The Eurasian Crane (Grus grus) in Ireland – another extinct bird or a key species for an ancient belief system?

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The Eurasian Crane (*Grus grus*) in Ireland - another extinct bird or a key species for an ancient belief system?

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The Eurasian Crane was a familiar part of the Irish avifauna until the sixteenth century. The species became extinct, probably through human actions. Various human societies across the Northern Hemisphere, especially pre-historic societies identified with animism, are known to have had strong ritual and cultural links with cranes. Evidence that cranes, rather than herons, were the third commonest pet noted in Gaelic Brehon Law manuscripts, is examined. The hypothesis that a pre-Christian European crane cult extended to Ireland may warrant further analysis of burial practices, Corlea Bog trackway, crane mythology, the crane Bag legend and the ancient taboo on eating cranes. An Irish crane cult, if proven, may help explain the founder meaning of many Townland or tribal names with "Cor" prefixes, documented as early as 150 AD, in Ptolemy's map of Ireland. It is suggested that many possible references to cranes may be clarified by future etymological and archaeological research. A cursory review of "Cor" prefixes suggests that it may have pre-Gaelic or Proto Celtic origins in Italy, Spain, France or Britain. These "Cor" compound words may have developed from Kor, a possible Proto Indo-European word for crane and the Anatolian Neolithic crane rituals discovered at the Çatalyhöyük excavations. Research on the postglacial avifauna of Ireland is in its infancy, compared to similar mammalian work in Ireland and avian archaeology elsewhere in Europe. This review suggests a broader zoological potential in examining clues embedded in the ancient Gaelic or Brythonic languages of these islands.

Keywords: Corr, *Grus grus*, Irish crane Cult, pet crane

INTRODUCTION

A database of archaeological bird bones found in the British Isles, collated by the late Dr Derek Yalden (2009), suggests that the Eurasian Crane (*Grus grus* (Linnaeus, 1758)) was one of the most widespread birds identified in Irish excavations. This database list identifies the sites and differentiates between separate time frames at some locations. The bones of Eurasian Crane (hereafter termed 'crane') have been recovered from 20 different locations/periods, immediately following Domestic Fowl (*Gallus gallus domesticus* (Linnaeus, 1758)) (34); Domestic Goose (*Anser anser domesticus* (Kerr, 1792)) (23) and Raven (*Corvus corax* Linnaeus, 1758) (23). Its large bones may give it a certain bias as regards identification. The database does not contain recent results, *e.g.* National Roads Authority excavations. Despite the relatively limited number of bird bone finds in Ireland, compared to Britain (Yalden 2011), this ranking suggests a high frequency and widespread distribution of cranes in Ireland, in the past.

D'Arcy (1999), in *Ireland's Lost Birds,* outlined some of these finds and other pertinent historical crane evidence, from literature and

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other artefacts. There are also crane references in Old and Middle Irish Manuscripts (Kelly 1988, 1997). There is a reticence regarding the factual value of myth, language and old manuscripts, but increasingly, the collaborative study of these various sources is being given more credence. Irish ornithological reviews have tended to focus on our English literature, especially from the mid-19th century onward, and engaged less with older and less reliable accounts from the Irish language literature. A proper ornithological examination of Irish placenames might be informative (Yalden 2011), for some larger bird species (Evans *et al.* 2012).

It appears that cranes became extinct in Ireland circa 1580-1600 (D'Arcy 1999) and disappeared from England *c.*1542 (Stanbury 2011) and Scotland before 1600 (Hetherington 2013). From an ecological perspective, there can be little doubt that Ireland contained appropriate habitat for cranes, including abundant food from their broad diet and nesting and roosting requirements in shallow water (Prange *et al.* 1999). Their main predatory threat, from mammals, arises during their long breeding season. Red Foxes (*Vulpes vulpes* (Linnaeus, 1758)) pose a threat to British cranes (Batten *et al.* 1990, Stanbury 2011) and if fox densities in Ireland were once lower, due to the presence of Gray Wolf (*Canis*

lupus Linnaeus, 1758), this might have benefitted cranes. The Swedish Crane Working Group, during a 2011 visit to the North Midlands of Ireland, suggested that there was ample breeding habitat for cranes and that predation by foxes or European Badger (*Meles meles*(Linnaeus, 1758)) might be the primary constraint on breeding outcomes (Lundgren and Andersson 2011). In both Ireland and Britain, it is estimated that there were much lower densities of both foxes and badgers in the Mesolithic (Maroo and Yalden 2000, Sleeman 2006). One would suspect that the Irish crane population waxed and waned in response to various early farming and woodland clearances, but probably increased initially due to the increase in farming and fallow lands (Mitchell and Ryan 1997).

In parallel with an increasing emphasis on Irish avian archaezoology, it would seem worthwhile to examine evidence from both oral and written Irish sources. In comparison with Britain and Continental Europe, we may always be somewhat limited by iconographic or bone evidence (Ross 1961, Yalden 2011). A review of crane myths, folklore and legends of other European, Asian, North American and Aboriginal peoples, where cranes are still present, has shown that these ancient beliefs are still recognized or maintained (Didrickson 2010, Mathiessen and Bateman 2001, and Von Treuenfels 2006). So the question arises, has the extinction of crane in Ireland, in the 16th Century, resulted in the cultural loss of ancient crane legends or beliefs, acknowledged elsewhere across the worldwide distribution of the fifteen members of the family?

