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THE ARCHAEOLOGY OF THE IRISH DREAMTIME*

The Dreamtime is the era of creation, the time of the great Spirit Ancestors, who have profoundly influenced the traditional pattern of life as Aborigines know it today. The myths tell the story of human origins in Australia, of which much has been substantiated by scientific investigation (Flood 1989, 9).

A major stimulus to the development of prehistoric archaeology in western Europe has sometimes been credited to the poverty of its historical tradition. Where there existed no significant texts earlier than the Middle Ages (and in the case of Britain, many of these were destroyed during the Reformation), any attempt to approach the past required the testimony of material remains rather than written sources, a situation very unlike that of the classical world where Greek and Roman authors, even in antiquity, speculated about their ancestors. Although Ireland was initially far removed from the classical world, the impact of the latter on native Irish tradition stimulated the mediaeval learned classes of Ireland to anchor their myths and legends in an historical past, calibrated against that of the ancient world and the Christian calendar. Thus, the historicity of events, believed to have occurred thousands of years before the introduction of written records in Ireland could not only pass for truth with little sceptical comment by Geoffrey Keating in the seventeenth century, but still managed to bridge the broadest credibility gaps in the nineteenth-century works of Eugene O'Curry.

Generally, we approach this tradition through two of the major literary genres of early Ireland, the Ulster Cycle and the Mythological Cycle. The former, characterized by Kenneth Jackson (1964) as a "window on the Iron Age," purportedly related events set to the first centuries BC and AD, and while one could be sceptical of the precision of this dating, this group of c. 80 tales was frequently believed to have possessed a core that was established in pagan Ireland in the first four centuries AD. The extent to which the Ulster tales reflect a pagan past or the influence of classical or Biblical traditions is still hotly debated but, at least from an archaeological perspective, there is very little in the Ulster tales that cannot be more safely assigned to the time of their initial

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literary composition, i.e. c. sixth- to ninth- centuries, rather than prehistoric Ireland (Mallory 1981, 1986, 1992).

The second genre, the Mythological Cycle, presents a somewhat different picture. On the one hand, it records events in Ireland that must long precede the historical present assigned to the Ulster Cycle (Fig. 1) and, consequently, it might be seen to represent an Irish version of the Australian 'dreamtime.' On the other hand, twentieth-century scholarship has long dismissed any claims to historical antiquity for the Mythological Cycle, a dismissal evident in the way that Kenneth Jackson regarded the Ulster tales and not the Mythological Cycle as the 'oldest Irish tradition.'

The Mythological Cycle is not a particularly coherent body of literature and includes the 'prehistoric' events noted in the so-called Irish World Chronicle as reflected in various annals, pseudo-histories such as the *Lebor Gabála*, narrative tales which are obviously mythological such as the battles of Mag Tuired or ones that at least include actors who are reputed to pre-date the events of the Ulster Cycle (e.g. Conaire Mór), and finally, hints provided in the *dindshenchas*, the place-name lore of early Ireland.

The Mythological Cycle is a well-mined literary battle-field, crossed by scholars interested in the recovery and interpretation of Celtic mythology or earlier cultural history (O'Rahilly 1946), by those who find it a valuable repository of comparative Indo-European elements (D'Arbois de Jubainville 1884; Dumézil 1954, 1963, etc.), or by those who have sought to discern to what extent the early Irish had attempted to mark themselves out as the equivalent of a lost tribe of Israel and plundered the Bible to erect a glorious Irish past (McCone 1990). These are the goals to which scholarship has been traditionally anchored and where, I believe, it should probably remain. However, the occasion of the Vernam Hull lecture has tempted me to slip anchor and take the Mythological Cycle out into those seldom chartered waters which are likely to tempt only a literally-minded archaeologist. It is for this reason that I must beg more than the usual figurative indulgence in my excursus into the archaeology of the Irish 'dreamtime' and pose three questions:

- 1) does the Irish World Chronicle accurately portray the events of prehistoric Ireland?
- 2) what period do the Mythological tales reflect? and
- 3) did the mediaeval Irish deliberately create a specific genre to accommodate their Mythological tales?

Is the Irish World Chronicle accurate?

This question would appear to presuppose one of two equally absurd replies. If my answer is 'no' and a detailed rebuttal of any claims of historicity follows, I may be accused of violating Pinkerton's principle - "to confute absolute nonsense is surely as ridiculous as to write it." While if my answer is 'yes,' then the *a priori* weight of scholarly opinion will probably confine me to that particular asylum that Celtic studies seems to have very little difficulty in filling. Nevertheless, a case for the historicity of *some* of the *prehistoric* events related in the Irish annals has been made in print and there is just enough evidence to require some examination.

In 1990 Richard Warner of the Ulster Museum published an article on the historicity of the Irish *prehistoric* annals (Warner 1990). He observes that sources such as the *Annals of the Four Masters (AFM)*, although admittedly a compilation of earlier annals, does provide a remarkably accurate account of archaeologically verifiable events in prehistoric Ireland. He also suggests that the basis of the chronological accuracy of this information was king lists, the early Irish preserving a record of their prehistoric ancestors by assigning events to the regnal period of their kings, perhaps divided into some basic regnal cycle of c. 15 years. The accuracy of the annals is impressive, according to Warner, because of the systematic correlation between events recorded and accurately dated archaeological phenomena. Warner employs eight prehistoric events in his article which illustrates this high degree of correlation. These may be divided into two broad types: disasters and cultural foundations. It is my intention to present Warner's evidence first and then make some comment on these prehistoric events.

