... on a road to nowhere ... ?
Chariotry and the road systems in the Celtic World

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Chariot parts seem to exist in abundance from continental Europe (e.g. VOUGA 1923, VAN ENDERT 1987) and Britain (e.g. RITCHIE 1995) in the La Tène period, backing up the importance ascribed to chariots in the ancient historical sources about the Celts – as Diodorus writes: „*Ἐν δὲ ταῖς οδοιπορίαις καὶ ταῖς μάχαις χρῶνται συνωρίσιν, ἔχοντος τοῦ ἅρματος ἡνίοχον καὶ παραβάτην.*“ (DIO V, 29.1) “*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)

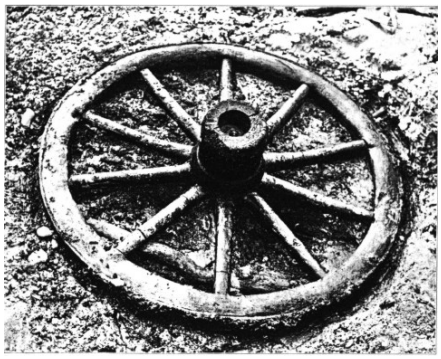

Illustration 1: Spoked wheel with Iron tyre, discovered during the excavations of Paul Vouga at La Tène (VOUGA 1923).

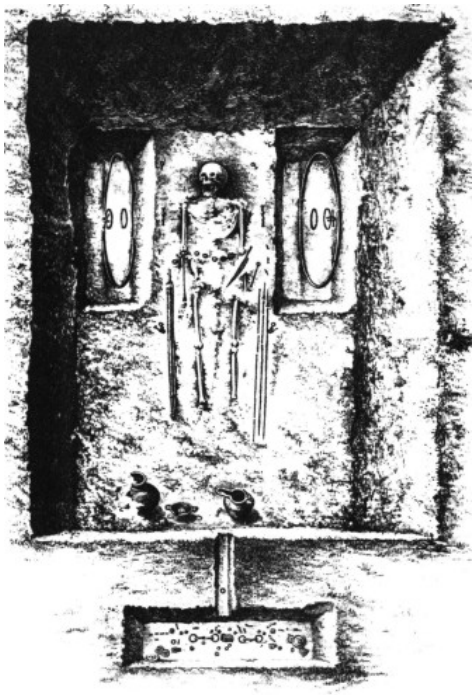

Illustration 2: Chariot-burial from Somme-Bionne, France (VAN ENDERT 1987)

Also, their existence in Ireland, even though having come under doubt in the recent years (e.g. RAFTERY 1994), has been recently demonstrated for at least the Early Medieval period, and in extenso for the La Tène period as well, the *carpat* of Irish literature having been demonstrated to be a late variant of the type of vehicle known as *carpentum* in the ancient historical sources (KARL&STIFTER 2002). Of course, the few pieces that once belonged to chariots, that have been found in Ireland (RAFTERY 1994, 106f.) are hard to interpret and not especially indicative for the presence of chariots, but in combination with the much later early medieval literature, where chariots

appear in almost every kind of text, from epic saga literature over saints lives to legal texts, their appearance in decorative reliefs on stone monuments (HARBISON 1992, 11) and bog roads (RAFTERY 1992, 54 ff.) that fit well with the early medieval legal texts on roads, clearly demonstrate the existence of chariots in Ireland in the Iron Age.

