9-28-2003

Iron Age chariots and medieval texts: a step too far in "breaking down boundaries"?

Raimund Karl
University of Wales Bangor

Recommended Citation

Karl, Raimund (2003) "Iron Age chariots and medieval texts: a step too far in "breaking down boundaries"?," *e-Keltoi: Journal of Interdisciplinary Celtic Studies*: Vol. 5 , Article 1.
Available at: https://dc.uwm.edu/ekeltoi/vol5/iss1/1

Iron Age chariots and medieval texts: a step too far in "breaking down boundaries"?

Raimund Karl, University of Wales Bangor

Abstract

Analysing "Celtic" chariots by using Iron Age archaeological material and Early Medieval Irish texts might seem to be more than just one step too far in breaking down boundaries. Considering the huge chronological and geographical gaps between the sources, the objections raised against the concept of "Celticity" by Celtosceptics, and the antinativist school of thought in Irish literature, such an approach might look like outright nonsense to many archaeologists and scholars in medieval literature alike. Using a "functional" method according to the new Viennese approach to Celtic Studies, to allow cross-disciplinary comparison of archaeological, historical, iconographic, legal, linguistic, literary and numismatic sources, it can be argued that, however obvious the above objections might seem to be, they nonetheless are unjustified. By developing independent functional models for Iron Age and Early Medieval chariots, a close match between the two can be demonstrated, and comparison with "non-Celtic" models shows that they also are characteristic. Having thus established a solid connection, new interpretational possibilities become available: Iron Age chariot finds can be used to reconstruct Early Medieval Irish chariots, which are mostly absent from the archaeological record, while in their turn the Irish texts allow us valuable insights into Iron Age chariotry. Thus, interpreting Iron Age chariots in the light of medieval texts and vice versa is not a step too far in breaking down boundaries, but an absolute necessity for any serious research of this topic.

Two-wheeled chariots are a well-known archaeological feature mainly of the La Tène period, often featuring prominently in popular (e.g. Cunliffe 1995: Fig.13; Karl 2001a) and academic publications (e.g. Furger-Gunti 1991; Egg and Pare 1993: 212-8; Pare 1992;

Schönfelder 2002) on the "Celts" of the European Iron Age. Similarly, two-wheeled chariots

play an important role in early medieval Irish literature (e.g. Greene 1972), especially in the

famous epic *Táin Bó Cúailnge*, "the Cattle Raid of Cooley", and have had considerable

influence on interpretations of pre-Christian Irish society as dominated by a group of chariot-

driving warrior-nobles (e.g. Jackson 1964: 17-8, 33-5). Striking parallels between these two

kinds of sources for two-wheeled chariots have been noted and used in the literature already

(e.g. Jackson 1964: 35; Furger-Gunti 1993: 217-19; Birkhan 1997: 419-22), however,

without a solid theoretical or methodical grounding for such comparisons (but see Karl and

Stifter n.d.). Researchers investigating Irish chariotry in particular have argued that there is

little reason to assume Iron Age European and medieval Irish chariots have anything in

common, based on approaches that, at best, are methodologically unsound (Greene 1972: 70-

1; Raftery 1994: 105-7).

Still, analysing such "Celtic" chariots by using Iron Age archaeological material and

Early Medieval Irish texts might seem to be going a step too far in breaking down

disciplinary boundaries. Considering the huge chronological and geographical gaps between

the sources and, especially, the objections raised against the concept of "Celticity" by

Celtosceptics (Chapman 1992; James 1999, but see also Megaw and Megaw 1996; Sims-

Williams 1998 for differing views), and the antinativist school of thought in Irish literature

studies (Carney 1955; McCone 1990), such an approach might look like outright nonsense to

many archaeologists and scholars in medieval literature alike.

Those objections have been raised on a generalising level rather than by looking at

specific cases, and as such, while chariots are sometimes mentioned in these arguments, little

attention has been paid to the actual evidence (see also for a general criticism Sims-Williams

1998: 34-5). Using a "functional" method according to the new Viennese approach to Celtic

Studies (Karl 2002, n.d.a), to allow cross-disciplinary comparison of archaeological,

historical, iconographic, legal, linguistic, literary and numismatic sources, it can be argued

that, however obvious the above objections might seem to be, they nonetheless are

unjustified (see also Karl and Stifter n.d.).

To demonstrate this, I will proceed in the following order: We will first look at the

evidence for Iron Age chariots, as recoverable mainly from the archaeological record, then at

the development of archaeological reconstructions of Iron Age chariots, next at the

predominantly textual, medieval evidence and then at the reconstruction of chariots

developed from these texts (Greene 1972: 65). Functional models for Iron Age and Medieval

chariots as recoverable from all sources available will be created and compared to similar

models for chariots from other times and areas. Finally, a new reconstruction of "Celtic"

chariots will be presented that takes all evidence into account, thereby suggesting further

possibilities for interpretations for both Iron Age and medieval Irish chariotry based on such

an integrated approach.

Iron Age Chariots Part I: The Evidence

The main evidence for Iron Age chariots comes from chariot burials, i.e. burials

where the dead person was laid in his/her grave (Piggott 1992; Egg and Pare 1993; Furger-

Gunti 1993; Mäder 1996). Such burials are mostly isolated examples known across Europe

from as far to the north-west as Newbridge near Edinburgh in Scotland (Headland

Archaeology 2001) to as far to the south-west as Mezek in Bulgaria, only some kilometres

away from the Turkish border (Fol 1991: 384). Greater concentrations exist only in a few

quite small areas: in the Middle Rhineland (Haffner and Joachim 1984; Van Endert 1987)

dating from the latest Hallstatt to the Late La Tène period (Egg and Pare 1993: 213-8), in the

Champagne area, in the Marne culture area (Bretz-Mahler 1971; see Fig. 1), dating mainly

from the Early to the Middle La Tène period (Egg and Pare 1993: 213-8); in Belgium and the

Netherlands (Metzler 1986; Van Endert 1987; see Fig. 2), dating from the Early to the Late

La Tène period (Egg and Pare 1993: 213-8), and finally, from east England, the area of the

Arras Culture (Stead 1979; see Fig. 3), dating from the late Middle to the Late La Tène

period (Stead 1979; Egg and Pare 1993: 213-8).

