RECENT WORK ON IRISH PASSAGE GRAVES ART

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Summary

The purpose of this paper is to present some of the results of a recent study of Irish passage grave art — particularly in areas other than the Boyne Valley. We discuss the contrast which exists between the motifs of the non — Boyne Valley passage graves and those of the Boyne Valley, in particular those of Newgrange where a recent study (O'Kelly, C., 1971) has enabled a statistical analysis to be made of the motifs.

Introduction

Over one thousand megalithic tombs are known in Ireland of which some 200 are passage graves (O'Nualláin, 1968). These tombs occupy hilltop sites, often in groups and they are covered by a round mound. Morphologically, they range from small sites with no clear differentiation between passage and chamber through sites with a well defined chamber, many of which have one or more subsidiary chambers or cells opening off the main chamber. Several of the best known sites (Newgrange, Dowth North, Knowth East, Loughcrew T and H) have three cells which are arranged with one on each side of the main chamber and one at the end giving a cruciform plan. The distribution of passage graves is markedly eastern and northern.

A remarkable feature of Irish passage graves is the « art » which is found on the structural slabs of many of the tombs. The art is confined to the north-east with a concentration along the Boyne Valley and thence westwards to the Loughcrew cemetery. One stone carved in classic passage grave art style is known from the south-west.

Decoration is known from the following sites:

Site	N° of dec. stones	Remarks
Boyne Valley County Meath		
Newgrange	96 surfaces 86 slabs	Cruciform tomb (O'Kelly, C., 1971)
Dowth	38 surfaces 36 slabs	Large mound with cruciform tomb (Dowth North) and tomb with single side cell (Dowth South)
Knowth	c. 200	Large mound with cruciform tomb (Knowth East) and simples tomb (Knowth West) and 15-16 smaller tombs (Knowth 2-16)
Site J	2	Small tomb 500 m east of Dowth
Site K	10	Undifferentiated tomb just west of Newgrange
Site LL	6	Cruciform tomb just west of Newgrange
Non-Boyne Valley		
Tara	1	One undifferentiated passage grave
Fourknocks	12	One cruciform passage grave (Hartnee, 1957)
Loughcrew	130	Cemetery on three adjacent hilltops, 12 of the 25 tombs with decorated stones (Conwell, 1866)
County Wicklow		
Baltinglass	6	Two passage graves and smaller tombs (?) built in several phases (Walshe, 1941)
Seefin	2	One passage grave with side cells (Rynne, 1963)
County Tyrone		
Knockmany	9	One simple passage grave (Coffey, 1898)
Sess Kilgreen	6+1	One simple passage grave and a single stone 200 m north-west (Coffey, 1911)

Site	N° of dec. stones	Remarks
County Antrim		
Carnanmore	1	One passage grave
Anglesey		
Barclodiad-y Gawres	5	One cruciform tomb (Powell and Daniel, 1956)
Bryn-celli-ddu	2	One passage grave; one spiral in the chamber is probably not ancient. One decorated stone earlier than the tomb probably executed by the passage grave builders (Hemp, 1930)
Liverpool		
The Calderstones	6	Probably originally a passage grave (Forde-Johnson, 1957)

Fig. 61
Ireland, showing the distribution of Passage Graves and Passage Graves Art.
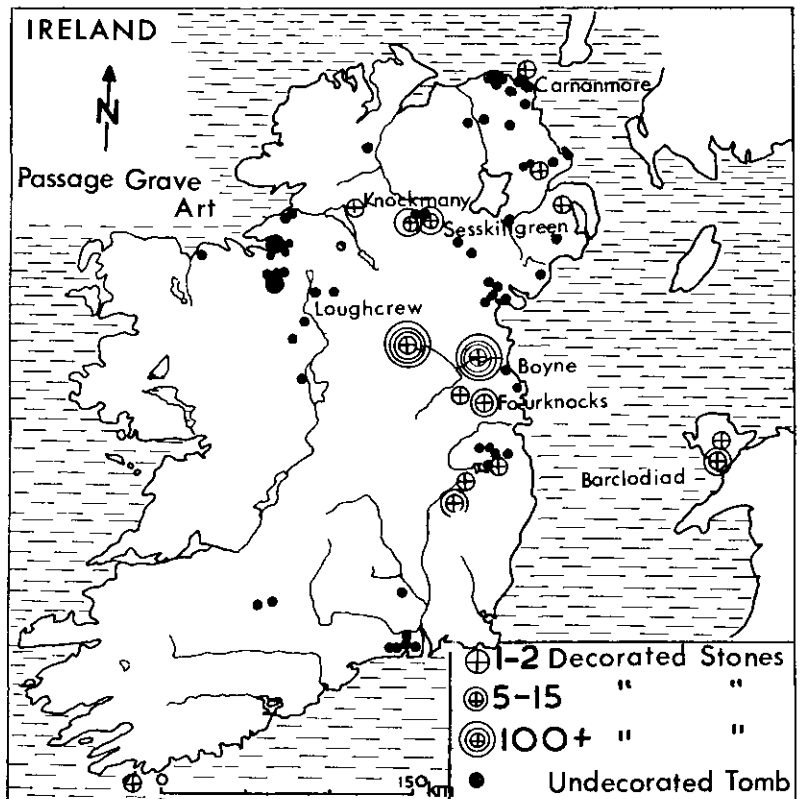
In addition there are several stones, most without any archaeological context which by the nature of their decoration may originally have formed part of a passage grave or at least have beeen carved by passage grave culture people.

