

National college of Art and Design Department of Industrial Design

# THE DEVELOPMENT OF THE SPIRAL AS AN IRISH DESIGN MOTIF FROM THE NEOLITHIC PERIOD TO THE MIDDLE AGES.

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Credits are abbreviated as follows: MAI (Megalithic Art in Ireland), MCEI (Metal Craftsmanship in Early Ireland), ECAI (Early Celtic Art in Ireland), TIC (Treasures of Ireland Catalogue). These books did not credit the photographers that they used and although efforts were made to find the originals it was not often possible.

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#### INTRODUCTION

A quick journey around the world to all of the early centres of civilisation will show very clearly how we, homo sapiens, have always been fascinated with shapes. There is no documented civilisation that has not copied and explored the basic geometric forms of the square, the triangle or the circle. Different civilisations have treated these forms in different ways according to their development but their experiments with them have often survived in the architecture and decoration of the period. The Egyptians, the Inca's and the Aztec's left us their pyramids and drawings, the Romans and Greeks left us their sculptures and carved arches, amphitheatres and their temples while the Indians, Middle Eastern and Far Eastern nations left us their particular types of decorated architectures. This is not to say that these civilisations only created single things but that with, and on, the architecture that they left behind they demonstrate man's exploration ,even obsession, with geometric forms.

There is a huge diversity of influences for all of these forms but the majority arise from observation. This includes both physical, earthly objects such as plants etc. and astral phenomena such as star constellations and the sun and moon. The sun is a common source for the circle and it is often surrounded in myth and treated as a deity. It is not surprising then that symbols of the sun appear in very prominent places on the earlier monuments of the Aztec, Inca, Egyptian and far eastern civilisations. The same is true of the moon in Turkish and Middle Eastern cultures and while the Greeks and the Romans had anthropomorphic deities their civilisations evolved later.

And after looking around the world at the beginnings of civilisation the weary traveller returns back to his homeland, a small island on the western edge of Europe, to find that he too is surrounded by some of the earliest great works of man, the Irish megalithic passage mounds, dating from around 2500 BC. A closer look at these extraordinary constructions reveals that they too have their very own geometric art. There are nearly 1400 megalithic sites spread around Ireland. Many of these can be grouped in what is loosely termed cemeteries. Cremated remains have been found in all of the mounds but it can be shown that burials were only a small part of their over all function. Archaeologists are still unsure of what exactly this was but as George Owen points out,

'Indeed the erection of a medium-sized Passage-tomb was a costly undertaking that faced a society, even a stable and prosperous one, with a major investment which demanded co-ordination of the various components of social life, especially those of intellect, organisation and technology.'

He is referring to the fact that it could have taken thirty years to build Newgrange and that is only one of three tombs of its scale in the area. The organisers would have had to keep their workforce and their families fed, they would have had to organise the mining and transport of materials as well as ensuring that the construction would stand. It is evident that the Neolithic inhabitants of Ireland were a very complex civilisation and it is important to remember this when looking at what they left behind them.

One of the most interesting aspects of these mounds is the art that decorates the stones. Ireland has the most accomplished examples of megalithic art, the majority of which can be found at the Boyne valley cemetery in Co. Meath, and it is here that the now internationally famous symbol of Ireland, the spiral, can be found and traced from one of its earliest occurrences to its ultimate execution in stone.

Ireland does not have the first traceable spiral. There are contemporary examples on the living rock in western Iberia but it was not taken directly from there to Ireland and it is thought that there is an earlier tradition that is the common founder of both,

' It is likely that behind the Irish and Iberian traditions of Megalithic art there lies a deeper ornamental pool from which both drew inspiration. In the earlier neolithic cultures of south-eastern Europe, from about 6500 BC onwards, various objects were decorated using a repertoire that included the ornamental elements that emerged later as the common denominator between Irish and Iberian art.<sup>2</sup>

With this statement Dr. O'Sullivan, a noted Irish archaeologist, is suggesting that it is possible that these artefacts were traded among these groups or that the craftsmen may have moved from place to place and therefore spread their designs and influenced the craftsmen of the different communities. This would explain how common motifs can appear in different places and within different compositions and this interchange of ideas constantly occurs throughout the history of art and design without undermining the individual craftsman's integrity or creativity.