METHODS

The factual crane bone evidence from excavations and other artefacts in Ireland were reviewed initially. A search of the Irish language focussed on the generic Irish name for crane, which is *Corr*. This name has many variations and is often used or interpreted as Grey Heron (*Ardea cinerea* Linnaeus, 1758), White Stork (*Ciconia ciconia* Linnaeus, 1758), Eurasian Bittern (*Botaurus stellaris* Linnaeus, 1758) and egrets (*Egretta* spp.) also. This led to a review of legends, manuscripts, words and placenames containing the word, prefix or morpheme "*Cor*" or "*Corr*" and a search for possible crane associations. Many commentators have referred to the everyday use of the word 'crane' to identify Grey Heron (hereafter termed 'heron') in present day rural Ireland. But the ecology of both species is sufficiently different to allow credible differentiation, in many cases. For example, the name '*Corr Gréine*' (Sun crane) and derivative names have been linked with heron, stork and bittern, in Irish and Scots Gaelic, but

the unusual bare red patch of skin on the nape has understandably linked cranes with the sun in numerous traditions. The early extinction of crane in Ireland may have minimized their former footprint, when some of the seminal literature was written in the latter 19th and early 20th century. These firmly established and published "*Cor*" references, regarding placenames, old manuscripts and words were nonetheless revisited.

The primary sources examined were:

The electronic Dictionary of the Irish Language (eDIL online at www.dil.ie), an electronic version of the Royal Irish Academy's Contributions to Old Irish.

The Placenames Database of Ireland (online at www.logainm.ie), Dublin City University's townland name database developed in conjunction with the Placenames Commission.

British Isles Archaeological Bird Database created in 2009 by Dr Derek Yalden (online at www.nabohome.org/products/products.html), available as a database download.

A sample of old manuscripts and their translations, Irish and Scots Gaelic dictionaries and other relevant literature.

Research papers in peer reviewed periodicals, relating to cranes in Ireland and crane beliefs and archaeological finds elsewhere in the world.

RESULTS

Overall, it must be stressed that there is currently little in the way of expert acceptance or support for the concept of a Crane Cult in Ireland, from any of the leading Irish glossators, historians, linguists, Celtic scholars or archaeologists. People from outside of Ireland have explored the context of cranes in Ireland (Ross 1961, Charrière 1966, Graves 1975). The references to cranes, by Irish authors, are quite limited (including Kelly 1988, 1997, O'Flaherty 1996, D'Arcy 1999), but there is an acceptance that the real meaning of the word "*Cor*", in numerous contexts, is either not fully understood or, for some reason, exceptionally diffuse (www.logainm.ie, www.dil.ie).

Numerous potential links between "*Cor*" derivative words and crane were noted during the literature review. But no undisputable evidence was discovered to firmly establish such a coherent general link (de Bhaldraithe 2012). Nonetheless these potential crane associations merit further research. Noteworthy aspects of the initial review are given hereunder.

PEATA CORR

Kelly (1997) states that the '*Peata Corr*' was the third commonest pet (after dog and cat) in Brehon Law Ireland, according to early manuscripts. He emphasised that he was unsure whether the '*Peata Corr*' was a heron or a crane. For any native wild bird to be kept so frequently is an extraordinary fact in itself. Nearly all the references to cranes in the written lives of the Irish Saints are as pets and it seems that keeping them as pets was a common practice (D'Arcy 1999). Apparently there was a full fine (*díre*) for interfering with a pet crane or heron, whereas normally a wild animal that has been tamed is only entitled to a half fine (*lethdíre*), suggesting that the cranes may have been bred in captivity (Kelly 1997). There is no suggestion that these birds were domesticated (bred for specific traits) so we should refer to these pets as tamed birds (Sheila Hamilton-Dyer pers. comm.). These birds may have bred in and close to human settlements. While the confusion between crane and heron remains, it is likely that the omnivorous crane would have been much easier to feed than the fish eating heron.

There is strong evidence of prehistoric tamed cranes of various species, outside of Ireland, which lends credence to pet cranes in an Irish context. Egyptian art holds many representations of cranes, dating from at least 4 500 BC to 2 400 BC. Depictions are rarely of wild cranes, but rather, cranes kept in captivity. The cranes were kept in poultry yards, mainly to be eaten, but occasionally kept as pets by wealthy Egyptians. The tomb of Atet, from the IV Dynasty, depicts Atet's son playing with his pets, one of which is a crane. Cranes were commonly shown in these domestic situations or in funeral processions on tomb and temple walls. A striking relief of a flock of mixed crane species is located at the Mastaba of Ti at Saqqara, where the cranes are being herded by keepers holding long rods. These carvings suggest that cranes were kept and fed like other fowl, at times together with geese and ducks (Didrickson 2010, Von Treuenfels 2006).

In Greece, cranes were kept as pets and courtyard animals – for aesthetic enjoyment rather than a source of nutrition. Clay and alabaster vases depict cranes in a manner that implies they were nurtured or even worshipped. Even today, they are found in grand Asian gardens or even in backyards where they are kept as vigilant pets (Von Treuenfels 2006). Plutarch related the practice of sewing shut the eyelids of captive cranes as a method for calming the wild birds (Didrickson 2010).

In China, the Confucian Book of Songs, from the third century BC, says, "The crane has a long life of a thousand years". Emperors and princesses held cranes at court, hoping that some of the bird's godliness and longevity would be passed on to them. Hosts of servants had to ensure the well-being of cranes, which enjoyed the very highest status. It is said Prince Yi, during the period 770-476 BC, bestowed on his cranes the ranks of 'High Officials and Generals' and they accompanied him on his travels, chauffeured in coaches and sedan chairs (von Treuenfels 2006).

There is also a Sioux tale from North America relating the tale of an orphaned crane being adopted and becoming a member of a Sioux family (Didrickson 2006). Even in modern times, people in Arasaki (Japan) and Khican (India) deliberately feed migratory cranes as an annual custom (Von Treuenfels 2006). The catching of cranes and their illegal taming is a problem for the Black Crowned Crane (*Balearica pavonina* (Linnaeus, 1758)) that are kept and can be found wandering around villages, in Mali (Kone *et al.* 2007). Also at least 1 550 cranes are caught annually and kept as 'watchdogs' in Pakistan (D'Arcy 1999). There are references to cranes being used as a 'good guard' at farmhouses in Poland and utilized in a similar fashion in the Ukraine up to the 1920s and 1930s (Makowiecki and Gotfredsen 2002).

