies and objectives in the Plan cannot be considered as integration. If the conservation policy is meant to pervade, and to some extent determine, many of the other policies and objectives, then it should be fully integrated into the Plan.

The Kilkenny City Development Plan 1994 succeeds in this regard. It integrates the conservation policy into the Plan from the very outset in making the conservation of the historic built environment one of the strategic objectives of the plan (Kilkenny Corporation 1994, pp 14-16). “The City’s historic core is continually evolving to meet the commercial, social and residential needs of its population. It is the aim of this plan that the unique and irreplaceable element of the past should be retained and enhanced alongside sympathetic and high quality treatment of derelict areas or infill development sites” (Kilkenny Corporation 1994, section 10.1).

Designating conservation areas and zones of archaeological potential transcends the listing of individual buildings and archaeological monuments and is an attempt to conserve the overall historic character of an area which can be lost even when certain notable individual buildings

and structures are retained. Conservation areas take into account streetscape, plot patterns, the spaces between buildings, and other individual elements which collectively contribute to the overall character of an area.

Although there is no provision in Irish planning law for the designation of conservation areas in respect of the built environment, several Planning Authorities have introduced the concept into their Development Plans. Kilkenny Corporation first designated conservation areas in its 1986 Plan. In its present Plan, the Corporation has designated five conservation areas. It is the intention of Drogheda Corporation to designate conservation areas in 1997 in its draft review of the 1986 Plan. Therefore, in considering proposals for development or redevelopment within these areas, it is the policy of the Planning Authority to give particular attention to the effect of such development on the character of the areas in relation to the scale and form of the building and the materials used, as well as to the archaeological potential of the area. Any developer proposing demolition or alterations to a building in a conservation area, whether the building is listed or not, or a structure or area within the zone of archaeological potential, is required by the Planning Authority to consult with it prior to carrying out such works (Kilkenny City and Environs Development Plan, 1994, section 6.12). The conservation policy, therefore, pervades all development which takes place within the conservation area and is a positive force in heightening public awareness of the architectural and archaeological importance of the area.

The conservation policy in the Development Plan of Drogheda Corporation for 1986 has not achieved the same level of integration within the overall Plan as has Kilkenny Corporation. The policy is regarded in isolation and is only mentioned on three occasions throughout the entire document. It is first mentioned in the survey and analysis section which lists the contents of the relevant surveys carried out (Bradley, John, *The Archaeological Potential of Drogheda*, Office of Public Works, and An Foras Forbatha, *Drogheda's Architectural Heritage*, 1986), but no attempt is made to analyse their value; it is mentioned secondly in the recommendations following the survey and analysis section, where the Corporation recommends that the entire area within the town walls be zoned as an area of archaeological potential and states that any development to listed buildings will require planning permission; and finally it is mentioned in the section of the Plan which sets out the policies and objectives of the Corporation, the conservation policy. Related objectives are set out, but without any reference to the other developmental policies or objectives of the Authority.

Such a treatment of the conservation policy is, however, also indicative of a failure of the Local Authority both to understand the objectives of conservation and to treat the archaeological and historic environment as a resource which, when exploited positively, and in a sustainable manner, will benefit the community both socially and economically.

While it is the role of the planner to ensure the integration of conservation and development issues, this is only possible if the overriding importance of the conservation policy is acknowledged by the Local Authority itself and backed by the County or City Manager.

## **Conclusions**

The stock of architecturally significant buildings in Irish towns, their archaeological remains and the historic pattern of the towns themselves, are non-renewable resources. In an attempt to provide for the protection of those resources, Planning Authorities essentially have to deal with the basic incompatibility of their social contribution to the community and their use by

private individuals. This has to be achieved within a climate of increasing economic and environmental pressure, a lack of properly trained staff and within an inflexible organisational structure.

Since the mid-1970s Kilkenny Corporation has demonstrated a unique self-determination in the area of heritage conservation and management and has achieved the implementation of a well-integrated conservation policy in its Development Plan. It has identified the archaeological and historic built environment as a resource which can be exploited in a positive and sustainable manner to the economic and social benefit of the community. The level of awareness and appreciation of the archaeological and built heritage among the community has also been heightened due, to a great extent, to the initiatives of the Corporation. A key to the Corporation's success in this regard is the level of support which its conservation policies receive within the Corporation itself, outside of the planning department.

Drogheda Corporation has failed to achieve the same level of interdepartmental integration with regard to its conservation policy. While the organisational structure of both Authorities is almost identical, the endorsement of the conservation policies in Drogheda had not been forthcoming at the levels of upper management. Without this positive support and backing, the planner is limited in what they can do to ensure the protection of the archaeological and architectural heritage.

The absence of a proper career structure for planners within most Local Authorities and the predominance of engineers at certain levels only adds to the difficulties of the planner in this regard.

The failure of Local Authorities in the years following the Local Government (Planning and Development) Act 1963, to assert themselves as development authorities has coloured their approach towards conservation. Generally, as is quite evident from the importance given to the archaeological and architectural heritage in the Development Plan for Drogheda, this heritage is not thought of as a resource, the secured future of which should be planned for in a positive way. This is due, in part, to the non-mandatory status with which conservation was endowed in the 1963 Planning Act. Instead, it is often seen as a hindrance to development and when it is identified as worth preserving, it is by preventative means rather than through pro-active measures.

In general, it should no longer be appropriate for Local Authorities to view development and conservation of the archaeological and architectural heritage as being continually in conflict. A conservation policy should go hand in hand with structural redevelopment and rehabilitation within the urban area. As contributors to the shaping of public opinion, Local Authorities must adopt a positive attitude to the promotion of heritage conservation.

