

The Origins of the Irish

Author(s): J. P. Mallory

Source: *The Journal of Irish Archaeology*, Vol. 2 (1984), pp. 65-69

Published by: [Wordwell Ltd.](#)

Stable URL: <http://www.jstor.org/stable/30001584>

Accessed: 13/03/2014 19:47

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Wordwell Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Irish Archaeology*.

<http://www.jstor.org>

THE ORIGINS OF THE IRISH

J.P. MALLORY

ABSTRACT

On the 5th May 1984 the Irish Association of Professional Archaeologists held a seminar on the problem of the earliest appearance of Irish-speaking Celts in Ireland. The participants included not only archaeologists but also representatives from linguistics (Prof. G. Mac Eoin) and environmental studies (I. Goddard). Through several hours of often heated (sometimes quasi-homicidal) discussion there were occasional moments when the moderator could detect what might pass for consensus opinion among Irish archaeologists, i.e. the absence of violent objection. Although no fully satisfactory solution to the problem could be found, the moderator of the seminar was invited to acquaint readers with the discussions in a format designed to stimulate further research and comment in the pages of this journal.

THE QUESTION

The question put to the seminar was: when did the Irish first arrive in Ireland? For the purposes of discussion an Irishman was defined as one who spoke either the earliest attested form of the Irish language or a language immediately ancestral to it. Such a definition then pertains to the appearance of Irish-speaking Celts and is not attendant on any other features such as physical type, material culture, or, obviously, is to be confused with the arrival of the first people in Ireland. Any attempt to answer this question will probably involve some, if not all, of the issues briefly reviewed below.

BASIC PREMISE

In translating an essentially linguistic definition of the problem into cultural-historical terms, one major premise is required. Languages cannot diffuse in the vague manner often assigned to the expansion of art styles or ideas but require a population vector. In short, the appearance of the Irish language in Ireland cannot be explained without reference to an intrusion of Irish-speaking people into the island. J. Waddell, however, cautioned the seminar that a prestige dialect could very well expand in association with the spread of an art style or prestige goods. The moderator then emphasized that while a dialect might appear to spread along the path of an art style or goods, still some form of intrusion is logically necessary to account for the presence of such a prestige dialect in Ireland.

METHOD

The clearest method of resolving a problem that requires a reconciliation between linguistic and archaeological evidence involves first establishing the narrowest possible time frame for the emergence of the Irish language on the basis of linguistic evidence and then reviewing the archaeological record within these limits. It is left to the archaeologists to determine what sort of evidence would be most congruent with demonstrating an Irish intrusion.

OGHAM

The earliest undisputed evidence of an Irish presence in Ireland are the ogham inscriptions since the names and language found on these stones are unequivocally a primitive form of Irish. There is, however, considerable debate as to the earliest appearance of ogham stones with proposed dates ranging from as early as the first century A.D. to as recently as the sixth century A.D. The moderator's attempt to gain consensus for a date of c. 300±100 A.D. for the earliest ogham stones was not successful, although most agreed that a date by the fifth century could not be regarded as too objectionable. Naturally, such a recent date tends to mitigate against the utility of the ogham stones since we are left incapable of

directly demonstrating an Irish presence before the arrival of Saint Patrick.

PTOLEMY'S MAP

Ptolemy's map (or more properly gazetteer) of Ireland dates to c. 2nd century A.D. and includes the names of 55 rivers, tribes, towns and islands. Although many of the names are clearly Celtic, the interpretation of these names has been much disputed, especially in the writings of T.F. O'Rahilly and J. Pokorny. The former argued that the map could not have represented the situation of 2nd century Ireland because (1) only a quarter of the names could be associated with later historical sources which suggested a longer time interval between the map and early Irish history. (2) no names were conclusively Irish, and (3) at least six names were arguably Brittonic (P-Celtic) e.g., *Brigantes*, *Menapii*, *Logia*, *Iverni*, etc. In opposition, J. Pokorny argued that there were genuinely Irish names in the gazetteer although he did admit that perhaps two of the names were P-Celtic.