Therefore, the likelihood is that cranes, rather than herons, were once the third commonest pet in Ireland and that the high number of crane bones found in Irish excavations may be partially due to the widespread practice of keeping pet cranes. Bones from 3 individual cranes were found during excavations at the Crannog, at Lagore, Co. Meath (Stelfox 1938). One of the carpometacarpal bones in the Natural History Museum, Dublin is at the extreme upper end of equivalent modern male crane carpometacarpal sizes. With a length of 125.6 mm and a breadth of 25.3 mm, it is closer to the size of the Sarus Crane (*Grus Antigone* (Linnaeus, 1758)) (Yalden and Albarella 2009). This large size may be an indicator of a former larger body mass of cranes or a reflection of a larger tamed individual. It has very slight scratches at the distal end, which would require expert opinion as to whether these slight marks were caused during preparation for tying crane wings, to the arms of Shamans or dancers, as found at Çatalhöyük (Russell and McGowan 2003). It might be unusual for wild cranes to be found on a confined human crannog, if they were not eaten (see Taboo below), and it may suggest that they were tame birds.

If it can be proven beyond doubt, that pet cranes, rather than herons, were such common pets in Brehon Law Ireland, it would be expected that an occasional literary or linguistic reference to such a common practice might exist. If the frequency of pet cranes is reflected in Irish

placenames and the evolution of Irish words or phrases, it could lend support to the proposition that hundreds of other placenames and words have additional crane/"*Cor*" associations and signify other aspects of a former cultural association with cranes. There are a large number of "Cor" compound words in the French, Latin and English languages, related to societal or organisational norms, which could conceivably have developed from an earlier founder concept.

In Ireland there are up to 37 placenames with potential pet cranes identified with the surnames of their owners or keepers, including Cormongan, Corglancey and Corloughlin in Co. Leitrim. This implies a great assumption that the prefix "*Cor*", means a pet crane, rather than the official round hill/surname compound word (see Placenames below). It might suggest that these names may have originated in the distant past, when animal names were used as prefixes, rather than the later practice of placing animal names as suffixes (Donal Ó Baoill pers. comm.). There are also possible references to cranes kept by different types of people, including *Cor na mBrathar* (friars), *Corr an Aoire* (shepherd), *Cor a Drughid* (druid) and *Cor na Righ* (king). But again, currently, the "*Cor*" words are interpreted as round hill or weir in these contexts.

There are up to 15 possible references to the types of places, where you might expect to find pet cranes. These include ancient settlements such as Corrlis, *Corr Ráth*, Corpallis (pallis = palisade) and *Corr an chaisil*. There is a townland in Co. Monaghan called Cornawall / *Corr na bhfál*, translated as round hill of the hedges, which could possibly mean (pet) cranes of the enclosures. The similarity with Celtic regions such as Cornwall in Southwest England and Cornouaille in Brittany, France is probably a coincidence. But the type of settlement name used in these compound placenames could be dated and categorized by an expert glossator and might help date the origins of some of these placenames.

In China, cranes that were reared in captivity were trained to dance and perform in front of guests (Didrickson 2010). Young cranes can be imprinted on humans quite easily (Sean McKeown and Roy Dennis pers. comms) and may have been trained for a variety of chores or entertainment. The French word Cornac (showman) and Irish phrases *Corra ghlic* (cunning) *Corra amadán* (a pretend fool) may have originally derived from a proto Celtic/Celtic language describing cranes kept for entertainment. Many ancient human traditions are said to have imitated crane dances (Armstrong 1934). A popular traditional Irish dance (a two handed reel) is coincidentally called *Corr Beirte*. Corneshamshoge, the first recorded name of a Leitrim townland from 1621, could

have originally meant, *Corr na Siamsaighe* – the amusing or merry cranes. Cranes have their own beautiful and energetic display dance, where the pair's movements are often in acCORdance or CORrespond with each other. The Old Irish term, *a chac cuirre*, translated as 'a term of opprobrium', could have simply meant crane excrement, and suggest a familiarity with the waste of pet cranes within settlements.

Some of the Irish placenames may refer to devices used to manage pet cranes. For example, Cornasaus, which is interpreted as round hill of the snares, even though the landscape is very flat and the word *sás* can also mean noose or device. Corrandulla, *Cor an Dola*, has been interpreted as the round hill of the noose/loop, but could possibly mean (pet) crane of the noose. The landscape in this area, east of Lough Corrib, is mostly flat and the altitude of the townland centre on the logainm.ie map is only 17 m asl, and only 12 m asl on the Google Earth townland centre. The townland is surrounded by five to seven other townlands and the maximum variation between the neighbouring townlands is plus 11 metres or minus 6 metres. There is no round hill in this townland (M3339).

Irish words such as *Cornasc* (horn and leg spancel or hobble), *Corrach* (a fetter, a shackle), *corda* (a cord, a line) and the Spanish word *Corral* (round livestock enclosure) all have the potential that they evolved from words originally used to describe tame/pet crane devices. Excavations at Nerevsky, in the 10th Century town of Novgorod, Russia, found an immature crane tarsometatarsus bone associated with a leather thong and it is possible that it was the remains of a captive bird (Hamilton-Dyer 2002). The manuscript, *Bretha Comaithchesa*, deals mainly with trespass by cattle and pigs, but mention is also made of trespass by various pet animals including a pet wolf, fox, deer and '*corr*' (Kelly 1988). Presumably, this suggests that the *peata Corr* was occasionally restrained and stopped from wandering onto neighbouring lands, resulting in fines in some cases.

