

Article

About the ethnolinguistics of Gaulish people: the case for a Kartic substrate

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Abstract: The paper investigates a set of words with unclear etymologies that can be found in either Latin or Romance languages. It is shown that they display a particular set of sound correspondences different from Celtic proper. This raises the issue of more than one language or people in the ethnolinguistic make-up of so-called “Gaulish” people. The substrate documented in the paper is called *Kartic*, which is the regular equivalent of the word *Celtic* in that language.

Keywords: Ethnolinguistics, Gaulish, Latin, Romance, Substrate.

1. Introduction

According to a famous Roman: *Gallia est omnis divisa in partes tres quarum unam incolunt Belgae, aliam Aquitani, tertiam qui ipsorum lingua Celtae, nostra Galli appellantur. Hi omnes lingua, institutis, legibus inter se differunt. (De bello gallico, I, 1)*. It has been a long-standing tradition that all the populations who lived on the present-day territory of France before the Roman conquest would receive the name *Gaulish*. The only conspicuous exception is Greeks who had in fact arrived on the spot before Romans but were quite obviously impossible to lump into the all-encompassing category of so-called Gaulish tribes. Together with Greeks one could add Jews, many of them were incidentally Greek-speakers at that time. This ethnonymic approach dates back to Romans themselves who used to distinguish two areas: transalpine Gaul (or *Gallia ulterior*) and cisalpine Gaul (or *Gallia citerior*)¹. It certainly had some political advantage when promoting or propagandizing French nationalism. The terms *Gaul* or *Gaulish* with their fuzzy perimeters could quite opportunely subsume all the putative ancestors of French people during the Third Republic (1870- 1940)². “*Autrefois, notre pays s'appelait la Gaule et nos ancêtres les Gaulois*” [Our country used to be called *Gaul* and our ancestors *Gauls*]. This was the first sentence of a *Handbook of History* written by Ernest Lavisse (1842-1922) and used in state schools after 1903. One may wonder which Frenchman never heard this sentence, all the more so as France even went so far as to teach the same book to her former colonized people, primarily African and Asian people. The next sentence in the book is less well-known and worth reading: “*Notre pays a bien changé depuis lors, et nous ne ressemblons plus guère à nos pères les Gaulois*” [Our country changed much since that time and we hardly still look like our Gaulish fathers]. Lavisse was quite careful and well aware that the Roman conquest and the later Germanic invasions had exerted powerful influence upon the country and that the links between France and Gaul were not so clearly straightforward.

¹Cf. TULLIUS CICERO, *De provinciis consularibus* (II.3) : “Galliae duae, quas hoc tempore uno imperio videmus esse coniunctas”.

²Cf. KRUTA (2000:23-24) : “Fait inimaginable encore naguère, les Gaulois se transforment de plus en plus souvent en Celtes de Gaule. Un tel usage souligne avant tout l'appartenance à la grande communauté ethnique et culturelle des anciens Celtes. Il reflète peut-être aussi une volonté de rupture les excès qu'avait pu susciter jadis l'appropriation chauvine de ce chapitre du passé national.” [Unthinkable not so long ago: the Gauls are increasingly called Celts of Gaul. This wording underlines above all that they belong to the great ethnic and cultural community of the ancient Celts. It may also reflect the desire to move away from some excesses that the chauvinistic use of that word raised in this chapter of [French] national history.]

As mentioned before in the narration of his military feats and war crimes in *De bello gallico*, Gaius Julius CAESAR (100-40 BCE) distinguished three kinds of Gaulish people, to whom he assigned in addition separate geographic areas. This is the ethnolinguistic pattern which we will try to assess and understand. On the one hand his report is to a large extent a self-glorifying opus, but after all it may also contain a minimal amount of historical realism. Besides the humble truth is that his narrative is the only document to this day to provide an ethnolinguistic picture of Gaul's inhabitants³: *Aquitaniens, Celts, Belges, differing among them as to languages, institutions and laws*. Aquitanians are usually agreed to be the direct ancestors of present-day Basque people⁴. Works by Luis MICHELENA (1915-1987) indicate that most names listed as *Aquitanian* by the Romans are made up of morphemes that are quite transparently Basque words: NESKATO ~ Basque *neskato* "daughter", ANDERE ~ *andere* "woman", CISSON ~ *gizon* "man", OSSO- ~ OXSO- ~ *otso* "wolf", HERAUS- ~ *herauts* "boar", -CORRI ~ *gorri* "red", -BERRI ~ *berri* "new", -BELEX ~ *beltz* "black", etc. Among others this analysis is accepted by Venceslas KRUTA (2000:626).

For the Aquitanians the case would therefore appear to be settled with much certainty and reliability. The issue remains pending for Belgians. The paper is divided in two main sections: a short survey of what could be called the unitarist approach of the Gaulish tribes as a kind of embryonic Pre-French "nation" and a second part which describes our method and its tentative results as regards the possible ethnolinguistics of "Gaulish" peoples.

2. The traditional unitarist approach of Gaulish

A representative of the unitarist approach of "Gauls" is in my opinion the contemporary archeologist Jean-Louis Brunaux. He wrote several books on that topic among which Brunaux (2008) more recently. This book is a kind of historiography of the relation between Gaulish and French people, but a rather personal one as the author is deeply convinced that both can nearly be equated: Gaul is "un pays qui préfigure la France" [a country that prefigures⁵ France] (2008:21). A number of phrases are unambiguous and sometimes awesome: "nation gauloise" [Gaulish nation] (2008:53-54), "identité gauloise" [Gaulish identity] (2008:7), "population antérieure à laquelle appartient l'immense majorité du peuple français" [a former population to which the immense majority of the French people belongs] (2008:24), "lente et mais sûre émergence du sentiment d'un pays commun" [a slow but certain emergence of the feeling of a common country] (2008:41), "façon de voir leur pays" [way of seeing their country] (2008:43), "très proches de nous"⁶ [very close to us] (2008:47). Needless to say that this book would seem to be based on scientific history but very much reads like a classical *Myth of Origins*. It can be noted that Brunaux (2008) does not mention Basque people explicitly nor Greeks or Jews, who would not fit in the purely Celtic "Gaulish" nation foreshadowing France.