Site	N° of dec. stones	Remarks
Kiltierney Co. Fermanagh	2	Lying on a mound now known to be later in date (Wakeman, 1881)
King's Mountain Co. Meath	1	Probably originally site of a tomb
Drumreagh Co. Down	1	No archaelogical context, now in Ulster Museum
Lyle's Hill Co. Antrim	1	From a Bronze Age cairn, now in Ulster Museum (Evans, 1953)
Tournant Co. Wicklow	1	From a mound, now in National Museum of Ireland
Clear Island Co. Cork	1	No archaeological context, now in Cork Public Museum.

Progress in
Irish Passage
grave art
studies

Until recently a sound evaluation of Irish passage grave art was not possible in the absence of a comprehensive *corpus* of drawings. The present writer has now drawn all the known non-Boyne Valley passage grave art (M. A. thesis, presented to University College, Cork, in 1968) and Dowth has also been fully recorded (by Mrs. C. O'Kelly,

forthcoming). The drawings were made full-size by tracing the carvings onto cellophane paper, the field drawings being later copied and photographically reduced to a standard scale of 1:10. Excavations since 1962 at Newgrange and Knowth have revealed new carvings, particularly at Knowth with the spectacular discovery of two large passage graves in the main mound (Knowth 1). Also at Knowth upwards of 15 smaller tombs have been discovered around the main mound, many of which contain carved stones. At Newgrange previously unrecorded art has been revealed on the kerbstones, both on the main faces and on the faces backing onto the cairn. Very well preserved decoration has been discovered on the upper surfaces of the roofstones of the passage and new areas of decoration have been located in the tomb itself. A summary of the discoveries at Newgrange up to 1971 (O'Kelly, C., 1971) has enabled us to show graphically some of the results. Just to the west of the main tomb two smaller sites, K and L, have been excavated and both have revealed some decorated stones (O'Kelly, M. J. and F. Lynch, forthcoming).

Fig. 62
Plan of typical cruciform tomb, Cairn T, Lough-crew, Co. Meath.

LOUGHCREW

T
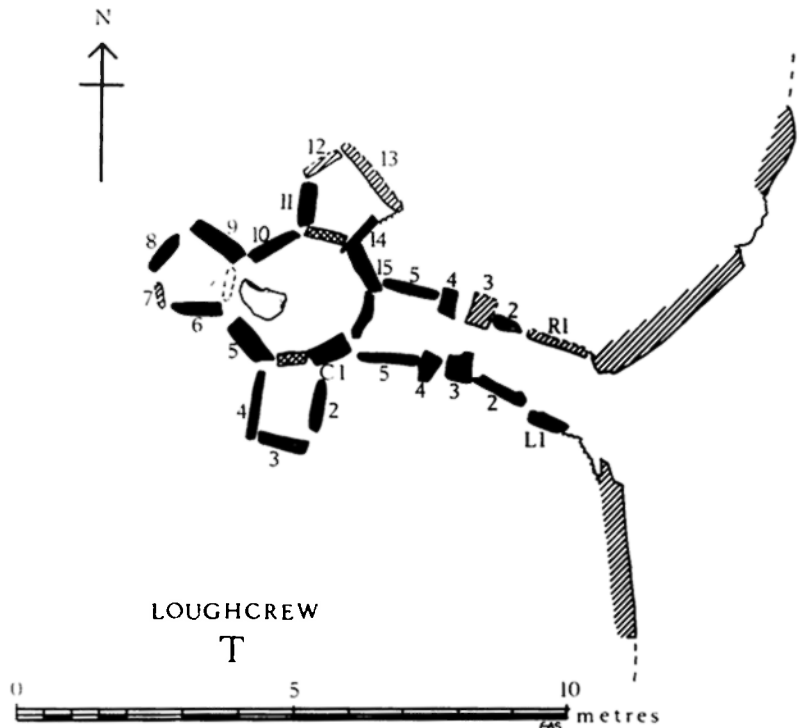
By studying the *corpus* of non-Boyne Valley art it is now possible to analyse quantitatively the motifs used. When this analysis is compared with a similar analysis of the Boyne Valley art and especially with the art of Newgrange a strong contrast emerges, a contrast which can be seen also in regard to techniques employed and to a certain extent in regard to styles. I have dealt elsewhere with the question of techniques so they will not be discussed in detail here (forthcoming in Occasional papers of the Jutland Archaeological Society).

System of annotation and lettering of the stones.

At Loughcrew the cairns are differentiated by letter, following the original scheme of Conwell (1866). In the Boyne Valley the minor sites were first given letters by Coffey (1892-6 and 1912) and his system has been retained in recent studies (O'Ríordáin and Daniel, 1964 and O'Kelly, C., 1967 and 1971).

In annotating the drawings a standard system has been used. In the tombs the stones are numbered from the entrance inwards, prefixed by the letter L for those on the left of the passage and by the letter R for those on the right. In the chamber the stones are numbered clockwise, beginning at the left of the entrance and are prefixed by the letter C. Kerbstones (K) are numbered clockwise from the entrance. Corbels (Co) are numbered by the structural stone over which they are situated; roofstones (RS) are numbered inwards from the entrance.

The motifs

It has been found that sixteen basic motifs recur throughout the passage grave art in Ireland. It is sometimes difficult to distinguish between one motif and another and there are also sub-groups of motifs which arguably merit being treated as independent motifs. Nevertheless, these sixteen motifs seem to be the most important and sub-groups would probably complicate the picture unnecessarily. The drawings here presented give a better impression of the decoration than could be achieved by a detailed description of each stone. We will discuss briefly each of the sixteen motifs and then consider the significance of their relative frequencies which we have set out in tables 1 and 2.