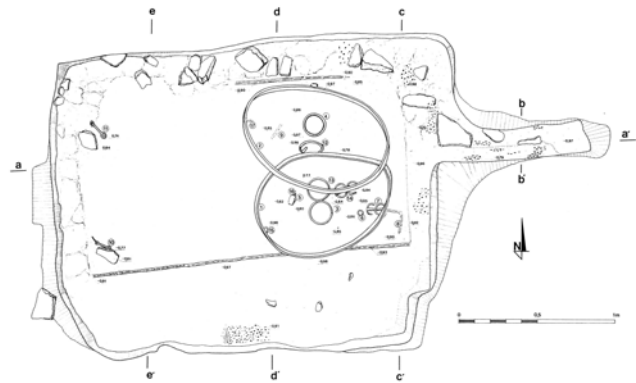Fig. 1 Somme-Bionne, La Gorge Meillet (Van Endert 1987)

Fig. 2 Grosbous-Vichten (Metzler 1986)

As is evident from the above illustrations, it is necessary to note that considerable differences exist between the burials in these areas, and chariot-burials in general. The differences visible on the above three plans are minimal when remembering that remains of chariots are not only to be found in inhumation burials typical of the Early and Middle La Tène periods, but also in cremation burials of the Middle and Late La Tène periods in Continental Europe (Vegh 1984; Müller-Karpe 1989;
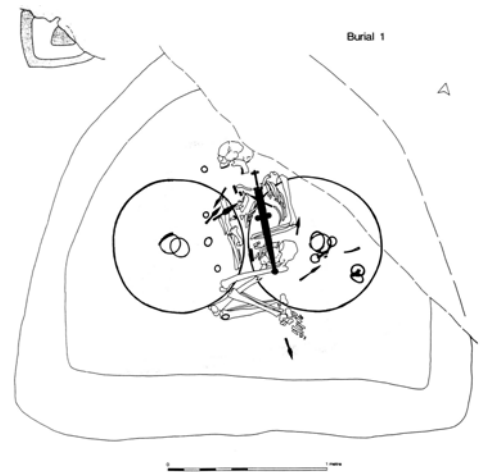

Fig 3. Wetwang Slack, Burial 1 (Dent 1985)

Egg and Pare 1993: 217). However, the chariots deposited in these burials seem to have been at least similar enough in their technological characteristics to allow the assumption that they were not isolated developments, but rather interdependent in their development (Egg and Pare 1993: 216-7; Furger-Gunti 1993: 220).

Evidence for these two-wheeled chariots is, however, not limited to chariot burials. In fact, there is additional evidence for more widespread use, increasing the probability that the chariots found in chariot burials were not independent developments in the various areas of Iron Age

Fig. 4 Wheel found in La Tène (Vouga 1923)

"Celtic" Europe. Chariot parts appear in various archaeological contexts across Europe. Wheels and yokes are found in watery contexts occasionally, as at the sites of La Tène, Switzerland (Vouga 1923; see Fig.4), and Kelheim, Germany (Egg and Pare1993: 217 and Fig. 187). Various metal chariot parts have been found in Llyn Cerrig Bach, Wales (Fox 1946; Savory 1976; Green 1991), while linch pins have been found in Oberndorf-Ebene / Unterradlberg, Austria (Neugebauer 1987: cover; Neugebauer 1992: 90) and Dunmore East, Ireland (Raftery 1994: 107).

Fig. 5 Stele from Padua, Italy (Frey 1968)

Fig. 6 Situla Vače. Slovenia (Frey and Luce 1962)

Chariots are also found in pictorial form, including northern Italian grave monuments as, for example, the famous Paduan Stele (Frey 1968; see Fig. 5), on "Celtic" coinage (Furger-Gunti 1993: 214), and on late Hallstatt and Early La Tène sheet metal vessels (Frey 1962), as, for example, the Vače situla (Frey and Lucke 1962; see Fig. 6).

Even though references to chariots exist in ancient literature, they rarely have been used to interpret the archaeological record, except to maintain the image of the "Celtic battle-chariot", while neglecting references to non-military uses of chariots. Diodorus Siculus, for instance, writes: "In their journeyings and when they go into battle the Gauls use chariots drawn by two horses, which carry the charioteer and the warrior …" (Oldfather 1939: 173). Accounts of chariots and their varied uses can be found in other historical records, including Caesar (e.g. DBG IV, 33.1-3), Athenaios (ATHENAIOS IV, 37), Appian (APPIAN, Celt. 12) and Livy (AUC X, 28.9).

Iron Age Chariots Part II: The Reconstructions

Based on parts of this evidence, many archaeological reconstructions of chariots have been designed and produced. For the purpose of this paper, I will only look at three of them, to show the development of archaeological reconstructions of Iron Age chariots: the 1946 reconstruction of the Llyn Cerrig Bach chariot by Cyril Fox (Fox 1946; see Fig. 7), the 1986 reconstruction of the
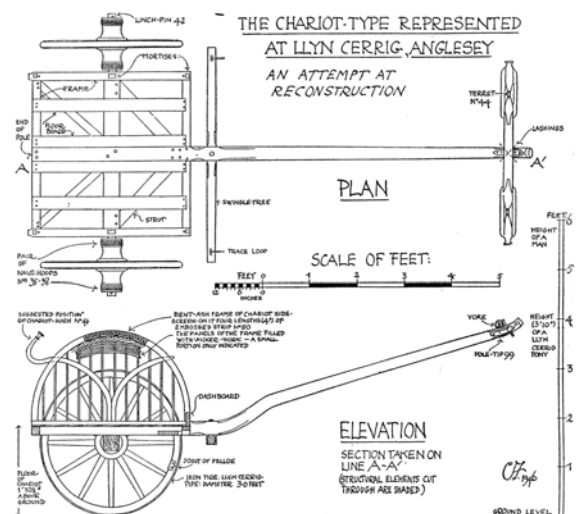

Fig. 7 The Llyn Cerrig Back chariot (Fox 1946)

Grosbous-Vichten chariot by Jeannot

Metzler (Metzler 1986; see Fig. 8) and the

1993 reconstruction by Andres Furger-

Gunti, based mainly on evidence from the

Champagne and Middle Rhineland chariot
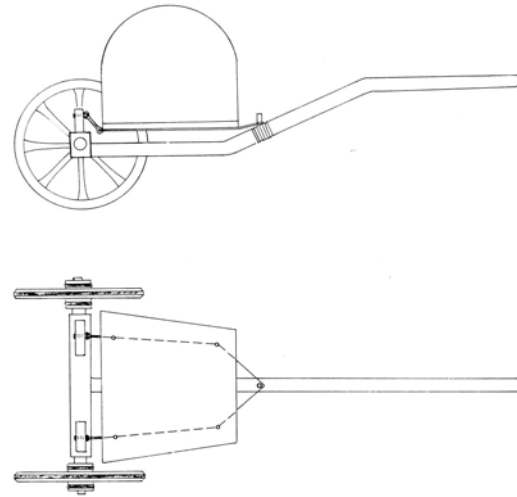
burials (Furger-Gunti 1993; see Fig. 9).

Cyril Fox developed his reconstruction

based on finds of metal chariot fittings from

Llyn Cerrig Bach, Anglesey, recovered

during a wartime rescue excavation that became necessary

because of the construction of a surface-metalled road for

the RAF Valley airfield base (Savory 1976: 49). Several

chariots and other items had been deposited in a lake there

(Green 1991: 609) during an extended period from the 2nd

century BC to the 1st century AD (Savory 1976: 49).