Finally, a point which has not been explored in this paper but, nevertheless, is essential in enabling Local Authorities in fulfilling their role in this regard, is that of advice and support from agencies and bodies independent of Local Authorities. Such advice would contribute greatly to an attitude change among Local Authorities, and the absence to date of a co-ordinated structure offering advice has, to a degree, fostered the problem. An Foras Forbartha has fulfilled this role to a certain extent up to its dissolution in 1986. Although some of its former services are now provided by the Conservation Amenity Advisory Service (CAAS), a gap exists in the advisory service available to Local Authorities from the three main statutory consultees, namely, the Minister for Arts, Culture and Gaeltacht, the Heritage Council and

An Taisce. The result is that Local Authorities find themselves trying to implement varying standards of conservation policy within an environment devoid of adequate conservation advice and guidance. The provision of such an integrated and co-ordinated conservation advisory service, together with the provision of conservation officers employed directly by the Local Authorities is a matter that requires the immediate attention of the Department of the Environment, in association with the statutory consultees and the Local Authorities.

## Bibliography

- |                                                 |                                                                                                                                                                    |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bannon, MJ, (ed) 1989,                          | Planning - The Irish Experience 1920-1988. Wolfhound Press: Dublin.                                                                                                |
| Barrington, TJ, 1991,                           | Local Government Reorganisation and Reform. Government Publications: Dublin.                                                                                       |
| Bradley, John, 1984                             | The Archaeological Potential of Drogheda. Unpublished report for the Office of Public Works: Dublin                                                                |
| Collins, Neil, 1987,                            | Local Government Managers at Work - The City and County Manager System of Local Government in the Republic of Ireland. Institute of Public Administration: Dublin. |
| Council of Europe, 1985,                        | Council of Europe Work on the Architectural Heritage - Achievements and Prospects Strasbourg, (Prepared in advance of the Granada Convention)                      |
| Garner, William, 1986,                          | Drogheda's Architectural Heritage. An Foras Forbatha: Dublin                                                                                                       |
| Grist, Berna, 1983,                             | 20 Years of Planning: A review of the system since 1963. An Foras Forbartha Dublin.                                                                                |
| Grist, Berna, 1984,                             | The Preparation of Development Plans. An Foras Forbartha: Dublin.                                                                                                  |
| Irish Planning Institute, 1994                  | Towards 2001: The Development Plan Process, (1994), National Planning Conference Proceedings 1994, Irish Planning Institute: Dublin.                               |
| Kilkenny Corporation, 1994                      | Kilkenny City and Environs Development Plan. Kilkenny Corporation: Kilkenny                                                                                        |
| Lichfield, Nathaniel, 1988,                     | Economics in Urban Conservation. Cambridge University Press: Cambridge                                                                                             |
| McLoughlin, J. Brian, 1973,                     | Control and Urban Planning. Faber and Faber Ltd.: London                                                                                                           |
| O'Sullivan, Philip & Shepherd, Katherine, 1992, | Irish Planning Law and Practice. Butterworths Ireland Ltd.: Dublin                                                                                                 |

# NEOLITHIC FLINT MINING AT SPIENNES, BELGIUM

Christophe Vantroyen\*

## Introduction

The Neolithic flint mines of Spiennes are found near Mons in the province of Hainaut in Belgium (fig. 1). Spiennes is famous for a number of reasons: the size of the site, 150 hectares; the number of artefacts; the duration of the occupation. Spiennes is one of the first such mines in Europe. The site acted as a focus for trade, with the exploitation of its flint for three millennia.

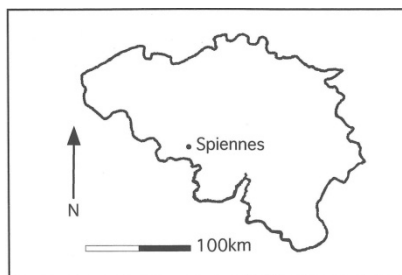


Fig. 1: Map of Belgium showing location of Spiennes

Before the neolithic, people were attracted by the flint deposits at Spiennes. Evidence of both paleolithic and mesolithic activity has been recognised. Surface flint was being gathered as early as 300,000 BP. Flint gathered in this way was sufficient to meet the requirements of flint workers at the time. Later, especially from the Neolithic period,

mines were dug to extract the flint from the Earth. This mining development lasted until the end of the Bronze age, approximately 750 BC and possibly until the La Tene period. Thus, over the course of 3000 years different populations and different cultures have followed one another at Spiennes and have worked its veins.

## Neolithic Activity

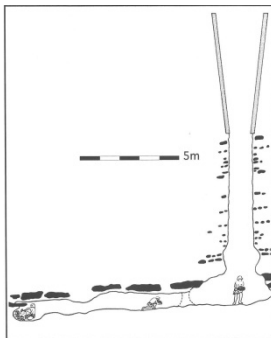


Fig. 2: Flint extraction shafts

The occupation of the earlier Neolithic was by a subgroup of the Danubian culture called the Cerny culture. These people would have come from the north of France in 3500 BC. The Michelsberg civilisation followed between 3500 BC and 2750 BC extracting the flint in large quantities. This civilisation displayed an impressive engineering ability constructing very elaborate gallery networks and horizontal shafts. Spiennes is made up of 3 sites. The site at Cayaux is the largest of the three and it was exploited by the Michelsberg culture

during the middle neolithic. This site alone covers 100 hectares and features include a causewayed camp, a habitation enclosure and a large number of extraction shafts. These were dug to a depth of over 20 metres in some cases (fig. 2). Large numbers of mined flint chunks were discovered. These were much more numerous than the needs of the local population and so probably represents the first stage in production for trade.

## Geology

At Spiennes under a thin arable level lies a layer of alluvium that was laid down during the Wurm glaciation (40,000-10,000 BC). Beneath that, at a depth of approximately 4 metres, is

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a deposit of chalk dating to the upper Cretaceous period. The veins of flint occur in this chalk and range in colour from dark brown to black. The flint occurs in blocks varying in size from little blocks to slabs of c. 1 metre wide.