³Cf. BRUNAU (1986:53): "Et nous n'avons aujourd'hui pas d'autre possibilité que de nous fonder sur des bases aussi imprécises." [And we have no choice but to resort to this imprecise basis]. Cf. KRUTA (2000:633) for a similar observation.

⁴Most Bascolinguists like MICHELENA, TRASK and MORVAN agree on that issue: for example MORVAN (2004:11): "La Gascogne et ses zones limitrophes fourmillent de noms de lieux d'aspect basque" [The Gascogne province and the neighboring areas are filled with place names with a Basque outlook].

⁵Cf. BRUNAU (2008:30): "il n'en demeure pas moins évident pour chacun d'entre nous que cette Gaule, à la fois si proche et si étrange, préfigurait bien la France dans ses limites - les mêmes depuis plus de vingt siècles - et dans ses variétés régionales qui, elles, ont traversé l'histoire." [It remains obvious to any of us that Gaul, being both so close and so strange, did prefigure France in its borders - the same since twenty centuries - and in its regional diversity, which have resisted time.]

⁶Cf. BRUNAU (1986:6): "Ce rite de fertilité qui allie le porc, le pourrissement, les graines, la fosse, les champs, et la femme comme acteur, avait certainement son correspondant quelques régions du monde celtique, même si tous les éléments n'y étaient peut-être pas présents. Ces thèmes paraissent avoir été habituels à la mentalité religieuse des Celtes." [This fertility rite which combines pigs, rottenness, seeds, a ditch, fields and women [sic] as actors, certainly had their equivalent in some regions of the Celtic world, even if all elements might have not been presents. These themes seems to have been usual in the religious mindset of the Celts.]

Another book by Brunaux (1986) on sanctuaries paradoxically provides considerable reasons to think that the differences between Northern inhabitants and Southern inhabitants were indeed deep and not infrequently contradicts itself:

“Rien ne permet de dire que les druides de tous les peuples avaient des croyances communes. Tout porte à croire le contraire : la diversité des panthéons, des situations sociales et politiques, devait trouver son reflet dans la philosophie et la mythologie druidique. Il n'est d'ailleurs pas certain que les druides aient existé partout. Ils ne sont pas mentionnés en Galatie, alors qu'on y parle de rois-prêtres. En Cisalpine, il n'est question que de vates.” [Nothing enables to say that druids of all these peoples had common beliefs. Everything tends to show the opposite: the diversity of pantheons, of social and political situations, must have been reflected in the druidic philosophy and mythology. Besides it is not certain that druids existed everywhere. They are not mentioned in Galatia where king-priests are mentioned. In cisalpine Gaul only vates [priests] are heard of] Brunaux (1986:63)

“En revanche, les liens qu'instauraient la religion et le druidisme étaient autrement plus solides et unificateurs.” [On the contrary the links created by religion and druidism were much more solid and unifying] BRUNAU (1986:6)

Burials are also an issue:

“Du Ve au IIIe siècle, les Gaulois, et d'une façon plus générale, les Celtes, sont enterrés dans des tombes rectangulaires.” [From the 5th to the 3rd century Gaulish people and more generally Celts were buried in rectangular graves] Brunaux (1986:86)

“Il semble que l'incinération soit apparue dès la fin du IVe siècle dans le Nord de la France et qu'elle se soit répandue progressivement vers le sud et l'est, dans le courant du IIIe siècle. On ne peut dire encore si l'arrivée des Belges à cette époque a influencé ce rite funéraire ou bien si ce changement de rite est le reflet de nouvelles croyances.” [It seems that incineration appeared at the end of the 4th century in northern France and gradually spread to the south and the east during the 3rd century. It cannot be asserted yet if the arrival of Belgians at that time influenced that funerary rite or if this change in rites reflects new beliefs] Brunaux (1986:87)

It can also be noted that the Caesarian model of people occupying separate areas, somehow as many modern European states do, is highly dubious:

“Partout les migrations avaient semé des fragments de la grande famille celtique et chaque peuple se connaissait des liens de parenté, ainsi qu'en témoigne parfois leur nom gardé en commun. Ainsi en est-il des Volques et des Tectosages que l'on signale près de Toulouse, près de Nîmes, dans la forêt hercynienne et même en Asie mineure.” [Migrations have sown everywhere fragments of the great Celtic family and each people had external links, sometimes shown by their shared ethnonyms. This is the case for the Volques and Tectosages, who lived near Toulouse, near Nimes, in the Hercynian Forest and even in Asia Minor.] Brunaux (1986:6).

The intermingling of people is mentioned by other authors as well:

“La biritualité, pratique des deux rites au sein de la même communauté, fréquemment constatée dans les nécropoles du milieu danubien au IIIe s. av. J-C, est le reflet du caractère composite [sic] - Celtes de différentes origines et indigènes - de la population de ces régions.” [Birituality, the practice of two rites within a given community, frequently observed in necropolises of the Danubian waterbasin during the 3rd century BCE, reflects the composite nature of the population in these regions: Celts of different origins and locals.] kruta (2000:679) sv Incinération.

The conclusion to be reached is therefore that the potential linguistic differences between the different “Gaulish” tribes and peoples are a real issue that needs to be investigated, in line with the clear and doubtless absence of real unity of the so-called Gauls as regards most other cultural features, a situation that even the most unitarist sides cannot hide.

3. Our approach of Gaulish ethnolinguistics

If one takes in earnest the issue of distinguishing several varieties of Gaulish peoples and languages, then the question becomes: on which criteria should they be distinguished? We have mentioned before the case of Aquitanians: their language can be easily compared with modern Basque. Aquitanian is coherent phonetically and semantically with an existing comparative basis. What other comparative bases are available? Obviously some of the Gauls were Celts and the component that is properly Celtic can be identified because it has cognates in other Celtic languages and because this component can be traced back to Proto-Indo-European at a deep level and to Italo-Celtic as a shallower level, be that “node” of only areal or maybe genetic validity. That component will be called Celto-Gaulish in this paper. It can be defined as the lexemes that have clear Celtic and Indo-European antecedents.