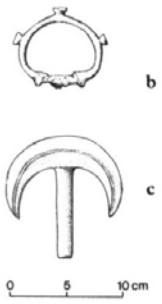

Illustration 3: Chariot finds from Ireland (RAFTERY 1994, 107)

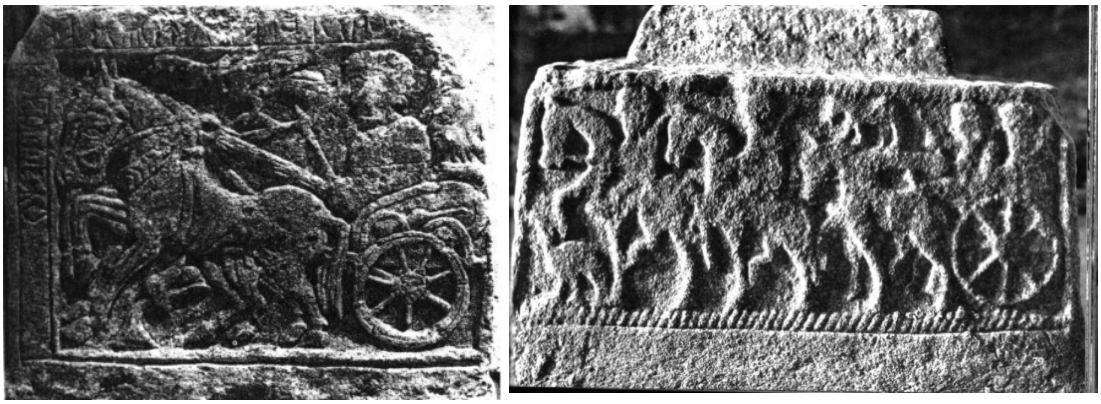

Illustration 4: Two depictions of twowheeled chariots, left on the Padua Stele, Italy, 3rd century BC (FREY 1968), right on the Ahenny High Cross, Ireland, 9th century AD (HARBISON 1992)

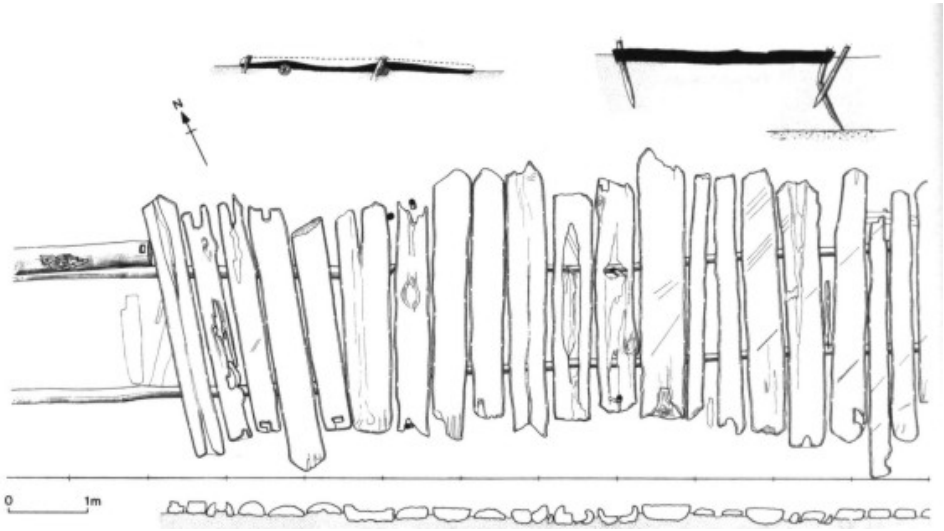

Illustration 5: The Corlea bog road "to god knows where", 156 +/- 9 BC (RAFTERY 1994, 103)

Especially these roads, roads that seem to, at least in Ireland, lead to "god knows where", as Raftery (1994, 101) has put it, are of high interest for understanding not only wheeled transport in Iron Age and Early Medieval Ireland, but also travel, trade and communications networks in Iron Age continental Europe.

Roads to nowhere, everywhere

The Irish Lawtexts tell us a lot about roads and road systems in Early Medieval Ireland. As the road legislation in Early Irish law stood in direct connection to the *carpat* (KELLY 1997, 538), and as *carpat* and roads that fit with these legal norms can be documented much earlier (RAFTERY 1992, 54 ff.; RAFTERY 1994, 106 ff. und see illustration 5), it can hardly be assumed that the legal connection between roads and *carpat* developed only in Early Medieval Ireland, even though the Irish road legislation shows, according to Kelly, some parallels to the chapter *De itineribus* „on roads" in Isidor's Etymologies (KELLY 1997, 537).