## Mining Techniques

Differences in mining techniques are not due to technological development over time but are instead due to varying topographical and geological conditions. These flint mines are a network of underground shafts and galleries. Several methods of extraction were employed but three main methods have been identified. These methods range from the easiest - the quarry, to the most complex - the mine, which involves a high degree of engineering knowledge.

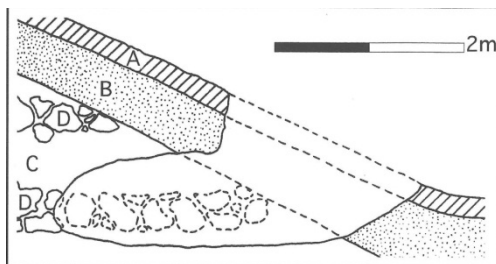


Fig. 3 Technique A. Small open quarries. A - Sod layer; B - Soil; C - Chalk; D - Blocks of flint.

### Technique A (fig. 3)

This first technique is the working of a small open quarry in the flank of a hill. Short, narrow galleries lead from these small quarries. The flint was removed

from the chalk with stone picks or deer antlers picks. Directly after that the flint was worked, shaped into flake tools or hewn into axes or picks.

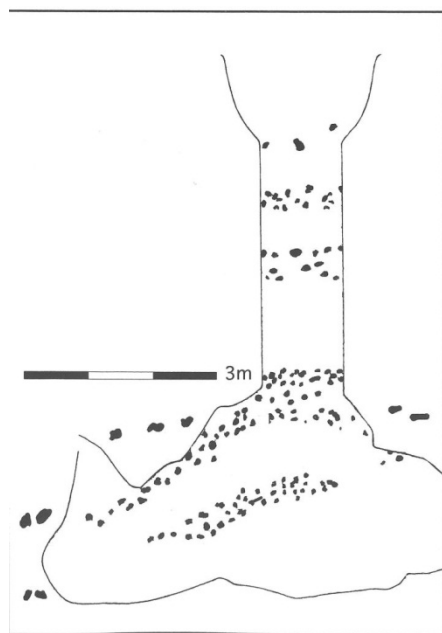


Fig. 4 Technique B. Vertical shafts. Blocks of flint shown in black

### Technique B (fig.4)

This technique involves the digging of narrow, vertical shafts of approximately 8m length down into the chalk. The shaft openings were funnel-shaped to keep the loose textured alluvium in place and to avoid the danger of being buried during the extraction of the flint. These circular shafts range from 1m to 1.5m in diameter. At the base of the shaft was a gallery which was larger and bell-shaped. These bell-shaped chambers were c. 5m in diameter. Veins of flint were worked as they were encountered during the descent to the richer, deeper veins. Since no evidence of the use of artificial light was found, the miners must have relied upon sunlight reflected off the chalk shaft-sides. When a shaft became too deep and dark it was abandoned and used as a dump for the spoil of

the next gallery. In the mine itself some evidence of flint working was discovered. It is clear that the picks were sharpened in the mines, but all the debitage of the final stage of actual tool making was discovered at the surface. This was probably carried out by a specialised team.

### Technique C (fig.5)

The last method, the most elaborate, aimed to exploit flint banks. These occur as big slabs and are found at a depth of between 15 and 20m. The miners (we know from the pottery

evidence that they were members of the Michelsberg group) first dug funnel-shaped pits, 3m wide, narrowing to shafts of 1m diameter. The funnel-shaped gallery is still used to avoid the collapse of the unstable alluvium. These Neolithic miners worked forwards from flint slab to flint slab until it was too dark for them to work any further.

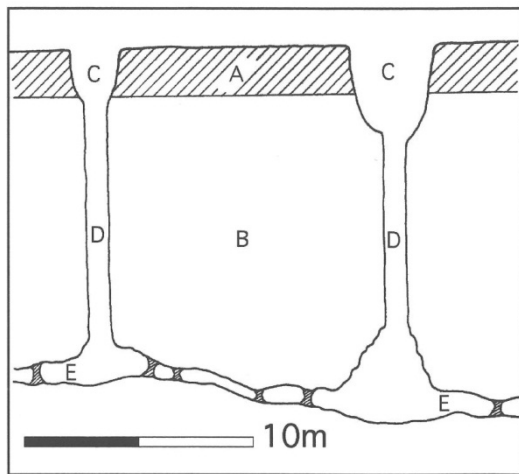


Fig. 5: Technique C. A - Soil; B - Chalk; C - Funnel-shaped shaft openings; D - Vertical shafts; E - Horizontal shafts

Bringing up the big flint slabs, which weighed between 30 to 50kg, must have been difficult. Once again these Neolithic people, with their ingenuity, managed to resolve the problem. They used a counter-weight system and a rope of at least double the length of the pit. This is only an assumption but is based on the discovery of a chalk block, which may have been used as a counter-weight, showing a slot or groove carved into its side (fig. 6).

A wide range of tools was discovered at the site including flint flakes which could be worked further elsewhere to produce finished artefacts, flint picks, deer antlers picks (these were probably mining tools), hammer stones, different blades, axes, both flaked and polished, arrowheads, awls and burins.