Now French, French dialects and more generally Latin and Romance languages contain an array of substratic words that can be accounted for neither by Latin, Italic nor by Celto-Gaulish. It is well known that substrates tend to be logically *circular* entities: unattested ghost languages used to describe or explain words of unknown origin. No doubt a troublesome methodological and epistemological feature. Assigning a “Gaulish” origin to any kind of unexplained word, as even outstanding scholars like Von Wartburg (1888-1971) tend to do, is either an aporia or a delusion, especially when that supposedly “Gaulish” origin cannot be duly confirmed by Celtic counterparts or Indo-European derivation. This nearly amounts to sweeping issues under the rug or postponing a real analysis. Typically dubious ghost entities are exemplified by such words as *Mediterranean* or Meillet's *popular* words. It cannot be emphasized too much that such labels have no explanatory nor descriptive potential at all.

The main issue is to sort out substratic words according to their potential Celticity: those that are truly Celtic words, and therefore Celto-Gaulish in our framework, and to identify other sets of words that display other profiles. Two words will exemplify our purpose: **pata* ‘paw’ and **rat-* ‘rat’. They are widespread in Romance and also appear in some Germanic languages. Both have a striking structural similarity with IEW 790 **ped-* ‘foot’ and IEW 854 **rēd-* ‘to gnaw’. It takes sound changes like PIE **d > *t* and PIE **e > *a* to derive them from well known proto-forms. I am not aware that this comparison has ever been made. Quite obviously the preservation of **p* and the devoicing of **d* is not what is expected in a Celtic language⁷. The point is that these two words are derivable from PIE forms but according to sound laws that are not those exhibited by truly Celtic languages. This analysis raises the issue of non-Celtic languages of Indo-European descent alongside truly Celtic ones being spoken over Gaul's territory (and beyond). It can be noted that the hypothesis of Pre-Celtic substrates of Indo-European nature has already been proposed by specialists of “Gaulish”: “Il s'agit pt ê. d'un mot indo-européen pré-celtique des Alpes, passé aux Celtes. Sur la présence possible, au Néolithique, de populations indo-européennes dans les Alpes, voir les ouvrages [...]” [It may be a Preceltic Indo-European word used in the Alps and borrowed by Celts. About the possible presence, during Neolithic, of Indo-European populations in the Alps, see the following works [...] Delamarre (2003:268).

As will appear below the non-Celtic language exemplified by the words **pata* ‘paw’ and **rat-* ‘rat’ displays the following sound changes:

- labials: PIE **w*, **b*, **bh* > **b*.
- rhotics : PIE **r* > *l*, PIE **l* > *rr* (except word-initially PIE **l* > *r*),
- voiced, aspirated stops: PIE **g(h)* > *k*, PIE **d(h)* > *t*,
- voiceless stops (intervocalically): PIE **k* > *kk*, **t* > *tt*.

⁷Cf. FORTSON (2010:310): “Celtic is a centum branch, having merged the palatal velars with the ordinary velars. A defining change was the loss of **p* in most positions, as in Oir. *athair* ‘father’ < **ph₂tēr*.” Cf. Arles < **para-plat-*.

It can be noted that this language is not characterized by lenition but by fortition. A typical feature of that language is a large number of intervocalic geminates: *rr*, *kk*, *tt*. This language will be called Kartic in the paper, as Celtic becomes Kartic when that set of sound laws is applied to the word Celtic itself. Normally Kartic words display the change: PIE **r* > *l*, but it can be observed that the word **rat-* < **rōd-* is irregular from that point of view and displays a mixture of phonetic features. The *d* is devoiced as expected but the *r* is kept.

It can also be observed that Celtic languages also contain a number of Kartic words, which adds to the complexity of the situation. For example the root IEW 681 **leu* ‘mud, dirt’ is regularly represented by Celto-Gaulish *lūto*⁸, Old Irish *loth* ‘mud, swamp’ (< **lutā*), Breton *loudour* ‘dirty’ (< **lout-*). This root is also represented by Latin *lutum* ‘mud’ and Greek *lūma* ‘dirt’. At the same time Insular Celtic has another root **rut[t]u-* ‘mud’: Old Breton *rod*, Welsh *rhwd* ‘dirt, dust’. This form does not have any Indo-European antecedent with initial *r*. It appears that **rut[t]u-* is the Kartic equivalent of truly Celtic *lūt-*. Another Breton word *darne* ‘piece, part’, hence the late borrowing: French *darne* ‘piece of a fish’, can be compared with IEW 175 **dā* ‘to divide’. Breton can be the Kartic reflex of **dālvna* ‘division, part’.

It therefore appears that “Gaulish” is not a one-layered substrate but that underneath Celtic there exists another layer of Indo-European nature: Kartic. As will appear below Celto-Gaulish and Kartic do not account for all supposedly “Gaulish” words and more entities need to be postulated.

In the following sections words are listed according to sources: (1) supposedly “Gaulish” words in Roman and Greek authors, (2) supposedly “Gaulish” words with reflexes in French or dialectal French, (3) supposedly “Gaulish” words with toponymic reflexes and (4) French words with no received etymology which can be explained by Kartic.

4. Supposedly “Gaulish” words in ancient Latin or Greek glosses

In this section words attributed to “Gaulish” by Roman or Greek authors of the Antiquity will be examined. Some of these words still exist in French, Romance and sometimes Germanic languages. Our aim is not to duplicate Delamarre (2003) and only a relevant selection of words is presented. In addition in some cases Delamarre (2003) would appear not to mention potentially “Gaulish” words.