That something like road legislation must have already existed in ancient Gaul is evident from Caesar's *De Bello Gallico*, where he tells us that the Aeduan Dumnorix had rented the tolls within the Aeduan territory (DBG I, 18.3). As the term „*portoria*", that Caesar uses in that specific situation, can hardly have been limited to Harbour tolls, given the geographical situation of the Aeduan territory, road- and bridge-tolls will probably have made up the greater part of the tolls rented by Dumnorix. However, as it wouldn't have made any sense for the tribe to give away the tolls if there hadn't been any obligation combined with this tolling of routes, it is most likely that the care for the constant upkeep of the roads was part of this deal. At least for high traffic roads, we can be pretty sure that the upkeep of a sufficent street width was part of this arrangement.

That roads with a sufficent width did not only exist within the territory of one specific *civitas*, but also between the territories of several *civitates*, thus forming "overland routes", is yet again evident from Caesar's account. He writes: „*Erant omnino itinera duo, quibus itineribus domo exire possent. unum per Sequanos, angustum et difficile, inter montem Iuram et flumen Rhodanum, vix qua singuli carri ducerentur, mons autem altissimus impendebat, ut facile perpauci prohibere possent; alterum per provinciam nostram, multo facilius atque expeditius, propterea quod inter fines Helvetiorum et Allobrogum, qui nuper pacati erant, Rhodanus fluit isque nonnullis locis vado transitur. extremum oppidum Allobrogum est proximumque Helvetiorum finibus Geneva. ex eo oppido pons ad Helvetios pertinent.*" (DBG I, 6.1-3) „*There were but two roads that they could choose for leaving their homeland. The one led trough the territory of the Sequani but was, as it ran between the Rhône and the Jura, that narrow, that hardly a single wagon could be driven on it; and even more than that, a high mountain range commanded the road, so that a small number of people was sufficent to close it. The other one led trough our province and was much easier and comfortable to use, as between the territories of the Helvetii and the Allobroges, who have been conquered some time ago, runs the Rhône, which can be forded at several places. The last city of the Allobroges, immediately at the Helvetian border is Geneva. From this city, a bridge leads into the Helvetian territory.*"

Thus, there was at least one road at each side of the Rhône, which led out of the territory of the Helvetians, of which the one was that narrow, that hardly a single wagon could pass it, which tells us not only that the other was much easier and comfortable to use, but also that it was at least wide enough for a single wagon to use it most easily, and this one even led across the Rhône via a bridge at Geneva.

Considering the geographical situation along the Helvetian borders, and also considering that not everywhere in the Celtic world such geomorphological limitations existed as in case of the Helvetian territory, it can most safely be assumed that the territories of the other Gaulish *civitates* were connected by more and most probably better developed roads and road networks that the Helvetians with their western neighbours.

It is equally evident that a well developed local road network must have existed: „*Collis erat leviter ab infimo acclivis. hunc ex omnibus fere partibus palus difficilis atque impedita cingebat non latior pedibus quinquaginta. hoc se colle interruptis pontibus Galli fiducia loci continebant…*" (DBG VII, 19.1-2) „*It was a gentle hill, that was almost completely surrounded by swamps of no more than 50 feet width. The Gauls broke down the bridges across the swamps and, trusting in the advantages the territory gave them, remained on the hill.*"

Obviously, the Gauls even bridged swamps[1], and this sufficently solid to have an army march over it, just to gain access to a gentle, dry hill. Would these bridges have been simple narrow footmen crossings, that could have been defended eassily against single enemies advancing on them, it is hardly imagineable that the Gauls would have broken down the bridges crossing these swamps, as

[1] And this in several places, Caesar uses the plural „pontibus".

such, it is most likely that these bridges actually were wide enough to allow a wheeled vehicle to access the hill via them.

