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FIELD SITES

The Loughcrew Hills and Passage Tomb Complex

Frank Prendergast

Introduction

The Loughcrew Hills are a 5 km long by 1 km wide linear formation trending ENE-WSW and located 5 km southeast of the town of Oldcastle, County Meath, From the Ordnance Survey Ireland map of the area (Sheet 42 Discovery Series), six peaks can be discerned on its ridges. These range in altitude from 237 m AOD at the eastern end to the 254 m high summit of Carbane West at the other end of the range. Carbane East is the dominant peak with an altitude of 276 m AOD. Geologically, the main rock types of the formation are sandstone, greywacke and shale and are dated to the Silurian Period (440-410 million years ago). The environment then indicates that sand and mud were being deposited in a narrow ocean basin and at a time when mountain building was evident. The Loughcrew Hills lie at the south-west edge of this rock type and overlook a much more extensive formation of dark-grey argillaceous and cherty limestone associated with depositional processes occurring during the later Carboniferous Period (354-298 million years ago). Then, sand and mud was being deposited in a shallow warm tropical sea that was advancing over older and eroded Devonian Period mountains (410-354 million years ago) that date between the Silurian and Carboniferous Periods. Given the average elevation of c. 100 m AOD of the surrounding lowland, the pronounced height difference between the central plain below and the hill summits at Loughcrew provides the visitor located on the highest ground with a dramatic vantage. Furthermore, this creates a striking topographic feature that is visible from great distances.

The name 'Loughcrew' may be derived from the adjacent Creeve Lough, 3 km to the south of the megalithic tomb complex. More interestingly, the name 'Carnbane' is thought likely to derive from 'Carn Bán' or a heap of white stones. Given the presence of quartz found in association with some of the nearby megalithic passage tombs, such an explanation seems convincing. Local tradition also holds that the Irish name for the hills 'Slieve na Calliagh' derives from the legend of the 'Hag' or witch, who reputedly dropped white stones onto the summits of Carnbane East and Carnbane West. Indeed, the most prominent kerbstone at Cairn T is known as the 'Hags Chair' and was, reputedly, the resting place of the witch during her cairn building endeavours.

Views from Loughcrew

A visit to Loughcrew normally commences at the visitor car-park on the western slopes of Carnbane East (Carnbane West is currently on privately owned lands). This leaves the climber with a steep vertical ascent of more than 70 m to reach to summit. The well marked trail quickly affords increasingly spectacular views over the central plain and once the summit is reached, the full panorama of the location is stunning. From clockwise in the south-west direction, five of the great midlands lakes can be seen (Figure 15). The surrounding counties of Dublin, Kildare, Westmeath, Longford, Cavan and Louth are all overlooked. In the distance, the Dublin Mountains are 70 km to the south, the River Shannon 50 km to the west, Slieve Gullion in County Armagh is 60 km to the north-east, while the Irish Sea coastline is 60 km to the east.

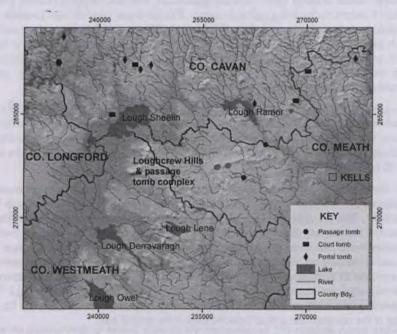


Figure 15 Regional setting of the Loughcrew Hills and passage tomb complex (grid units are in metres on the Irish Grid)

From the hilltops, several outlying passage tombs are just visible on the horizon. At a range of 65 km WNW, Sheemore Hill in County Leitrim with its three summit tombs can be seen on a clear day. The passage tomb at Banagher, County Cavan is 25 km distant in the NNW. To the north-east, the distinctive profile of Slieve Gullion in County Armagh and its crowning passage tomb are very evident, while to the south-east, the 'Mound of the Hostages' passage tomb on the Hill of Tara is visible at a distance of 40 km (although it is

now obscured by trees located close to the tomb). Contrary to some claims, the passage tombs situated on the summit of the Carrowkeel Mountains in County Sligo, 90 km WNW of Loughcrew cannot be seen.