Consensus opinion today holds that Ptolemy's map does date to c. 2nd century A.D. and is unlikely to have been cribbed (as O'Rahilly suggested) from Pytheas c. the 4th century B.C. But the integrity of Ptolemy's description of Ireland as a source for linguistic or historical conclusions is greatly mitigated by the absence of a fully definitive and reliable edition of the work, the number of languages through which the names must have passed before arriving in their Greek forms, and the paucity of names that offer phonological structures that would permit a distinction to be made between Irish and other Celtic languages. Especially important here is the possibility that the probable source for many if not most of the names may well have been Brittonic speaking merchants who would have naturally resolved Irish names into their own language before communicating them to Roman (?) inquirers. Hence there is little wonder that some of the names would appear to be British. This scenario is made all the more attractive because of the decidedly coastal nature of Ptolemy's description of Ireland.

But it was also suggested that the evidence for a British or Gaulish presence in Ireland during the 2nd century A.D. cannot be dismissed so lightly no matter what other explanations of Ptolemy's map can be found. Some of the apparently British or Gaulish names, coupled with later Patrician evidence for a British presence in Ireland and archaeological evidence to be cited below, would all support R. Warner's thesis that some British or Gaulish groups were in Ireland in the 2nd century A.D.

The only solid lesson that can be drawn from Ptolemy's gazetteer is that Celtic-speakers would appear to have occupied Ireland by the 2nd century A.D., although it is

impossible to determine for sure whether they spoke Irish or another Celtic language(s).

CONTINENTAL CELTIC

The Continental Celtic languages, specifically Gaulish, Lepontic (of northern Italy) and Hispano-Celtic, have frequently been brought to bear on the problem of Irish origins. Such evidence has been employed to offer both a chronological yardstick to potential Celtic migrations and to offer a possible Continental homeland for the immediate ancestors of the Irish.

Prof. G. Mac Eoin outlined the relative chronology of those linguistic changes that brought into existence the Celtic language. The change from **q* to *p*, one of the main dialectal changes that separates Irish from other Celtic languages, had occurred at least by c. 325 B.C. with classical references to the Pretanni. That Irish did not share in this later innovation may suggest that it had not been in contact with most other Celtic languages at this time. Furthermore, K. Horst Schmidt's proposal for the relative linguistic development of the Celtic languages was briefly reviewed by the moderator. Schmidt suggests that Goidelic (Irish) separated from the other Celtic languages first, thus avoiding the **q p* shift and the **m/n am/an* shift. Then followed Hispano-Celtic which moved off before the **q p* but after the **m/n* shift. Finally, all of the other Celtic languages (Brittonic, Gaulish, Lepontic) remained in some form of loose contact permitting the sharing of the **q p* innovation.

The historical implications of this proposal are intriguing since they suggest that the Irish may have left the Continent before the movement of Celts into the Iberian peninsula. This is often set to c. 700-500 B.C. following the equation of "Late Hallstatt = Celts". By extension then the Irish should have left the Continent prior to the appearance of La Tène and may have been in the British Isles sometime before c. 700-500 B.C.

Although the moderator sought to see whether this horse would run with the other participants, it must be admitted that such a concatenation of reasoning and assumptions does little to convince. It requires among other things for Iberian archaeologists to have successfully resolved the problem of who were the first Hispano-Celts, a task not markedly easier than the one confronting Irish archaeologists. In addition, Schmidt's proposals have not been without severe linguistic criticism and cannot stand as an unimpeachable source of historical reconstruction either in their specifics or even necessarily in its broader model of how linguistic innovations may move through the territory of its speakers. And finally, that P-Celtic, an admitted later innovation, did exist by the fourth century B.C. wins us less than we might hope since one can devise any number of scenarios for justifying an Irish presence in the British Isles or on the Continent either before or after this date.

Finally, the Iberian solution to the Irish problem was briefly raised. In some recent work the retention of the labio-velar (**q*) in Hispano-Celtic has been pressed to support an Iberian origin for the Irish. This is naturally coupled with a number of archaeological similarities and may be topped off with the familiar Medieval Irish legends of the Sons of Mil. But it was argued that the similarities between Irish and Hispano-Celtic are best seen as shared retentions of old inherited features and not common innovations that would suggest a closer historical relationship. In addition, the evidence of Iberian place-names is not really paralleled in Ireland, and indeed Ireland shows certain Celtic elements, e.g., —*magus*, that occur in Britain and Gaul but not in Iberia. It was unfortunate that one of the supporters of the Iberian argument was not able to be present at the seminar and so it is with only partial justification that we can conclude that consensus opinion was not impressed with an Iberian origin for the Irish.