Now, if several traffic-proof bridges were built to gain access to a hill that was most likely used for agricultural purposes only, and if at the same time overland roads existed that could be used by wheeled vehicles, then we have to assume a well-developed road system with local and long distance routes in Gaul at Caesar's times.

That such a road system did actually exist can be documented even archaeologically within the territory of the Helvetians. With the finds during the Jura water corrections at La Tène, Cornaux-Les Sauges and at several other places along the Thielle and Broye rivers in Switzerland (SCHWAB 1989) a great number of bridges and even a surface-metalled road from the La Tène period were located in an area of several square kilometers.

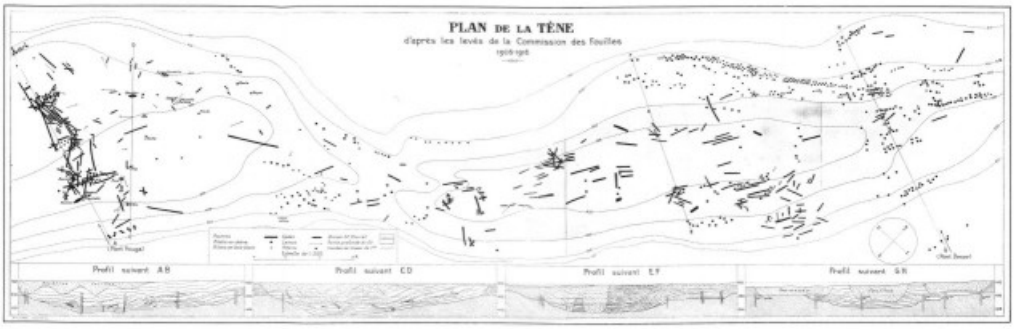

Illustration 6: The Helvetian bridges at La Tène (VOUGA 1923)

Illustration 7: The Helvetian bridge at Cornaux-Les Sauges (SCHWAB 1989)

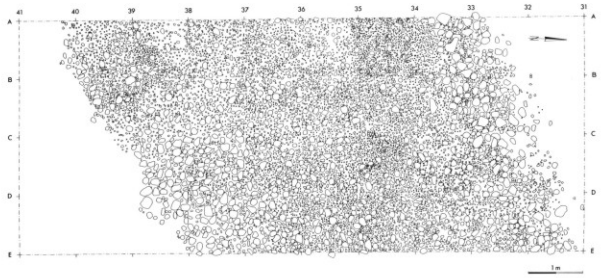

Illustration 8: The Helvetian road at Thielle-Wavre (SCHWAB 1989)

In Britain, the situation in regard to the road system is very similar: „*Et, cum equitatus noster liberius praedandi vastandique causa se in agros effunderet, omnibus viis semitisque notis essedarios ex silvis emittebat et magno cum periculo nostrorum equitum cum his confligebat atque hoc metu latius vagari prohibebat.*“ (DBG V, 19.2) „*As our cavalry disbanded carelessly, to loot and to destroy the countryside, Cassivellaunus sent his chariots against them on all known ways and roads out of the forests, engaging our soldiers in dangerous fights. From there on, they no longer roamed the countryside out of fear,* “

Even with a vehicle with a spring suspension, as the *carpentum* and most probably the Britsh *essedum* were, with which a certain mobility off roads is possible, a serious attack on cavalry using cattle driving ways or trampled paths is hardly possible, at least not in an effectivity to strike fear into Roman cavalry, even if this cavalry is operating disbanded. Even narrow wagon trails seem to be insufficent for such an attack, as is strongly restricts the mobility and turnability of chariots, which would be necessary to make them dangerous to cavalry, which is very mobile even on relativy narrow paths. A rapid hit and run tactic, as seemed to have been applied by Cassivellaunus here, is only possible if the chariots can turn quickly to run. Even more, it seems to be especially unlikely that an army, operating with 4000 chariots, is able to, in the cover of a forest (!), follow the Roman legions, which are marching on a main road on open territory. If we do not want to assume that Caesar invented this whole episode completely, it has to be assumed that the british army followed the Roman legions on the other side of the forest, most probably in the next, more or less parallel valley, on a main, well built road quite similar to the one the Romans were marching on (an this road had to be able to take quite some stress, the one the marching Roman legions and the other a lot of chariots). From here, along equally well built side roads, connecting the main roads across the forests separating them, the British could mount surprise attacks against the disbanded Roman cavalry, which could develop rapidly enough to endanger the cavalrists. These connecting side roads must have existed often frequently enough to allow a sufficent number of quick surprise attacks, to really become more than a nuissance to the Roman cavalry, it thus has to be assumed that they were no more than a few kilometers apart. We, thus, can assume a welldeveloped local and long distance road network, with main and local roads being easily useable with a *carpentum* or *essedum*, to have existed at least in caesarian Britain.