# Section 1

## 1.1Definition of a spiral

A spiral is a geometric form created by drawing Two centres half the distance from each other as the distance required between the arcs of the spiral. Starting with one centre draw the minimum radius arc with a compass. Increase the radius by the distance between the centres and draw the next arc from the end of the first using the second centre point. Widen the radius by the same amount and draw the next arc using the first centre. Repeat this process until the spiral is the



required size. Opposite is an example of a spiral showing its construction. The different colour arcs relate to the different colour centre points.

Another way of making a spiral is to place a magnifying glass over a piece of paper and expose to the sun at the same time every day for 365 days. This will give an example of a S-scroll spiral which is very similar to kerbstone 67 at Newgrange (See below). Michael Brennan uses this similarity along with other design/astral similarities to put forward a hypothesis on the origins of the Neolithic designs found at Newgrange. This and other ideas will be discussed later in section 1.4.



A simple description of a spiral is a line that starts at a centre point and works its way outward in a circular motion with a uniform increase in the radius of the circle. The design is quite a complicated form to produce, even on paper, and so it should be realised how difficult it would have been to carve out of stone or form in metal with any degree of accuracy yet there are no badly executed examples to be found. This indicates the degree of 'attention to detail' that has been maintained throughout the history of the Irish craft tradition even from its conception in the middle of the third millennium before Christ. It is possible that bad examples were subsequently destroyed but no evidence of this has been found anywhere although examples of trial pieces have recently come to light.

## **1.2 Neolithic Stonework**

There are two main techniques that were used by the artists who worked on megalithic tombs. These are incision and picking. Incision is where the artist scraped a pointed implement across the face of the stone cutting a thin line into it. The highlighted part of the photograph of kerbstone 13 from the main tomb at Knowth (below left) is a good example of this technique. While there are a lot of examples of this technique, the compositions have a very sketch-like appearance and they do not seem to be as developed as those of the picked variety. Picking is by far the more popular technique of the two and the range of different forms that have been drawn by this method shows that it has been explored more thoroughly than incision. There are various forms of picking including 'pick dressing' (below centre) which is where the artist has tried to smooth or alter the shape of the stone, 'area picking' (below right) is where the artist has removed an area of stone to highlight the parts that are left untouched and picking was also used to pick out the lines of the designs. It can be seen from the types of marks that make the designs that at least two



PL.4 Kerbstone 13 Knowth site 1 PL.5 Corbel 33 Knowth 1 west

PL.6 Orthostat 41 Knowth 1 west

types of tool were used, a punch and a chisel although no examples of any type of tool have been found.

There is a definite progression of styles in the art of megalithic tombs. This is evident from the fact that some designs over lap others on the same stones and designs were found on the backs of stones indicating that they were applied before the stones were put into place while others terminate at ground level indicating that they were applied after the stones were erected. The classifications for the various styles is a subject that has been well documented by various archaeologists, but it has always been classified by the composition of motifs. This is because it is impossible to place a time span onto the different designs or group them into particular artists. These tombs could have been used in rituals for over a thousand years and all that the modern observer can do is speculate about what the designs mean and how many artists worked on them. It is certain that they had a very important symbolic meaning but it is difficult to tell whether the designs are random or structured or whether they are there predominantly symbolic or visual. The archaeologists have grouped the designs by looking at which types of motifs and compositions recur and they have placed these into styles. These styles include angular, rectilinear, serpentiform, circular, random and spiral. Not all of these styles refer to the spiral but they are important to know about in the overall assessment of the meaning and ability of the artists.

Most of the archaeologists who worked on or studied the art from megalithic tombs have developed some form of system of categorising the types of designs. Claire O'Kelly used ten different categories, Elizabeth Shee Twohig used eleven while Professor Eogan, the instigator and head archaeologist at the Knowth excavation, gives sixteen different styles in his description of the art of Knowth. Only a few are relevant here. These are; angular spiral, spiral, prominent central motif, lavish and random. Eogan goes on to give a detailed description of each of these styles and their occurrences. Dr. O'Sullivan gives much broader categories and it is by combining these two approaches that the development of the spiral motif can be traced. Dr. O'Sullivan divides the motifs up into two distinct styles. The first, and earlier style he calls the 'standard insular style'. This is where there is a basic two dimensional composition of a couple of different motif are laid out in a simple arrangement on the surface of the stone using the picking technique. This style refers to Eogan's styles of random and