1. The single circle

The single circle is the commonest motif, both at Lough-crew and at other sites outside the Boyne Valley. The motif varies considerably in size and to a certain extent in shape. It is often difficult to distinguish between a badly made circle and an oval or a lozenge or even a simple spiral. The circle generally encloses a cupmark or dot. Single circles are not found very commonly in the Boyne Valley except at Dowth and on the roofslabs and on the backs of kerbstones at Newgrange. They are found on the kerbstones of Knowth 1 and on several of the smaller tombs at Knowth, notably on the small cruciform tomb to the south of Knowth 1.

2. Concentric circles

They are very common outside the Boyne Valley. There may be up to six concentric circles, often enlarged by arcs. Many have a central dot or cupmark. At Sess Kil-green 6 two sets of large arcs imbricate on the circles and this feature is found also on Loughcrew L C16 but

Fig. 63
Loughcrew, Co. Meath, Cairn L, C16, largest deco-rated stone at Loughcrew.

Loughcrew L c 16
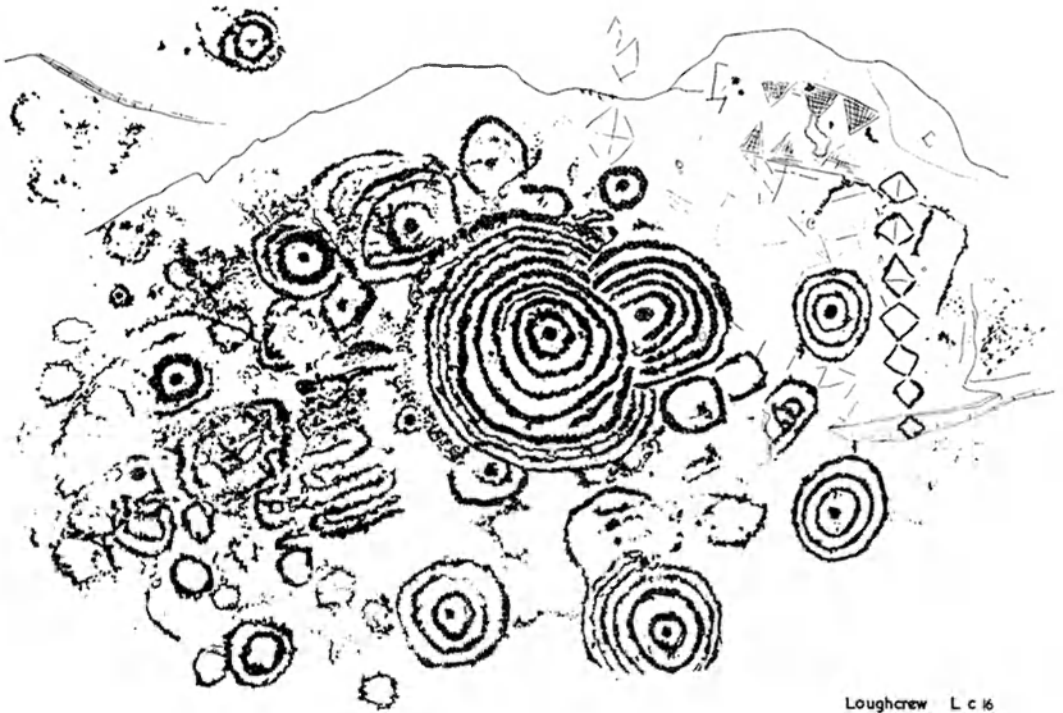
with only one set or arcs. Concentric circles are found in the Boyne Valley, particularly at Dowth and on the kerbstones of Knowth 1 but less commonly at Newgrange where they are also found mainly on the kerbstones.

3. *Radial motifs*

Patterns developed from radial lines or from « flower petals » are found commonly at Loughcrew but only on three other stones outside the Boyne Valley. In the Boyne Valley the motif is found commonly at Dowth but infrequently at the other sites. A large number of individual patterns can be found, such as simple radiating lines with a central dot, with a central dot-circle or central dot; they are sometimes enclosed in an outer circle and sometimes the radiating lines are replaced by a radial pattern of loops, like petals in a flower.

4. *The spiral*

A spiral may be seen to be clockwise or anticlockwise by tracing its revolutions outwards from the centre. There are 28 spirals outside the Boyne Valley, 19 of these being found at Loughcrew. A notable feature of the spirals outside the Boyne Valley is that many spring from a central circle or from a central dot, the commonest type being the clockwise spiral springing from a central circle (11 examples) but there are also 9 examples of the plain anticlockwise spiral. Only two double spirals are found outside the Boyne Valley and both are anticlockwise (Clear Island and Loughcrew I C5). In the Boyne Valley the spiral with central circle is found less commonly than outside the Valley (Dowth, kerbstone at entrance to South chamber, Dowth North C7 and Dowth South C8 and C12, Newgrange K18 back, Knowth 1 K42 and K50 and Site L, one example). There are a few examples of spirals in which the external free end swings in to touch the next coil of the spiral, making the motif neater-looking (eg. Loughcrew T R2). Spirals do not form a dominant part of the passage grave art repertoire except at Newgrange and Knowth where some of the most sophisticated decorated stones use the spiral motif, either singly or doubled. Stones K1, K52, L19 and C10 at Newgrange are generally regarded as the best examples of passage grave art and

Fig. 64
Clear Island, Co. Cork. Isolated stone without archaeological context, decorated in passage-graves art style.

25 cm

all have spirals as the dominant motif. Outside the Boyne Valley only the King's Mountain stone utilises the spiral motif so effectively although the Clear Island stone and Barclodiad-y-Gawres C3 (Lynch, 1967, fig. 4) are well designed.