Archaeological Landscape

The wider archaeology of this very special landscape is well described (e.g. Coffey, 1912, 1977; Cooney, 2000; Cooney, 2000; Mc Mann, 2005; Newman, 1995; Twohig, 1981) and officially recorded (http://webgis.archaeology.ie). Evidence of long-term occupation of the summits and slopes by a succession of cultural groups can be traced from the early Neolithic to the medieval period. Surviving sites and monument types include a cursus, standing stones, a stone circle, rock art, enclosures, barrows, religious houses, Norman mottes, Fuluacht fiadhs and a castle. However, it is the presence of a major passage tomb complex that gives the area a cultural status of national and international renown and which generates the greatest interest for the majority of visitors. The clusters of tombs, cairns and unclassified megalithic structures are recognised as one of the four such major sites on the island of Ireland – the others are located in the Boyne Valley, and at Carrowkeel and Carrowmore in County Sligo.

Passage tombs are widely distributed in Ireland with the majority lying along, or north of, an axis extending from County Sligo in the north-west to County Wicklow in the south-east (Figure 16). South of that line, their occurrence is more dispersed and numerically few. Nationally, there are 220 extant monuments of this class, comprised of 168 definite tombs and 52 possible tombs.

The distribution and archaeological classification of the megalithic monuments at Loughcrew are intricate. For clarification, these are tabulated and illustrated in Table 1 and Figure 17. The complex consists of 32 monuments distributed in five townlands *viz*. Newtown, Loughcrew, Corstown, Patrickstown and Thomastown. The national inventory classifies these (see Glossary) as definite passage tombs (15), a possible passage tomb (1), cairns (15) and an unclassified megalithic structure (1). The majority are clustered on the summits of Carnbane West (Newtown Td.) and on Carnbane East (Corstown Td.) while four sites are situated on the summit of Patrickstown Hill (Patrickstown Td.). Three kilometres to the south-east of Cairn T, an additional ruined tomb in Thomastown Td. is an outlier of the complex and is thus included here in the overall total.

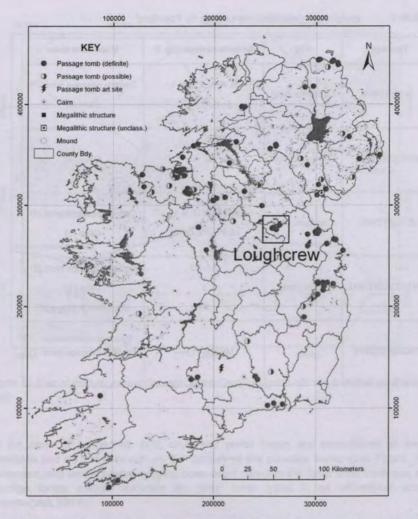


Figure 16 General map of Ireland showing the distribution of 220 passage tombs and other related sites (grid units are in metres on the Irish Grid)

Table 1 Loughcrew megalithic monuments by Townland

Townland	Hill	Monument code (Fig. 3)	Monument class
NEWTOWN	Carnbane West	B, F, H, I, J, K, L D, E, G, M, O	Definite passage tomb (7) Cairn (5)
LOUGHCREW	Cambane West	A1, A2, A3, C	Cairn (4)
CORSTOWN	Cambane East	R2, S, T, U, V, W N, P1, P2, Q, R1	Definite passage tomb (6) Cairn (5)
PATRICKSTOWN	Patrickstown	X1, X2 Y X3	Definite passage tomb (2) Cairn (1) Megalithic structure (1)
THOMASTOWN		ME015-111	Possible passage tomb (1

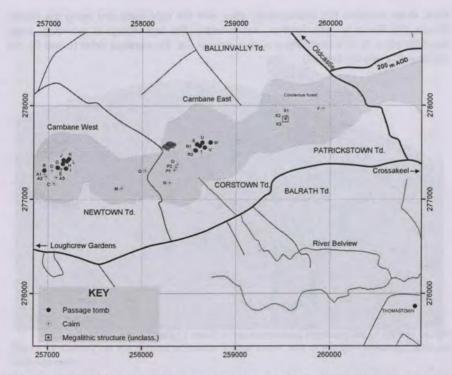


Figure 17 Plan of the Loughcrew Passage Tomb Complex (grid units are in metres on the Irish Grid)

To the north of Loughcrew, both court and portal tombs are encountered at lower elevations and do not encroach on the territory of the passage tombs (see Figure 15). Elsewhere, and where spatial mingling does occur between the three tomb traditions, the passage tombs always dominate the other tomb types in an elevational sense (Prendergast, 2011).