PL.7 Kerbstone 5 Knowth site 1

prominent central motif among others. This style is used to decorate kerbstone 5 at Knowth site1 (above). The artist has had trouble with the contours of the stone but has applied the designs onto the side in a flat composition. The other style, according to O'Sullivan, is the 'plastic' style. This is his term for 'area picking' and as he says it is derived from the fact that area picking

'displays a remarkable sympathy for the configuration of the surface on which it occurs. Because of this sculptural quality it is termed a 'plastic' style. This style aspires towards visual grandeur and was apparently created to enhance the architectural impact of the structure.'<sup>3</sup>

This latter assumption may be unfounded as Eogan, O'Kelly and Shee Twohig all agree that there is only a passing relationship between the art and the architecture and that there are only a few instances where the stones have been shaped to fit or rounded for construction purposes and all of these occur inside the tombs on lintels or orthostats. It is therefore unlikely that the artist was considering the visual impact of his work in relation to the whole tomb from an aesthetic perspective. It is probable, however, that he wanted to perfect the visual impact of the design itself and this idea is strongly supported by the



PL. 8 Kerbstone 1 Newgrange site 1.

kerbstones of Newgrange. Possibly the most famous example of the neolithic stone spiral is on kerbstone 1 or the entrance stone at Newgrange (see above). This is an angular spiral composition and a masterpiece of neolithic design and craftsmanship. It shows clearly what is meant by the plastic style, the design making the stone seem deceptively round and demonstrating the artists sympathy with the shape of the stone in his design. It is also an excellent example of area picking. There are no comparable examples of this kind of finished (completely covered) stone anywhere in the world and both the level of skill and the type of decoration are unique to Ireland.

#### 1.3 Development of the spiral design.

The spiral design also under goes changes in its form from stone to stone. It is difficult to say whether this change is chronological as there are no radiocarbon dates for the stonework and it is impossible to tell for sure but it does appear to develop from a simple spiral as in kerbstone 5 Knowth 1 (previous page PL.7) which is a shallowly picked composition with a single centred spiral between two opposing C designs. Stone 56 Knowth site 1 (right) is a composition made up predominantly of simple spirals. These too are lightly picked in the standard style and the inner curves are not very smooth. This may indicate that it is earlier because the art seems to be less accomplished than other examples. There is an interesting development in the spiral on kerbstone 52 Knowth 1 (right). On this the old spiral has been overwritten by the later design but it is possible to see that it is a simple spiral but with a detached line at its centre that makes it look like a dual spiral. It is possible that this line is a mistake but whatever the reason for it, it makes the spiral look like it has two centres like the double spiral. What is the difference? The same position kerbstone on Newgrange (52 right) has the answer. This is the only stone that contains both of these types of spiral together. The small spiral on the right is an excellent example of a single spiral while the other two are dual spirals, two complete spirals one inside the other. The best examples of the dual spiral can be found on Newgrange kerb stone 1 (previous page PL.8). All of



PL. 9 Kerbstone 56 Knowth site 1



PL.10 Kerbstone 52 Knowth site 1



PL.11 Kerbstone 52 Newgrange site 1

the spirals on this stone are double spirals and excellently executed with wide deep picked channels and fairly uniform line thickness. The three spirals on the left of the stone may have inspired the triple spiral that appears on orthostat C10 (right) inside the tomb of Newgrange. There is a difference between the two in that the kerbstone spirals are independent of each other while those on the orthostat are deeply intertwined, the tail of each leading into the next in an extremely complex design that was later borrowed by the Celts. Although this is called a triple spiral it is in fact six spirals together and displays great skill and knowledge.

One other type of spiral is the S-scroll spiral (page 4 PL.2) which appears on Kerbstone 67 of Newgrange site 1. It is a very well crafted design and the left side of the stone has an excellent example of area picking indicating that this stone may be a later design. This design has been the subject of intense discussion by Brennan and he believes that it holds the key to the origin of the spiral design.

There are one other occurrence of the spiral that cannot be left out. This is the ceremonial macehead found in the right-hand recess of the eastern tomb at Knowth. This is one of the few portable objects found inside the tombs that are believed to be connected to the burial rituals. The macehead, as can be seen below, is a really beautiful composition that is possibly one of the finest examples of craftsmanship from this period. The side opposite the one with the spiral also has a spiral while the top and bottom designs are both shown. It is made of flint and is highly polished. It is a very harmonious form with the spirals elongated to follow the contours of the stone. With the exception of the single and dual spirals, all of these variations in both the techniques and the styles of the designs are indigenous Irish designs and the craftsmanship of these Irish examples is far superior to any found on the continent.