- **akaunon* ‘stone’ < **ak(a)mnon* < IEW **ak-*. Attested in *acaunomarga* ‘of stone-marl’: Pliny (17.42) “intermixto lapidae terrae”. A true Celto-Gaulish word. Cf. Delamarre (2003:30-31, 181).
- *alauda* > French *alouette* ‘lark’. Pliny (11.121) “avis galerita quae Gallice alauda dicitur”. The word is only “Gaulish” with no Celtic counterpart. Delamarre (2003:36) tries to segment the word as a root *al-* and a suffix *-auda* but observes that there is no satisfactory IE root to account for **al*. We prefer segmenting *a-lau-da* as will be discussed below.
- *alausa* ‘a kind of fish from the Moselle called shad / *Culpea alosa*’ > French *alose*. Ausonius (Moselle 127). The word is only “Gaulish” with no Celtic counterpart. Also present in Provençal *alauaso*, Spanish *alosa* and German *Alse*. Delamarre (2003:37) suggests to segment the word as a root *al-* ‘white’ and a suffix *-ausa* but we prefer segmenting *a-la-us-a*.
- *ambactus* ‘vassal, dependent on the lord’ > French *ambassade* ‘embassy’. Festus (2.20). Also attested in Welsh *amaeth* ‘farmer’, Old Breton *ambaith* id., OHG. *ambaht* ‘servant’, continuing in German *Amt* ‘office, service’. A true Celto-Gaulish word from **amb(i)-agto-* ‘acting around’. Delamarre (2003:40-41) mentions two similar formations: **ambhi-kwolos* and **peri-kwolos* attested in Greek and Sanskrit.
- *andabata* ‘the gladiator who fights in the helmet without openings for the eyes’ (Cicero). A compound of **andh-* ‘blind, in the dark’: Sanskrit *andhá-*, Avestan *anda-* ‘blind’, Sanskrit *ándhas* ‘darknesses’, and **bat[t]-* ‘to beat, fight’ related in some way to IEW 112 **bhau-t-* ‘to beat’.

⁸Cf. DE VAAN (2008:355) who reconstructs PIE **l(H)u-to-*, and DELAMARRE (2003:211-212).

- *arinca* ‘kind of grain, spelt’. Pliny (18.81) “*Arinca Galliarum propria, copiosa et Italiae est*”. As Delamarre (2003:54) puts it the Celticity of the word is not certain. It is often compared with Greek *áراكos* ‘vetch’. The word has very clear Kartic features: Cf. IEW 28 **al-* ‘to grind (flour)’ hence Greek *aléô* ‘to grind’, *áleuron* ‘wheat flour’, Latin *alica* ‘spelt, or a drink prepared from spelt’. A clear example of “Gaulish” word that is not Celtic but Kartic. *Arinca* is nearly equal to Latin *alica*.
- *attegaia* ‘hut, cottage’. Juvenalis. A true Celto-Gaulish word from **ad-* ‘to, by’ & **tegia* ‘house, roof’ < IEW 1013 *(*s*)*teg-* ‘to cover’. Cf. Old Irish *teg*, Old Welsh *tig* ‘house’, Breton *ti* ‘house’, Venezian *teza* ‘hut’. Borrowed in Basque *tegi* ‘shelter, sty’.
- *bardalla* ‘kind of crested bird’: possibly ‘lark’ according to Delamarre (2003:67). The meaning may be ‘singer’ < **bard* and sheds light on the etymology of *alauda*.
- **bat[t]uô-* ‘to beat, fight’ > French *battre*. Not considered “Gaulish” by Delamarre (2003). It looks like the Kartic reflex of IEW 112 **bhau-t-* ‘to beat’.
- *beber* ‘beaver’ against Latin proper *fiber* id. < IEW 136 **bher-* ‘brown’. A true Celto-Gaulish word.
- *beccus* > F. *bec* (1120) ‘beak, bill’. Suetonius: “*cui Tolosae nato cognomen in pueritia Becco fuerat : id valet gallinaei rostrum*”. A “Gaulish” word with no Celtic counterpart. The word derives from IEW 784-785 **ōu(s)-* ~ **əu(s)-*, hence with a suffix *-ekos*: **Hwékos* > **bekkos*. Cf. *bucca*. It must nevertheless be noted that **e* is irregular.
- *benna* ‘a kind of four- (or two-)wheeled carriage’ > French *benne*. Festus “*genus vehiculi*”. Attested in Italian *benna*, also English *bin*, German *Benne*. Cf. IEW 127 **bhendh-nā* < **bhend-* ‘to bind’. This word is quite surprisingly not listed in Delamarre (2003).
- *betulla* ‘birch’ > French *bouleau*. Pliny (16, 74) “*betulla: Gallica haec arbor [...]*”. Attested in Old Irish *beithe*, Welsh *bedw*, Old Breton *bedu* ‘birch’ < **betwā*, Provençal, Catalan *bez*, Spanish *biezo* ‘birch’ < **bettio*, **bettia*. Cf. IEW 480 **gwet-* ‘resin’.
- First attested in Greek *brák(k)ai*, whence *brācae*, *brācēs* ‘trousers, breeches’ > French *braies*, Spanish *braga*, Romanian *bracă*, also Germanic **brōk*, **brēk*, English *breeches*. This word can be the Kartic reflex of IEW 125 **bhelg-* ‘leather sack’. This word does not have counterparts in Insular Celtic as Old Irish *bróc* is a Germanic loanword.
- *bracis* ‘malt’ > French *brasser* ‘to brew’. Pliny (18, 62). Attested in Old Irish *braich*, *mraich* Welsh *brag* ‘malt’ < IEW 739 **merk* ‘to decay’. A true Celto-Gaulish word which has cognates in Latin and Baltic. Attested in the compound *embrecton* ‘brewed drink’.
- *brogae* ‘field’, diminutive *brogilus* > French *breuil* ‘field’. Juvenal (8.234) “*brogae Galli agrum dicunt*”. Cf. Old Irish *mruig*, Welsh, Breton *bro* ‘country’, also attested in German *Brühl* ‘pasture’ < IEW 738 **merġ* ‘border, boundary’. A truly Celto-Gaulish word.
- *bulga* ‘leathern knapsack, bag’ > Old French *bouge(tte)* > E. *budget*. Festus (31.25) “*bulgas Galli sacculos scorteos appellat*”. Cf. Old Irish *bolg* ‘bag, belly’. The truly Celto-Gaulish reflex of IEW 125 **bhelg-* ‘leather sack’. Cf. Kartic *Bracae*.
- *bucca* > French *bouche* ‘mouth’. Only “Gaulish” with no Insular Celtic counterpart. The word derives from IEW 784-785 **ōu(s)-* ~ **əu(s)-*, hence with a suffix *-okos*: **Hwókos* > **bukka* with Kartic phonetics. Cf. *beccus* for the same formation. FEW 586 indicates that Rumanian still has the old meaning ‘cheek’. Cf. De Vaan (2008:76): “*might go back to PIE *bukk-* (or even **buk-n-*). If correct at all, initial *-b* would point at a non-IE substratum origin.” This is a Kartic word.
- *burra* > French *bourre* ‘raw wool’. Not included as “Gaulish” in Delamarre (2003). This word is the Kartic reflex of IEW 1139 **uelə* ‘wool’. The Celtic reflex of **ulānā* is attested in: Welsh *gwlan*, Cornish *gluan* and Breton *gloan*.
- *camox* > French ‘chamoix’. Only “Gaulish” with no Insular Celtic counterpart. This word can be derived from IEW 425 **ġheim-* ‘goat’: Greek *χίμαιρα* ‘goat’. The regular reflex of PIE **ei* is Kartic **a*. This word is Kartic. It may also have been borrowed in Basque *ahuntz* ‘goat’ < **a-kum-tz* with a different vocalism.
- *carpentum* ‘two-wheeled, covered carriage (for women)’. Titus Livius (31.21.17) “*carpentis Callicis*”. Cf. OIr. *carpat* ‘war chariot; also jaw’. Possibly from the same root as *carrus* as DELL suggests.