There is a Scots Gaelic phrase '*corracha margaidh*' (Dwelly 1988), which is translated as Jailbirds (*i.e.* market herons, birds or people who haunt markets or places where they are likely to pick up something). The old Irish word *corrmarguighidh*, meaning rabble, is very similar and could relate to tame or feral cranes. An omnivorous crane is much more likely to pick up offal, left over vegetable matter or grain and fulfil its omnivorous diet on the edge of a market, rather than a heron.

TABOO ON EATING CRANES

Irish and Scottish Gaels did not apparently eat

cranes, in pre medieval times (Ross 1961, D'Arcy 1999). The Vikings, Normans, Anglo-Saxons and Planters did eat cranes (Stanbury 2011, D'Arcy 1999). According to Giraldus Cambrensis, the Irish of his day refused to eat the flesh of cranes, encountering it with some shock as a meat for the first time at a great feast hosted by Henry II outside Dublin in 1171 (D'Arcy 1999). *Feoil chortha* is an Irish phrase for tainted meat (Ó Dónaill 1977). These variations have been noted elsewhere, for example the Sammi in Finmark consumed crane meat, whereas the Skolt Sammi considered it unclean (Mannermaa *et al.* 2008). In India there are paintings in which the Sarus Crane is depicted as the companion of Vishnu, who is one of the main gods next to Shiva and Krishna. But whatever the reason for this veneration, the status afforded to Sarus Cranes in India ensured for many centuries that they were not hunted, and even tolerated when they came to feed on a farmer's land (Von Treuenfels 2006). The indigenous people of Siberia have traditionally protected the Siberian Crane (*Grus leucogeranus* Pallas, 1773) because they believe it is a symbol of good luck and health. The Khanty people of the Yurga region in Russia thought disturbing crane families would bring bad luck (Didrickson 2010). So why did the Gaels deny themselves such a valuable food source and what belief systems underpinned that taboo?

CRANE FUNERALS

There is a carving at the base of the 8-9th century North Cross, Ahenny, Tipperary with a crane leading a procession. On the opposite side of the base, the frieze continues with a funeral procession (Crawford 1980). This is considered one of Ireland's most important Celtic High Crosses. This was not a mere token crane, it was deliberately incorporated into the elaborate carving. Indeed there is also a reference to the middle of the base (right side), where two large cranes, face each other, each with a raised foot, on the same Cross (Ross 1961). This iconographic evidence of the link between cranes and funerals or death in Ireland is widely supported by the evidence from elsewhere in the world.

In Lintong, China the monumental tomb of Qin Shi Huang (China's First Emperor), had thirteen large bronze cranes in his artefact chamber, dating from 220 BC. It is believed they were there to accompany him to the afterlife (Von Treuenfels 2006). The archaeological evidence from burial finds indicates some common ideas about water birds (perhaps as messengers or spirit helpers) might have existed in the North European Stone Age (Mannermaa 2008). Two crane wing bones found near the hands of a child, in an early

Neolithic burial at Tamula I, may represent the crane as a transporter or messenger (Mannermaa *et al* 2008). The importance of liminal places has been widely recognised as important in terms of Irish pre-history (O'Flaherty 1996). These areas, between water and land, are the very habitats often occupied by feeding, roosting and migratory cranes.

The 'immortal crane' is seen by both Laozi (in Taoism, which he founded) and by Buddha (who regards the cranes as godly birds) as an important arbiter between the 'now' and the 'hereafter'. They were called 'heaven's cranes' and the 'crane of the blessed'. And when a Taoist priest died, he would be transformed into a crane and lifted into the heavenly Kingdom. In this way the crane became a symbol of immortality (Didrickson 2010). The perception of magical or spiritual cranes may have underpinned the legendary 'Crane Bag' in Ireland (O Flaherty 1996).

If a crane leading a funeral procession on the base of the Cross at Ahenny is a reflection of an earlier and wider belief system, depicting cranes as messengers from the afterlife or heaven, one would expect to see some evidence of this in the Irish language and placenames. However, it is not unreasonable to suspect that 1 500 years of Christianity are also likely to have obscured some pagan linguistic references to such a fundamental aspect of religion.

The word '*cur*' in Irish means the act of burying, and might have been tentatively connected to '*Cor*' in the ancient past. A funeral attendant is a '*cóiridhe*' and the word '*Sochraid*' is translated by Dinneen (1927) as a procession of persons or animals, a funeral or a cortege. The French word '*Cortège*' also leads one to explore other French words, possibly derived from an earlier Celtic language. It may be a mere coincidence that the French word '*corbillard*' means hearse. There is no evidence that the French placename *Corbières* means 'crane coffin' rather than 'horn of beer' and that the French placename *Corcieux* means 'crane heaven'. The Scots Gaelic word *Corranach*, means the funeral cry of the Gaels (Dwelly 1988).

In Irish placenames there are several Corleacht townlands, usually interpreted as the round hill of the monument, but which could have originally have meant the crane grave or tombstone. Many such current placename interpretations could easily be changed to, crane and funeral/ heavenly themes, but only if such an Irish spiritual connection existed and was correctly ratified. There are numerous names for grave markers currently combined with round hill or Cor prefixes. These include Cornaleck/*Corr na Leice*, meaning round hill of the grave mound(s), monuments and Corranearty/*Cor an fhearta* 'round hill of the grave', a townland on the even

slopes of Cuilcagh Mountain. Corrofin, the weir of the white one or brightness, Cornannurney, the round hill of the prayers and Cornamarve, round hill of the dead all could have a different meaning. The obsolete Scots Gaelic word 'curagh' means burial place (Dwelly 1988). O'Davoren's 16th century Gloss explains currach as corriath, iath na corr meaning place abounding in cranes (Stokes 1862). But this explanation is rejected by the Placenames Commission, which refers to a modern explanation (Vendryes 1987). The entry on www.logainm.ie translates currach as 'marsh'.