PL.13, 14, 15. Ceremonial Mace head 3/4 view





left side

Top

#### 1.4 Symbolism

There is no way of ever knowing for sure the meaning of the stone designs on megalithic tombs but there has been a lot of speculation concerning this. There are a few factors that can be used to demonstrate their importance especially regarding the spiral. The first of these is the position of the stones that are decorated. A review of the stones already mentioned here gives a very interesting picture. Firstly, there is the entrance stone to Newgrange site 1. This stone is placed in front of the entrance to the passage and is obviously extremely important because of this position. Then there are stones 51 and 52 which are both decorated with spirals and are positioned at the back of the mound directly in line with the passage of the tomb and the path of the sun as it rises on the solstice. Kerbstone 67 is also thought to be in an important place with regard to the ceremonious path through the cemetery. There are also spirals inside the tomb on the right hand side of the central chamber (C10) and in the passage way (L19) which are two of the stones that the sun shines on when it enters the tomb. The fact that these spirals are in such key positions shows that it must have been a very important symbol to these people.

With regard to what these designs mean we must first listen to Dr O'Sullivan;

'...symbols are empty in themselves: it is the people looking at them who invest them with meaning, which is related to there personal interests and the information at their disposal. For this reason the convinced interpreter is unreliable... All lines of enquiry, as long as they are followed with due reference to the evidence, are valid.'<sup>4</sup>

This is a very wise statement and unfortunately it rules out all of the existing arguments concerning the meaning of megalithic designs. On the one hand there are the archaeologists who cannot step away from their conviction that the mounds are expressly built as tombs and that the art is thus related to the culture and ritual associated with the burial of the dead, while on the other hand there is Michael Brennan who has disregarded the scientific evidence concerning the burial deposits in the mounds and only focused on the evidence to support his theories on the astral relation and orientation of the tombs. This is very unfortunate because with the two sides so vehemently opposed to each other no one will see that maybe the answer lies somewhere in the middle. The alignment of the tombs in the books of the archaeologists. It is difficult to believe that a person who finds a tomb in the vacinity of one with a solar alignment and of the same type and period never experimented to see if it too was aligned in some way. It is equally difficult to understand how someone so involved and well researched as Mr Brennan can totally ignore the fact that in every passage mound ever opened there have been cremated remains, often quite a lot of them together, with grave goods dating from the neolithic period.

It is obvious that the spiral was a very powerful symbol when these people carved them into the stone and two element may give the origin of it. There is no indigenous design that could have been developed into a spiral and the alignment of the places it is first found should give us a direction to look in for an origin. Mr Brennan found one possible origin for it with his 'sun path' diagram and this suggestion does make sense. It doesn't connect the burial aspect of the mounds but the religious beliefs of these people died with them so it will never be known why they aligned their tombs to the sun. Everyone agrees that these tombs are more than just graves, that they had enormous social and religious importance to their builders. The art on these stones had an equal importance especially the spiral.

#### Section 2

#### 2.1 The Bronze Age

During the Early Bronze Age (2000 - 1500 BC) metal and metal working techniques were introduced into Ireland from mainland Europe and Irish craftsmen started slowly, possibly due to lack of materials. The products of this period, mainly lunae, had very little ornamentation thought to be due to the scarcity of materials depriving the artists of the freedom to experiment. While Ireland has one of the largest collections from this period as A. T. Lucas explains;

'decoration is always incised, strictly rectilinear... The repertoire of motifs is very limited and consists chiefly of triangles and chevrons.'<sup>5</sup>

Torcs and utensils such as axes and swords were the most common product of the Middle and Late Bronze ages (1500 - 200 BC) but these too were sparsely designed the craftsmanship focusing on the metalworking techniques as opposed to the designs. This period is well documented but it is not very relevant here except in a chronological aspect as there is no trace of the spiral on any of these works and it appears to have been abandoned. This is not necessarily the case however. Due to the lack of ornamentation of any kind, it seems that ornament may have gone out of fashion or that strict limitations were imposed on the designers.