Although the finds made in Llyn Cerrig Bach were

unstratified and did not come from a chariot burial, Fox

included chariot burials and the reconstructions of the

chariots found in them in developing his model, relying

especially on a chariot from Kärlich in the Middle

Rhineland (Fox 1946: 11-27, especially 25), a

reconstruction that had, in turn, been heavily influenced by

contemporary ideas about the battle-chariots of Classical

Fig. 8 Chariot from Grosbous-Vichten (Metzler 1986)

Fig. 9 1993 general reconstruction
(Furger-Gunti 1993)

antiquity. As a result, the reconstruction shows a relatively solid structure, with the joints of beams and other wooden elements of both substructure (axle-tree and pole) and superstructure (platform, sideboards) permanently connected to each other by nails or other permanent methods of fixing two wooden elements to each other. Although Fox's reconstruction is already considerably lighter than the one drawn for the chariot in the burial at Kärlich, and already takes the iconographic evidence into account, making the chariot look more "Celtic", and even though it is, in contrast to Classical Mediterranean examples, already open to the front and the rear, it is still quite a heavy, solid, sturdy construction. Most interestingly, this reconstruction still is the one upon which most if not all modern reconstructions of British chariots are based (e.g. Cunliffe 1995: Fig.13; Cunliffe 1997: 101, Fig. 76; Headland Archaeology 2001), even though the excavation results of various Arras chariot burials (e.g. Dent 1985; Stead 1989) seem to indicate a construction design that at least allowed a relatively easy separation of sub- and superstructure (see also Karl and Stifter n.d.: Footnote 5), something quite impossible with chariots where the platform is firmly attached to the axle-tree.

Jeannot Metzler based his reconstruction of an Iron Age chariot on the finds made during the excavation of several chariot burials at Grosbous-Vichten, Luxemburg (Metzler 1986), thus on much better evidence than Fox's reconstruction. It also shows a solid substructure consisting of pole and axle-tree, but the chariot platform, and with it the whole superstructure, is not fixed to the substructure in a solid connection, but rather is mounted in a flexible rope suspension system. Intended to explain the function of the so called "Doppelösenstifte", which form a characteristic feature of many (but not all) Continental European chariot burials (Metzler 1986: 172-6; Furger-Gunti 1993: 216), this construction actually functions as a spring suspension system, which doubtless has considerable benefits

for the comfort of the persons sitting on it. "Doppelösenstifte" have as yet not been found in British chariot burials (Dent 1985; Fox 1946; Stead 1989), although this does not necessarily mean that their construction was fundamentally different from those Continental chariots as reconstructed by Metzler. Though "Doppelösenstifte" appear in many of the Continental chariot burials, they are not found in them all (e.g. Pauli 1984; Van Endert 1987 for several examples of chariot burials without "Doppelösenstifte"), which indicates that they were not a structural requirement. However, apart from the problem that Metzler`s reconstruction badly distributes weight, actually putting most of the weight of the chariot, especially that of the platform and anyone who might sit or stand on it onto the backs of the horses that should pull it, it also fits with the iconographic depictions of the chariots only to a limited degree. While it actually corresponds quite well to some of the chariots on some of the highly abstracted coins, (e.g. Cunliffe 1997: 100, Fig. 74, 75) it is not as good a fit with the more realistic depictions on situlae and the Paduan Stele, (see Frey and Lucke 1962; Frey 1968).

Andres Furger-Gunti referred to his reconstruction as an *essedum* (the latinized form of a probably genuinely British term **assedo- < *ad-sedo-*, "to sit on") (see Koch 1987: 259; Koch 1997: 147; Karl and Stifter n.d.) in the title of his 1993 paper (although the actual built reconstruction was already presented at the 1991 Venice exhibition, with a short description also in the exhibition catalogue; Furger-Gunti 1991). The reconstruction was based mainly on a generalisation of chariot burials from the Champagne and the Middle Rhineland area, particularly Jeannot Metzler's above mentioned 1986 reconstruction, iconographic evidence, and, to a limited extent, though without solid methodology and the necessary linguistic skills (Furger-Gunti 1993: 217-9; see also Karl and Stifter n.d.), evidence from Irish medieval texts.

His reconstructed chariot featured a solid pole, but the axle-tree actually was a composite structure, to decrease the overall weight of the vehicle. In addition to the usual pole and axle-tree substructure, two beams stood out to the rear, functioning as the rear mounts for the flexible suspension, which he had, in somewhat modified form, taken over from Metzler's reconstruction. The chariot platform with the sideboards, as it is mounted in this suspension, distributed the weight of the chariot better, centring it, due to the suspension beams extending considerably to the rear, more over the axle than in the case of Metzler's reconstruction. Also, the ropes making up the spring suspension could be loosened, allowing the chariot to be put into a "resting position", thus reducing the constant strain on the suspension and thereby increasing the working life of the suspension construction. Furger-Gunti's reconstruction is not only more functional than those preceding it, it also more closely resembles the more detailed iconographic depictions of Iron Age chariots as those on the Paduan Stele (Frey 1968) and the various situlae, especially the Vače situla (Frey and Lucke 1962; see also Fig. 6), which might even show a substructure as postulated by Furger-Gunti (very clearly visible on the right of the two chariots depicted on Fig. 6).

Medieval Texts Part I: The Evidence

Chariots definitely play an important role in medieval Irish literature, which has led earlier scholars to indiscriminately use Irish literature as what Kenneth Jackson called "a window on the Iron Age" (Jackson 1964), a position no longer sustainable today (McCone 1990). Since we can not assume that the chariots described in the Irish literature actually describe Iron Age chariots (see also Greene 1972: 70-1), we must look at them independently.

Chariots are mentioned in almost all kinds of medieval Irish literature. They play an exceptionally important role in parts of the epic literature, especially the *Táin Bó Cúailnge* (TBC), from which we can gain the most immediate technical insights into the construction of those vehicles, as well as many insights into their use, especially about heroic feats performed with them:

> *In tan íarom rigset a láma uili día claidmib, tic Fiachna mac Fir Febe ina ndedhaid asin dúnad. Focheirdd bedg asa charput in tan atcondairc a lláma uile i cind Con Culaind + benaid a naí righti fichit díb* (TBC 2550-2554).

> [As they all (29 warriors) took up their swords, Fíachna mac Fir Feibe emerges behind them from the camp. He jumps from his chariot, as he sees all their hands stretched at Cú Chulainn, and hacks their 29 lower arms off.]

> *Benaid Cú Chulaind omnae ara ciund i sudiu + scríbais ogum ina taíb. Iss ed ro boí and: arná dechsad nech sechai co ribuilsed err óencharpait. Focherdat a pupli i sudiu + dotíagat día léimim ina carptib. Dofuit trícha ech oc sudiu + brisiter trícha carpat and* (TBC 827-831).

> [Cú Chulainn felled a tree there and wrote an ogam inscription on it. It read: no one should pass by it, unless a warrior in his chariot had leapt it. They set up their tents there and began jumping with their chariots. Thirty horses stumbled and 30 chariots were broken.

> *Luid Conchobuir íarom + cóeca cairptech imbi do neoch ba sruthem + ba haeregdu inna caurad* (TBC 548-549).

> [Thereupon Conchobor took on the journey, fifty chariot-warriors around him, from the best and most noble heroes.]