There are eight disasters recorded from the creation of the world (5200 BC according to *AFM*) until c. 500 AD and Warner believes that the reality of four of them can be supported by dendrochronological (tree-ring) evidence. There exists in Ireland a tree-ring record based on oaks running from the present back to c. 5400 BC. This material not only provides chronological information but the relative widths of the tree-rings provide a proxy record of past climate (Baillie 1993). One of the most marked forms of variation, seen in extremely narrow tree-rings in bog oaks, would appear to be the result of periods of extreme wetness and rising lake levels. These very periods correlate well with rises in acidity in Greenlandic ice cores. Both the acidity in the cores and the extreme humidity in Ireland are seen as the products of volcanic dust veils that periodically reduced temperatures in northwest Europe, thus producing a prehistoric variant of a 'nuclear winter.' Such conditions are predicted to have severely affected agriculture and the expected human response might well have

been famine and disease. The primary, although not exclusive, cause of much of this was Mount Hekla in Iceland which had a number of major eruptions during the prehistoric period. Warner's crisis periods are as follows:

1. *AFM* relate the death of the entire population of Ireland during the period c. 2380-2350 BC. The tree-rings indicate a major volcanic disaster at 2345 BC, thus missing the 'historical' date by only 5 years.

2. *AFM* relate the death of three-quarters of the people of Ireland in the year 1544 BC. The tree-rings indicate a major narrow-ring event at 1628 BC (an 84 year miss) which has been associated with the eruption of Santorini (Thera) in the Aegean.

3. *AFM* relate how during a battle led by Sirna Saeghlach a plague killed many men. This event was supposed to have occurred in the period 1180-1031 BC. The greatest narrow-ring event was an 18 year period centered on 1150 BC which correlates with one of the Hekla eruptions.

4. Great mortality of cattle is attributed to the period of 142-116 BC. The 'associated' tree-ring disaster is 208 BC (66 years out).

The remaining events are of a cultural-historical nature.

5. *AFM* indicate that "gold was first melted in Ireland" in the period 1620-1544 BC. The archaeological evidence, according to Warner, indicates the earliest gold objects at c. 1700-1600 BC.

6. *AFM* then relate that there was a second phase of gold working, the production of necklets of gold and gold rings, dated to 1332-1318 BC. On archaeological evidence, Warner correlates this with metallurgical developments of 1400-1200 BC and emphasizes that like archaeologists, the prehistoric annals divide Irish Bronze Age gold-working into two technological phases.

7. *AFM* date the establishment of Emain Macha to 668 BC. Warner reckons that the site of Emain Macha, modern Navan Fort in County Armagh, began to see its rise as a tribal capital, in the period c. 680 BC.

8. Warner notes that in *Tochmarc Étaíne (TE)*, there is recorded the building of a major trackway ("not in all the world could a road have been found that should be better than the road that they made"). This was constructed across the bog at Lamrach during the reign of Eochaid Airem who *AFM* would place 142-116 BC. Warner identifies the bog of Lamrach as the modern townland of Laragh, Co. Longford, where Barry Raftery excavated the largest timber trackway known in Ireland (Raftery 1990, 37-46). The trackway is of oak and the dendro-date for the felling of the trees of which it was constructed is 148 BC (only 6 years out).

On the basis of these archaeologically attested events, Warner (1990, 32) suggests, "It seems at least possible, to put it no more strongly, that some sort

of 'chronology of major events' was remembered from very early times to be incorporated into the annals and the stories."

Although the four disasters cited by Warner might appear to have required implausibly long memories, one might observe how an Australian archaeologist has recently claimed that "Oral traditions about events that took place many thousands of years ago have endured: the eruption of volcanoes, the rising of the seas and the change from lush vegetation to desert in the heart of Australia" (Flood 1989, 9). Hence, each of these prehistoric events noted by Warner warrants some further discussion and it is best to take them in turn.

1. The first event adduced by Warner to suggest the historicity of *AFM* is a plague that destroyed the entire population of Ireland during the period c. 2380 BC. It seems to me that when Michael O'Clery and his colleagues compiled this entry, they took both the event and the chronological reckoning, including the demographically bizarre 5000 males to 4000 females, from O'Clery's edition (Macalister and MacNeill 1916) of the *Leabhar Gabhála* (§57) which sets the plague to the week beginning the first of May (a monday, we are told; cf. also *Annals of Clonmacnoise* 13). The tree-rings indicate a major volcanic disaster at 2345 BC. The plague involved the death of Partholón's followers and the second cleansing of Ireland, the first one being the Noachian flood that removed Cessair.

The fact that this event occurs a 'round' 300 years after the coming of Partholón suggests that it has been projected from an earlier time to more recent, rather than from any regnal list. The most obvious king list that O'Clery might have applied for a retrograde reckoning would have been his own *Genealogiae Regum et Sanctorum Hiberniae* (1630) which begins with the Fir Bolg and does not compute the earlier Partholónian dates. That this date could possibly have been established on the basis of a regnal list extending to the end of the Late Neolithic, a period for which even the concept of kingship seems highly dubious, does not enhance the credibility of this correlation. Finally, as any reader of a 'minute mystery' well knows, if the plague killed everyone in Ireland, who recorded the event?

2. The second event is the death of three-quarters of the men of Ireland in the year 1544 BC (1628 tree-ring event). It should be emphasized that, as *AFM* indicate, the occasion of the death of Tighearnmas and his men was during their adoration of the pagan god Crom Cruach on the feast of Samhain ("AM 3656...At the end of this year he dies, with three-fourths of the men of Ireland about him, at the meeting of Magh-Slecht, in Breifne, at the worshipping of Crom Cruach, which was the chief idol of adoration in Ireland. This happened on the night of Samhain precisely. It was from the genuflections which the men

of Ireland made about Tighearnmas here that the plain was named.'') and there is not the slightest hint that this was induced by a plague or any other phenomena that one might have associated with a volcanic dust-veil (from the Aegean?!).