Fig. 65
*King's Mountain, Co. Meath. Isolated stone, probably originally part of a passage-grave (width max. cm. 87,5).*

5. *Single U motif*

Fifty stones at Loughcrew exhibit the single U motif. The simplicity of the motif makes it difficult to discuss but it should be noted that both U motifs proper and arcs which are less than a semi-circle are included under this heading because of the difficulty of separating them. It is difficult to know if both were of the same significance to the carver. The U motif is found enclosing a dot or circles and sometimes what now appears as a U motif may have been intended as a full circle. U motifs are found set upright or inverted and only rarely are they set with the open part to the side. The largest number of single U's to be found is on Loughcrew F C1. The simple U's at Carnanmore are closely similar.

There are few examples of the simple U in the Boyne Valley, apart from Knowth where the motif may be found on many of the kerbstones of the main mound. A small example occurs on the principal decorated stone from Site L.

Fig. 67
Carnanmore, Co.
Antrim. One of
the chamber cor-
bels from the
roof, with the up-
per surface sho-
wing U motifs,
serpentiform and
concentric circles
(width cm 111,5;
height cm 52,5).
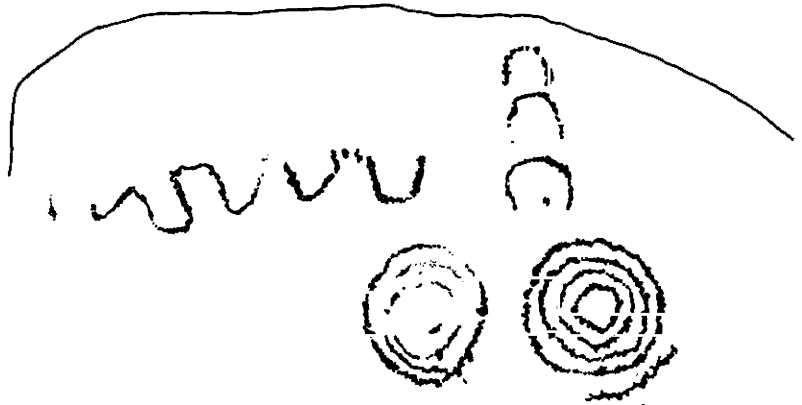
6. Boxed U motif

This motif occurs on 49 stones at Loughcrew and on 13 other stones outside the Boyne Valley. The number of boxed U's may vary from 2 (on many stones) to 12 on Loughcrew L L3. They vary considerably in size and shape but like the single U are almost invariably set either upright or inverted: however, on the stone from Tara, there are three boxed U's opening towards the left. There are several examples of boxed U's imbricating on other U's or on other motifs, best known from Loughcrew U C3 and Sess Kilgreen 6. The motif is found very frequently on the kerbstones of Knowth 1 where a variety of

Fig. 68
Tara, Co. Meath,
Second stone on
left of passage in
tomb, very simi-
lar to Loughcrew-
type art (width
max. cm. 132,5;
height cm 105).

Fig. 69
Knockmany, Co.
Tyrone, Stone 6.
Edge of stone, set
radially in cham-
ber. Note horizon-
tal parallel lines
at the middle of
the stone and
arcs and U mo-
tifs at top. Other
indeterminate
motifs (height
cm 125; width
cm 30).

examples may be found including a set of incised U's on K5. It is also found on the top of R33 at Knowth 1 West (Eogan, 1967, Pl. XLI, middle). In Knowth 1 East there are several examples of boxed U's notably on the backstone of cell 3, the central D-shaped parts of the U's being solidly picked. At Newgrange several well executed examples may be seen on K52 and on K1, the « entrance stone ». On the back of K91 there is a set of concentric circles with impinging boxed U's. Several examples of boxed U's are known at Dowth and on the stone from Dowth townland (O'Kelly, M. J., 1967, Pl. 2, right) and on C1 and C2 of Site K.

7. Ovals

There are 24 ovals at Loughcrew and seven at other sites outside the Boyne Valley. They may be single or boxed. Ellipses and stirrup-shaped motifs (flattened at the base) are also included under this heading because it is often difficult to decide whether a particular motif is an oval or just a slightly mis-shapen circle. The oval often encloses other motifs, particularly dots and cupmarks. Several offset motifs are fully or partly enclosed in an oval frame, eg. Loughcrew H K7, L C13 (south), T C8, etc., while a stirrup-shaped frame encloses a spiral on H R2.

Ovals occur in the Boyne Valley as at Newgrange K52 where there are three beautfiully executed double oval cartouches, each enclosing three cupmarks. There are boxed ovals on the roofstone of cell 3 and simple ovals on the back of K13. Ovals are found at Dowth North R4 and at Knowth 1 K42, (Eogan, 1968 a, Pl. 6, middle row left) and on K48.

8. Parallel lines

Parallel lines are frequently found in non-Boyne Valley passage grave art, occuring on 35 stones at Loughcrew and on 7 other stones. Parallel lines may be horizontal (eg. Knockmany 6, Loughcrew I R2 etc.) or vertical or sloping. Some are very long (eg. Loughcrew H R2), others very short. At Knockmany parallel lines are found on 6 of the 9 decorated stones where they are used for several panels of ornament.

In the Boyne Valley parallel lines are often incised and sometimes they are clearly a lay-out for a picked panel. Only at Dowth are there picked parallel lines of the same type as the non-Boyne Valley examples. (Dowth North C7 and Dowth South C12). The incised examples include parallel lines on a loose stone found on the roof near roof slab 15 (Stone Z, O'Kelly, C. 1971, p. 55) on stone Y, over roofslab 15 (O'Kelly, M. J., 1968, pl. VIII), and on an orthostat of site K (although these last might not be ancient). At Knowth 1 there are incised parallel lines on

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K1 and K5 and elsewhere and they are also found on Fourknocks R2 and R5.