Chariots also appear in legal texts:

Róda, cis lir-side? n ī, a .u. .i. slighi ꝛ ród ꝛ lamraite ꝛ tograide ꝛ bothar. caide int

slige? n ī, discuet da carput sech in aile, doronad fri imairecc da carpat .i. carpat rig

ꝛ carrpat espuic ara ndichet cechtar nai sech araile. Ród: docuet carpat ꝛ da oeneoch

de imbi, doronad fri echraite mendoto a medon (CIH iii 893. 22-25).

[Roads, how many are there? Not hard: five, that is the highway, the road, the byroad,

the winding road and the cow path. What is a highway? Not hard: two chariots can

pass on it. It is made for the meeting of two chariots, that is the chariot of a king and

the chariot of a bishop, that they can pass by each other. Road: a chariot and two

riders can pass on it. It is made for riding on a road within a territory.]

BLA CARBAT AENACH .i. Slan donti beires in carbat isin naenach; slan do ce bristir

in carbat isinn ænach ꝛ narab[g] tre borblachas, ꝛ mad ed on is fiach fo aicned a fatha

air; ꝛ slan d'fir in carbait ce foglaid in carbat risium ꝛ na raib fis crine na etallais na

haicbeile, ꝛ da raib is fiach fa aicned a fatha air (CIH i 283.28).

[Exceptions regarding chariots at yearly gatherings. This is, who brings a chariot to a

gathering is exempt from compensation. He is exempt from paying compensation

even if the chariot is broken at the gathering, provided the damage is not due to

unreasonable use of force. If this is the case, he is liable to the full compensation. The

owner of the chariot is also exempt from compensation if the chariot damages

anyone, provided he had no knowledge of it being in bad repair, its looseness or its

dangerousness. If he had knowledge of it, he has to pay compensation according to

the damage inflicted.]

They also appear in saints' lives, where we hear of miraculous events that saved saints from

having chariot-accidents where everyone else would most likely have had one, as in case of

St. Áed:

> *Set sanctus Edus pergens ad castra Muminensium, rota currus sui in via plana fracta est; et currus altera rota sine impedimento currebat sub sancto Dei, …* (*Vita Aedi*). [But as St. Áed hurried to the fortress of the men of Mumu, a wheel of his chariot broke on the level road; and the chariot continued to drive on the other wheel without any restrictions under the holy man of god…]

Chariots also are mentioned in the quasi-historical annals (see Hemprich 2002), as late as the year 811 AD in the Annals of Ulster, and the term used for chariot in Old and Middle Irish, *carpat*, is even used by Irish *peregrini* (travelling monks) writing glosses to manuscripts on the Continent, as for example in the Milan Glosses (Ml. 43d3 and 96c12-13).

However, the evidence is not completely limited to texts. A depiction of a chariot also appears, in a motif strikingly similar to the one on the 3rd century BC Paduan stele (see Fig. 5), on the Ahenny High Cross (see Fig. 10), dating approximately to the 9th century AD

Fig. 10 Ahenny High Cross (Harbison 1992)

(Harbison 1992: 11). Not only is the overall composition of this chariot almost identical, with the driver holding up his driving pick and the passenger in the rear of the vehicle, slightly behind the wheel, both clearly sitting on the chariot with its high line of the reins and the curved pole, even the position of the horses is virtually the same**.** The animal sitting above the horses, on the reins, is there on both, the only significant difference being that the animal on the Paduan Stele is obviously a bird, while in the case of the Ahenny High Cross it is a quadruped.

Medieval Texts Part II: The Reconstruction

From some of the above-mentioned sources, the Irish linguist David Greene (1972) reconstructed the chariots as he saw them described in the Irish literature (see Fig. 11), still the only scholarly illustration available for the chariots described in Irish medieval literature (but see Karl and Stifter n.d.).
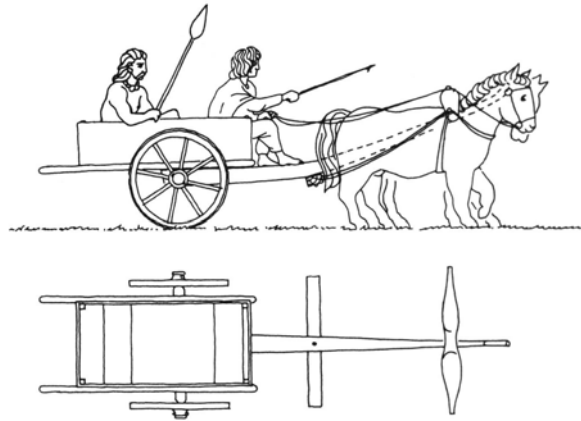

Fig. 11 The chariot as described in Irish medieval literature (after Greene 1972, taken from Raftery 1994: 106)

Even though Greene called his (1972) paper "The chariot as described in the Irish literature", thereby implying that his reconstruction was based on the textual evidence, due to the scarcity of archaeological evidence for chariots in Ireland (Greene 1972: 170-1), his reconstruction was, in fact, heavily influenced by archaeological reconstructions like the one by Cyril Fox (Fox 1946) shown above (Fig. 7). He also relied on early 20th century farm carts as models, resulting in an especially heavy construction with permanent connections between all parts of the chariots. It is hard to imagine that anyone could have performed feats like jumping over felled trees, as mentioned in the text cited above, in such a heavy, clumsy vehicle.

While Greene's reconstruction drawing had rather detrimental effects on the scholarly opinion of medieval Irish chariots, his paper was very important in describing the main technological elements of those vehicles that are mentioned in the Irish texts (even though his identification of the termini with actual chariot parts is less successful, see Karl and Stifter n.d.). The parts he identified were: the yoke, the pole, the axle or axle-tree, the wheels, the

sideboards, the chariot platform, the seats, one in the front, the other in the rear of the

platform, and the two ferts, two beams sticking out to the rear of the chariot.

Greene's reconstruction has led many archaeologists (e.g. Raftery 1994: 105-7) to

assume that the chariots of Iron Age Europe and those mentioned in Irish medieval literature

are not related to each other at all, or, at best, are only remotely related, a passing memory of

long lost times. As a result, recent publications have cast severe doubts on the idea that

chariots were ever used in Ireland at all, instead postulating that their appearance in the

written sources was based on a purely literary motif that was either borrowed from Greek

epics or from Biblical sources (e.g. McCone 1990).

A Short Interlude

Even though disciplinary separatism is not always clear cut, allowing for the use of

seemingly well founded, but less well understood results of other disciplines, it has led us to

a point of no return in understanding chariot construction and use, to the point that the

general consensus now seems to be that there was no connection between Continental Iron

Age and Irish medieval chariots, the latter being nothing but inventions of creative Christian

monks. Or so we should think. From this point onwards, however, we shall try to open our

eyes to *all* the available evidence, removing our disciplinary blinders for just a few moments.

We will see a very different picture emerge.

Creating Functional Models and Comparing Them

The biggest problem we face when trying to compare evidence from such different

sources as archaeology, history and literature, is that no frame of reference exists that allows

us to compare the evidence and the results arrived at by these different disciplines directly.