With reference to the Sons of Mil argument, all matters relating to early Irish mythology or legend were excluded

from discussion. The frequently heard expression: "There might be something to those old legends after all" is too easily open to the simplest retort: "On the other hand, they might be a load of rubbish!"

INDO-EUROPEAN

Irish as a Celtic language is also by extension a member of the Indo-European language family and hence ultimately derived from Proto-Indo-European. On the basis of nearly two centuries' accumulation of linguistic and archaeological evidence the Proto-Indo-European community is believed to have existed c. 4000-3000 B.C. in eastern Europe and it is highly unlikely that any Indo-European language had reached the fringes of Atlantic Europe prior to c. 3000 B.C. Consequently, an Irish intrusion cannot be associated either with the seventh millennium B.C. colonization of Ireland nor subsequent neolithic colonization. As neither of these have been seriously entertained, this conclusion was non-controversial.

BEAKERS

A number of linguists and archaeologists have associated the Beaker horizon with the Irish or early Indo-Europeans in Ireland. These arguments rest on an apparent intrusion of a new pottery type, burial mode, changes in economy, metallurgy, etc. that dates from c. 2500 B.C. All of this also involves archaeological issues of extreme complexity coupled with appallingly meagre evidence and there is still no consensus opinion as to whether the expansion of the Beakers should be assigned to a people or merely the expansion of a cult package. In any event, to table the solution to our problem of Irish origins until the resolution of the Beaker problem invites an indefinite if not eternal wait. In addition, the moderator argued that there were several reasons why the Beaker solution would appear to be a most unlikely one.

On a variety of linguistic grounds the arrival of the Irish in this island by c. 2500 B.C. is highly improbable. The degree of difference between the earliest British and Irish texts does not appear anything like so great as to indicate such a long period of separation. Rather the language of the ogham inscriptions when compared with the earliest linguistic evidence in Britain suggests a relatively short separation between these dialects, something much closer to c. 500-1000 years and not c. 2500-3000 years by which time we should have expected almost total mutual unintelligibility. Furthermore, Irish shares apparently inherited Celtic cultural vocabulary that includes such items as iron, lead, silver, chariots, etc. — items not encountered in Ireland until the first millennium B.C. To place the Irish here at c. 2500 B.C. would require all of these terms to have been loans from other (Celtic?) languages, undetectable from the inherited vocabulary, a situation possible but not particularly probable. Irish also shows a general lack of or very weak dialectal differentiation, a phenomenon suggestive of a late rather than an early entry. If Irish had been spoken in Ireland c.3000 years before historical records we would have expected much greater dialectal differentiation than is known.

Finally, the major and rapid restructuring of the Irish language from the primitive Irish (as on the oghams) into Old Irish (such as the restructuring of the personal name *Cunaguso* to *Congus*) is reminiscent of a substrate effect on the Irish language, i.e. the effect of an aboriginal population adopting a language markedly different from their own. If the substrate effect does underlie such restructuring of Irish, then the Irish language should have been introduced at least proximate to the appearance of the effect and not some 3000 years before:

Although not one of these arguments is wholly conclusive on its own, there was a certain degree of consensus that archaeologists and linguists are justified in confining their search for the first Irishman to c. the 1st millennium B.C. rather than the beginnings of the Early

Bronze Age which would, on the grounds outlined above, appear very unlikely.

ARCHAEOLOGICAL FRAMEWORK

The consensus opinion of the seminar was that the Irish intrusion implied in the problem should be set to the period c. 1000 B.C. — 500 A.D. During this period the archaeologist tends to isolate six chronological horizons or events that might offer potential evidence of an intrusion. These are briefly:

1. *Late Bronze Age (Dowris)*
2. *Hallstatt C/ Terminal Bronze Age c. 700-600 B.C.*
3. *La Tène B/C. Sword Style, c. 300-200 B.C.*
4. *Late Pre-Roman British Iron Age, Boss Style, c. 100 B.C.*
5. *Early Roman, c. 100 A.D.*
6. *Late Roman, c. 300 A.D.*

Each of these different periods was briefly reviewed and discussed.