3. *AFM* relate how during a battle led by Sirna Saeghlach a plague killed many men. This event was supposed to have occurred in the period 1180-1031 BC. Actually, *AFM* specify the final year as the time of the disaster, i.e. 1031 BC (tree-ring event: c. 1150 BC). There are two problems with this correlation. The first is the actual occasion of this disaster. The plague that killed so many occurred during a battle ('AM 4169...As they were fighting the battle a plague (*támh*) was sent upon them, of which Lughair and Ceasarn perished, with their people (*muintir*), and a countless number of the men of Ireland along with them'); indeed, in the *Annals of Clonmacnoise* (Murphy, 1896), it is the battle that occasions the deaths and there is no mention of plague ('King Siorna went to meet them at the Bogg of trogy in Kyonnaghta with all the forces of the Kingdome, where a cruell Battle was fought between them with such vehemensy that almost both sides perrished therein, with ouerlabouring themselves & especially the Irish nation with their king alsoe.' *Clon* 36). Given that the occasion is a battle between male warriors, there is at least a strong presumption that this volcanically induced 'plague' was remarkably specific in which sex it affected. Finally, that *AFM* should exhibit a remarkably close dead-reckoning of these events according to regnal lists is all the more incredible in that the king involved in the battle, Sirna Saeghlach, had just come to the end of his 150 year reign (*Clon* give him a more reasonable 21 years).

4. Great mortality of cattle is attributed to the reign of Breasal Boidhiobhadh (142-116 BC; tree-ring event is 208 BC). Here, of course, we are dealing with an etiological reference that explains the name of the king ('destruction of cows'). That a murrain of cattle might have developed during deteriorating weather conditions is not to be denied in that this especially damaging disease is "generally occasioned by feeding in damp undrained marshy lands" (Doyle 1844, 124); that the occasion of this must have been a volcano-induced event is obviously another thing entirely; and that the event should be a minimum of 76 years out should also be noted, especially when events much more distant in time seem to have more precise correlations. What is particularly of interest here is that this volcanically associated event, i.e. narrow tree-ring at 207 BC coupled with high acidity in the ice-core record, may be supported by environmental evidence where we find a widespread regeneration of woodland across Ireland (and presumed reduction in population), as well as higher lake-levels in northwest Europe, including Ireland (Weir 1993). The annalistic

citation might have been more impressive if it better reflected the environmental crisis suggested by the palynological evidence.

The remaining events are of a cultural-historical nature and require correlations between the annals and archaeologically dated 'events' which cannot be nearly as precise as tree-ring dates.

5. *AFM* indicate that "gold was first melted in Ireland" in the period 1620-1544 BC (Warner's archaeological date: c. 1700-1600 BC). This correlation is neither culturally nor chronologically as impressive as it might at first appear. It should be noted that *AFM* actually indicate that "goblets (*cuirn*) and brooches (*brethnassa*) were first covered with gold and silver in Ireland." The use of gold in chasing and silver at all, coupled with the production of vessels and brooches, indicates artifacts of the Early Mediaeval (eighth-ninth century AD) period and not prehistoric artifacts (Mallory 1986). Moreover, the earliest gold working in Ireland, gold discs and other ornaments, seem to be chronologically comparable to those known from Britain and would be better dated to c. 2300-2000 BC, putting the correlation some 400 years or more off the annalistic date.

6. *AFM* then relate that there was a second phase of gold working, the production of necklets of gold and gold rings, dated to c. 1332-1318 BC (archaeological 1400-1200 BC). Here, it should be recalled that *AFM* actually divide the 'second phase' into two reigns, both driven onomastically, with Muineamhon causing chains of gold to be worn, and then Faildeargdóid ('ring-red-hand'). Culturally speaking, little can be done with these developments other than to note that what is to be understood by golden necklets could range anywhere from gold lunulae (c. 1800 BC), Later Bronze Age pectorals (c. 800 BC) or Iron Age torcs (c. 100 BC) or objects of still later periods; gold rings could also be found in either or all periods, unlike the earlier gold-working event that describes Early Mediaeval technology. In short, the objects actually depicted might cover a period in excess of 2000 years, hence any claims to a precise correlation are precarious.

7. *AFM* date the establishment of Emain Macha to 668 BC (archaeology: c. 680 BC). It should be emphasized that *AFM* are uniquely early; the other annals variously place the founding of Emain Macha to the fifth century BC (*Clon*) or the fourth century BC (*Annals of Innisfallen*, *Annals of Tigernach*). More importantly, it is almost impossible to know *what* precisely is being dated. Emain Macha was occupied sporadically during the Neolithic, then during the Later Bronze Age, through the Iron Age and possibly again in the Early Christian period. There is no *single fixed* archaeological date for the site itself other than the building of the main 40 metre structure c. 95 BC. A seventh-

century archaeological date may correlate with one of the occupation phases at the site but it is very difficult for anyone to determine whether this phase represented the 'foundation' of the site.

8. The association of Eochaid's trackway (*TE*) and the date of the Corlea trackway is the most impressive of Warner's correlations. Against it might be noted that there are a large number of trackways across this very bog, from the Neolithic to the Early Christian period, and also the fact that the trackway described in *TE* has a timber base *covered with clay and then gravel and stones*, which is not at all an accurate description of the purely timber Corlea trackway. Nevertheless, the Iron Age Corlea trackway does provide a 'disturbing' correlation with what are otherwise dismissed as purely mythological tales.