Thus, we need to create a frame of reference by which such a comparison becomes possible at all (see also Karl 2002, n.d.a). By creating a functional model for chariots, such comparability can be achieved. The physical as well as social functions of a vehicle can be determined from all these different categories of evidence as well as the secondary literature on them. Thus, by creating separate functional models for Iron Age and medieval Irish chariots, their relationship can be determined. By developing similar models for chariots in other areas, in this case specifically the two kinds of chariots that were possible candidates for the origin of chariots in medieval Irish literature, the Greek chariot of the Homeric epics and the chariot of the Bible, it can be determined if such a relationship is characteristic and whether any one model is better suited to, and thus more likely closely related to, the chariots as described in medieval Irish literature.

To begin with, let us assume five basic functions for Iron Age and medieval Irish chariots:

- Civilian transport: travelling, moving persons from one point to another.

- Driving to battle: military transport.

- Representation: public exhibition of high social status.

- Sports and recreation**:** friendly physical competition, entertainment or peaceful conflict resolution.

- Mortuary ritual**:** a platform to present, transport and lay the dead to rest.

Let us begin with an examination of Iron Age chariots:

- Use for travelling is well documented for Iron Age chariots, in the archaeological record in the form of roads and bridges (e.g. Schwab 1972, 1989; Jansova 1988: 43; Audouze and Büchsenschütz 1992: 145-8; Raftery 1992, 1994) on which they could be used, in iconographic sources (Audouze and Büchsenschütz 1992: 83;

Frey and Lucke1962) and in the historical record (e.g. DBG I, 6.1-3, V, 19.2, VII 19.1-3).

- Use of chariots for driving into battle is clearly documented in the historical sources (e.g. DBG IV, 33.1-3; DIO V, 29.1).

- Use of chariots for representation is not only evident from the finds of chariots in high status burials (e.g. Egg and Pare 1993: 213-5), but again, most explicitly, from the historical sources (Athenaios IV, 37; Appian, Celt. 12).

- Use of chariots in sports is evident from iconographic evidence as, for instance, on the situla from Kuffarn, Lower Austria (e.g. Frey 1962).

- Use of chariots as biers on which to place the dead is clearly documented by the chariot burials, where the chariots obviously fulfilled exactly this function.

Now let us review the medieval Irish chariots:

- Use of chariots as vehicles for travelling is the most frequently mentioned function of chariots in Irish texts (e.g. Kinsella 1990; O'Rahilly 1984; CIH iii 893. 22-25; TBC 548-549; Bethu Brigte 518).

- Use of chariots for driving to battle is a close second (e.g. Kinsella 1990; O'Rahilly1984; TBC 2550-2554).

- Use for the display of status, that is, for representation, is most obviously evident from the fact that the term "chariot-owner" became a synonym for persons of high social status (e.g. Binchy 1938; Sayers 1991, 1994; Kelly 1997: 497; Mallory 1998; CIH iii 893. 22-25).

- Use in sports is mentioned as well, for instance in the story of the foundation of Emain Macha (LL 14571-14573).

- Perhaps most surprising, even the use of chariots as death biers is mentioned in the tale Orgain Denna Rig (Dobbs 1912; LL 35226-35231).

As we can see, all the functions that can be identified for Iron Age chariots can also be found in the Irish medieval texts on chariots. How about other chariots? The chariots of the Homeric epics have been mentioned as one possible source of influence or inspiration, and, if we look at the sources, we actually find chariots used for travelling, for driving to battle, as representational vehicles, for sports and as death biers in this context as well (Vosteen 1999: 191-200). As such, we need to keep these sources in mind.

Might those five functions be general functions of every ancient wheeled vehicle, however? To answer that question, let us look at Biblical chariots. There is no evidence that they were ever used for ordinary, civilian transport but were used exclusively to drive into battle and as representational vehicles. They also were not used for sports or as death biers (Vosteen 1999: 191-204). As such, we can see that the functional model developed is not a general model applying to all ancient chariots. On this basis it could be argued that Biblical chariots can hardly have been the inspiration for chariots in the medieval Irish texts.

However, we have not yet been able to show that Greek chariots are also unlikely to have inspired medieval Irish chariots, and that Iron Age European chariots are in fact the best model for the Irish vehicles. To accomplish this we need to expand our criteria a bit:

- A technological criterion is whether or not the chariots being compared are open to the front and the rear. While the Iron Age and medieval Irish chariots were, as far as can be determined (e.g. Fox 1946; Greene 1972; Metzler 1986; Furger-Gunti 1993), neither Greek nor Biblical chariots were open to the front (Piggott 1992).

- Another criterion is whether driver and warrior both usually sit on the chariot. Again, while both driver and warrior typically sit on Iron Age and medieval Irish chariots (Frey 1968; Greene 1972), they usually stand on Greek and Biblical chariots (Piggott 1992).

- Another criterion might be whether or not the warrior descends to do the actual fighting. He does in the case of Iron Age, medieval Irish and Greek chariots (DIO V, 29.1; TBC 2550-2554; Vosteen 1999: 192), but does not in case of the Biblical ones (Vosteen 1999: 191-2).

- And as a final criterion, we might ask if the terms used for chariots are linguistically related in all of these areas. Here we find that Irish *carpat* is a cognate of Gaulish *carbanto-*, derived from a common Celtic **karbænto-*, with *carfan*, a Welsh, and *karvan*, a Breton cognate form being documented as well (Karl and Stifter n.d.; Stifter n.d.), while neither Greek nor Biblical chariots were originally called by a term cognate with the ones just mentioned.

Used for	Iron Age	Medieval Irish	Homeric Greek	Biblical
Travelling	Yes	Yes	Yes	No
Driving to battle	Yes	Yes	Yes	Yes
Representation	Yes	Yes	Yes	Yes
Sports	Yes	Yes	Yes	No
Death biers	Yes	Yes	Yes	No
Other criteria				
Open to the front and the rear	Yes	Yes	No	No
Driver and warrior usually sit	Yes	Yes	No	No
Warrior descends for actual fighting	Yes	Yes	Yes	No
Terms linguistically related	Yes	Yes	No	No

Table 1: Functional models of Iron Age European, medieval Irish, Homeric Greek and Biblical chariots compared

As such, we see that even though many similarities exist between Iron Age, medieval Irish and Greek chariots, considerable differences exist as well, making the chariots of the Greek epics a less likely model for the chariots of the medieval Irish epics than Iron Age chariots, which seem to be very similar in function, terminology and technology.

To immediately set that straight, I do not propose here that the Irish medieval texts exactly describe Iron Age vehicles. What I argue instead is that vehicles that were largely identical to Iron Age chariots were still in use in early medieval Ireland for almost identical purposes, and therefore became an important element in these texts (see also Karl and Stifter n.d.).