## 2.2 The Celtic influence.

The earliest documented evidence of European Celtic influence in Ireland was during the seventh century BC with the appearance of a bronze sword the was similar to those that were used there at the time. But it was not until after the native Irish bronze age culture, the Dowris culture, collapsed that the Celts really came to prominence and with them the influences of the Greeks, the Etruscans and the Scythians of Russia, the mixture of which is called La Tene, were introduced to the native Irish craftsmen. The Earliest finds indicate that the La Tene style didn't appear in Ireland until the middle of the third century BC which is one hundred years after the mature La Tene or Waldalgesheim (where it is supposed to have originated from) style was popular in Europe. There are very definite influences from Europe evident in the designs of Irish craftsmen during the third and

second century BC and by the end of the first century BC they had totally absorbed the La Tene style and given it a uniquely Irish style. The finest example of this was found at Broighter, Co. Derry by a ploughman. This first century BC hoard contained some very interesting items including a model boat with a mast, oars and tiller, a gold bowl, two chains, two bracelets and a large collar. There is also a very interesting story regarding this hoard immediately after it was found, but after a long court battle it was finally given to the National museum where it belongs. The most outstanding object in the hoard is the collar which is one of the most skilfully produced and beautiful Early Iron Age artefact. There is some confusion as to how this object was actually produced. Eamonn P. Kelly believes that;

'On the convex surfaces, relief decoration... was achieved by chasing: the motifs were defined by incised lines and brought into relief by depressing the background. The main technique was hammering and the surface was then polished to remove the hammer marks.<sup>6</sup>

On the other hand A. T. Lucas believes that;

'...the curvilinear design in high relief, executed in the repousse technique'.<sup>7</sup> Unfortunately for Lucas, Mr Kelly's report was used in the Royal Irish Academy publication, <u>the Treasures of Ireland catalogue</u>, thus establishing his report as the more accurate of the two. He also refutes Lucas's claims saying that if the repousse technique had been used it would have had to be done when the metal was flat. The subsequent bending into a cylinder would then have torn the metal and distorted the design proving that it must have been worked from the front.

The collar (below) is a very complex design using varying techniques and shows a distinctively Irish craftsmanship because of the particular techniques used to made it but the design has its roots in Europe where similar collars are known. Even so this collar is important in that it signifies the return of ornamentation to the Irish craft tradition and also the return of the spiral as a design motif albeit in a new, contemporary style. However Mr. Kelly's description of it is somewhat less concise;

'The main framework of the decoration appears to be based on the classical lotusbud motif. It comprises of a series of interconnecting S-shaped scrolls incorporating extended trumpets defined by lentoid bosses. These terminate in leaf-shaped comma motifs mounted with exaggerated snail shell-like roundels.'<sup>8</sup> This description of the ornamentation demonstrates the designs external influence and although he employs zoomorphic descriptions he does agree that there are spiral shapes in the design Snail shells being spiral in elevation. This is the turning point in the search for spiral motifs in Irish art. From this point onward the European influences change both the styles of the designs and the language of the observers and the term 'spiral' becomes too primitive a description for the design described in section 1.1. The designers have begun to play with their designs and the new influences have already started to form complex



PL.16 The Broighter Collar

motifs that, although they are primarily spiral in shape, they are no longer just lines on pages but represent other things. It is this treatment that we must now look at, What can Irish craftsmen do with a simple motif like a spiral?

## 2.3The Iron Age

The Broighter collar is one of the earliest examples of Iron Age gold in Ireland and marks the rise in objects of great refinement. Many of these new objects also incorporate spiral motifs like the first century BC bronze trumpet (below left PL.17) found at