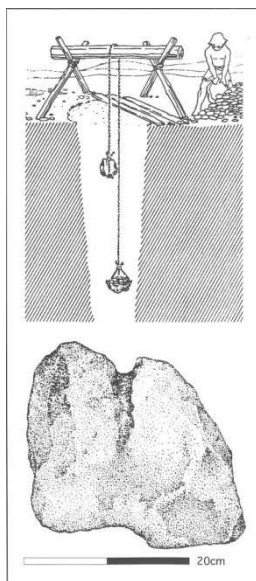


Fig. 6: Counter-weight system with grooved stone

## Conclusion

The advanced organisational and engineering skills of these people is evident in the planning and digging of the elaborate mines and quarries. The existence of some form of production line can be inferred because evidence suggests that the fabrication and finishing of tools, the polishing of axes, etc., was done by a specialised team. Thus a division of labour at Spiennes is evident with different teams carrying out different functions. It would be interesting to know whether these specialised groups were sustained by the agricultural production of their own community or whether they relied on the proceeds of trading activities. Production was on an enormous scale, too big to meet the needs of only one community and thus must represent manufacture for what would have been an extensive communication and trade network.

## References

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|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Hubert, F, 1978</p> <p>Hubert, F, 1988</p> <p>De Laet, SJ, 1982</p> <p>Adam, Bonenfant, Hubert &amp; Joris, 1985</p> | <p>Une miniereneolithique a silex, au camp Cayaux de Spiennes, <i>Archaeologica Belgica</i>, 210</p> <p>L'exploitation du silex, a Spiennes, <i>Archaeologum Belgii Speculum</i>, XV, Bruxelles: Services Nationale des Fouilles</p> <p><i>La Belgique devant les romains</i>. Wetteren: Universa</p> <p><i>Spiennes et la prehistoire du bassin de la Haine</i>. Mons: Salle St. George</p> |
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# A PREVIOUSLY UNRECORDED MEGALITHIC STRUCTURE AT FENNOR, CO. MEATH

by Conor Brady\*

## Introduction

The monument, at National Grid Reference N 957 729, stands on a hill in the townland of Fennor, on the southern side of the river Boyne approximately 1km south-south-west of the village of Slane. The site is not included in the Archaeological Inventory for Co. Meath, nor is it marked on either the first or second editions of the Ordnance Survey 6" sheet. The site lies approximately 4km west of the Bend of the Boyne cemetery, which is situated on the northern side of the river. The local soil is grey brown podzolic, similar to that on which the passage tombs of the Bend of the Boyne cemetery are built. This overlies carboniferous limestone.

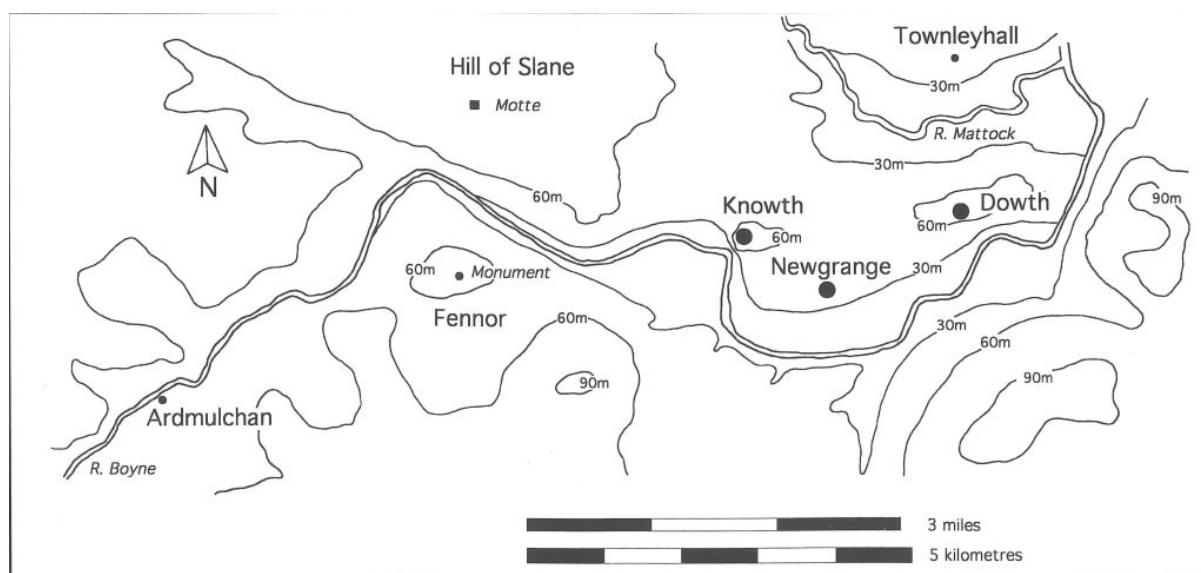


Fig. 1: Location map

The site is located c. 150m north west of the highest point on the hill. The hill has steeply sloping sides to the east, west and especially the north, is quite flat-topped and does not rise much higher than the 60m contour. As a result the monument does not stand out in the local landscape nor are there good views from it to either the river or the immediate vicinity. It is possible, however, to see the monuments at Knowth, Newgrange and Dowth clearly across the river. The Hill of Slane is also clearly visible and it is interesting to note that there is a Norman motte on its highest point, built in 1175 by Richard le Fleming (Lord Killanin and Duignan 1989) which might have a prehistoric monument at its core. (fig. 1)

## Description

The cairn is delimited by an incomplete kerb consisting of sixteen stones ranging in size from 1.2 x 1.5 x 0.5m to 0.5 x 0.2 x 0.3m. Stones of similar size and shape were noted in the ditch of the adjacent field boundary. The cairn within this kerb measures c. 8m in diameter and stands c. 1m high. It is composed of a mixture of soil and stones of average dimensions 0.15 x

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0.1 x 0.1m. Most cairn stones were rounded or sub-rounded and a small number of red brick fragments were noted on the surface of the cairn. A scatter of stones extended between two and three metres beyond the kerb. At one point inside the kerb, protruding 1.3m from the surface of the cairn is a standing stone. Two other stones were noted in line with this one leading to the kerb but which did not protrude above the surface of the cairn. These are firmly bedded and are also much larger than the cairn stones and are thus possibly structural. There were a several other stones outside the kerb but these may have been displaced, (fig. 2)