- *carrus* ‘two-wheeled wagon for transporting burdens’ > French *char*, English *car* < IEW **kers-* ‘to run’. A truly Celto-Gaulish word with Celtic counterparts: Old Irish *carr*, Welsh *car*, Old Breton *carr* ‘vehicle’. Replaced its Latin equivalent, namely *currus* ‘war-chariot’.
- *cateia* ‘a kind of spear’. Cf. Old Irish *caithid* ‘to throw’. There seems to exist no proposal for this word which can be the Kartic reflex of IEW **ghei-dh-* ‘to propel, prick’: English *goad*. *Cateia* with *a* < **gheidh-* can be compared to *camox* < **gheim-*. Cf. *gaesum*.
- *cauannos* ‘owl’ > French *chouan*, *chouette* < (onomatopoeic) IEW **kaw-* ‘to howl’. Cf. Welsh *cwan*, Old Breton *couan*, Breton *kaouann* ‘owl’. A truly Celto-Gaulish word.
- *ceptoria*, *ceptorium* ‘furrow forming the border of a field’ < **cencto-* ‘plough’ < IEW 523 **ka(n)kh* ‘branch, post’. Cf. Old Irish *cécht* ‘plow or its handle’. A truly Celto-Gaulish word.
- *cis(s)ium* ‘light two-wheeled vehicle, cabriolet’ < IEW **kistā* ‘basket’ after its shape. Cf. OIr. *cess* ‘knitted basket’. A truly Celto-Gaulish word.
- *clēta* ‘hamper, hurdle’ > French *claire*, Provençal, Catalan *cleda* ‘grate in the window’. Attested in Old Irish *cliath* ‘hamper, hurdle’, Welsh *clwyd* ‘barriere’ < Celtic **kleitā* < IEW 600-602 **klei*. A truly Celto-Gaulish word.
- *damma* > F. *daim* ‘roe’. Also attested in Old Irish *dam* ‘bull, deer’, *damán* ‘fawn’ (**damogno-*), W. *dafad* ‘ram’ (**damato-*). A truly Celto-Gaulish word < IEW 200 **dam*. The connection with IEW 199 **demā* ‘to tame’ is not absolutely clear semantically.
- *drungus* ‘globus hostium’, ‘troop of enemies’. Also attested in Old Irish *drong* ‘group, band, gang’, Old Breton *drogn* ‘troop’ < IEW **dhreugh* ‘companion, Männerbund’ with cognates in Germanic and Balto-Slavic. Cf. Delamarre (2003:150-151).
- *esox* ‘a fish of the Rhine: possibly pike or salmon’. Pliny (9.44). Also attested in Old Irish *éo*, gen. *iach* < **esok*, W. *ehawc*, MB. *eheuc* ‘salmon’ < **esāk*. Borrowed into Basque *izoki*. Compare Basque *iratze* ‘fern’ < Celtic **rāti-* < **perH-* (Delamarre 2003:254). A completely isolated word which cannot be satisfactorily derived from IEW 796 **piski-* ‘fish’. Probably a Pre-Indo-European word.
- *essedum* ‘two-wheeled war-chariot used by Gauls, Belgians and Brittons’ (Caesar, Vergilius) < **en-sedo-*. A parallel formation is attested in Latin *asseda* ‘seat of quadriuga’, W. *assed* ‘wagon’ < **ad-sed-*. A truly Celto-Gaulish word.
- *gabalus* ‘gallows’ < IEW 409 **ghabolos* ‘fork, branch’. Also attested in Old Irish *gabul* Welsh *gafl*, Breton *gaol* ‘fork’ < **gablos*, French derivative *javelot* ‘javelin’. A truly Celto-Gaulish word with cognates at least in Germanic.
- *gaesum* ‘spear, javelin’ < IEW 410 **ghaiso-*. Attested in Old Irish *gae* ‘spear’, Middle Welsh *gwaew* ‘spear, javelin’. A truly Celto-Gaulish word.
- *gladius* > French *glaiue* ‘sword’. Not listed in Delamarre (2003) in spite of DELL (405). Possibly attested in Old Irish *claideb*, Gaelic *claidheamh*, Welsh *clddyf*, *clddydd* in spite of the difference *c* ~ *g*. A possible shared etymon is IEW 545 **kel* ‘to strike’.
- *glastum* > Languedocian *glas* ‘blue colour’. Pliny (2.22). Also attested in Old Irish *glas* ‘blue-green’, Welsh, Breton *glas* ‘blue, bluish’. Delamarre (2003:180) proposes a derivation from IEW 429-432 **ghel* ‘yellow, green color’ but semantics does not fully fit this hypothesis. Celtic better fits Greek *glaukós* ‘bluish, grayish’.
- *gulbia* (Isidore of Sevilla), *gubia* (DELL 418) ‘beak, bill’ > French *gouge* ‘gouge’. Attested in Middle Irish *gulba*, Welsh *gylfin*, Old Breton *golbin* ‘beak’. Delamarre (2003:184) suggests an etymon IEW 367 **gelebh* ‘to dig’. This does not seem to be really convincing. In addition connections with “Gaulish” **gobbo* ‘beak, mouth’ (Delamarre 2003:182) and IEW 449 **gheHu* ‘to gape, yawn’ are possible. Logically a truly Celto-Gaulish word with an additional fortition of **w* to **b*.
- *iotta* (Delamarre 2003:194 prefers reading **iutta*) ‘soup of a milk, mash’ (6th cent.). Attested in Old Welsh *iot*, Old Breton *iot* ‘mash’ < **yutā* < IEW 507 **yūs* ‘brew, soup’. A truly Celto-Gaulish word.
- *lancea* > French *lance* ‘spear’. Nonius (556), Diodorus of Sicily (5.30.4), considered Spanish by Varron. Delamarre (2003:196) mentions a comparison with Old Irish *dó-leicim* ‘I throw’. According to Kartic phonetics *lancea* could be traced back to IEW 854 **reg-* ‘straight (line, rod)’ with the addition of a nasal infix.