Against this background of suspiciously weak proof for the historicity of the annals, one might add that their dating of the initial land-clearance in Ireland to Partholón at 2650 BC (AM 2550) (and introduction of domestic livestock; *LG*, pt 3, 25) is at least 1500 years too recent; the establishment of the first forts at 2341 BC (AM 2859) is either 1500 years too late — if fortified neolithic sites are imagined — and over a thousand years too early if Late Bronze Age hillforts are the intended monuments (if they are Early Christian ringforts, then they are probably about 3000 years too early); the manufacture of silver shields in 1483 BC (AM 3717), if meant to indicate the use of metallic silver, is archaeologically unattested for any period, as is the introduction of four-horse chariots in 1024 BC (AM 4176); further, the assortment of treasures brought back by Crimthann in 9 AD would have required a time machine since many are clearly of Early Mediaeval manufacture.

What period does the Mythological Cycle reflect?

An archaeological assessment of the tales of the Mythological Cycle can be undertaken along precisely the same lines as that applied to the Ulster tales (e.g. Mallory 1986, 1992). Unfortunately, the body of literature is not nearly as extensive as the Ulster Cycle, and all too frequently the material culture depicted in the tales is described in so little detail that the majority of references remain achronic, i.e. the descriptions of swords, spears, shields, etc. are so generic that it is impossible to relate them to any particular period of time. For example, the tales may make reference to rivetted spears but these could date anywhere from the Late Bronze Age (c. 1200 BC) to the time of the manuscripts. Nevertheless, there are enough fleeting references to indicate that the tales were fleshed out in the Early Mediaeval period.

A number of tales make reference to objects of silver, a metal that sees no widespread use in Ireland until the seventh century AD (Mallory 1986). Hence

the silver compartments in the Brug na Bóinne (*ATDM* 3), Nuadu's silver hand (*CMT2* 29-30, 133) or the use of silver as a term of wealth (*CMT2* 184; *ELMC* 256 l. 17) must all derive from either a real Early Christian (Early Mediaeval) or literary context.

Other late motifs would be Elatha's sword (*CMT2* 51-52) which is described as "gold-hilted with inlays of silver and studs of gold" which just might pass for a high status Viking weapon but which is unparalleled as a prehistoric sword; the "decorated" (*CMT1* 35), perhaps pattern welded swords described along with the grooved swords (*CMT1* 35; *ACT* 21) would also derive from the early Middle Ages. In *ELMC* (256 l. 5-6), Fiachna is kitted out with a "gold-hilted sword," a common motif also of the Ulster tales and one that again suggests an ethnographic present of the Middle Ages and not of the Iron Age or earlier (Mallory 1981). The use of armor (*lúirech* < Latin *lorica*) is another one of the obvious anachronisms and can be found on the Fir Bolg (*CMT1* 31), the Fomorians (*CMT2* 570), and Lug (*ACT* 20). It is highly unlikely that references to archery (*CMT2* 610; *LG* sec 9, 255) represent the archaic retention of a weapon known in Early Bronze Age Ireland that was subsequently abandoned until the early Middle Ages. Similarly, helmets (*TMM* 3; *CMT1* 24; *ACT* 5) appear to be anachronisms. The iron club wielded by Sreng (*CMT1* 24) is hardly a Bronze Age weapon, and the Mac Óc (*CMT2* 104-105, etc.) wanders about the dreamtime with a purse full of golden coins (*scilling*).

In general terms then, where we can assign material culture to a specific date, there is no item that is necessarily earlier than the Early Mediaeval period, and some items are only to be explained in terms of Dark Age or Viking material culture or literary borrowings.

Did the mediaeval Irish deliberately create a specific genre to accommodate the events of the Mythological Cycle?

Both the Ulster Cycle and the Mythological Cycle represent attempts to portray events of the distant past, and this invites the question of whether the two genres were held to be distinct, whether there were two different pasts, and indeed, did the writers of the Mythological tales deliberately attempt to depict not only events of the distant past, but kit their characters out with a material culture appropriate to the remotest period of the 'dreamtime'?

The easiest way to approach this question is by direct comparison between the material culture of the Ulster Cycle and the Mythological Cycle. There are some procedural difficulties involved in tabulating the material culture of both cycles since 1) they are of very unequal size, there being far more tales and material in the Ulster Cycle, and 2) one can hardly typify one genre or the other on the

basis of a single item any more than a single find on one archaeological site can in any way define an archaeological 'culture.' As a crude rule of thumb, a list of the material culture of both the Ulster (N= 64 tales) and Mythological tales (N= 12 tales) was drawn up, and the words or items were assigned to each cycle if it could be shown that 5 or more Ulster tales included the word (item) and two or more Mythological tales. The Mythological tales employed in this task are listed in Table 1, while Table 2 indicates the most lexically rich (in terms of 'artifacts' and 'archaeological features') of the Ulster tales.