Late Bronze Age

The Dowris phase is characterized by lakeside settlement, a mixed economy with clear evidence of both agriculture (saddle querns, socketed sickles, socketed axes for forest clearance?) and stockbreeding. The nature of the metal work, the primary source of evidence, seems to reflect a highly acquisitive society with its c. 85 hoards of bronze and gold. Society utilized this metallic wealth in the production of female ornaments, cult objects, and a vigorous production of weapons, especially swords but also spears. M. Avery added that the socketed axe might be better interpreted as a weapon rather than tool on the basis of the depiction of similar instruments in the hands of Iron Age warriors featured on Italian *situlae*. According to Prof. G. Eogan it was really impossible to decide whether the appearance of the new metal types could be assigned to intrusion or merely contacts. B. Raftery hinted that the absence of burial remains from the Dowris phase at least mirrored the similar negative evidence for the earlier Bishopsland. In general, the absence of most categories of cultural evidence other than metallic makes this period difficult to evaluate with regard to the issue of Irish origins.

Hallstatt C

The evidence for a Ha C intrusion rests primarily on the appearance of Ha C swords in Ireland. Their distribution in the British Isles includes the Thames, Eastern Scotland and Ireland, where there are c. 50 examples known. They project a confusing picture since they are all of bronze and are of clear insular manufacture but are not normally found associated with native Irish Late Bronze Age material.

In addition to specific metal types, the collapse of the late Bronze Age metallurgical industry and the earliest appearance of iron metallurgy drew some comment. The idea that the introduction of iron metallurgy presupposed at least the intrusion of immigrant smiths was not held to be convincing and several participants agreed that Late Bronze Age smiths could have easily been capable of learning the new techniques. Indeed, iron as a point of attraction to potential colonists was discounted given the paucity of iron objects found in Ireland during the early first millennium B.C.

La Tène B/C, Sword Style

The earliest Irish La Tène material (metal work) exhibits direct Continental inspiration although it is generally of Irish manufacture and at least one generation removed from its Continental proto-types. The earliest material is concentrated in the north-east with a slightly wider, but still predominantly northern, distribution for the later more insular material. A major component of this new material is weaponry which suggests the arrival of both new craftsmen and their clientele, generally described as warrior chieftains and their retinue. This scenario was basically supported by

both R. Warner and B. Raftery and does offer at least one possible example of some form of intrusion.

Late Pre-Roman, Boss Style

A second wave of La Tène material appears in Ireland and would seem to derive ultimately from British inspiration. The distribution is again confined primarily to the north and may suggest the movement of craftsmen but does not present a convincing case for larger numbers of people. This too was agreed in principle by the two Iron Age authorities in attendance.

Early Roman

By c. 100 A.D. Roman material is found in some areas, particularly Leinster where there is also evidence for British or Gaulish tribal names. The intrusive material far outweighs the amount of native material in these areas. The nature of the evidence which includes small military ornaments and graves of a Roman type supports the hypothesis of an actual movement of small groups of people, auxiliaries, etc. It is difficult to attribute such remains to anyone other than non-Irish speaking Celts, possibly refugees from Britain or the Continent.

Late Roman

A clear replacement of earlier Iron Age material by Late Roman types was underway by the 4th century A.D. and by c. 700 A.D. it had affected the entire country although it appeared latest in the north-east. This may be explained by a major series of intrusions from Britain probably produced by the destabilization and collapse of Roman Britain.

Conclusions

A review of these different horizons produced no consensus opinion as to which one might be associated with the initial entry of the Irish. While it might seem less probable, for example, to associate the Irish intrusion with the final two migrations and support the La Tène B/C migration, the participants made it clear to the moderator that they were not going to opt for any particular solution when all of the information was so desperate. B. Raftery suggested that without such clear evidence of invasion such as an intrusive Ha C or La Tène cemetery, there was no reason to see any major evidence for intrusion in any of the horizons reviewed.