There are over 20 separate townlands called Corlea, found in a broad linear column from the mouth of the Shannon northward to Ballybofey Co. Donegal, with an isolated cluster of five Corlea townlands in Monaghan. Many of these names were recorded as Anglicized versions prior to the 1700s. They have a variety of spellings, though often as 'Corleagh' initially. The written versions suggesting the current interpretation of 'lea', as liath (grey) in modern Irish, only appears in the mid-19th century. However, léith was an older version of liath, and léithe can mean decay, the rot as well as greyness, whiteness and brightness.

Ireland's best known bog trackway runs into, and may have stopped in, one of these Corlea townlands, in County Longford. This enormous structure was built in 149 BC, though nearby trackways date back to the Neolithic and Bronze Age (Raftery 1996). The name is first recorded in 1584 as Corleagh. The local pronunciation, recorded in 2008, is /Kor'le:/ The reasons for building this trackway out onto a bog are as yet unknown. It either had an economic or a ritual importance. Archaeologists are still uncertain as to why they were built. Similar trackways in Germany appear to lead out on to bogs and stop. The current, non-validated, meaning for Corlea is grey round hill. However, the altitudinal variation in the local landscape is only five metres within a wide radius of this townland. The glossators in their work in 1836 would have been unaware of the hidden trackway, since it has only been excavated since 1985. The mythical personage Midhir is involved in the story Tochmarc Étaíne. The story situates his dwelling place at Bri Léith, a few kilometres to the east of Corlea bog trackway, near Ardagh, Longford (Ó hÓgáin 1996). Bri Léith was guarded by three cranes (Ross 1961) and was supposedly a passageway, or corridor, to the afterlife. From this information it is worth considering whether the name could be an ancient signpost to the significance of this bog trackway? In this case, the interpretation of Cor as crane, in such a flat landscape and the wide variety of possible interpretations of words lea (including leagh 'dissolve') are at least worth

a brief expert review. Perhaps, dead people were buried or left in a place apart, in a bog or wetland areas, amongst crane flocks, who could act as spirit guides to the afterlife and this burial belief was held by people using the Shannon and Erne system in ancient times.

PLACENAMES

There are over 190 European placenames, beginning with Cor listed in the The Times Concise Atlas of the World (2006), mostly in Spain, Italy and France (Fig. 1). There are also over 190 placenames beginning with Kor listed in the same Atlas, especially in Russia, Ukraine, Poland, Greece, Finland and Turkey. Kor might have been a Proto Indo-European word for crane. There are at least 1 360 Irish placenames (Fig. 2) in the logainm.ie database beginning with the prefix 'Cor'. In that database there is no crane association with these placenames. The earliest written Cor townland reference in the database appears to be from circa 1200. However, Ptolemy's map of Ireland, from 150 AD, lists Coriondi, (either a place or a people), which was located somewhere near Enniscorthy or Inis Corthaigh.

"One reason for studying language – and for me personally the most compelling reason – is that it is tempting to regard language, in the traditional phrase, as a 'mirror of mind' ... consider, for example the category of names and the act of naming, which might be regarded as somehow primitive and isolable. A name, let us suppose, is associated with a thing by an original stipulation, and the association is then conveyed in some manner to others" (Chomsky 1976).

One might expect, if there was once a Crane Cult in both continental and insular Celtic Europe, including Ireland (Ross 1961), that remnants of such a belief system would have been assimilated into some parts of the language and oral traditions. These 'common sense' words may be entirely contradictory compared to our modern ideological worldview that forms part of our intellectual tradition.

The accepted norm, amongst modern Irish scholars, is that Corr usually refers to round hill in a majority of Cor/Corr townlands or placenames in Ireland. This appears to be largely based on O'Donovan and the Ordnance Survey work of the 1830s and 1840s and its later publications (see www.logainm.ie). However, the Chief Placenames Officer, Dónall Mac Giolla Easpaig, has stated that many reputable individuals publically criticized aspects of this work, notably Thomas Davis and Douglas Hyde (Mac Giolla Easpaig 2008). It is known that where the meaning of a word was unknown at the time, that a best estimate was made, usually based on the
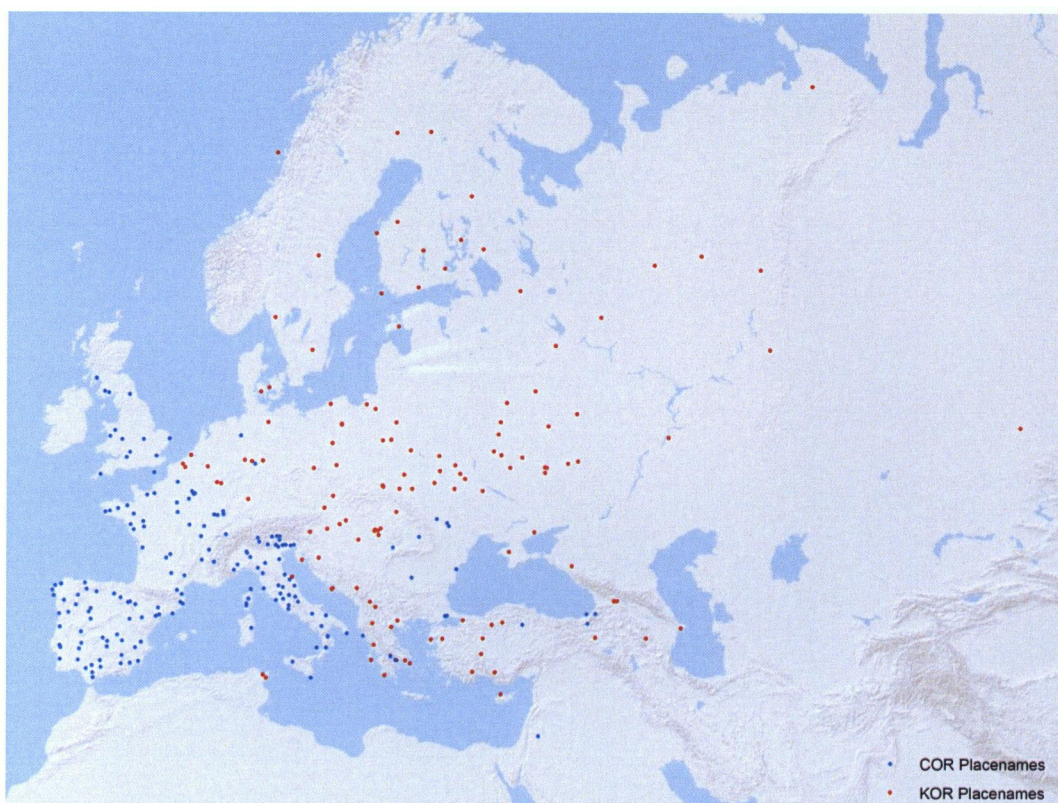
Figure 1. Map of 'Cor' and 'Kor' prefix Placenames, selected from The Times Concise Atlas of the World, found in Europe and Western Russia.