Loughnashade, Co. Armagh which has definite spiral designs on its flange hammered using the repousse technique and incorporating the classical lotus-bud motif, the centres of which are large bosses in high relief. The first century AD bronze box (Pl.18 previous centre) found at Cornalaragh, Co. Monaghan which has two opposing spirals incorporated into its open lattice La Tene design. The one foot diameter bronze disc (PL.19 previous, right) found at Monasterevan, Co. Kildare and dating from the first or second century AD shows a remarkable similarity in its treatment of the spiral with the Broighter collar with variation in the with and height of the spiral arm although in his description of this piece Kelly uses the term spiral. It is thought that these discs were mounted on chariots and a later find supports this claim. Another bronze object dating from this time is the 'Petrie Crown' (PL.20 below left). On the roundels of this are spirals that terminate in birds heads, the style of which is very close to the dragonesque broaches of England. This type of zoomorphism was to become very popular later. A hoard of bronze horse accessories was uncovered in Attymon, Co. Galway that supports the bronze disc theory mentioned above. This find included two bridal bits (PL.21 below centre)and two Y-shapes pieces (PL.22 below right) used to harness pairs of horses to chariots. The spiral designs are clearly evident in the details below while the bridal bits are quite simple in design, the terminals of the y-shaped piece is quite complex, consisting of three running spirals originating from a central triskele. This design is extremely close to the design on an other bronze disc found at Bann. While there are other objects that are similarly decorated, the examples given here are indicative of the types of object and ornament produced during this period.

As has already been mentioned the ornamentation shows a lot of external influences and there is no evidence of an evolution of motifs from the Neolithic period to this date, at least not in Ireland. With the opening up of Europe to the cultures surrounding it, the mixture of different styles and motifs becomes increasingly difficult to trace. As for the



PL.21,22 Attymon bridal bit (detail) and Y-shaped piece (detail)

Irish craftsmen, they never exactly copy any designs or motifs and always try to develop their own style incorporating aspects of others into this. This, if nothing else, has been kept consistent since they first picked up a stone chisel three thousand years previously.

#### Section 3

## 3.1 Medieval Ireland AD 450 - 1200

During the early Christian era a new form of art called the Ultimate La Tene style was developed by Irish craftsmen incorporating influences from the eastern Mediterranean

through the Coptic, Syrian and Byzantine churches. The earliest find of this era is a bronze enamelled 'Latchet' brooch (PL.23 right). This is an interesting piece who's find place is unknown. It was made sometime between the fifth and seventh centuries AD and the



design was originally filled with red enamel although this has almost totally fallen off. The latchet brooch was not very popular and only this example survives in Ireland. This was



PL.24 Mullaghmast standing stone

used as a cloak fastener with the tail thought to have passed through slits in the cloth. The design on the head of the brooch is of three large spiral motifs originating from a single centre and terminating in crude bird head designs. There are also three spirals ending in large bosses extending form the outer rings of the large spirals. The flattened part of the stem also contains an oval form encapsulating two large spirals with bosses at their ends. This oval is very similar to a decorated standing stone from Mullaghmast, Co. Kildare which dates from the sixth century AD (PL.24 below left) which also has an oval shape within



which two spirals have been carved. This stone is also Very important in relation to the later Christian Tradition of stone carving and gives a link between the pre Christian sculpture and the cross inscribed pillars which eventually led to the stone high crosses of the Christian era.

The Roman world introduced new tools and objects with these new ideas and designs and possibly the most significant of these from an Irish perspective was the penannular broach. This is a type of fastening device which became very popular in Ireland from the middle of the sixth century AD until the turn of the millennium. It is composed of a long pin which hinges freely on a broken circular ring. The pin is pushed through the fabric of the cloak and the ring in then pushed back over the pin via the gap and then turned to catch the cloth. This type of ornament was then developed into the Pseudo penannular brooch, so called because the ring is a complete circle although it does have a wider section where the terminals would be. While this form of brooch originates from Roman culture, the surviving examples have been worked using typically Irish techniques and the designs used are mostly native Irish in style and composition. The most famous example of this type of brooch is known as the 'Tara Brooch' (PL.25 overleaf). This brooch was created in the later seventh to early eighth century AD and is possibly the best example of the ultimate La Tene design. This is another turning point in the development of the spiral design primarily due to the prolific amount of decoration and the skill involved in its construction. It is almost impossible to extract any single motif from this work and it would be insulting to do so, however it is possible to see the spiral motifs that have been incorporated in the patterns. Two examples are shown below in detail. The first is a detail from the front of the end of the pin (PL.26 below centre). There are eight spiral designs carved into the gold of this particular area and, as can be seen quite clearly, great skill was needed to craft such delicate designs. The spirals around the edges are all simple spirals while the two in the middle are triple spirals. All of them have slightly larger centre bosses and this type of spiral is echoed on the back of the brooch in the exceptional silver panels (PL. 27 below right). Mr Ryan holds these panels in extremely high regard which is evident in his description of them:

'The two large silver panels with elaborate and extremely delicate ultimate La Tene designs are most unusual technically. The design was produced by polishing away a thin film of silver which had been applied to a copper plate on which the design had first been lightly embossed: the ornament was then revealed in the red colour of the underlying metal.<sup>9</sup>



These panels clearly show the La Tene spiral design which terminates in large long bosses and has examples of single, double and triple spiral motifs. This brooch is the pinnacle of Irish design and craftsmanship and signifies the height of the golden age of Irish design. Also from the eighth century is the Ardagh Silver Chalice. This piece is equal in design and execution to the Tara brooch and

employs every technique available to the Irish metalworker at the time. The spiral is less evident on this piece although it does appear on the escution in the La Tene style and on the decorated panels where the stem joins the base (PL.28 right). This is one of the earliest religious artefacts to have been found and marks the start of a new era, the patronage of the church, and also shows how Irish metalworkers adapted outside influences, the form of the chalice being very similar to those from Byzantine and Middle



PL.28 Ardagh Chalice Details

Eastern finds. As with the brooches, the Irish examples are easily identifiable due to the Irish design and craft methods used to make it. Also in this hoard was a silver-gilt Pseudo-penannular brooch from the ninth century AD which is the last secular object to have spirals prominently placed in its design. These are used to replace the enamel studs that were prominent in earlier examples. As can be seen from the photograph of the piece (PL.29 Below), it is a less elaborate piece than its predecessors and the craftsmanship is not as accomplished. While pseudo-penannular brooches and other forms of brooch were produced in Ireland up until the early eleventh century AD the ornamentation is predominantly interlaced animal motifs which are a mixture of Irish and Anglo-Saxon styles.



PL.29 Detail of 9th century brooch

PL.30 Detail of Derrynaflan Paten

The hoard of objects found at Derrynaflan, Co. Tipperary contains some of the best examples of the religious artefacts rivalled only by the Ardagh chalice. The most noteworthy objects in this hoard are the paten (PL.30 above) and the chalice (PL.31 below). The silver paten dates from the eighth and the chalice is from the early ninth

century AD. Both of these objects reinforce the idea that this is the 'Golden Age' of Irish art with their exceptional skill in their design and manufacture, placing them in the same league as the Tara Brooch and the Ardagh chalice. The ornament used is also similar to these objects and incorporate spirals in their cast and filigree work. The detail of the paten shows the S-scroll spiral and the interlocking spiral motifs blended into the cast frames as well as the use of simple spiral designs in the filigree panels.



This band of ornament fully encircles the rim of the paten. While the spiral is used in the design on the chalice found at Derrynaflan it is not as prominent as it is on the paten and it is only a small part of the designs that it is used in. An interesting aspect of this chalice is the introduction of Christian symbolism in the motifs that are used and the return of symbolic designs as opposed to purely decorative or fashionable motifs is heralded with these church commissioned objects.

From this point on the church is the main patron of the metalworking craft in Ireland and nearly all of the objects created after the ninth century are religious artefacts. These are all shrines for various objects including books like the Soisceal Molaise made in the early eleventh century and the shrine of the Stowe Missal from the mid eleventh century both of which have spiral designs which are indiscernible in the overall design. However the Shrine of St. Patrick's Bell from around 1100 AD (PL.32 overleaf) incorporates spirals in a lot of its front panels. This is executed in an Irish interpretation of





PL.32 St. Patrick's Bell Shrine

PL.33 Crosier of Clonmacnoise detail

the Scandinavian Urnes Style and uses both filigree and open-work. The spiral designs on this shrine are all used to represent the bodies of animals and although they are a very prominent shape in the composition they are purely representative, exemplifying the use of the motif in this era. Another example of this use of the spiral is on the other type of religious artefact, the crosier, in this case the Crosier of Clonmacnoise, Co. Offaly dating from the late eleventh century AD (PL.33 detail above right). Again the spiral design is only decorative and a small part of the design. By the time the Arm Shrine of St. Lachtin was made in the 1st quarter of the twelfth century AD the spiral was no longer employed as a design or as an incorporated motif. This was one of the last great works by Irish craftsmen because, as Mr Ryan so concisely concludes;