Table 1

Mythological Cycle: Lexical (material culture) terms by tale

<i>Cath Maige Turedh 2 (CMT2)</i>	30
<i>Lebor Gabála (LG)</i>	29
<i>Airne Fíngéin (AF)</i>	25
<i>Cath Maige Turedh 1 (CMT1)</i>	17
<i>Tochomlad Mac Míled (TMM)</i>	13
<i>Echtra Laegaire m. Crimthain (ELMC)</i>	13
<i>Aided Chlainne Lir (ACL)</i>	13
<i>Oidhed Chlainne Tuirenn (ACT)</i>	12
<i>Altram Tige Dá Medar (ATDM)</i>	12
<i>Imthechta Tuirill 7 a mac (IT)</i>	3
<i>Aided Echach maic Maireda (AEMM)</i>	2
<i>Scél Túain maic Cairill (STMC)</i>	2

Table 2

Number of lexical-cultural items from larger tales of Ulster Cycle

<i>Táin Bó Cúailnge (TBC)</i>	123
<i>Táin Bó Flidaise 2 (TBF12)</i>	73
<i>Togail Bruidne Da Derga (TBDD)</i>	72
<i>Fled Bricrenn (FB)</i>	62
<i>Mesca Ulad (MU)</i>	58
<i>Cath Ruis na Ríg (CRR)</i>	56
<i>Tochmarc Ferbe (TF)</i>	55
<i>Tochmarc Emire (TE_m)</i>	50
<i>Brisleach Mór (BM)</i>	50
<i>Serglige ConCulainn (SCC)</i>	47

Total Lexical Items: 145

If we extract the evidence for material culture from the Mythological tales and simply tabulate in how many tales (or on how many 'sites') one finds each particular item, then the major cultural attributes of the Mythological tales can be listed according to the number of tales in which they appear (Table 3).

Table 3
Frequency of material culture in 12 Mythological tales

<i>claideb</i>	'sword'	9
<i>carpad</i>	'chariot'	7
<i>gáe</i>	'spear'	7
<i>sciath</i>	'shield'	7
<i>sleg</i>	'spear'	7
<i>ech</i>	'horse'	5
<i>lecht</i>	'grave'	5
<i>blicht</i>	'milk'	4
<i>carn</i>	'cairn'	4
<i>cathbar</i>	'helmet'	4
<i>dún</i>	'fort'	4
<i>fidchell</i>	'fidchell'	4
<i>fert</i>	'grave'	4
<i>longphort</i>	'camp'	4
<i>raith</i>	'fort'	4
<i>tech</i>	'house'	4
	headhunting	4

The list of literary 'artifacts' from the Mythological tales is quite similar to those one would recover on an Ulster Cycle 'site' and, in fact, the results of such a comparison suggest that both cycles share so much of the same broad material culture that it is impossible to separate them on the basis of essential items of material culture. For example, if we were to distil the most common motifs of material culture, i.e. the terms most frequently employed, under each basic cultural category, into abbreviated ethnographies, the two cycles are remarkably similar (Table 4).

Table 4
Comparison of basic culture of Ulster and Mythological Cycles

<i>Ulster Cycle</i>	<i>Mythological Cycle</i>
Fight with:	
<i>claideb</i> 'sword'	<i>claideb</i> 'sword'
<i>gáe</i> 'spear'	<i>gáe</i> 'spear'
<i>sciath</i> 'shield'	<i>sciath</i> 'shield'
head hunt	head hunt
Ride in:	
<i>carpad</i> 'chariot'	<i>carpad</i> 'chariot'
Live in:	
<i>dún</i> 'fort'	<i>dún</i> 'fort'
Wear:	
<i>brat</i> 'mantle'	<i>cathbarr</i> 'helmet'
<i>slabrad</i> 'chain'	<i>brat</i> 'mantle'
Play:	
<i>fidchell</i> 'board game'	<i>fidchell</i> 'board game'
Drink:	
<i>blicht</i> 'milk'	<i>blicht</i> 'milk'
Be buried in:	
<i>carn</i> 'cairn'	<i>lecht</i> 'grave'
<i>fert</i> 'mound'	<i>fert</i> 'mound'
	<i>carn</i> 'cairn'

On the other hand, the sizeable differences in the quantity of data from each cycle (cf. Tabs. 1 and 2) is such that there are some marked differences: 1) there are 45 terms that are shared by both cycles; 2) the Mythological Cycle possesses 8 words (items) that did not meet the minimum 5-tale count in the Ulster Cycle; 3) the Ulster Cycle employs 102 words that do not meet the minimum 2-tale count of the Mythological Cycle.

Where the Mythological Cycle clearly differs is on the elaboration of names of items. For example, there are 23 names for spears in the Ulster tales, but only 7 of these occur in the Mythological Cycle; the Mythological tales employ the *carpad* 'chariot,' but lack any reference to its wheel, wheel-rim, pole, frame, or bridle, all of which are abundantly present in the Ulster tales; Mythological figures may wear a cloak, but in descriptions, little else is provided them (excepting a cape and tunic in *CMT2* 394-395) compared to the sartorial splendor of the Ulster Cycle characters. One obvious problem concerns

tales of mixed or disputed identity, the most prominent being *Tochmarc Étaíne* whose events are much more mythological than strictly Ulster Cyclich, though included in Thurneysen's canon (1921, 598-603, 610-616), and *Togail Bruidne Da Derga* (Thurneysen 1921, 621-652) which relates events of Conaire Mór which should belong to the Mythological Cycle according to the annalistic tradition, but affords one of the leading Ulster heroes, Conall Cernach, a special guest-appearance. While tales are traditionally compared on the basis of language, literary motifs, or structure, I thought it might prove interesting (if not necessarily enlightening) to employ a purely archaeological (and very crude) approach to determine the cultural provenience of early Irish tales.