surrounding topography.

O'Donovan and Quinn also occasionally interpreted 'Cor' as crane (see the www.logainm.ie database). Later Joyce (1902) suggested that Cor placenames, where associated with wetlands, might apply to 'birds of the crane kind'. However, overall, the crane and Cor placename connection is not recognised for Cor prefixes, though it is recognised for some suffixes (e.g. Baile na Coirre), Corstown in Co. Louth. The Explanatory Notes, in www.logainm.ie connected to some Cor Placenames, clearly indicates that the original meaning of the word Cor is not understood in some cases. Therefore, unlike most of the other commonest Irish prefixes, it is reasonable to conclude that there is a degree of uncertainty over the meaning of some Cor references or interpretations.

ALTITUDE

The term round hill is obviously quite elastic, and could conceivably relate to any 'medium' sized elevation. Even if the term is extended to include mountains, mounds or knolls, it would not be applied to an upland slope or side of a glen. Equally, the locational catchment of a townland

may have drifted over centuries or millennia and may not currently reflect the exact original footprint of a townland name. With those caveats in mind, the 'round hill' explanations for Cor prefixes in the www.logainm.ie database were tested in terms of their elevation.

Many of the interpretations of 'Cor' as round hill, are not validated when GIS is used for toponymic verification. By using the www.logainm.ie interactive map, and simultaneously finding the townland on a Google Earth map, it was possible to estimate the altitude of the townland (placing the cursor where the name was printed) and then measure the altitudinal variation, if any, within a radius of the site. This was not done in a systematic fashion, i.e. at a number of defined angles or radii out from the centre or by a reliable computer generated gradient matrix as indicated by Fielding et al. (2003). Nor have the provisional results been analysed statistically. Nevertheless, it is clear that a considerable number of Corr townland interpretations of round hill, do not have hills within their townland boundaries.

While the height of a 'hill' is open to interpretation, there are also many other names for slight or proper elevations in the Irish
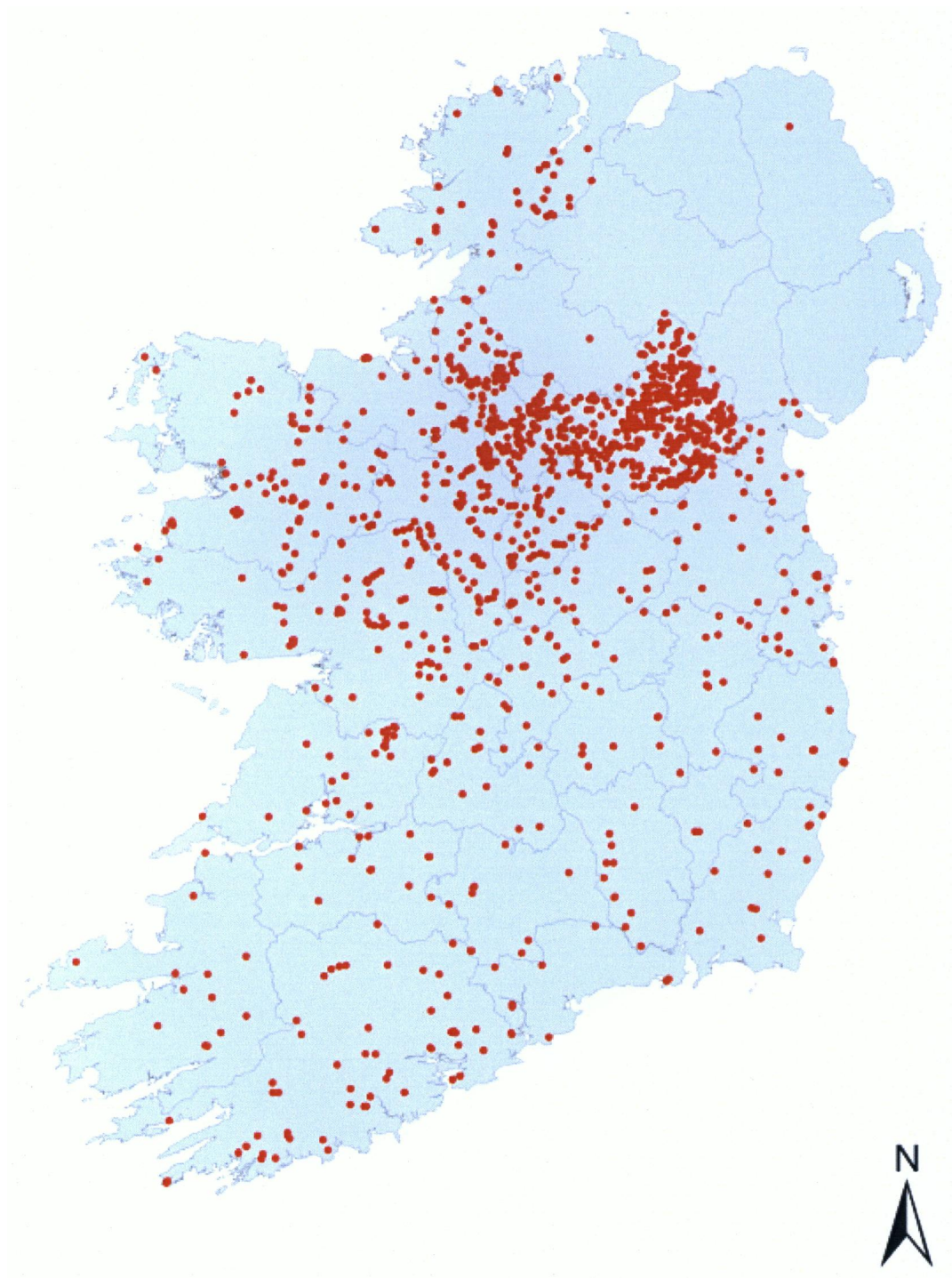
Figure 2. Map of 'Cor' prefix Placenames from www.logainm.ie, mainly pertaining to the Republic of Ireland.