Results Part I: Celtic Chariots Revisited

Having demonstrated that Iron Age European and early medieval Irish chariots are largely identical, we now turn to the reconstruction of the chariot that was used in wide parts of Europe during the Iron Age and up to the medieval period in Ireland, a chariot that was closely associated with a terminology in Celtic languages (see Karl and Stifter n.d.; see also Fig. 12). It can be reconstructed as consisting of a substructure, formed by *cuing* - the
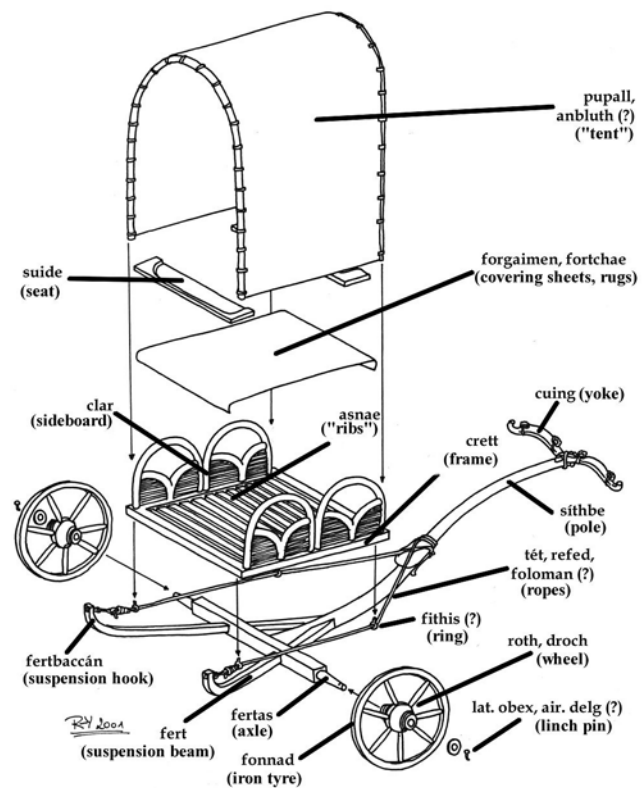

Fig. 12 A new reconstruction of a Celtic chariot (Karl and Stifter forthcoming)

yoke, *síthbe* - the pole, *tét*, *refed* or *foloman* - the ropes, *fithis* - (the) ring(s), *fertas* - the axle,

fert, usually used in the dual *dí feirt* - the suspension beams having, at their ends, a

fertbaccán - the suspension hook; *roth* or *droch* - the wheel(s), which had a *fonnad* - an iron

tyre that was fixed by a linch pin, probably called *delg*. Mounted on this was a superstructure

consisting of the *crett* - the frame, which was lightly built, holding together the light platform

formed by *asnae*, literally "ribs", and, to the left and to the right, *clar* - the sideboards. The

whole platform was covered with *forgaimen* or *fortchae* - covering sheets or cloth. Above the

platform, not necessarily, but at least sometimes, *suide* - seat(s) and a *puball* or *anbluth*, a

"tent" could be placed on the chariot (see Stifter n.d.).

As such, we get a much better reconstruction, showing a lot more details, even

allowing the use of technical terms for these details that were at least in use in the north-

westernmost area in which these vehicles were used. This reconstruction even allows us to

make statements about parts of these vehicles, which, as they were made of organic material,

have not survived in the archaeological record. Of course, this reconstruction is idealised, and

not every chariot across all of Iron Age Europe and medieval Ireland will have looked

exactly like this. However, the basic structural elements outlined here were shared by most, if

not all, of them.

Having established the connection between the Iron Age and the medieval Irish

material, there is no need to stop at this reconstruction. Further results can be gained when

using the available evidence without stopping at the boundaries between the disciplines.

Results Part II: Roads to Nowhere and Everywhere

After all, chariots need to be driven somewhere, which brings us to the question of

roads and road systems in medieval and especially in pre-roman Iron Age Europe. A

considerable amount of evidence is available on this topic. Ireland has produced evidence for one of the finest roads of them all, the Corlea bog road, almost 4 meters wide and thus even allowing for opposing chariot traffic (Raftery 1992, 1994; Karl 2001b, n.d. c; Karl and Stifter n.d.). Roads are also known from the Continent, as in Thielle-Wawre, Switzerland, yet again about 4 meters wide and with surface metalling (Schwab 1989: 178-84), as well as from numerous others sites, especially within the boundaries of fortified settlements, but also outside them (e.g. Cunliffe 1984: 128; Jansova 1988: 43; Audouze and Büchsenschütz 1992: 145-8). Bridges like that at Cornaux - Les Sauges, also Switzerland (Schwab 1972, 1989), close to the road just mentioned (Schwab 1989: 180), are also known.

However, we are not limited to archaeology alone on this subject. The historical sources tell us of main roads connecting the territories of various Gaulish *civitates* (DBG I, 6.1-3), main and secondary roads in southern Britain, large enough to carry several thousand chariots at a time (DBG V, 19.2) and even of minor roads leading to the most remote locations, including some in the middle of a swamp (DBG VII, 19.1-2). If we make use of the Irish sources, where we have similar roads used by similar chariots from the Iron Age to the medieval period, we even find legislation that tells us about the width, upkeep and tolls for the roads as well as road classifications into main and secondary roads down to minor trackways for cattle. We know who was expected to build them and keep them in shape (Kelly 1997), we have texts telling us how roads were constructed (Bergin and Best 1938: § 7-8) and texts that allow us to conclude that chariots were usually driven on the left side of the road (O'Rahilly 1984, 183; see also Karl 2001b: 6; Karl and Stifter n.d.). Altogether, by combining all of this evidence, a much more detailed and precise picture of Iron Age road systems emerges, including their use, the legislation dealing with them, even details about the organization of their construction and upkeep.

A Step Too Far in Breaking Down Boundaries? No!

As has been shown here, the results gained by an integrated approach, an approach that does not limit itself to a field within strict disciplinary boundaries inscribed more than a hundred years ago across a continuum of evidence, are as different from those gained by limited disciplinary research as they can be: The result, effectively, is the opposite of what we arrived at with approaches that did not take all the evidence into account. Of course, it can still be claimed that Iron Age and medieval Irish chariots are not at all related to each other, the chariots described in the medieval Irish texts could still have been an independent development completely unrelated to that of Continental and British Iron Age chariots, but the odds of such an independent development are, given the functional, technological and terminological similarities shown in this paper, extremely low. As a consequence, it has to be assumed that the results arrived at by disciplinary separatism are, in this case, simply false.

Thus, using the medieval texts, not as a window, but as a twisted mirror, a mirror that partially reflects customs, traditions and maybe even laws that might already have existed in a very similar way in the Iron Age, and vice versa, as well as using all other available evidence regardless of disciplinary boundaries, is not a step too far in breaking down boundaries. Rather it allows us valuable insights into both the Iron Age and the early medieval period that we would never have arrived at if proceeding in the traditional fashion of ignoring large parts of the evidence because we would, when using them, tread on somebody else's turf. The problem of disciplinary separatism as an obstacle to a concise study of the evidence, thereby distorting our view of the past, is not limited to the specific case of Iron Age and medieval Irish chariots. As such, in any serious study of past human cultures, breaking down these disciplinary boundaries, even seemingly obvious spatio-

temporal boundaries, freeing ourselves of arbitrarily imposed limits that keep us from taking

all the available evidence into account, is not a step too far, but a must.