The cultural material (cultural lexicon) of each tale was tabulated for comparison and a simple statistical similarity test was employed to determine which tales shared the greatest number of similarities, i.e. how close were the various tales to one another. The test, the Jaccard Similarity Measure, is quite simple and merely involves tabulating the number of correspondences between any two tales (a) and the number of times when either one tale (b) or the other (c) possesses an item that the other lacks. The value is computed by summing (a), (b) and (c) and dividing this into (a). Where there is total identity, there will only be (a) in both the numerator and denominator (for example, in two tales that both possessed a single and shared item of vocabulary such as *carpad*) and hence the value will be 1 (total similarity). Obviously, as the number of non-correspondences, either (b) or (c) increase, the denominator grows and the ultimate value falls correspondingly less than 1. This was employed for both the Ulster Cycle and the Mythological Cycle and a sample of the results are provided in Tables 5 and 6.

Table 5
Ulster Cycle tales
Cultural Lexicon with Jaccard Similarity Measure

<i>TBC</i>	-	<i>TBF12</i>	.5036
<i>TBC</i>	-	<i>TBDD</i>	.4672
<i>TBC</i>	-	<i>FB</i>	.4088
<i>TBC</i>	-	<i>CRR</i>	.4135
<i>TBC</i>	-	<i>TF</i>	.3852
<i>TBC</i>	-	<i>TE_m</i>	.3664
<i>TBF12</i>	-	<i>MU</i>	.3663
<i>TBC</i>	-	<i>BM</i>	.3609
<i>TBC</i>	-	<i>MU</i>	.3525

TBC	-	SCC	.3511
<i>TBF12</i>	-	<i>TF</i>	.3431
<i>TBDD</i>	-	<i>TF</i>	.3069
<i>TBC</i>	-	<i>TE</i>	.2707
<i>TBC</i>	-	<i>AG</i>	.2576

One might also include in the denominator the number of corresponding absences, i.e. when both tales fail to share a common word, wherein one employs a Russel and Rao Similarity Measure. Although such a measurement corresponds in general with the previous, it tends to reduce the level of similarity, and so the Jaccard is preferred for the following exercises.

Table 6
Mythological Cycle tales (Jaccard Similarity Measure)

<i>CMT1</i>	-	<i>TMM</i>	.5789
<i>CMT2</i>	-	<i>LG</i>	.4146
<i>CMT2</i>	-	<i>AF</i>	.3846
<i>AEMM</i>	-	<i>STMC</i>	.3333
<i>ACT</i>	-	<i>CMT1</i>	.3182
<i>ACL</i>	-	<i>ATDM</i>	.3158
<i>CMT2</i>	-	<i>ELMC</i>	.3030
<i>LG</i>	-	<i>AF</i>	.3000
<i>ELMC</i>	-	<i>AF</i>	.2759
<i>CMT2</i>	-	<i>CMT1</i>	.2703
<i>ACT</i>	-	<i>TMM</i>	.2500
<i>ACL</i>	-	<i>TMM</i>	.2381
<i>LG</i>	-	<i>ACT</i>	.2500
<i>CMT1</i>	-	<i>LG</i>	.2162
<i>LG</i>	-	<i>TMM</i>	.2059

There are several obvious conclusions that one can draw from each of these tables. First, correspondences are basically a product of the size of the tale, the larger the tales compared, the better chance of correspondingly large shared vocabularies (compare Tabs. 1 and 2). From this we can see the central position of the *Táin* which largely defines the material culture of the Ulster Cycle. It is perhaps of interest that it shares its greatest number of similarities with the late and stylistically dreadful *TBF12*, the later version found in the Glenmasan Manuscript, that plundered the vocabulary but not the literary style of the earlier

tales. But we can also see how firmly the *TBDD* fits with the other Ulster tales. As for the Mythological Cycle, the larger tales again appear to predominate, although they draw their similarities from much smaller 'pools' than the larger Ulster tales.

Finally, what about *Tochmarc Étaíne*? Table 7 illustrates its similarity value against its closest unequivocally Mythological tales and how it fares against a number of the Ulster tales.

Table 7

Similarity Measure between *TE* and selected tales (most similar Mythological Cycle tales marked in bold)

<i>AG</i>	.2951
<i>TBC</i>	.2707
<i>MU</i>	.2625
<i>FBL</i>	.2623
<i>TBDD</i>	.2527
<i>TBF12</i>	.2526
<i>TF</i>	.2500
<i>SCC</i>	.2500
<i>EF</i>	.2381
<i>FB</i>	.2326
<i>TE_m</i>	.2267
<i>BM</i>	.2208
<i>BDC</i>	.2000
<i>LMU</i>	.1964
<i>ELMC</i>	.1905
<i>LG</i>	.1500
<i>CMT2</i>	.1351

The table, at least from an archaeological viewpoint, justifies Thurneysen's decision to reckon *TE* among the other heroic tales, its similarity value higher with 15 of the Ulster tales compared to its highest rating against any tale from the Mythological Cycle.

Lest it be imagined that there were no attempts to produce an ancient world in the Mythological Cycle, we should note that the authors did employ deliberate archaisms. For example, burial in the Mythological Cycle does employ such typically 'pagan' constructions as the *fert* (*CMT1* 57; *ACT* 66; *TMM* 7; *LG* pt iii, 7, 45) and *carn* (*CMT1* 54; *AEMM* 236), although these may be

'retrospective' motifs rather than retentions of archaic behavior (Mallory 1992, 130-131). There are at least two other occasions where there are possible archaisms. The first is probably inadvertent, while the second seems deliberate and is much more interesting.

In the tale *Altram Tige dá Medar* we find the demi-gods of the Tuatha Dé Danann driving about the Boyne in chariots (*ATDM* 6) during what is represented as the pagan period. Subsequently, Finnbarr insults Eithne (saying that she sits on her heels) and thus shames her into a high lactose diet provided by a wonder cow and served in a golden vessel. This she continues to drink until the time of Patrick when all Ireland is christianized. She goes over to the new religion although Aengus sets out after her now on horse-back (*ATDM* 11-12). It might be argued that the author was conscious that while chariot-riding was suitable for the earlier pagan period, even demi-gods would have required a supposedly contemporary mode of transport by the time of Patrick.