9. *Offset motif*

Outside the Boyne Valley the offset motif is found only at Loughcrew where it occurs on 16 stones. Several versions of the motif may be found; offset lines set at right angles or at acute angles to a base line. Often the motif is enclosed in an oval or a stirrup-shaped frame. Examples: (all Loughcrew, H K7, IC13 (south edge), S L4, T C8, T C14, T RS cell 2, W C4).

In the Boyne Valley the motif is not at all common but may be found at Newgrange on the back of K13 and on the end of K91 (incised). Although there is no picked base line on the « fir tree » of C4, the artist utilized a natural ridge on the stone as the base line and so the design may be regarded as a version of the offset motif. The so-called « ship » pattern on the same stone is also an offset motif, particularly comparable with a motif on Loughcrew T cell 2 roofstone. The motif is found at Dowth on the well-known decorated kerbstone to the east of the mound (Leask, 1933, fig. 3) and on Dowth North L5. At Knowth 2 there are three examples of the motif on the inner face of orthostat 8, (Eogan, 1968 b, fig. 29).

10. *Lozenge*

Lozenges occur on 15 stones at Loughcrew and on 5 other stones outside the Boyne Valley. The lozenge may be found detached or it may be arranged to form panels, this latter type being more common in the Boyne Valley and Fourknocks. Panels formed from rows of contiguous lozenges are found on Fourknocks R5 east and at Loughcrew on F R2, L C19 (east) and L C19 (west). Outside the Boyne Valley these panels of lozenges are rare and far more irregular than in the Boyne Valley. Simple lozenges are sometimes divided by a horizontal or vertical line (Loughcrew L C16), or by both, making a quartered lozenge (Loughcrew, L C16 top right, incised).

In the tomb and on some of the kerbstones at Newgrange « the lozenge-cum-triangle motif predominates over the others » (O'Kelly, C., 1971, p. 106). There are simple
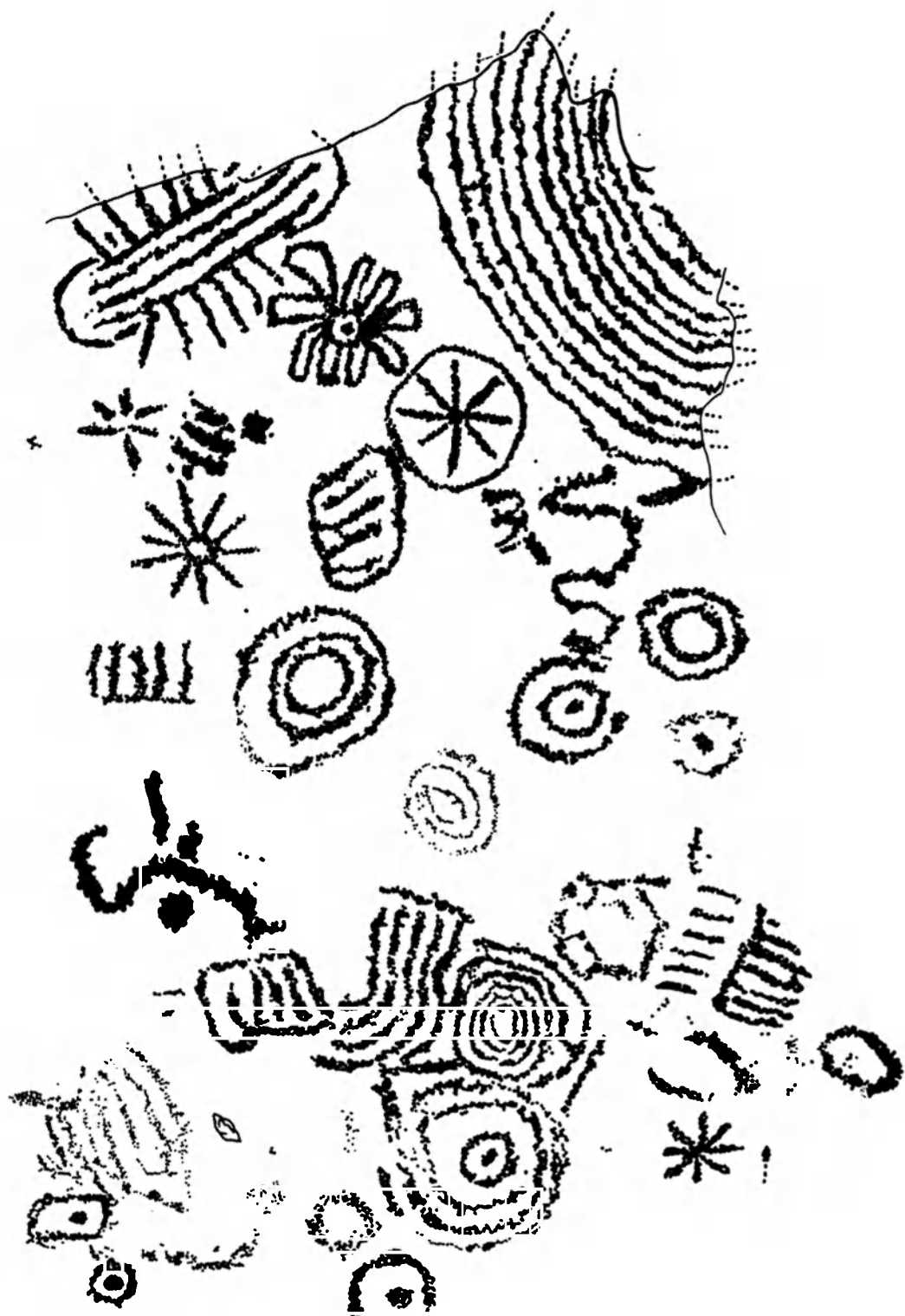
lozenges, picked (K67) or incised (Stone Y) and lozenges which are solidly picked all over (Col/C15-16, K67, K52), picked on one half (R21) or on two opposite quarters (L15). Ordinary contiguous lozenges (back of K13) are most comparable to Loughcrew. At Dowth there are panels of solidly picked lozenges (Dowth South, C6, Lynch, 1967, fig. 9) and a simple lozenge on the back of a kerbstone (Leask, 1933, fig. 4). At Knowth 1 there are a few lozenges on the kerbstones and panels of picked lozenges in both chambers.