NAVAN FORT

Although not yet published, the site of Navan Fort may play a part in the resolution of the problem of Irish origins and it was discussed during the seminar. The fort appears to begin as a Late Bronze Age settlement dating to c. 700 b.c. (with a desperately wide range for dendro-calibration). Here there were found a series of superimposed annular wall slots representing a settlement of round houses. Associated with these was material of the Late Bronze Age such as a socketed axe, small leaf-shaped spearhead and sickle, and Ha C material such as the chape of a sword and a pin, and sherds of coarse flat rimmed pottery. Settlement continued in the same place with a later succession of circular houses which were associated with La Tène material such as a ring headed pin in the plastic style, a blue glass bangle, bone dice and four iron objects. Following this settlement phase was the erection of the now famous large ritual structure with a central post dendro-dated to c. 100-90 b.c. but unfortunately unassociated with metal objects.

Navan Fort appears to illustrate a continuity of settlement stretching from the Later Bronze Age through the remaining half of the first millennium B.C. and including material from most of our potential invasions. This is particularly important since Navan Fort is clearly

identified as Emain Macha, the ancient capital of Ulster, and raises the problem of continuity within an especially important royal site. Furthermore, the coincidence of the dates of the ritual structure at Navan and the Dorsey, a high earthwork enclosure on the presumed ancient border of Ulster, hints at (though does not prove) an association between Ulster's ancient capital and the series of linear earthworks that have traditionally been seen to have served as the defence of Ulster. All of this suggests the erection of major political territories in Ireland by c. the 1st century B.C. and cannot help but bear on the nature and date of Irish intrusions.

PALAEO-ENVIRONMENTAL EVIDENCE

I. Goddard offered a general review of the evidence for environmental change over the last millennium B.C. based on palynological work carried out in the north. Goddard's scenario included a clearance phase approximately contemporary with the Bishopsland phase c. 1200 B.C. followed by forest regeneration. Then there was another series of clearances roughly contemporary with the main *floruit* of the Dowris phase c. 900-600 B.C. which was again followed by forest regeneration and the development of blanket peat suggestive of abandonment, an event possibly associated with the collapse of the Late Bronze Age industries. Later during the La Tène period there may have been climatic amelioration and further clearance. An attempt to associate this with the appearance of rotary querns in Ireland was hampered by the absence of S. Caulfield who could have no doubt contributed much on this aspect.

DAL RIADA

The moderator with the assistance of A. McDonald attempted to introduce the Dal Riada expansion of Scotland as a test model for the problem before the seminar. The colonization of south-west Scotland from Ulster in the c. 5th-6th centuries A.D. can be seen as relevant to our problem since it involved the historically attested spread of the Irish language over an area approximating the size of Ireland. This expansion would appear to have taken c. 600 years. A. McDonald offered a brief review of the evidence for expansion purely from the archaeological viewpoint. At c. 500 A.D. Argyll would have appeared like a basic continuation of the Scottish Iron Age. By the beginning of the 7th century some secular sites would have appeared similar to some found in Ireland and by the end of the century there were also ritual monuments with a greater similarity with Ireland than Celtic Britain. However, many of the most typical features of the Irish archaeological landscape such as ringforts (raths) would have been absent from Scotland. Consequently, it would be extremely difficult to substantiate archaeologically a folk movement from Ireland to Scotland that would account for the absorption of the native population by Irish (Gaelic) speaking peoples.

The difficulty that one confronts with the Dal Riada problem, where an historically attested intrusion and colonization is so poorly demonstrable from the archaeological standpoint, does not predispose one to expect an easy solution to the problem facing the seminar. In addition, the time involved in the expansion of the Gaelic language and power in Scotland, lasting as it did over a half millennium, suggests a long process rather than a single event of high archaeological visibility. Indeed, R. Warner throughout the seminar was at great pains to warn of the mirage of seeking a "unique event" in the archaeological record to account for the arrival of the Irish, and taking the lead from C. Hawkes' concept of "cumulative Celticity", suggested how illusory such a search was. It should be clear then that the initial intrusion might be barely visible in the archaeological record and be followed by the expansion of a prestige dialect, perhaps along the lines suggested by J. Waddell, over a period of many centuries.