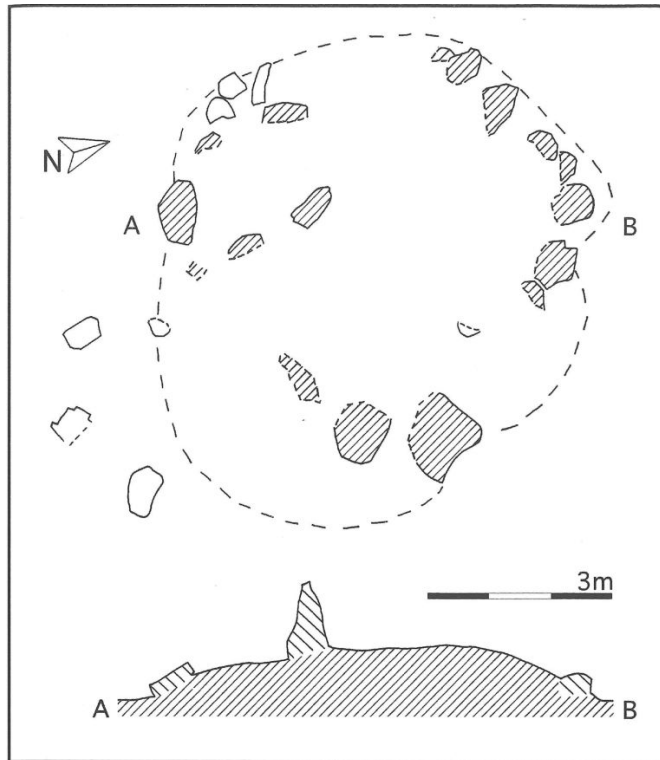


Fig. 2: Plan and section

## Discussion

The monument appears to be quite disturbed. Although the kerb stones are quite solid in the ground and appear to be in situ, they may have been rolled in from further out in the field. The integrity of the cairn material must also be questioned because of the presence of the pieces of red brick. Perhaps the standing stone is original and is a monument in its own right like sites C and D downslope of the main passage tomb at Newgrange (cf. Coffey 1912; Shee and Evans 1965) and a clearance cairn gradually developed around it. However, because of its prominent location - on top of a hill - and its proximity to the Bend of the Boyne

passage tomb cemetery and the presence of what could be interpreted as the stumps of passage/chamber orthostats, this monument may be the remains of a passage tomb. Indeed, outliers to this cemetery are known, e.g., the probable site, with two decorated stones at Ardmulchan, Co. Meath (Eogan 1983) and the site at Townleyhall, Co. Louth (Eogan 1963). Unfortunately, no art was visible on any of the stones of the structure at Fennor, so it is not possible to classify it with any certainty. A number of passage tombs with cairn diameters of less than 10m are known and include mound 3 at Bremore, Co. Dublin - 9m; Ballynascorney Upper, Co. Dublin, (Herity's Du 12) - 9m; Lackan, Co. Wicklow - 9m; Cornafunshin, Co. Longford - 9m (Herity 1974).

## Acknowledgements

Thanks are due to the landowners Mr & Mrs Hirmskirk for their permission to carry out the survey and also to Prof. George Eogan, who was first to examine the site, for time spent discussing it with me and to Niamh Ó Broin who helped me to survey the site.

## References

Coffey, George, 1912

*Newgrange and other incised tumuli in Ireland.* Dublin: Hodges, Figgis and Co. Ltd.

- Eogan, George, 1974b A probable passage grave site near Broadboyne Bridge, Ardmulchan, Co.Meath, *J Roy Soc AntiqIr* 104,146-50
- Finch, TF, Gardiner, MJ, Comey, A& Radford, T, 1983 *Soils of Co. Meath*. Dublin: An Foras Taluntais
- Herity, M, 1974 *Irish Passage Graves*. Dublin: Irish University Press
- Lord Killanin&Duignan, Michael V, 1989 *The Shell Guide to Ireland*. Dublin: Gill and Macmillan
- Mitchell, GF, 1984 The Landscape in Eogan, George, *Excavations at Knowth* 1,9-11.Dublin: Royal Irish Academy
- Moore, Michael J, 1987 *Archaeological Inventory of County Meath*.Dublin: Office of Public Works.
- Redmond, Marcus& Mac Aonghusa, Dáithí, 1994 A passage-tomb cemetery on Seahan mountain, Ballinascorney Upper, Co. Dublin, *Trowel V*, 36-40
- Shee, Elizabeth and Evans, DM, 1965 A standing stone in the townland of Newgrange, Co. Meath,*J Cork Hist and Arch Soc*, LXX, 124-130