11. *Zigzags*

Zigzags occur on 21 stones at Loughcrew and on 5 other stones outside the Boyne Valley. It is sometimes difficult to distinguish between this motif and motif no. 12, the serpentiform, the basic difference being that the changes of direction of the line are angular in the zigzag and curved in the serpentiform. In many cases the zigzags are arranged with the angles of two rows touching, so that lozenges are formed between the rows. (Loughcrew U C8, upper). Single zigzags are not common unless being used to frame other motifs eg. Clear Island. The lines of the zigzags are slightly curved on the lower part of U C8 and on the face of Fourknocks, stone A (Hartnett, 1957, Pl. LXXVII, 2).

Zigzags are common at Newgrange where they are frequently used in conjunction with lozenges (Col/C2). Some solidly picked zigzag bands occur (L22) and there is a good panel of parallel zigzags on K93. At Dowth the only examples are C6 and C7 in the southern tomb, two stones which have nothing at all in common with the rest of the decoration either in Dowth South or Dowth North (Lynch, 1967, figs. 9 and 10). The motif is found at Knowth, both in Knowth - East and on the kerbstones although not very commonly. It is also found in Knowth 2, orthostats 8 and 10.

12. *Serpentiforms*

Serpentiforms are found on 31 stones at Loughcrew and on 6 other stones outside the Boyne Valley. It should be stressed that the term is used for convenience of reference

Fig. 72
Loughcrew, Co.
Meath, Cairn T,
second stone on
left of passage
(L 2) (height cm
83, width cm 95).

only and it is not intended to imply that a real serpent is represented. Serpentiforms are found singly - Carnanmore, Loughcrew H C14, or they may be grouped. In the Boyne Valley the serpentiform motif is found most frequently at Knowth, particularly on the kerbstones of Knowth 1, K3, K28, K30, K39, K40, K43, K69, etc., many of these serpentiforms having somewhat angular curves. At Newgrange serpentiforms occur on 19 stones, principally on kerbstones (see table 2) but they may also be seen on the roofstone of cell 3 and on roofslab 3. Dowth has examples of serpentiforms in both tombs.

13. *Triangles*

Triangles are found only on four stones at Loughcrew and on the Lyle's Hill stone in the non-Boyne Valley group. All these examples are either incised or solidly picked.

In the Boyne Valley most of the triangles are solidly picked but some are incised. Six surfaces at Fourknocks exhibit triangles, usually forming part of a large decorative panel eg. Fourknocks F. Frequently triangles are

formed by solidly picking one half of a lozenge. Examples of triangles at Newgrange are K18 back, K52, K67, K88, R8 and C16. At Knowth 1 one of the orthostats of the western tomb has overall decoration based on the triangle (Eogan, 1967, Pl. XLIII), while Knowth 2 orthostat 8 has several examples of solidly picked and ordinary triangles. At Dowth triangles are found only on one of the two atypical stones already referred to in the south chamber (C6).

14. *Chevron or V motif*

This motif is found on only two stones at Loughcrew (L C17, south, and I C1, west). It occurs equally rarely at the other non-Boyne Valley sites. It is more common in the Boyne Valley, occurring 10 times at Newgrange and at Knowth 1 on K69 and on orthostat 8 of Knowth 2. It occurs on the kerbstone at Dowth which is diametrically opposite the entrance to Dowth North (Leask, 1933, fig. 3).

15. *Cupmark*

It is estimated that cupmarks occur on 24 stones at Loughcrew and on 8 other stones outside the Boyne Valley but there can be difficulty in differentiating between artificial cupmarks, natural hollows deepened by picking and natural hollows which have become a little weathered. There may also be difficulty in deciding whether a particular motif is to be classed as a large dot or a small cupmark.

Cupmarks are often enclosed by one or more circles, or more rarely by a spiral. Cupmarks are not found commonly in the Boyne Valley but some good examples may be seen on the back of K13 at Newgrange. Cupmarks are found at almost all the rock-art sites, and on the capstones of some wedge-shaped gallery graves in the southwest of Ireland but they do not seem to occur in isolation on passage graves in Ireland, although they occur commonly on capstones of passage graves in Brittany and Portugal.