68

THEORETICAL MODELS

At the conclusion of the seminar the participants permitted the moderator to inflict upon them a somewhat more theoretical discussion of the issues before them. He observed that almost all discussions on such archaeological-linguistic problems usually degenerated into the question: "Is there sufficient evidence for intrusive material culture in the archaeological record to sustain an argument for an ethno-linguistic assimilation?" This normally degenerates into argument by decibels as opponents assert with increasing passion that the evidence adduced supports either a clear instance of intrusion or merely contact, e.g. "how can anyone in their right mind imagine that Ireland was colonized by invaders on the basis of a mere fifty Halstatt swords?" versus "If fifty Halstatt swords aren't enough to prove an invasion of warriors, then, pray tell me, what is proof?" Such arguments can go on *ad infinitum* with La Tène metal work, rotary querns, or any other items that may suggest outside origin. Only a fully intrusive cemetery is likely to convince most sceptics and even then this need not convince anyone that a successful ethno-linguistic assimilation had been the consequence. It is time that we returned to first principles.

Given the likely population growth that followed the introduction of an agricultural economy in the neolithic, it is more than probable that all subsequent immigrations into Ireland were carried out by populations numerically far inferior to the native population(s). And excepting genocide against the native pre-Irish population, the Irish most likely assimilated the local population of Ireland gradually over the course of centuries. They did not impose their language on the aborigines, but rather induced them to adopt Irish. Such language change is invariably preceded by a period of bilingualism where the native speaks both his own language but also learns that of the intruder. Consequently, in order to resolve the problem of Irish origins it is necessary not only to demonstrate intrusion but also to explain the reasons for bilingualism.

Bilingualism is normally not coerced out of a people (anymore than a language teacher can successfully beat Latin paradigms into the head of an unwilling student; naturally, state level societies can engage in coercion), but rather people are induced into it for their own advantage. The main inducements are better access to goods, status, power, security, etc. Now the primary factors influencing these inducements are social organization and social permeability. There is sufficient evidence that "assimilatory" societies do not necessarily correlate directly with political dominance, military superiority or any of the other attributes often sought by archaeologists. In short, an intruder armed with a new sword, to take an obvious example, is no inducement in itself to learn his language unless the native by way of the new language can acquire such a sword for himself. A closed society of invaders may conquer the natives but unless they can assimilate them they themselves will eventually disappear into the numerically superior aboriginal population. Consequently, an archaeological solution to the problem of Irish origins must generate models of competing communities with different social organizations, one of which can be predicted to assimilate the other. Three very woolly models (fairy tales?) were offered as examples rather than full-fledged hypotheses.

Scenario 1: The collapse of Late Bronze Age society was contemporary with the intrusion of an Irish speaking population. Earlier settlement focus on local aristocracies was replaced by intruders who establish their own major centres of communication, e.g., major social or religious centres such as the Navan Fort. These introduced into the earlier patterns of dispersed settlement(?) social points controlled by Irish speakers. Access to goods was then concentrated on such centres and the native population began to adopt Irish in order to

obtain goods, access to public ritual, etc.

Scenario 2: Collapse of Late Bronze Age agricultural economy was contemporary with intrusion of more mobile Irish pastoralists. These were able to increase their own wealth in livestock and attract the participation of natives into new social groups such as war bands. Earlier native communities were eventually assimilated by economically and socially more successful (and aggressive) Irish communities.

Scenario 3: Collapse of Late Bronze Age agriculture thrusts native population into a far less efficient pastoral economy. An intrusive Irish population entered during climatic amelioration. Armed with the rotary quern and a more intensive agricultural economy, they not only successfully colonized parts of Ireland but were able to out-compete native population who had degenerated into depressed pastoralist societies occupying marginal uplands.

CONCLUSIONS

Although the seminar held by the *Association of Irish Professional Archaeologists* was not successful at producing an agreed solution to the problem of Irish origins, the several hours of discussion and debate were regarded an extremely useful exercise. It helped concentrate attention on the mass of unresolved issues, some of which may be far more tractable to solution than the main issue of Irish origins. It is for this reason that the moderator of the seminar has summarized the proceedings and invites further discussion in the pages of this journal. A select bibliography of some of the more important sources relevant to the problem of Irish origins is provided below.