Given that these road systems existed, and that they, in the archaeological record, seem to fit pretty well with the bog roads detected in Ireland, we can safely assume that the road system in Gaul and ancient Britain, at least in it’s basic makeup, was very similar to the road system described in the Irish lawtexts: The „highway“, *slige*, on which two *carpait*/*carpenta* could pass without one having to give way to the other, the „local road“, *rout*, on which at least one *carpat*/*carpentum* and two riders can pass side by side[2], as a regional main road, the „connecting road“, *lámraite*, a minor road connecting two mayor roads[3], the „side road“, *tógraite*, leading to a forest or a river, which private persons could rent, for which they then could extract tolls from people driving cattle on them[4], and finally the „cow road“, *bóthar*, which still had to be as wide as two cows, one standing parallel and one normal to the road[5] (KELLY 1997, 390 f.).

The technique in which such roads, at least the public, larger ones, were built can also be deducted from the Early Medieval Irish texts, we are told that they should have a suface constructed with branches, stones and earth (KELLY 1997, 391). The way to build roads across boggy terrain is described as well, such a bog road, *tóchar*, is described in the old Irish tale *Tochmarc Étaíne* as having a foundation made of wooden planks and braches, their surface consists of layers of clay, gravel and stones[6] (KELLY 1997, 392 f.). A similar raod construction technique can be assumed for pre-caesarian Gaul as well, and is pretty well documented by the metalled road surface of the road in Thielle-Wavre (SCHWAB 1989) for instance.

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[2] Such a *slige* or *rout* could well be the equivalent of what the Helvetians used on the „southern route“ towards and through the Roman provinvce (DBG I, 6.2-3), and it is very likely that it was such a kind of road on which Caesar was marchinghis army towards the Thames river through the territorry of Cassivellaunus (DBG V, 18-19).

[3] This could well be the type of road that allowed british charioteers to attack disbanded, roaming Roman cavalry (DBG V, 19).

[4] These tolls for the use of such a *tógraite* could perhaps even be equivalent of the *portoria* that Dumnorix had rented from the Aedui (DBG I, 18.3).

[5] These roads could be the equivalent of those described by Caesar in the area of Avaricum (DBG VII, 19.1-2).

[6] Which could explain, why no chariot tracks can be found on the upper side of the planks of the Corlea Bog road.

I am of the opinion that we have to assume that, given the almost perfectly identical use of the *carpat*/*carpentum* on the Continent, in Britain and in Ireland (KARL&STIFTER 2002) and the mostly similar road system in all three mentioned areas, not only a strong technical similarity existed within this wider central and western European area, but that also the legislation in regard to roads and traffic were mostly similar. Maybe the road categories were not absolutely identical, perhaps not every class of road was part of the legislation of every people living within this area, but different legal types of roads can be safely assumed, as can a „public" responsibility to keep them in good repair, a job that required a considerable amount of manpower several times a year (KELLY 1997, 391 f.).