Chronologically, secure radiocarbon dates have been obtained for some of the Irish passage tombs using cremated bone ash (e.g. Bergh, 1995; O' Sullivan, 2005). These and other sources would suggest that the majority of such tombs were constructed within less than a thousand year period terminating in c. 2700—2600 BC and just before the Bronze Age.

Passage tomb morphology

Although much variation in style occurs, the typical tomb consists of a passage lined with upright stones (orthostats) leading to a central chamber. In some cases, there is no differentiation between the passage and chamber. Where differentiation is evident, the chamber ranges from a simple polygon to its most developed form – the cruciform type.

Here, three recesses are encountered, often with the right-hand one being the largest (Figure 18). Primarily, their function was funerary. For archaeological recording, every structural stone is annotated with a unique number, *i.e.* the passage sides (L and R), the chamber (C), and the kerb (K).

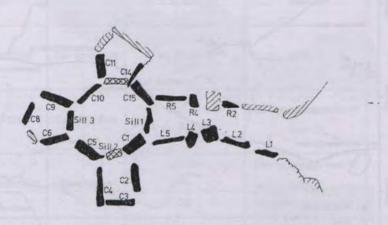


Figure 18 Plan of the cruciform burial chamber at Cairn T (after Twohig, 1981, Fig. 232).

At Loughcrew, cruciform tombs occur at sites K, H, F and L on Carnbane West, sites T, R2, and U on Carnbane East, and site X1 on Patrickstown Hill, although there is some uncertainty regarding the classification of two of those (R2 and X1).

Externally, tombs were frequently delimited by a circular enclosing kerb of contiguous boulders. In many, the tomb was also covered by a large cairn of loose stones sometimes topped with a sod layer (Figure 19). Many of the cairns have been destroyed or damaged over the intervening millennia although in some, cairns may never have been constructed.

Cairn dimensions range from being diminutive to gigantic, with the largest (c. 90 m diameter and 10 m height) being found at Newgrange 1 and Knowth 1 in the nearby Boyne Valley, and on the summit of Knocknarea Mountain, County Sligo.



Figure 19 Cairn T on the summit of Carbane East (elev. 276 m AOD) – entrance, kerb and covering cairn

Passage tomb art

At Loughcrew, twelve tombs bear passage tomb ornament on the structural stones – internally and/or externally. The degree of preservation is dependent of aspect and geological hardness of the embellished stone. The catalogue of art found here forms a significant proportion of the total found nationally (Twohig, 1981). Interestingly, with the exception of two sites in County Sligo, all passage tomb art tends to occur on sites located towards the eastern part of their distribution. Arguably, the most spectacular and best preserved decoration at Loughcrew is encountered on stone C8 located in the end recess of Cairn T (Figure 20; and see Figure 18).

On this stone, the visitor will encounter a range of abstract and geometrically shaped motifs comprised of circles, circles and dots, grooved linear verticals, linear zigzags (inphase), full-circle radials (open and enclosed), floral radials (full-circle), and U and nested U forms. Where megalithic art is applied to cover the whole of a stone surface, as with the assemblage on C8, this style has been described as 'plastic' meaning that the spatial relationship between the applied ornament and the 'stone canvas' is evidence of aesthetic intent by the Neolithic artist (O' Sullivan, 1993; 1997).



Figure 20 Watercolour of the decorated backstone C8 by George V. du Noyer (by permission of the Royal Irish Academy Library; MS3D3)

Passage tomb alignment and archaeoastronomy

Investigation of the orientation of the Loughcrew tombs by the writer indicates that of the 14 extant monuments with surviving passages, four are aligned towards other tombs within the complex (J \rightarrow L, I \rightarrow T, V \rightarrow T, Thomastown \rightarrow T). One of these, I \rightarrow T, is illustrated in Figure 21.

In every case where the phenomenon of a directed view occurs, the target tomb is elevationally higher than the source. Nationally, this phenomenon is widespread and argued to be culturally significant (Prendergast, 2011).