- *leucas* (Saint Hieronymus), *leuga* (Isidore of Sevilla) > French *lieue* and English *league* ‘the Gaulish mile, c. 2,4 km’. The Celticity is dubious according to Delamarre (2003:200) but DELL (513) considers it “Gaulish”.
- *līnum* > French *lin* ‘flax’, *linge* ‘cloth’ < IEW 691 **līno* ‘flax’. Attested in Irish *lín*, Gothic *lein*, Greek *línōn*, Balto-Slavic **lin-* ‘flax’. A truly Celto-Gaulish word, which may also ultimately be a kind of wanderwort.
- *mannus* ‘pony, little horse’. Consentius “Gallorum manni”. Supposedly “Gaulish” and borrowed in Basque *mando* ‘mule’. Cf. Old Irish *menn* ‘young animal, kid’, Albanese *mëz*, *mâz*, Romanian *mînz* ‘colt’ < IEW 729 **mend-* ‘young (domestic) animal’. The vocalism *a* of *mannus*, *mando* is more Kartic than Celto-Gaulish, unless *a* stands for zero-grade.
- **margā* > **margila* > French *marne* ~ *marle* ‘marl’. Attested in *glisomarga* ‘a kind of the white clay’ and *acaunomarga* ‘of stone-marl’. This word is neither Celto-Gaulish nor Kartic.
- *nausum* ‘ship’. Ausonius (Epist. 22.1) < IEW 755 **nāu*. Delamarre (2003:232) seems to doubt the authenticity of this word.
- *petorritum* ‘four-wheeled chariot’. Festus. A transparent compound of **petru* ‘four’ and either **rit* ‘course’ or **rot-* ‘wheel’. A truly Celto-Gaulish word.
- *rodarum* ‘plant with the leaves which become red, meadowsweet (?)’. Pliny (1.24.112) < **H₁roud^h*- ‘red’. A truly Celto-Gaulish word.
- *sagum*, *sagus*, *saga* ‘Gaulish coat’ (Isidore, Polybius) > (Old) French *saie*. Possibly a truly Celto-Gaulish word: Delamarre (2003:) compares it with Lithuanian *sagis* ‘manteau de voyage pour femmes’, Latvian *sagsa* ‘wool scarf’ < *seg-ti* ‘to cover’.
- *sap(p)īnus* > French *sapin* ‘fir-tree’. The word can be compared with Welsh *sybwydd* ‘pine’ < (?) **sapo-yidu-*. The word looks Kartic < IEW 894 **seip-*: English *sap*.
- *serra* ‘sickle, serp’. Not listed as “Gaulish” in DELL. Also attested in Old Irish and Welsh *serr* ‘sickle, serp’. Delamarre (2003:272) considers the Latin word to be a borrowing of Celtic **serrā* < IEW 912 **serp*, which seems reasonable.
- *taxus* (in Latin), *tasgos*, *tascos* > French (dialectal) *taisson* ‘badger’. Also attested in Italian *tasso*, Spanish *tejon* ‘badger’, and OHG. *dahs*. The direction of borrowing between Latin, Celtic and Germanic is disputed. Cf. Basque *azkoin*, *asku* ‘badger’. Considering that a feature of badgers is to dig a Kartic derivation from IEW 243 **dhēig(w)* is possible: **dhēig-so* > **takso*. Cf. English *to dig*, *dike*, *ditch*, etc.
- *tinca* > French *tanche*, Old French *tenche* ‘tench’. Ausonius. Also attested in Italian *tinca*, Spanish, Provençal *tenca*. Possibly “Gaulish” but without any etymology.
- *uātēs*, *uātis* ‘prophet, poet’. Strabo (IV, 4.4) Οὐάτεϊς. Attested in Old Irish *fáith* ‘prophet’ < IEW 1113 **wāt-*. A truly Celto-Gaulish word.
- *uerēdus* ‘post-horse’, Welsh *gorwydd* ‘horse’ < Celtic **wo-rēdos* < **upo-reid^ho-*. The Latin word with a Greek prefix is reflected in French *palefroi* and German *Pferd* ‘horse’. The phonetics of *uerēdus* is somewhat irregular as one would expect **varīdus*.
- *vert(r)agus* ‘kind of a hound’ > Old French *viautre*, Old Milanese *veltres*, Italian *veltro* ‘kind of a dog, greyhound’. A Celto-Gaulish compound of *uer-* ‘super-’ and **trag-* ‘foot’. < IEW 273 **dhregh-* ‘to run’. It is not clear why Celtic forms have a voiceless initial: Old Irish *traig*, Middle Welsh *troed*, Old Cornish *truit* ‘pes’, Old Breton *treit*, Breton *troad*.
- *uiriola* > F. *virole* ‘bracelet’. Pliny (33.40). Also attested in Furlan *viruele*, etc. < IEW 1112 **weia* ‘to turn, bend’. A truly Celto-Gaulish word.