16. *The dot*

The dot occurs on approximately 53 surfaces at Loughcrew and on 13 other surfaces outside the Boyne Valley. Most of the remarks about cupmarks apply also to dots but

they are also used between radial lines or at the end of rays. In the Boyne Valley they are not common except on the roofstones of Newgrange where the dot-and-circle and the islolated dot occur several times.
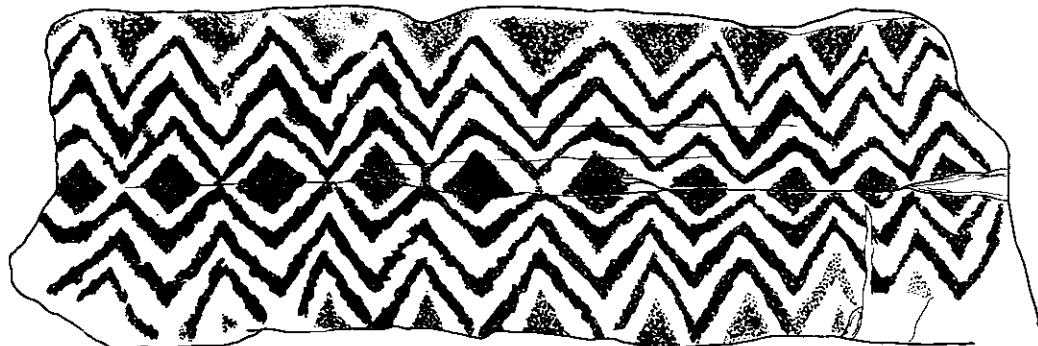
Tabulation of the motifs

In Table 1 we show the frequency of occurrence of the Loughcrew and non-Boyne Valley motifs by contrast with those of Newgrange.

The order of frequency at Loughcrew is: circle, U, Boxed U, concentric circle, dot, cupmark. At the other non-Boyne Valley sites the order is much the same being, circle, cupmark, concentric circles, boxed U, U and spiral. By contrast the Newgrange order is lozenge, circle, spiral, zigzag, dot and concentric circles - lozenges and zigzags being notably present here and absent from the non-Boyne Valley sites. The U occurs rarely at Newgrange as do the offset motif and parallel lines, while they are common at Loughcrew. The second table gives a further breakdown of the Newgrange decoration according to its position in the tomb. It is clear that the kerbstones and the « hidden ornament » (on the upper surfaces of the roofslabs and on the backs of the kerbstones) exhibit a range of motifs closely similar to those of the non-Boyne Valley sites. The motifs on the orthostats and on the displayed edges of the corbels in the tomb are notably different, showing a dominance of lozenges, zigzags and triangles in addition to spirals - see C. O'Kelly, (1971, p. 106-108) on this subject.

*Fig. 73
Fourknocks, Co. Meath, Stone F, lintel over cell 3, showing very well organised ornament like that of Newgrange, and unlike Lough-crew and other non-Boyne Valley art (width max. cm 150, height cm 50).*

Curiously, the same contrast between displayed and hidden ornament may be seen at Fourknocks, though to

motifs	ORTHOSTATS	CORBELS	ROOF	KERBSTONES	K. BACKS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

a lesser extent because there are fewer decorated surfaces. Of the 11 decorated surfaces two were not intended to be seen (corbel D and the main surfaces of stone A). Both of these exhibit haphazard decoration involving circles and serpentiforms. The displayed surfaces exhibit lozenges, triangles and zigzags, always well placed and conceived as an overall design taking up most of the available surface.

Conclusions

Stylistically also one can see a difference between the non-Boyne Valley art and the hidden ornament at Newgrange and Fourknocks on the one hand and the Newgrange and Fourknocks official ornament on the other hand. In the first group the motifs are disposed on the stone in a random fashion. Only rarely (eg. on the Clear Island stone) is there any attempt to carry out an overall design or to arrange the motifs in an ordered fashion. This haphazard placing of motifs leads one to deduce that the motifs were inherently significant for the carvers but that their placing on the stone or their relation to one another was unimportant. By contrast the main art of Newgrange, Fourknocks and Knowth is planned and executed as an artistic entity.

In considering the problem of the contrast in styles and motifs which we have set out above we are faced with finding an explanation for the phenomenon. One
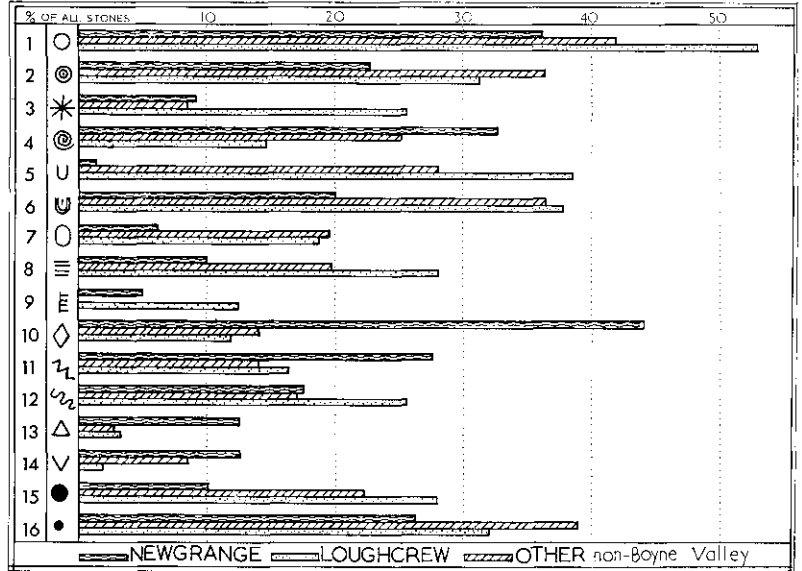
ERRATA

Fig. 75

*T a b l e showing
the number of
occurences of
each motif at
Newgrange a n d
its position in the
tomb.*

asks first if one style did not develop from the other. At Newgrange evidence from the recent excavations show that some at least of both the official and the hidden ornament was executed during the building of the tomb and therefore that both types of art were contemporaneous. The magnificent entrance stone (K1) was carved *in situ* and one can actually see that the decoration was stopped short along the line of the old ground level. Similarly, the decoration on the upper surfaces of the roofstones was done *in situ*, as one can see that some of the decoration was carved after the rainwater channels, which themselves must have been carved *in situ* because they are arranged so that the water can flow along the channels from one stone to the next. The stones were covered with cairn material when the tomb was completed so it cannot be argued that the decoration was added at a later date. At Newgrange one might then argue that the hidden ornament, seemingly less competently executed, was done by less skilled craftsmen, perhaps by the site labourers, trying their hand at ornamentation. The fact nevertheless remains that the motifs are very different from those of the official ornament, and so they are not simply unskilled copies of the good ornament but something in their own right with close connections with non-Boyne Valley art.