Far more interesting is the bizarre encounter in *CMTI* (24-26) between Sreng of the Fir Bolg and Bres of the Tuatha Dé Danann. Both are sent on reconnoitering expeditions by their respective forces and their initial encounter is an ethnologist's delight (Fig. 2). The Fir Bolg say:

'Let Sreng set out to visit them, for he is big and fierce, and bold...and uncouth and terrifying to behold.'

Sreng rose up, and took his strong hooked reddish-brown shield, his two thick-shafted javelins, his death-dealing sword, his fine four-cornered helmet and his heavy iron club.

[Bres of the TDD goes out to meet Sreng.] He carried his shield and his sword and his two great spears.

The two men drew near each other...each was astonished at the other's weapons and appearance. Sreng wondered at the great spears he saw, and rested his shield on the ground before him, so that it protected his face. [They exchange greetings and Bres says:]

'Show me your weapons.'

'I will,' said Sreng, and thereupon unfastened his thick-shafted javelins. 'What do you think of these weapons?' he said.

'I see,' said Bres, 'huge weapons, broad pointed, stout and heavy, mighty and keen edged...what do you call them?'

'Battle javelins (*cruisecha catha*),' said Sreng.

The key distinction is that Sreng is armed with a *crúisech* while Bres has a *sleg* 'spear.' The contrast between the two weapons helped to set O'Curry (1873) off into dividing arms in the collections of the Royal Irish Academy into the categories of Fir Bolg and Tuatha Dé Danann weapons. The *sleg* suffered from an embarrassment of choices since all it required was a pointed spear and O'Curry and Sullivan figured the *sleg* with a wide variety of spears from various periods (Fig. 3). The *crúisech*, however, was another matter since the trait that distinguishes the two weapons is the point of the *crúisech* which is described in Irish as *máela*, generally translated as 'blunt, rounded or pointless,' thus producing for O'Curry a pointless spear (Fig. 4).

Other tales outside the Mythological Cycle provide little help. The *crúisech* occurs in at least eight tales of the Ulster Cycle, but the descriptions are too variable to build a single image. In one late tale (*TBF12* 4-118), Fergus launches a *manafs* at a dog which turns into a *crúisech* by the time it penetrates the dog's head; in another tale the *crúisech* alternates with *gáe* and *sleg* (*BM-B* 31, 37), and we can even find a *crúisech* described as *chenngér* 'sharp headed' (*BM-B* 40).

Is the description of the *crúisech* in *CMT1* simply an excuse to maintain the annalistic fiction that no one was ever killed in Ireland by a pointed spear until the Tuatha Dé Danann came? Or is it a deliberate attempt at antiquity?

O'Curry finally identified the *crúisech*, a weapon of the Fir Bolg, with the illustration of an Early Bronze Age halberd (Fig. 5). The item in question is not a spearhead but a dagger-like blade that was mounted perpendicular to its shaft, like a reaping hook. It seems to have been extraordinarily popular in Early Bronze Age Ireland (and was incidentally also a basic weapon of the Chinese warrior of the Shang dynasty). O'Curry's error of identification may still have something to recommend it. *Chronicum Scottorum* relates the following event for the year AD 1115: "a sword was found at Emain in the ground, a man's foot from its groove to its edge on either side." This is, for a sword, a nonsense description; the blades of the largest Hallstatt swords in Ireland are still only c. 5.2 cm across; however, as Will Forbes (1990) has suggested, the annals might just be describing a halberd which could boast a blade up to 11.5 cm wide. It is perhaps salutary to recall that antiquities have been recovered ever since they were lost, i.e. while archaeology may be a relatively recent science, the discovery of antiquities is as old as material culture itself. Moreover, the annals remind us that people were discovering antiquities throughout the time of early Mediaeval literary composition. This raises the possibility that an early Christian redactor, familiar with the occasional discovery of very wide and

rounded-looking halberds, presumed that it was a spearhead from the period of his own 'dreamtime,' much as O'Curry had in the nineteenth century.

Conclusions

This brief excursion into the nuts and bolts of the Irish dreamtime has hopefully illuminated some aspects of the Mythological Cycle that extend beyond the idle pursuits of an archaeologist who enjoys the occasional foray into the world of literature. The so-called prehistoric annals do not, in my opinion, offer much in the way of impressive correlations with the actual prehistory of Ireland, with the possible exception of the Corlea trackway and the trackway described in *Tochmarc Étaíne*. The tales themselves, no matter what their structural antiquity, were fleshed out with either literary motifs or with the material culture of the Early Mediaeval period in which they were composed or redacted. There seems to be little evidence that the early Mediaeval Irish recognized a difference in the ethnographic present between the Ulster Cycle of tales and the reputedly somewhat earlier Mythological tales, although, as in *CMTI*, there is the occasional attempt to portray the material culture of a different, possibly more archaic society. Finally, as if the reminder were really needed, we can see how the distinctions between the Ulster and Mythological cycles, at least in terms of material culture, are the constructs of modern scholarship and not of the tradition from whence they emerged.

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Fig. 1: The Ulster and Mythological cycles keyed against their 'historical' dates in the *Annals of the Four Masters* and corresponding archaeological periods.