On the highways, with traffic running simultaneously in both directions, where, as can be deducted from the sources, opposing traffic had at least to be expected[7], traffic regulations must have existed, to reduce the risk of accidents[8], traffic regulations that at least determined on which side of the road one had to drive on when going in a certain direction. Even though we have no legal text telling us about this, it is still possible to conclude at this traffic regulations from the Irish epics. The passage that demonstrates this most clearly is from the *Táin Bó Cúailnge*, where the warrior *Etarcumul* wants to attack the hero of the tale, the famous *Cú Chulainn*: „*Imsoí in t-ara in carpat arís dochum inn átha. Tucsat a clár clé fri airecht ar amus ind átha. Rathaigis Láeg. ‚In carpdech dédenach baé sund ó chíanaib, a Chúcúc,' ar Láeg. ‚Cid de-side?' ar Cú Chulaind. ‚Dobretha a chlár clé riund ar ammus ind átha.'. ‚Etarcumul sain, a gillai, condaig comrac cucum-sa ...*" (O'RAHILLY 1984, 44) „*The chariot turned the chariot again towards the ford. They turned the left board of the chariot towards the company as they made for the ford. Láeg noticed that. ‚The last chariot-fighter who was here a while ago, little Cú,' said Láeg. ‚What of him?' said Cú Chulainn. ‚He turned his left board towards us as he made for the ford.'. ‚That is Etarcumul, driver, seeking combat of me...*" (O'RAHILLY 1984, 183)[9]

From this passage it is as clear as it could possibly be that at least the heroes of the Irish epics, and thus most likely also the people who heard the tales about them, thought it to be an invitation to combat to show the left side-board of the chariot to another charioteer[10]. From this can easily be deducted that, at least in Early Medieval Ireland, it was expected that people drive along the left side of the road, turning their left side-board away from the road, as else many a fight would have resulted from simply driving along a road, as every time two *carpait* would have met, the nobles on them would have assumed that they had been challenged to combat. As it is unlikely that this tradition would have developed in Early Medieval Ireland, we can be pretty sure that, whereever the road might take one, it was right to drive on the left side of the road on the Continent and in Britain as well.

"In my rear view mirror, the sun is going down, sinking behind bridges in the road…"[11]

If I now look back to ancient Gaul, Britain or Ireland with the results of this paper in mind, I cannot help but see the sun sinking behind bridges in the road. In my opinion, the question is not which specific road led where, but rather why we have largely ignored that closely knit network of main, secondary and local roads that needs to have criss-crossed ancient Europe, forming the backbone of what was an early TransEuropeanNetwork for travel, trade, communication and commerce.

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[7] This is pretty evident from the Irish Lawtext on road categories, where the highway is defined by the possibility of opposing traffic without either side having to give way (KELLY 1997, 538). However, this need not necessarily be only due to traffic with *carpait*/*carpenta*, but we have as much to assume that heavier vehicles for transporting goods of any kind, which were definitly used for trading and agricultural uses (DIO V, 26.3) were on these roads as well. That several classes of vehicles were on the roads is evident from the high number of Gaulish terms for vehicles that have come down on us (BIRKHAN 1997, 1110 ff.), indicating that even heavy traffic has to be assumed, at least in the area of central places like the oppida. Such heavy traffic should even be considered for the late Hallstatt period, given the differing types of vehicles depicted on the situlae (FREY 1962, Tafel 73), which probably led to quite some traffic, at least shortly before such festivities as depicted on them.

[8] That such a risk must have been relativly high is clear from the fact that the charioteers most probably didn't drive their *carpenta* at walking speed, and probably were also not especially likely to leave a once choosen track, even on a road that allowed for opposing traffic – one just needs to think of the mentality of the Gaulish nobility to start quarrels for the slightest reasons, as described by the ancient historians (DIO V, 28.5).

[9] See for this also Kinsella's translation of Rescension I (KINSELLA 1990, 119).

[10] Probably it was an invitation to combat to show the left side-board, as this was the side where the warrior would usually carry his shield, the side he most likely would turn towards an opponent when going into combat, much like a medieval knight would have.

[11] Taken from the Pink Floyd album „The final cut"

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