## THE ARCHAEOLOGICAL MODEL OF THE ROYAL SITES: SOME HISTORICAL IMPLICATIONS

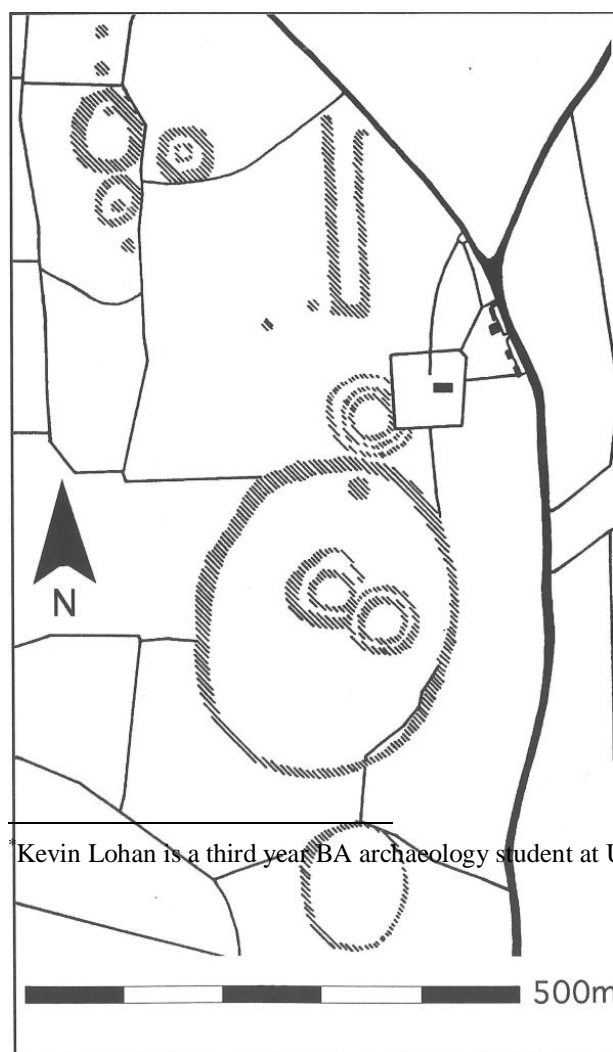
Kevin Lohan\*

What archaeology can provide to the historian of the early medieval period, is a measure of the material wealth of certain sites, an idea of how broad based or regionalised a culture is and also broad dating evidence for sites such as the royal sites, and may even be able to suggest if they were contemporary or not. Archaeology provides an idea of how long sites were in use and can show continuity with previous eras, for example, the Bronze Age and Neolithic. It can, to a certain degree, show if, for example, the 'Banqueting Halls' of the sources existed in the context of the royal sites or if, in fact, anyone lived there at all. These large halls should be a recognisable archaeological feature and easily comparable to the plans in the Book of Leinster and elsewhere. This is the archaeological evidence which can prove useful to the historian of this period. This discussion must, of course, take place within the limitations of sites which have been excavated, either partially or fully, to date.

The archaeological model of a royal site, while uncertain due to lack of evidence, includes a large area surrounded by an internal ditch and external bank, evidence for substantial ritual activity enclosed within this. Many of the other attributes are historical in nature and have not been encountered in the archaeological record. One of the first questions to be asked in the construction of a useful archaeological model for the Royal Sites is, how similar, morphologically, were they? Was there, in fact, a set plan for a royal site in order to show its importance. As a royal site, it would have been unusually important, and therefore the

evidence on the ground may show unusual features. The sheer variety of ritual site types, however, not only in Ireland, but in Britain and on the continent, mitigates against this, but certain factors come to light. Perhaps the most obvious is the bank and ditch surrounding some of the sites historically referred to as royal. At Emain Macha, Dun Ailinne and Tara, all have an enclosing feature, with the ditch on the inside and the bank on the outside. This would have been impractical for defense and may have been symbolic for defining an area of sacred ground or some other ritual purpose. Another feature that links them is the general occurrence of Neolithic and Bronze Age features on these sites.

Fig. 1: Hill of Tara with main monuments indicated. (After Raftery 1994)



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At Tara, the Mound of the Hostages is in fact a neolithic passage tomb. There was substantial evidence for neolithic activity at both Dun Ailinne and Emain Macha. At Dun Ailinne, Wailes (1990) reports the presence of “an irregular ditch of Neolithic date which did not contain posts” and at Emain Macha the earliest activity was dated to the neolithic although the disturbances caused by later prehistoric building make it’s exact definition difficult (Wailes 1982). Even more striking evidence occurs at Knowth, where a passagetomb was fortified with banks and ditches. This site, known as Cnogba, was the royal residence of a branch of the Sil nAedaSlaine family (Byrne 1968). Nearby at Newgrange, again a passage tomb, votive deposits of Roman coins and Romano-British jewellery were buried near the entrance showing continuity of use and to some degree purpose as there has been no Iron Age settlement found in the immediate vicinity. The lack of excavation hinders any further discussion on the point, but it is quite possible that one of the monuments at Cruachan may be of Neolithic origin (Waddell 1983). This continuity marks out these sites as unusual, and also fits the general picture of a royal site.

What does not fit with the model of a royal site as expressed in the Martyrology of Oengus is the lack of settlement evidence concurrent with ritual activity. The Martyrology of Oengus is a poem where the sites of Tara, Cruachan, Dun Ailinne and Emain Macha are identified with pagan royalty and each is contrasted with a monastery flourishing at the time it was written, c. 800 AD. The implication of this is that they had been abandoned at that point. Dun Ailinne seemed only to have ritual structures, the last one, dated to the third century A.D., having been dismantled. Uisneach, Co. Westmeath, showed no habitation evidence before the Early Christian period, although ritual activity, shown by articulated animal limbs, and even whole carcasses, was associated with some scattered La Tene artifacts such as the catch plate of a La Tene III fibulae brooch (Wailes 1982). The Iron Age phase at Emain Macha shows no residential use, only ritual. There was Bronze age settlement, but it does not appear to be high status (Lynn 1995/6). The exception to this is Tara, where the Rath of the Synods showed up residential and industrial activity in association with Roman pottery dating from the first to the third century A.D. (Ó Ríordáin 1954).