5. Supposedly “Gaulish” words in French or Romance languages

In addition to Greek or Roman glosses a number of words are attested either in Insular Celtic, in place names or in (dialectal or Old) French.

- French *bille*, *billot* ‘trunk of the tree’. Cf. Old Irish *bile* ‘big tree’, Middle Irish *bileóc* ‘leaf’ and Provençal *bilha* ‘tree-trunk’ < *IEW 146 **bhvH-* ‘to grow’. Vowel **u* is not the only possibility in this root: Cf. Greek *φῆτρος* m. ‘tree truck, wooden log’, *φῆτυ* n. ‘germ, sprout, scion, shoot’, *φῆτυμα* ‘bud, sprout’, *φῆτύω* ‘to produce, sow, plant’.

- **brikkos* ‘motley, speckled’ < IEW 159 **bhel-k* ‘to shine’. Cf. Old Irish *brecc*, Welsh *brych* ‘speckled’, Dialectal French (Poitevin) *brèche* ‘many-hued cow’. A Kartic word.
- **inte-cinga* ‘agricultural measure for land’. Attested in Old French *ansenge*, *encenge*. A compound of **int-* < IEW 312 **ndhi* (Cf. Sanskrit *ádhi* ‘on, in’) and *cing* the Kartic form of IEW 438 **ghengh* ‘to go’. Delamarre (2003:46) reconstructs **ande-cinga* but the Kartic reflex of **n* is **in* and Old French indeed has *encenge*.
- French *bruyère* ‘heather’, Late Latin *brucaria*. Cf. Old Irish *froích*, Welsh *grug*, Provençal *Bruga* ‘heather’ < Celtic **wroiko-* < IEW 1155 **werei-k/-ǵh* ‘heather’. Breton *brug* must be a loanword. A true Celto-Gaulish word.
- French *chemin*, Latin Latin (7th cent.) *camminus* ‘path, road’. Cf. Italian *cammino*, Spanish *camino*, Catalan *camí* etc. and Old Irish *céimm* ‘walking, step’, Welsh *cam* ‘id., footprint’. Delamarre (2003:100) proposes an ingenious derivation **ghn̄gh-sm̄n̄* < IEW 438 **ghengh-* ‘to walk, go’. The idea works even better with Kartic phonetics: **ghengh-sm̄n̄* > **cammin-*.
- French *chêne* < **cassanos* ‘oak’. An isolated word. A possibility is IEW 412 **ghasto* ‘rod, staff’ with Kartic phonetics.
- Provençal and dialectal French *clot* ‘hole in the ground, ditch’ < **clott-*. Delamarre (2003:119) proposes to explain that word as a metonymy of IEW 605-607 **k̄leu* ‘ear’ > ‘hole’. This seems to be the late Kartic reflex of IEW 455 **ghrebh* ‘to dig’ > **ghr̄abh̄ta* > Kartic **k̄lopta* > **klott-*. Not a Celto-Gaulish word.
- *jarret* (1160-75) ‘thigh, calf’ < IEW 928 **(s)kel-*: Greek *skelos* ‘leg’. Also attested Celtic: Welsh *garr*, Old Irish *gairri*, Cornish *gar*, Breton *garr* ‘leg’. Delamarre (2003) does not list this word as “Gaulish”. The truly Celto-Gaulish origin accepted in FEW (4, 70) would be certain if there were an Indo-European word like **g(h)_r-* to which compare **garr-*. MATASOVIĆ (2009:152) tries to derive the word from **ghers-* ‘hand’. A Kartic word.
- **landa* > French *lande* ‘moor’. Attested in Old Irish *land* ‘ground, flat ground’, Welsh *llan* ‘village, parish’, Breton *lann* ‘moor’, also Germanic **land-*, Slavic **l̄ed-*. Delamarre (2003:196) retains a Indo-European proposal **plH₂-nd(h)ā* ‘surface’. A truly Celto-Gaulish word.
- **(s)latta* ‘post, rod’ < IEW 866 **rēt-* ‘post’. Attested in Welsh *llath* ‘twig, stick’, Breton *laz* ‘rod, perche, plough shaft, Old Irish *slat* ‘twig, stick’, Also OHG *latta* ‘board, lath’, English *lath* (alongside *rod*). A Kartic word. Attested as a compound in Old French *amblais* ‘ring used to join joke and shaft’ < **ambi-lation*.
- **lekk-*, *likk-* ‘stone’ > Dialectal French *lhéco*, *leytsa*, *lakarre* ‘stone (big, flat, etc.)’. Also attested in Old Irish *lecc*, Welsh *llech*, Breton *lec’h* ‘flat stone’. Delamarre (2003:201) favors a derivation from IEW 831-832 **pl̄kā* ‘flat stone’ coherent with a number of Greek, Germanic and Baltic words with similar meanings.
- *linna* ‘mantle’ (Isidore of Sevilla) < **pl̄tnā* < IEW 803 **pel* ‘skin, clothe’. Attested in Old Irish *lenn* ‘mantle’, Old Breton *lenn* ‘a piece of linen, veil, curtain’, OCS *plat̄no* ‘linen’ and other IE languages. A truly Celto-Gaulish word.
- **melic-*, **melatia* > French *mélèze* ‘larch’. Delamarre (2003:224) compares the word with Greek *melía* ‘ash’.
- **mesgos* > Old French *mesgue* ‘whey’. Also attested in Old Irish *medg* m. (< **mesgos*), Welsh *maidd*, Cornish *meith*, Old Breton *meid* (< **mesgā*) < IEW 714 **meiks-*.
- *olca* ‘arable field’ (Gregor of Tours) > French. *ouche* (dial. also ‘garden’. Also attested in Provençal *olca*, Spanish *huelga*, German dialect *olāk* ‘Brachland’. The word has no Celtic counterpart but a derivation from IEW 850 **polkā* has been proposed. Cf. English *fealh* > *fallow*.
- **pettia* > French *pièce* ‘piece, part; room’. Also attested in Italian *pezza*, Provençal *pesa*, and Celtic: Old Irish *cuít*, Middle Welsh *peth*, Breton *pezh* ‘thing’ < (?) **kwez-d-*. A very obscure word with no clear Indo-European etymology and comparanda.
- **pittittus* (7th cent.) > French *petit* ‘small’. This might be a Kartic derivative of the root IEW 842 **peHu* ‘small, little’, although **putt-* would be expected instead of **pitt-*. Cf. Greek *pais*, *paidos* ‘child’.
- **rika* > French *raie* ‘furrow’. Also attested in Old Provençal *riga*, Celtic: Old Breton *rec*, Middle Welsh *rych* ‘furrow’ < IEW 821 **pr̄kā* ‘split’.