For the moment the problems remain to be solved. Clearly, a simplistic explanation of evolution or devolution will not suffice in view of the complexeties we have outlined here.

Radiocarbon dating and Passage graves

So far only four Irish passage graves have been dated by the radiocarbon method and in the case of three of these the dates obtained were for charcoal *under* the mound. Thus while providing a *terminus ante quem* they do not date the erection of the monument (with the possible exception of one of the dates from Tara). The most reliable dates are those for Newgrange where two dates were obtained from charcoal incorporated in a putty-like mixture of sea sand and burnt soil which was used to block the interstices between stones of the roof. The dates agree well with each other and as the samples were obtained from different parts of the tomb (at the junction of the passage and chamber and from two places in the roof along the passage) one may regard them as reliably dating the erection of the tomb, in radiocarbon years. The dates are as follows:

Site	Lab. No.	dates B.C.
Newgrange, Co. Meath.		
1. Under cross lintel in roof, between passage and chamber	GrN 5463	2465± 40
2. At each end of roofslab 3	GrN 5462	2550± 45
Tara, Co Meath. (all charcoal)		
1. Burntsurface under cairn	D43	2310±160
2. Fill in a pre-cairn ditch	D42	2130±160
3. Fire near entrance, partly on Old Ground level, and partly in the cairn	D44	1930±150
Knowth, Co Meath, satellite tomb (all charcoal)		
1. Under passage grave mound	UB 318	2925±150
2. ditto.	UB 319	2845±185

Site	Lab. No.	dates B.C.
Townley Hall, Co. Louth Charcoal from habitation site under passage grave cairn	BM 170	2730±150

In Brittany a number of passage graves have been dated by radiocarbon and from these it would appear that the practice of erecting passage graves there goes back to the early 4th millenium in radiocarbon years. There are dates from Barnenez, Gaignog and Kercado before 3500 and the later dates for Ile Carn, Ile Bono, Kerleven, Mane Kernaplaye and Goërem show that passage graves were being built into the 3rd millenium.

Site	Lab. No.	dates B.C.
Barnenez, Ploezhoc'h, Finistère		
1. Chamber G, sealed	Gif 1309	3800±150
2. Chamber A, fill	Gif 1310	3500±150
3. Chamber F, earliest use	Gif 1556	3600±160
4 Chamber F, higher in fill of passage	Gif 1116	3150±140
Ile Gaignog, Landéda, Finistère		
1. Cairn III tomb C	Gif 165	3850±300
2. Cairn III tomb B	Gif 164B	2400
Kercado, Carnac, Morbihan		
1. Charcoal from old excavations	SA95	3890±300
Ile Bono, Finistère		
1. Lowest charcoal in chamber	Gsy 64	3245±300
Ile Carn, Finistère		
1. South chamber	Gif 1362	3440±150
2. Central chamber	GrN 1968	3280±75
3. North chamber	Gif 1363	2890±150
Kerleven, Finistère		
1. Chamber B	Gsy 111	2875±125

Site	Lab. No.	dates B.C.
Mané Kernaplaye, Morbihan		
1. Charcoal from old excavations	Gsy 88	2835 ± 125

In Iberia the only decorated tomb dated by the radio-carbon method is that of Carapito, Beira Alta (Leisner and Ribeiro, 1968), while the dates from the similar tomb of Castenairos, also in Beira Alta compare well with them.

Carapito, Aguiar da Beira, Beira Alta.		
1. Charcoal, lowest layer in chamber	GrN	2900 ± 40
2. Charcoal in chamber, nearer entry	Hv	2640 ± 65
Castenairos, Frágoas, Vila Nova de Paiva.		
1. Burnt cork, lowest layer in chamber	GrN 4924	3110 ± 50
2. Slightly higher layer, burnt cork	GrN 4925	2660 ± 50

The only other Iberian tombs dated are *tholoi* in the south, and give dates centring on 2000 bc and need not concern us here.

While the Iberian and Irish dates seem to correspond well it can be seen that the Breton dates are consistently earlier. This apparent anomaly may be due to the fact that so few Irish and Iberian tombs have been dated and it would appear wisest to reserve any conclusions until further dates are available from these areas. If further dates are no earlier it will be necessary to consider seriously if the Breton passage graves are not in fact the earliest megalithic tombs in Atlantic Europe.

RIASSUNTO   Questo articolo ha lo scopo di presentare qualcuno dei risultati di un recente studio sull'arte delle tombe a corridoio irlandese. L'autrice vi discute il contrasto tra i motivi delle tombe a corridoio di diverse regioni e quelli delle tombe della valle di Boyne, in particolare quelli di New Grange, dove dei recenti studi (O'Kelly, 1971) hanno permesso un'analisi statistica dei motivi.

RÉSUMÉ   Cet article a pour but de présenter quelques uns des résultats d'une récente étude sur l'art des dolmen à couloir irlandais. L'auteur y discute le contraste qui existe entre les motifs des dolmen à couloir appartenant à diverses régions et ceux des dolmen de la *Boyne Valley*, en particulier ceux de New Grange où une récente étude (O'Kelly, 1971) a permis une analyse statistique des motifs.

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