language. These include *Cnoc, Tullach, Sliabh, Drom, Druim, Tulan, Tulóg, Tulchán, Altán, Mám, Mullán, Mullach, Maol, Beinn, Binn, Aonaigh, Carcar, Ard, Ardán, Cnocán, Cruach, Tortán,* and *Tortóg.* Slopes of uplands can be referred to as *Leacán, Learg, Leirg, Leaca, Árd, Malaigh, Maltacha, Malacha* and *Cliathán.* One might expect 'Drom' to be used for rectangular or elongated hills or ridges, for example. The interpretation of '*Cor*', quite literally, as a round hill, currently applies to townlands with a wide spectrum of altitudinal variations, a variety of even slope gradients and slightly elevated raised bogs.

The www.logainm.ie database includes the Ordnance Survey Non Validated and Validated names and other reference materials, including some Explanatory Notes. Of the 1 360 townlands that begin with Cor, only 556 of them have been classified as extrapolating round hill from the *Cor* prefix. Only 73 of these 556 'round hill' townlands have strong GIS evidence for the presence of a hill or a knoll. 321 of the 556 names have no GIS evidence to support the presence of a hill. The remaining 162 names were either difficult to measure on poor quality Google Earth map tiles, the extent of the elevation was marginal as qualifying as a hill or the location of a nearby hill was on the edge or outside the estimated extent of the townland boundary. In summary, one could suggest that only 40 % of Cor townlands are interpreted as 'round hill'. Crucially, however, only 5 % of the total *Cor* interpretations have strong GIS evidence for a reference to an altitude feature in the landscape. Cranes can breed up to 3 000 m asl in Norway, as discussed during a workshop of the 2010 European crane Conference. GIS (geo-referencing) of toponymy may challenge a relatively minuscule number of debatable interpretations by O'Donovan, amongst an incredible 60 000 records and should not undermine the incredibly rich source of data he helped collect and collate.

EARLY DICTIONARIES

In English–Irish and Irish- English dictionaries, available online, published prior to O'Donovan's supplement to O'Reilly's Dictionary (2nd edition, 1864), no published record of hill meaning '*Corr*', or *vice-versa*, could be found. These dictionaries include: O'Begley and MacCurtain (1732), O'Brien and Lhuyd (1768), Shaw (1780), Conellan (1814), O'Reilly 1st (1821) and 2nd (1864) editions , de Vere Coneys (1849) and Foley (1855).The detailed notes on the logainm database repeatedly show where O Donovan himself expressed his doubts over his interpretations of the word *Corr*.

VARIETY OF CORR MEANINGS

Ó Baoill (pers. comm.) suggested that unlike Middle and Modern Irish, animal and bird prefixes were used in Old Irish, *i.e.* pre 1200 AD. He suggested that where a bird had several names or where a word had several meanings, this generally suggested that the original founder word was quite old, acquiring new meanings over the centuries. Ó Baoill also emphasised the fact that use of 'o' and 'a' were very fluid in Old Irish and were often interchanged, so that *Car* and *Carr* words maybe also have evolved from *Cor/ Corr*. Ó Baoill (pers. comm.) also explained that some dialects are known to have dropped the second 'r' in *Corr*, whereas other dialects retained it.

In correspondence, Pádraig Ó Cearbhaill, the Placenames Commission, suggested that a close compound of the type Noun + Noun (similar to Éaninis, 'bird island'), suggested for crane interpretations, are unlikely. Compounds of this type in Irish were composed at a very early period. In fact Dónall Mac Giolla Easpaig considers that the structure was already in decline by 400 AD (Pádraig Ó Cearbhaill pers. comm.). The Placenames Commission advised that my query as to whether Corbally or *Corr Baile* meant 'crane homestead', was not correct as the word *Baile* only entered everyday use after 1200 AD.

The current validated and non validated list of '*Cor*' prefix meanings on the www. logainm.ie database are round hill, hill, hilly, pit, hollow, depression, weir, odd, noticeable, a well, point, pointed, corner, jutting, place of, crane, conspicuous, marsh, moor and crescent. It is striking that the same Irish word has been interpreted with almost opposite meanings: namely a hill and a hollow or pit. Table 1 and Fig. 3 compare the variety of meanings for the commonest townland prefixes in Ireland and the prefix Corr/Cor appears to be a 'statistical outlier', for some reason.

If 'Cor' stood for a noun, rather than an adjective, it might explain the numerous *Corran, Corrna* and *Corry* (cora/coirre) prefixes within the Cor townlands? With the possible exception of *Ard* and *Corr*, all the other common prefixes are presumably considered nouns, rather than adjectives.

As Dinneen states "few words in any language have a single simple signification. Most words, in addition to the basic meaning, have many shades and developments of meaning". Therefore, this substantial disparity of *Corr* meanings requires expert etymological focus, to try to date some of these developments, prior to their current signification.