Classical and Irish Sources Cited

Appian, Celt.	Appianos, *Bella Celtica*.
Athenaios	Athenaios, *Deipnosophistae*.
AUC	P.C. Livius, *Ab urbe condita*.
CIH	D. Binchy (ed.), *Corpus Iuris Hibernici*. DIAS, Dublin 1978.
DBG	G.I. Caesar, *De Bello Gallico*.
DIO	Diodorus Siculus, *Bibliotheke historike*.
LL	R. Best und M.A. O'Brian, *The Book of Leinster*. Formerly *Lebar na Núachongbála*, Dublin 1956.
TBC	C. O'Rahilly, *Táin Bó Cúailnge*. Recension I. DIAS, Dublin 1997.

References Cited

Audouze, F. and O. Büchsenschütz (1992) *Towns, Villages and Countryside of Celtic Europe*. London: Batsford.

Bergin, O. and R.I. Best (1938) (eds.) "Tochmarc Étaíne". *Ériu* 12, 1938: 137-96.

Binchy, D. (1938) (ed.), "Bretha Crólige". *Ériu* 12, 1938: 1-77.

Birkhan, H. (1997) *Kelten. Versuch einer Gesamtdarstellung ihrer Kultur.* Wien: Österreichische Akademie der Wissenschaften.

Bretz-Mahler, D. (1971) "La civilisation de la Tène I en Champagne: le faciès marnien". *Supplémentá Gallia* 23. Paris : Éditions du Centre national de la recherche scientifique.

Carney, J. (1955) *Studies in Irish Literature and History*. Dublin: DIAS [Dublin Institute for Advanced Studies].

Chapman, M. (1992) *The Celts. The Construction of a Myth*. London/New York: St. Martin's Press.

Cunliffe, B. (1984) *Danebury: An Iron Age Hillfort in Hampshire*. Vol. 1, The Excavations 1969-1978: The Site. CBA research Report 52, 1984.

(1995) *English Heritage Book of Iron Age Britain*. London: Batsford.

(1997) *The Ancient Celts*. Oxford: Oxford University Press.

Dent, J. (1985) "Three cart burials from Wetwang, Yorkshire". *Antiquity* 59 (226): 85-92.

Dobbs, M. (1912) "On chariot-burial in ancient Ireland". *Zeitschrift für celtische Philologie* 8: 278-84.

Egg, M. and C. Pare (1993) "Keltische Wagen und ihre Vorläufer". In: H. Dannheimer and R. Gebhard (eds.), *Das keltische Jahrtausend.* Ausstellungskataloge der prähistorischen Staatssammlung München Band 23, pp. 209-18. Mainz am Rhein: Philipp von Zabern.

Fol, A. (1991) "The chariot burial at Mezek". In: S. Moscati *et al.* (eds.), *The Celts*, pp 384-5. Milano: Bompiani.

Fox, C. (1946) *A Find of the Early Iron Age from Llyn Cerrig Bach*, *Anglesey*. Cardiff: National Museum of Wales.

Frey, O.H. (1962) *Die Situla von Kuffarn, ein figürlich verzierter Bronzeblecheimer aus der Zeit um 400 v.Chr.*. Veröffentlichungen aus dem Naturhistorischen Museum, NF. 4. Wien: Naturhistorisches Museum.

(1968) "Eine neue Grabstele aus Padua". *Germania* 46: 317-20.

Frey, O.H.and W. Lucke (1962) *Die Situla in Providence (Rhode Island). Ein Beitrag zur Situlenkunst des Osthallstattkreises*. Römisch-Germanische Forschungen Band 26, Berlin: Römisch-Germanische Kommission.

Furger-Gunti, A. (1991) "The Celtic war chariot". In: S.Moscati *et al.* (eds.), *The Celts*, pp. 356-9. Milano: Bompiani.

(1993) "Der keltische Streitwagen im Experiment". Nachbau eines *essedum* im Schweizerischen Landesmuseum. *Zeitschrift für schweizerische Archäologie und Kunstgeschichte* 50(3):.213-22.

Green, St. (1991) "Metalwork from Llyn Cerrig Bach". In: S. Moscati *et al.* (eds.), *The Celts*, p. 609. Milano: Bompiani.

Greene, D. (1972) "The chariot as described in Irish literature". In: C. Thomas (ed.), *The Iron Age in the Irish Sea Province*. Council for British Archaeology, Research Report 9, pp. 59-73. London: Council for British Archaeology.

Guštin, M. and L. Pauli (eds.) (1984) *Keltski Voz. Posavski Muzej Brežice* 6. Brežice: Muzej Brežice.

Haffner, A. and H.-E. Joachim (1984) "Die keltischen Wagengräber der Mittelrheingruppe". In: M. Guštin and L. Pauli (eds.), *Keltski Voz. Posavski Muzej Brežice* 6, pp. 71-87. Brežice: Muzej Brežice.

Harbison, P. (1992) *The High Crosses of Ireland*. Vols. 1-3. Monographien Römisch-

Germanisches Zentralmuseum. Bd. 17. Bonn: Habelt. 1992.

Headland Archaeology (2001)
 <http://www.headlandarchaeology.com/Projects/pre_newbridge.html>

Hemprich, G. (2002) "Dichtung und Wahrheit: Das Problem verlässlicher historischer Quellen im irischen Mittelalter". In: E. Poppe (ed.), *Keltologie heute. Themen und Fragestellungen*. Akten des 3. Deutschen Keltologensymposiums – Marburg, März 2001. Studien und Texte zur Keltologie 5, pp. 102-22. Münster: Nodus-Publikationen.

Jackson, K.H. (1964) *The Oldest Irish Tradition: A Window on the Iron Age*. Cambridge: Cambridge University Press.

James, S. (1999) *The Atlantic Celts. Ancient People or Modern Invention?* London: British Museum Press.

Jansova, L. (1988) *Hrazany, das keltische Oppidum in Böhmen* Band 2. Fundbericht und Fundkatalog. Praha: Archeologichý ústav ČSAV.

Karl, R. (2001a) "Zweirädrig bis ins Frühmittelalter". *Archäologie in Deutschland* 4/2001: 34-5.

(2001b) "... on a road to nowhere ... ? Chariotry and the road systems in the Celtic World". IRQUAS Online Project <http://www.maqqi.supanet.com> 2001.

(2002) "Erwachen aus dem langen Schlaf der Theorie? Ansätze zu einer keltologischen Wissenschaftstheorie". In: E. Poppe (ed.), *Keltologie heute. Themen und Fragestellungen.Akten des 3. Deutschen Keltologensymposiums - Marburg, März 2001*. Studien und Texte zur Keltologie 5, pp. 291-303. Münster: Nodus-Publikationen.

(n.d.a) "Celtic studies as cultural studies". *Celtic Cultural Studies Online Journal* <http://www.cyberstudia.com/ccs>

n.d.b "Achtung Gegenverkehr! Straßenbau, Straßenerhaltung, Straßenverkehrsordnung und Straßenstationen in der eisenzeitlichen Keltiké". In: J.K. Koch (ed.): *Reiten und Fahren in der Vor- und Frühgeschichte*. Hamburger Werkstattreihe zur Archäologie: LIT-Verlag.