Where settlement is more pronounced is not in the main hilltop ceremonial centres, but rather in the smaller sites mentioned in the sources as having royal connections. These sites, while not proper royal sites fitting into the general model mentioned earlier, have definite royal connections historically and on excavation displayed evidence for substantial wealth and high status habitation. A prime example of this is Lagore. Later than the royal sites proper, and with no religious ties, this crannog is linked with the branch of the Sil nAedaSlaine who were kings of Southern Brega. This site is mentioned in the sources such as the Annals of Ulster as Loch Gabair. It was even said to be the residence of some of the Sil nAedaSlaine high kings, for example Diarmait Ruaraid, in the Rawlison manuscriptss B102 and B112 (Hencken 1950). It employed many craftsmen at its height with blacksmiths evidenced by iron slag and iron working floors in the second and third occupation layers; bronzeworkers as evidenced by ingot and ring moulds and a large amount of crucibles, glassmakers shown by moulds for glass studs and weavers by their spindle whorls and loom weights all present (ibid.). The crannog seemed to have been economically self-supporting with the imported items all being luxury items, including amber, milliflore glass and enamel. The possible exception to this was that all the pottery was imported in the absence of any pottery being produced in Ireland at the time, but this again was probably a luxury import. Even the iron ore used was local (Hencken 1951). Archaeologically the site would appear royal, not because of any difference in morphology from other crannogs, but because of the material wealth it contained. The ongoing excavation at Moynagh Lough appears to show the same pattern with relatively large

amounts of imported luxury items having been uncovered during excavations (Bradley 1991). Another factor to consider is the resources that would have to be put into the building of an artificial island, and that in itself may have been a mark of prestige. The same may go for the other non-ceremonial royal sites such as the trivallate ringfort at Garranes, identified as Raithlu by John Ryan and excavated by Ó Ríordáin in 1942 (Warner 1988), again with above average material wealth discovered, or Clogher, excavated by Warner who considered it a revamped Bronze Age hillfort mentioned in the sources as the capital of the Uí Cremthain (1988). The evidence for settlement comes not from the large ceremonial sites which seem to have fallen out of regular use between 500 and 800 AD, but in smaller and better defended capitals.

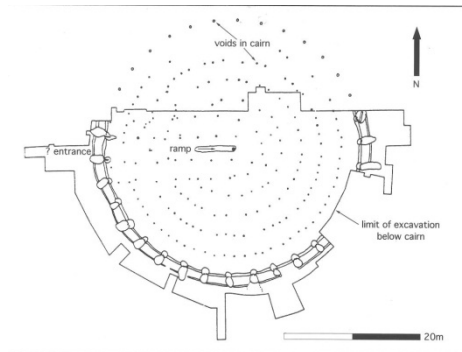


Fig. 2: Plan of the forty metre structure, Navan fort. (After Lynn 1989 in Raftery 1994)

The sources, especially the Martyrology of Oengus and the poem Teamhair, mention the royal sites as burial grounds of important rulers. Emain Macha had no evidence for Iron age or early Christian burials at all. Both Tara and Dun Ailinne had burials. Tara seemed to have been a burial place from the Neolithic through the Bronze age right up to the Iron Age. At Dun Ailinne,

burials from the Iron age only have so far been discovered. The lack of full excavations here, at Uisneach and at Cruachan leave the question of burial in doubt although there are a large number of barrows at Cruachan (Waddell 1983). Naturally enough, there were no burials on either of the two crannogs, i.e., Lagore and Moynagh Lough, or the smaller royal residences. None of the burials at Tara would appear to be the burial of a king, but as rich grave goods are not a feature of Irish Iron age burials this may not be an indication of the status of the burials.

Another factor which may link the royal sites is the occurrence of Roman or Romano-British artefacts. Tara, Knowth, Lagore and Dun Ailinne have all turned up artefacts from the Roman sphere of influence. In some cases such as at Lagore, the only evidence was imported pottery, Terra Sigillata and Western Continental and imported glassware (Hencken 1950). At Dun Ailinne glass beads showed the contacts (Wailes 1990) The evidence at Newgrange is more dramatic especially considering its proximity to Knowth. Ornamentation, ingots and coins from Britain and more rarely Gaul, have shown up in what seems to be ritual deposits (O'Kelly 1978). This could have been from visiting Roman merchants, but was more likely to have been Irish warriors who had raided the British coast or worked as auxiliaries in a Roman army (Swift 1996). Similar evidence, but to a lesser extent, turned up at Tara such as a Roman seal, a Roman lock and Roman glass fragments. This perhaps gives credence to some dynasties rise to power being attributed to wealth gained by raids abroad (ibid.). The later sites perhaps indicate the existence of some kind of trade network for Roman goods.

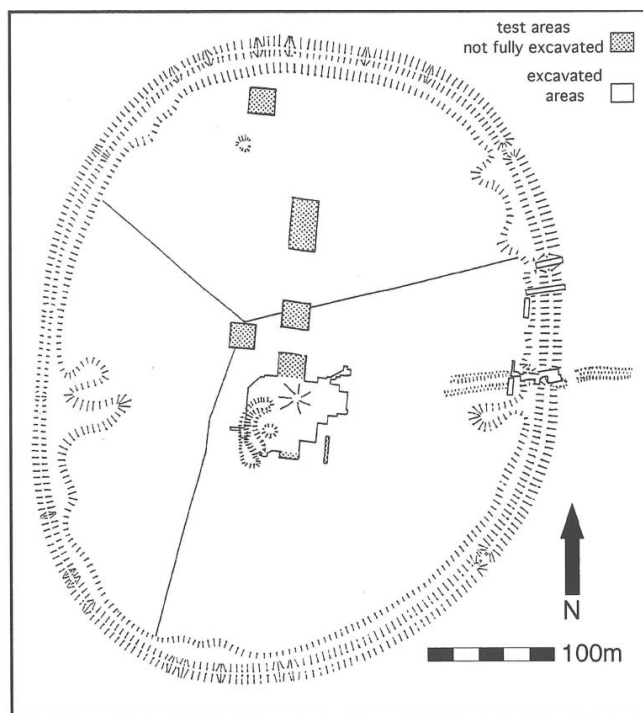


Fig. 3: Plan of Dun Alainne. (After Wailes 1990)