Table 1. Some of the Commonest English Townland Prefixes in the 1851 Census and the Number of Meanings, for each presumed Irish version of the common prefixes (from Ó Dónaill, 1977).

| Common English Modern Prefix	Original Gaelic word(s) or meaning	Number of Interpretations
Bally	baile	4
Kil/Kill/Killy	incl. coil (4 words)	
	& cill (3 words)	7
Drum	droim	7
Clon/Cloon	cluain	3
Knock	cnoc	2
Cor	incl. cor (6 words, 18 meanings)	
	& corr (8 words, 14 meanings)	32
Lis	lios	2
Derry	doire	2
Gort	gort	4
Ballin	baile an!	4!
Rath	ráth (3 words)	6
Tully	tul & tulach	4
Carrow	ceathrú (2 words)	9
Ard	ard (3 words)	12
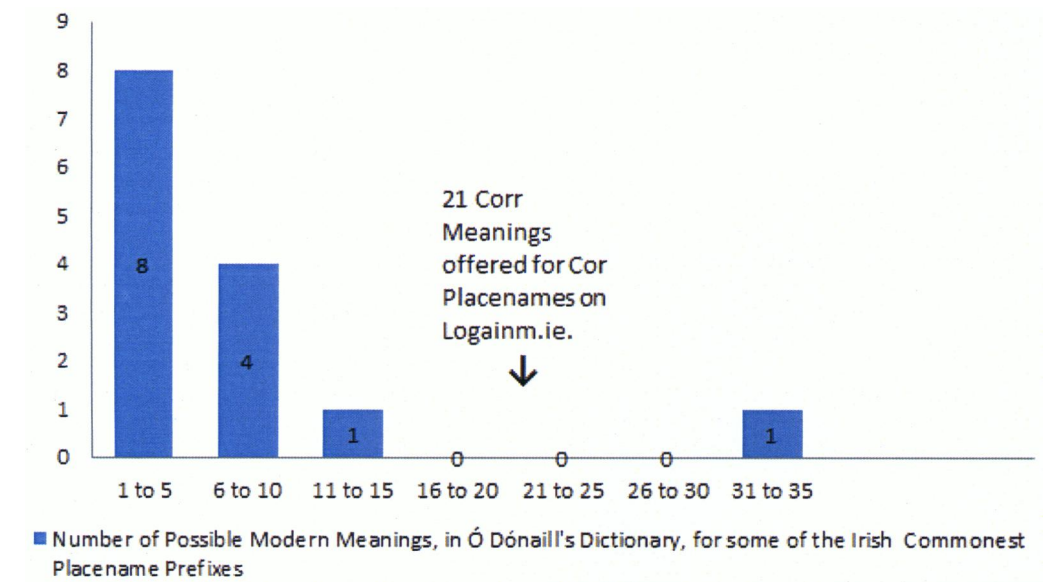
Figure 3. The variety of possible meanings for some of the most common prefixes in Irish townland names, as published in Ó Dónaill (1977). For some reason, the prefix Corr/Cor is exceptional for such a commonly used prefix.

Discussion

The author has discussed the potential for a widespread crane Cult and belief system in the Irish Neolithic, Iron Age and Bronze Age up to the Early Christian period with key specialists of placenames, Indo-European Linguistics, Geography, Celtic Studies and Wetland Archaeology. The general response is that there is little in the way of supporting evidence for such a cult or belief systems. For the interpretation of so many *Cor* words, phrases and placenames to be connected with cranes would suggest a totally unprecedented importance, or elevation, of an animal species in Irish traditions. The recurring legitimate and logical response is, "If cranes were

so important historically, how is it that their cultural footprint is so weak today?"

Ross (1961) explored this conundrum and suggested that the strong connection between pagan Ireland and crane was deliberately masked by the very strong emergence of Christianity in Ireland from the 5th Century onwards. The connection between Early Irish Christianity and nature is recognised and may have been a reflection of the former animism in Ireland.

Regardless of the crane association with the word *Corr*, there is evidence to suggest that the interpretation of the word *Corr* is still problematic and that some interpretations are simply incorrect. The lack of evidence from GIS that that *Corr* means round hill, in a majority of cases will, in time, lead to a re-evaluation of hundreds of placenames. Why was the *Peata Corr*, presuming it was a pet crane the third commonest pet in Brehon Law Ireland is an important query and does merit a critical multi-disciplinary study. The meaning of the crane carving, connected to a funeral procession, on the base of the exceptional Celtic High Cross at Ahenny has not been explored by Irish experts to date. The connection between crane, funerals and heaven studied elsewhere in the world, may in time be examined in an Irish context, by Irish or foreign experts.

Irish archaeological research and archaezoology will undoubtedly continue to excavate new or documented settlements. The likelihood is that further crane bones will be found. Currently the Irish crane is just another extinct bird in Ireland, though the small sample size of avian bone data suggests it was once rather more common and widespread than generally imagined nowadays. There are tantalizing references to its importance in Ireland from a small range of uncontested evidence.

Evidence from elsewhere in the world suggests that the crane was once an iconic species in many localised ancient belief systems. Despite the almost complete absence of a general cultural footprint of crane in modern day Ireland, there are still unproven oral and linguistic possibilities of its iconic status. There has been no systematic collaborative examination of the *Corr* and crane references in Ireland, by linguists, glossators, archaeologists, anthropologists and geographers. The suggestion that Old Irish could hold one of the most complete multi-faceted references to that ancient pre-historic belief system, as evidenced at Çatalyhöyük (Russell 2003), cannot be proven. However, nor can an Irish crane belief system be completely dismissed. It is currently accepted that the meaning of scores of Cor references, in townland names and manuscripts, are unknown. The inconsistencies surrounding the use of the word Corr/Cor and their relationship with a crane belief system merit further investigation by experts.

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