Figure 21 Directed view from the chamber of Site I on Carbane West towards Cairn T on Carbane East

Astronomical alignments at Loughcrew are few. Just three sites demonstrate potential evidence of tomb orientation consistent with an interest by the tomb builders in significant horizon events in the solar year. Biannually, and for a very short period in late March and September, the rising sun dramatically illuminates the decorated backstone C8 at Cairn T. The dates indicated by the calculated astronomical declination (c. -1°) could suggest deliberate orientation of that passage towards the rising sun at the period of the solar cycle when the astronomical declination of the sun is close to zero degrees. At these dates, the sun is midway between its apparent extreme positions on the horizon at the winter and summer solstices. This may have had ritual or ceremonial significance in the past.

On Patrickstown Hill, the putative axis of the ruined cruciform tomb X1 is aligned on the setting sun at the Winter Solstice – the indicated astronomical declination there is c. -24°. That discovery by the writer also resulted in megalithic art on one of the kerbstones being catalogued for the first time (Figure 22 and O' Sullivan et al., 2010).

Elsewhere, an additional alignment recently discovered by the writer links the outlying ruined tomb at Thomastown with Cairn T on the summit of Carnbane East. The spectacle of the sun setting behind the elevationally higher Cairn T at the period of the Summer Solstice in late June (astronomical declination c. +24°) provides evidence of the wider role and meaning of the passage tombs (Figure 23).



Figure 22 Megalithic art on kerbstone K1 at Site X1, Patrickstown Hill

Importantly, when these sites are visited at the indicated dates, the modern visitor can witness and experience similar spectacles to those observed by the builders of the passage tombs 5000 years ago.



Figure 23 Setting sun at summer solstice viewed from the alignment of Thomastown passage tomb to Cairn T on Carnbane East (image: Ken Williams)

GLOSSARY

Barrow A general term used to describe a circular mound of earth and stone used to cover a burial(s). Excavated examples have been dated to the Bronze and Iron Ages (c. 2400 BC-AD 400). Barrows are extremely common throughout Europe as a burial tradition. Apart from the round form, long, oval and rectangular/square types are known. The term originated in England. The equivalent term in Ireland was the tumulus – a term that is now obsolete.

Cairn The term cairn is derived from the Irish word 'carn' meaning a pile of stones. Thus, it is a round mound constructed primarily of stone but which cannot be classified as belonging to any megalithic tradition. Several variants are named in the table and these can date from any period of prehistory or later. Their siting tends to be in upland areas.

Court tomb A term introduced by R de Valera to describe long barrows containing, at their broader end, an unroofed forecourt area typically leading to the roofed and segmented burial gallery placed on the axis of the cairn. The covering cairn is retained by a kerb of upright stones or drystone-walling. The evidence suggests that the galleries were used for repeated burial, mostly cremations from *c.* 4000–3500 BC.

Megalithic structure A construction consisting of large stones of a megalithic character. Based on available evidence, these cannot be classified and can date from the prehistoric or later.

Megalithic tomb (unclassified) A term used to describe any tomb-like structure that cannot be classified as a court portal, passage or wedge tomb. These can date from the Neolithic to the Bronze Age (c. 4000 – c. 500 BC).

Megalithic tomb A general descriptive term that embraces all chambered tombs constructed with stones of megalithic proportion.

Mound An artificial platform, of earth or earth and stone, of unknown date and function which on present evidence cannot be classified as a monument of any type. Tumulus was the alternative term used in Ireland.

Passage tomb A class of megalithic tomb in which the burial chamber(s) is typically set within a round mound, delimited by a kerb of stones that are set contiguous or spaced. Much variation occurs in the number, form and shape of the chambers. Many were embellished with incised art on the structural stones. The predominant burial rite was cremation and they primarily date c. 3300–2900 BC. Regionally, some simpler tombs occur in Carrowmore, County Sligo and date to the Early Neolithic.

Portal tomb (dolmen) A single, short chamber formed by two tall portal-stones, two sidestones and a backstone. The chamber is typically covered by a large roofstone which slopes down from front to back. These were used to inter cremated burials in the Neolithic c. 3800–3200 BC. 'Dolmen' is a traditional French term for any kind of megalithic tomb but is now obsolete although it is still sometimes used to describe the simpler form of megalithic tomb.

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