A problem with the historical picture of the large royal sites as presented by the Martyrology of Oengus is the fact that they are represented as being contemporary. Archaeological evidence indicates that this is not the case. Of the three sites that have had at least some excavation carried out, the Emain Macha site least fits the picture of the pre-Christian palace. Any residence excavated there was dated to the Bronze age and was not of particularly high status. The evidence for ritual activity there was dated to the early Iron age, with all archaeologically traceable ritual activity stopping with the entombing and burning of the large wooden structure in

approximately 98 A.D. (Lynn 1992). This does not necessarily mean that ritual activity stopped on the site, merely that it took on a less archaeologically visible form. It could well have been used for activities like assemblies or hostings, often mentioned in the sources but which would have had no impact on the archaeological record. This would have kept the importance of the sites alive, without the construction of any further structures. Dun Ailinne, on the other hand, has only a small amount of evidence for Bronze age activity (Wailes 1982), but seems to have a lot of evidence for Iron age activity. All of this activity appears to have been ritual, with non-residential features, as far as the excavator B. Wailes could distinguish. Unlike Emain Macha, the ritual sites here were dismantled, not burnt. Roadways were also built in the site (Wailes 1990). The artefacts are purely Iron age with no artefacts of Early Christian or later manufacture such as a La Tene type 1 sword a bow pin and late La Tene glass (Wailes, 1990). The ceremonial structure on the site seems mainly to have fallen out of use with the buildings being dismantled in the early centuries A.D. Again, this does not mean that all activity stopped here, but none that required structures was carried out hereafter (Wailes 1982). Evidence that this site had not lost its ritual importance is to be found in the Annals of Ulster. The AU states that in 770 an Ui Neill army occupied Dun Ailinne for three days as a calculated insult to their enemies, the Laigin. Tara is different from the other two. It is more of a multiple phase site. There are more monuments here than at either of the two others. The Rath of the Synods yielded dates similar to Dun Ailinne, but with a residential and industrial, rather than a ritual, context although there are some possible ritual features (Ó Ríordáin 1954). Rath na Riogh, the enclosing feature, has the internal ditch in common with Emhain Macha and Dun Ailinne but, with what seems to be a later palisade trench along the top. This hints at it being in use by someone at the start of the 400-800 A.D. period, and gives credence to the long history credited to it by many sources from all over Ireland such as the Annals of Ulster and of the Four Masters and the Book of Leinster for example. Of the three, Tara is the only site that may have been in full scale use at the start of the Early Christian period. Further excavation is needed at other sites in the Tara complex to put parameters on the dating at either end of the activity there. The archaeological evidence from Tara may help the Ui Neill historians in their search for the nature of the High Kingship in some respects by being able to measure the wealth and level of activity at Tara itself.

Historians and archaeologists would work together better if perhaps both would realise the strict limitations their discipline places upon them. The historians are limited by the reliability of such early sources, and archaeologists by the nature of material evidence. Historians of the Ui Neill, however, gain much from archaeological evidence. They can confirm the location and dating of sites, like royal capitals which are mentioned in the sources. By examining evidence of material wealth, admittedly as a very rough measure, the fortunes of the rulers of an area may be followed. To some extent, foreign influences may be discernible. Again, to a small extent, insights may be gained into the nature of ritual. Archaeology will not provide names of individuals or of groups of people occupying areas or sites. It will not, except in certain exceptional cases, give dates for occurrences, except in a very broad sense. It will not solve the riddles of inauguration rituals or general assemblies. It will not give any due, except in a very broad sense, to political motives or dominance. These areas are the province of the historical sources and it is for historians to decide how trustworthy their sources are. The more subtle questions fall firmly within this realm, and will never be solved by an archaeological model.

## References

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|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bradley, John, 1991      | Excavations at Moynagh Lough, county Meath, <i>J Roy Soc AntiqIrl</i> , 121, 5-26                                                                                      |
| Byrne, FJ, 1968          | Historical note on Cnogba (Knowth), <i>Proc Roy IrAcad</i> , 66C, 383-400                                                                                              |
| Hencken, H O'Neill, 1950 | Lagore Crannog: An Irish royal residence of the seventh to tenth century AD, <i>Proc Roy IrAcad</i> , 53C, 1-248                                                       |
| Lynn, CJ, 1995/96        | The Iron Age Mound in Navan Fort: a physical realisation of Celtic religious beliefs?, <i>Emania</i> , 10, 33-57                                                       |
| O'Kelly, C, 1978         | <i>Illustrated Guide to Newgrange and other Monuments in the Boyne Valley</i> . Cork: Claire O'Kelly                                                                   |
| Ó Ríordáin, S, 1954      | <i>Tara, the monuments on the hill</i> . Dundalk: Dundalgan Press.                                                                                                     |
| Raftery, B, 1994         | <i>Pagan Celtic Ireland</i> . London: Thames and Hudson                                                                                                                |
| Swift, C, 1996           | Pagan Monuments and Christian Legal Centres in Early Meath, <i>Riocht naMidhe</i> 9.2                                                                                  |
| Wailes, B, 1982          | <i>The Irish 'Royal Sites' in History and Archaeology</i> , Cambridge Medieval Celtic Studies, 3                                                                       |
| Wailes, B, 1990          | Dun Ailinne: A summary excavation report, <i>Emania</i> , 7, 10-21                                                                                                     |
| Waddell, J, 1983         | Rathcroghan - A royal site in Connaught, <i>JIr Arch</i> , 1, 221-46                                                                                                   |
| Warner, RB, 1988         | The Archaeology of Early Historic Irish Kingship, in Driscoll, ST and Nieke, MR, <i>Power and Politics in Early and Medieval Britain and Ireland</i> . Edinburgh 22-46 |

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