REFERENCES

- Adams, B. (1970) Language and man in Ireland. *Ulster Folklife* 15/16, 140-171.
- Caulfield, S. (1981) Celtic problems in the Iron Age, in O'Corrain, D. (ed). *Irish Antiquity*, Cork, 205-215.
- Dillon, M. and N. Chadwick (1972) *The Celtic Realms*, London.
- Greene, D. and S. Piggott (1983) The coming of the Celts to Britain and Ireland, in *Proceedings of the Sixth International Congress of Celtic Studies*, Dublin, 131-148.
- Harbison, P. (1975) The coming of the Indo-Europeans to Ireland: An archaeological viewpoint, *Journal of Indo-European Studies*, 3, 101-119.
- (1979) Celtic migrations in Western Europe, in *Actas del II coloquio sobre lenguas y culturas prerromanas de la peninsula Iberica*, Salamanca, 225-235.
- Hawkes, C.F.C. (1973) 'Cumulative Celticity' in Pre-Roman Britain, *Études Celtiques* 13, 606-28.
- (1977) An approach to the insular Celts, *Irish Archaeol. Res. Forum* IV(2), 1-6.
- Hencken, H. (1955) *Indo-European Languages and Archaeology*, American Antiquity 57, No. 6, Pt. 3, Memoir 84.
- MacWhite, E. (1955) Problems of Irish archaeology and Celtic philology, *Zeitschrift f. celtische Philologie*, 25, 1-29.
- O'Rahilly, T.F. (1946) *Early Irish History and Mythology*, Dublin.
- Pokorny, J. (1954) Die Geographie Irlands bei Ptolemaios, *Zeitschrift f. celtische Philologie*, 24, 94-120.
- Powell, T.G.E. (1950) The Celtic settlement of Ireland, in Fox, C. and B. Dickens (eds), *The Early cultures of North-west Europe*, Cambridge, 173-95.
- Raftery, B. (1972) Irish hill-forts, in Thomas, C. (ed) *The Iron Age in the Irish Sea Province*, CBA Research Report 9, London, 37-58.
- (1976) Dowris, Halstatt and La Tène in Ireland: problems of the transition from Bronze to Iron, in De Laet, S. (ed), *Acculturation and Continuity in Atlantic Europe mainly during the Neolithic period and the Bronze Age*, Dissertationes Archaeologicae Gandenses 16, 187-97.
- (1984) *La Tène in Ireland*, Marburg.
- Raftery, J. (1947) Some archaeological aspects of the Goidelic problem, in Pender, S. (ed) *Féilscríbhinn Torma*, Cork, 101-107.
- (1964) The archaeology of the Celts in Ireland, in Raftery, J. (ed) *The Celts*, Cork, 47-58.
- (1972) Iron Age and Irish Sea: Problems for research, in Thomas, C. (ed), *The Iron Age in the Irish Sea Province*, CBA Research Report 9, London, 1-10.
- Rynne, E. (1961) The twofold introduction of La Tène into Ireland, *Bericht über den V Internationalen Kongress für Vor und Frühgeschichte, Hamburg 1958*, Berlin, 705-09.
- Schmidt K. Horst (1977) *Die Festlandkeltischen Sprachen*, Innsbrucker Beiträge zur Sprachwissenschaft 18, Innsbruck.
- Scott, B.G. (1974) Some notes on the transition from bronze to iron in Ireland, *Irish Archaeol. Res. Forum*, I(1), 9-24.
- (1974) Reply to R.B. Warner, *Irish Archaeol. Res. Forum*, I(2), 48-50.
- Waddell, J. (1978) The invasion hypothesis in Irish prehistory, *Antiquity* 52, 121-28.
- Warner, R.B. (1974) The Irish bronze-iron transition: A pessimistic view. *Irish Archaeol. Res. Forum* I(2), 45-47.
- (1976) Some observations on the context and importation of exotic material in Ireland, from the 1st century B.C. to the 2nd century A.D., *Proc. Roy. Irish Acad.* 76C, 267-92.
- (1983) Ireland, Ulster and Scotland in the earlier Iron Age, in O'Connor, A. and D. Clarke (eds) *From the Stone Age to the 'Forty Five'*, Edinburgh, 160-87.