Karl, R. and D. Stifter (n.d.) "*Carpat – carpentum*. Die keltischen Grundlagen des 'Streit'wagens der irischen Sagentradition". In: A. Eibner; R. Karl; J. Leskovar; K. Löcker; Ch. Zingerle (eds.), *Pferd und Wagen in der Eisenzeit*. Arbeitstagung des AK Eisenzeit der ÖGUF gemeinsam mit der AG Reiten und Fahren von 23.-25.2.2000 in Wien. Wiener keltologische Schriften 2, Wien: ÖAB-Verlag.

Kelly, F. (1997) "Early Irish farming". *Early Irish Law Series* Vol. IV. Dublin: DIAS.

Kinsella, T. (1990) *The Tain*. (15th imprint). Oxford: Oxford University Press.

Koch, J.T. (1987) "*Llawr en Assed* (CA 932) 'The Laureate Hero in the War-Chariot': Some Recollections of the Iron Age in the *Gododdin*", *Études Celtiques* 24: 253-78.

(1997) *The Gododdin of Aneirin. Text and Context from Dark-Age North Britain. Historical Introduction · Reconstructed Text · Translation · Notes*. Cardiff – Andover, Mass: Celtic Studies Publications.

Mäder, St. (1996) *Der keltische Streitwagen im Spiegel archäologischer und literarischer Quellen (*unpublished M.A. thesis), Freiburg/Breisgau: Universität Freiburg.

Mallory, J.P. (1998) "The Old Irish Chariot". In: J. Jasanoff, H.C. Melchert and L. Oliver (eds.), *Mír Curad. Studies in Honor of Calvert Watkins*, pp. 451-64. Innsbrucker Beiträge zur Sprachwissenschaft Band 92. Innsbruck: Inst. f. Sprachwissenschaft.

McCone, K. (1990) *Pagan Past and Christian Present in Early Irish Literature*. Maynooth Monographs 3, Maynooth: An Sagart.

Megaw, J.V.S. and M.R. Megaw (1996) "Ancient Celts and modern ethnicity". *Antiquity* 70 Issue Number 267: 175-81.

Metzler, J. (1986) Ein frühlatènezeitliches Gräberfeld mit Wagenbestattung bei Grosbous-Vichten". *Archäologisches Korrespondenzblatt* 16: 161-77.

Müller-Karpe, A. (1989) "Ein keltischer Streitwagenkrieger des 3. Jahrhunderts v. Chr.". In: A. Haffner (ed.), *Gräber - Spiegel des Lebens. Zum Totenbrauchtum der Kelten und Römer am Beispiel des Treverer-Gräberfeldes Wederath-Belginum*. Schriftenreihe des rheinischen Landesmuseums Trier 2, pp. 141-60. Mainz: Philipp von Zabern.

Neugebauer, J.W. (1987) "St.Pölten – Wegkreuz der Urzeit". *Antike Welt, Zeitschrift für Archäologie und Kunstgeschichte* 18(2): 3-18.

(1992) *Die Kelten im Osten Österreichs*. Wissenschaftliche Schriftenreihe Niederösterreich 92/93/94, St. Pölten – Wien: Verlag Niederösterreichisches Pressehaus.

O'Rahilly, C. (1984) *Táin Bó Cúailnge from the Book of Leinster*. Dublin: DIAS.

Oldfather, C.H. (1939) *Diodorus of Sicily*. The Library of History. Books IV.59-VIII. Cambridge: Harvard University Press.

Pare, C. (1992) *Wagons and Wagon-Graves of the Early Iron Age in Central Europe*. Oxford: Oxford Univ. Comm. Arch. Monogr. 35.

Pauli, L. (1984) "Die Wagengräber vom Dürrnberg bei Hallein (Österreich)". In: M. Guštin and L. Pauli (eds.), *Keltski Voz. Posavski Muzej Brežice* 6, pp. 89-98. Brežice: Muzej Brežice.

Piggott, S. (1992) *Wagon, Chariot and Carriage: Symbol and Status in the History of Transport*. London: Thames and Hudson.

Raftery, B. (1992) "Irische Bohlenwege". *Archäologische Mitteilungen aus Nordwestdeutschland* 15: 49-68.

(1994) *Pagan Celtic Ireland. The Enigma of the Irish Iron Age*. London: Thames and Hudson.

Savory, H.N. (1976) *Guide Catalogue of the Early Iron Age Collections*. Cardiff: National Museum of Wales.

Sayers, W. (1991) "Textual notes on descriptions of the Old Irish Chariot and Team". *Studia Celtica Japonica* 4: 15-35.

(1994) "Conventional descriptions of the horse in the Ulster Cycle". *Etudes Celtiques* 30: 233-49.

Schönfelder, M. (2002) *Das spätkeltische Wagengrab von Boé (Dép. Lot-et-Garonne). Studien zu Wagen und Wagengräbern der jüngeren Latènezeit*. Monographien RGZM 54, Mainz: Verlag des Römisch-Germanischen Zentralmuseum.

Schwab, H. (1972) "Entdeckung einer keltischen Brücke an der Zihl und ihre Bedeutung für La Tène". *Archäologisches Korrespondenzblatt* 2: 289-94.

(1989) Les Celtes sur la Broye et la Thielle. 2e correction des eaux du Jura. *Archaeologie fribourgoise* 5. Fribourg: Editions Universitaires Fribourg Suisse.

Sims-Williams, P. (1998) "Celtomania and Celtoscepticism". *Cambrian Medieval Celtic Studies* 36: 1-35.

Stead, I.M. (1979) *The Arras Culture*. York: Yorkshire Philosophical Society.

(1989) "Cart-Burials at Garton Station and Kirkburn". In: P. Halkon (ed.), *New Light on the Parisi. Recent Discoveries in Iron Age and Roman East Yorkshire*. East Riding Archaeological Society, pp. 1-6. Hull: ERAS.

Sitfter, D. (n.d.) *The Irish Chariot*. Diss., Wien: Universität Wien.

Van Endert, D. (1987) *Die Wagenbestattungen der späten Hallstattzeit und der Latènezeit westlich des Rheins*. Oxford: BAR International Series 355.

Vegh, K.K. (1984) "Keltische Wagengräber in Ungarn". In: M. Guštin and L. Pauli (eds.), *Keltski Voz. Posavski Muzej Brežice* 6, pp. 105-110. Brežice: Muzej Brežice.

Vosteen, M.U. (1999) *Urgeschichtliche Wagen in Mitteleuropa: Eine archäologische und*

religionswissenschaftliche Untersuchung neolithischer bis hallstattzeitlicher Befunde. Freiburger Archäologische Studien 3. Rahden/Westfahlen: Verlag Marie Leidorf.

Vouga, P. (1923) *La Tène. Monographie de la stati*on. Leipzig: Hiersemann.

Raimund Karl
University of Wales Bangor
Department of History and Welsh History
Ogwen Building, Siliwen Road
Bangor, Gwynedd LL57 2DG
Cymru, UK
r.karl@bangor.ac.uk