'...the decline of the great native monasteries and finally the Anglo-Norman invasion of 1169 meant the gradual loss of patrons for native artists, and the tradition dwindled away. There were few fitful attempts at revival in the later middle ages, but these were concerned with the repair of more ancient shrines, and by the sixteenth century all continuity with native craftsmanship had been broken.'<sup>10</sup>

## Conclusion

The preceding pages contain a reasonably chronological account of the major works of Irish craftsmen over four millennia, something that a twenty volume encyclopaedia might do justice to. To add further insult, only one design motif in these works has been focused on and because of this much of the design and skill with which these pieces were made may have been trivialised and/or omitted. However it must also be appreciated that the fact that the great historical craft work of a nation can be looked at by focusing on one element of their design clearly demonstrates how important that motif must have been to them.

It is true that the spiral design does not have a directly traceable chronological history, that the occurrence of the spiral on stone did not influence its occurrence in metal and that the designers who used it did so for different reasons, but that it was still used at every stage that ornament was used does imply some affinity with the motif. It is also possible that the designs appearance on most of the great artistic achievements of a nation is purely coincidental. Unfortunately there is no proof of a deliberate attempt by Irish designers to retain the spiral as a symbol of Irish design. In fact the proof is against this argument and shows how they probably borrowed it firstly from south-eastern Europe in the neolithic period, then from the Hallstatt culture and later from the La Tene Celts, the Romans and the Christians. It may be true to say that the spiral is not even an Irish motif. What is definite is that the Irish have always used it uniquely and that although all of these influences can be found in Irish designs, these designs have always had a unique quality that made them unmistakably Irish.

This uniqueness is due to many elements such as the degree of skill evident in the Neolithic work at Newgrange most prominently on the entrance stone where the designs have a very even line and thickness displaying the excellent craftsmanship involved. The Broighter collar, while using a La Tene style , is definitely Irish because it is executed in a uniquely Irish way, that is, hammering from the front to produce he relief design, a traditional technique of Irish craftsmen. The Tara Brooch is another example of the use of specifically Irish techniques with its unique silver plates and it too is an example of the high level of skill that the Irish craftsmen have become renowned for. The collected works of Irish craft workers from the Christian era show how the Irish could take any style and absorb it into their own creating new types of designs and wonderful compositions which no other country has been able to match.

Just as the influences for the incorporation of the spiral into designs have changed over the centuries so has its meaning. The spiral design has a definite progression from an extremely powerful symbol to 'just another motif' although this is a very simplified assessment of its evolution. The Neolithic craftsmen who carved it into the stones of their monuments obviously had a great belief in its power as has already been shown. This belief lasted for over a thousand years and died with their entire belief system. Later it was taken up by the Celts who borrowed the triple spiral design as a spiritual symbol. After this it is only speculation as to whether the spiral held any meaning to the craftsmen who used it and by the Ultimate La Tene period it had become just another, albeit very popular, motif.

It is interesting to note that all of the different variations of the geometric aspects of the spiral from simple spirals through dual, triple and onto S-scroll forms were all explored by the Neolithic artists and that although it is used later, no new forms were created, only new styles were applied to these versions. This indicates the advanced knowledge that these people had of geometry in that they explored every known variation of the motif that exists and has been used since their time.

With regard to why this motif was so popular there is no simple answer. In megalithic art it is definitely because of it symbolism although what its exact meaning was will never be known. Why it re-emerge later in the La Tene culture can only be guessed at and it may simple be because of its simple harmony of form or because it was a powerful symbol in the other cultures that these people saw it used in. The answer to this lies in a thorough examination of all the sources that the Celtic world used including the Greeks, the Romans the Etruscans, the Cimmerians and the Scythians of the Steppes as well as the native cultures in Europe and North Africa, a daunting, maybe even impossible task. It is a credit to Irish artists that even with a combination of all of these external influences it is still possible to identify Irish objects no matter where they are found.

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- 1 Eogan, 1986 pg. 218
- 2 O'Sullivan, 1993, pg. 10
- 3 O'Sullivan, 1993, pg. 12
- 4 O'Sullivan, 1993, pg. 36
- 5 Lucas, 1973, pg.
- 6 Kelly,(Ryan, 1983), pg. 104
- 7 Lucas, 1973, pg.
- 8 Kelly,1993, pg.10
- 9 Ryan, 1983, pg. 121
- 10 Ryan, 1993, pg. 45

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