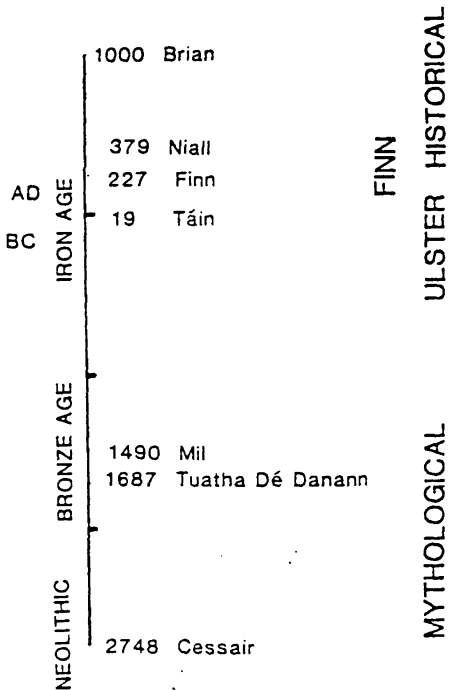


Fig. 2: The encounter between Sreng and Bres (by B. N. Hartwell).

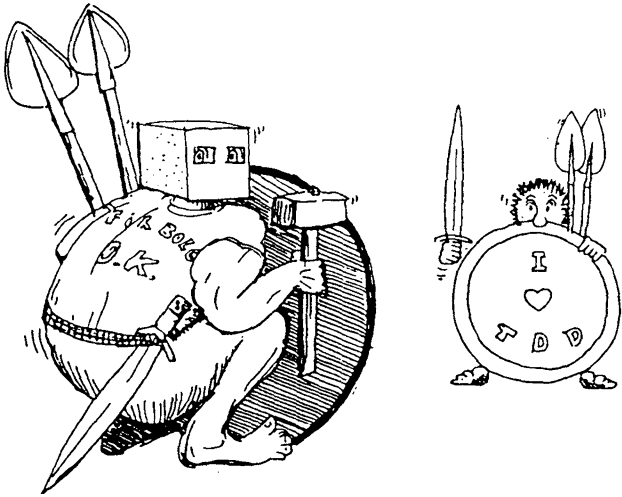


Fig. 3: 'Tuatha Dé Danann' spearheads.

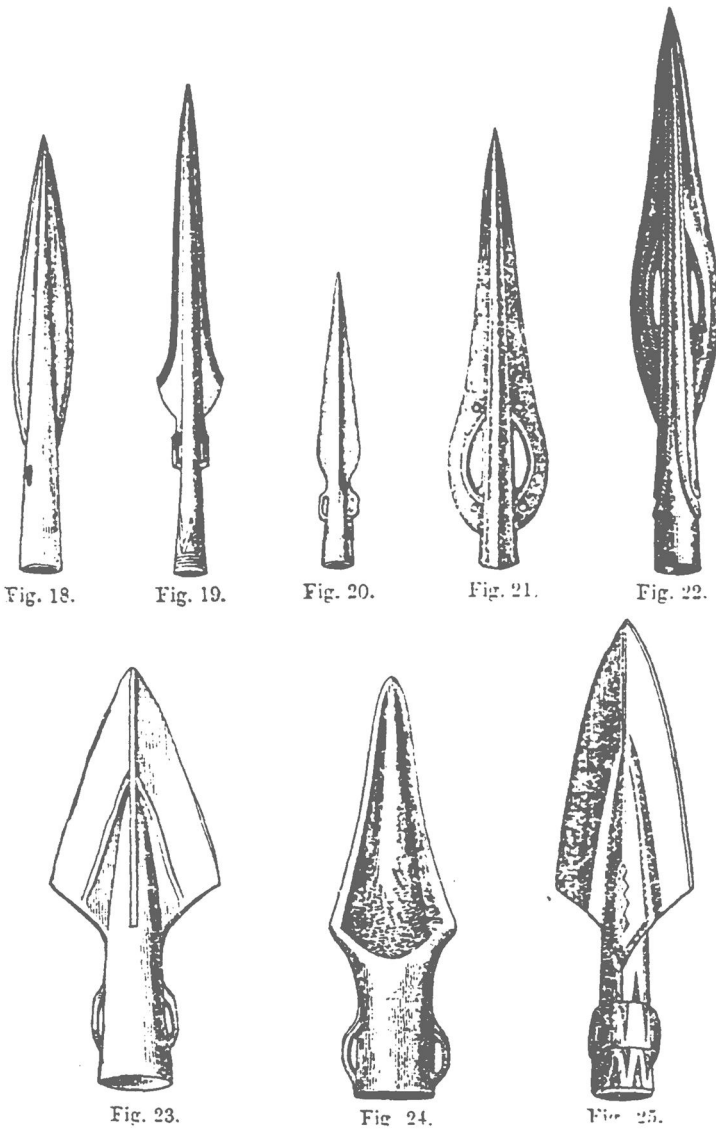


Fig. 4: 'Blunt' or 'rounded' spearheads?

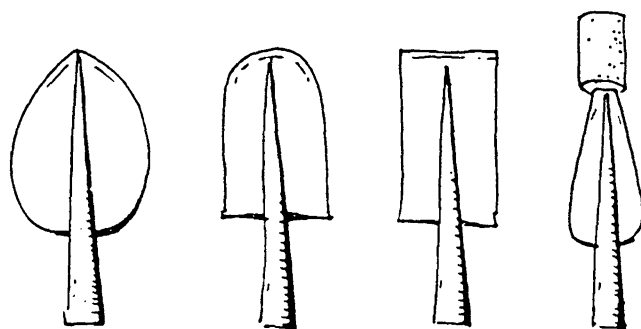


Fig. 5: An Early Bronze Age halberd blade.