- **rusca* ‘bark’ (9th cent.) > French *ruche* ‘beehive’. Original meaning preserved in Old Provençal, Dialectal Italian *rusca* ‘bark (of oak)’. Catalan *rusca* ‘beehive, bark (of oak)’, Celtic: Old Irish *rúsc*, Welsh *rhisgl* ‘bark’. Delamarre (2003:263) mentions a proposal by Campanile that the word may be Pre-Indo-European but a Kartic derivation from IEW 678 **lep* ‘to peel’ is possible: **lopscā* > **rūskā*. Cf. Greek *λοπός* m. ‘bowl, bark, skin’ with similar semantics.
- **sentu* > French *sentier* ‘path’. Also attested in Old Irish *sét* ‘path, way’ < **sentu*, Welsh *hynt* ‘path, trip’, Old Breton *hint* ‘path, way’. A truly Celto-Gaulish word.
- **srognā* ‘nose, nostril’ > Old French *froigne* ‘sour face’, Dialectal (Vosges) *frognon* ‘pig snout’, (Hte-Saône) *freugnot* ‘snout’ (FEW 3,816) < **frogna*. Also attested in Celtic: Old Irish *sron* < **sroknā*, Welsh *ffroen*, Middle Breton *froan*, Breton *fron* < **frognā* < IEW 1002 **srenk-* / **sreng-* ‘to snore’. Cf. Greek *rhénko*, *rhénkho*. A truly Celto-Gaulish word. Cf. **trugna*.
- **succos* ‘pig’ > French *soc* ‘ploughshare’ < ‘pig-snout’. Attested in Brittonic: Welsh *hwch*, Cornish *hoch*, Breton *houc’h* ‘pig’ < **succo-* < IEW 1038 **sūs* ‘pig’. The geminate is Kartic rather than truly Celto-Gaulish.
- **sūdiā* attested as *sugia* > French *suie* ‘soot’. Also attested in Provençal *suja*, *suga*, Catalan *sutge*, Celtic: Old Irish *súithe*, *suide*. Welsh is *huddygl* < **soud-*. In spite of some vocalic obscurities the word is probably derived from IEW 886 **sed* ‘to sit’. Cf. English *soot* < OE *sōt*, Lithuanian *súodžiai*.
- French *souche* ‘stump’, (Berrichon) *suque*, (Piemontese) *süka*, Italian. *socca*, Aragonese *zoque* < **tsukka* < IEW 1032 **st(e)uk-*. A Kartic word.
- **tann-* ‘oak’ > French *tan* ‘tan’. Cf. Celtic: Breton *tannen* ‘oak’, Old Cornish *glastannen* ‘quercus uel illex’. Old Irish *tinne* ‘holly’ is not close semantically. Possibly a Kartic derivative of IEW 198 **dem* ‘(to build) a house’: English *timber*.
- **taratrum* (Isidore of Sevilla) > F. *tarière* ‘borer, gimlet’. Also attested in Old Provençal *taraire*, Spanish *taladro*, Celtic: Welsh *taradr*, Middle Breton *tarazr*, Old Irish *tarathar* < IEW 1072 **ter(ə)* ‘to bore’. A truly Celto-Gaulish word.
- **tarinca* ‘iron nail’, *taringa* “sudes ferreae” > Old French *taranche*. Also attested in Provençal *tarenco*, Old Irish *tairnge* ‘iron nail, point’ < probably IEW 1072 **ter(ə)* ‘to bore’. A truly Celto-Gaulish word.
- **trugnā* ‘nose, face’ > French *trogne* ‘face’. Also attested in Celtic: Welsh *trwyn*, Old Cornish *trein*. A variant of IEW 1002 **srenk-* / **sreng-* ‘to snore’. A truly Celto-Gaulish word. Cf. **srognā*.
- **uassus*, *uassalus* ‘vassal, servant’ > French *vassal*. A truly Celto-Gaulish compound **upo-stH₂o-* ‘who standing under’. Attested in Celtic: Old Irish *foss*, Welsh *gwas* ‘servant, lad’, Breton *gwaz* ‘man, husband’.
- **werkaria* ‘cultivated field’ > French (dialectal) *verchière*, Provençal *verquiero*. The word can be compared with IEW 1168 **werg-* ‘to work’ as in Delamarre (2003:314) but in that case phonetics seems Kartic.
- **vernā* > (dialectal) French *ver(g)ne* ‘alder’. Also Attested in Provençal, Piemontese *verna*, Catalan *vern* ‘alder’, in Celtic: Irish *fern*, Welsh *gwern*, Breton. *gwern* ‘alder; marsh, swamp’. The meaning ‘marsh, swamp’ is possibly original. Cf. Albanese *verr* and IEW 1169 **vernā* ‘alder’. A truly Celto-Gaulish word.
- **windesiā* > French *vandoise* ‘white-fish’. From the stem of Celtic **windo-* ‘white’: Irish *find*, Welsh *gwynn*, Breton *gwenn*.

6. Conclusions or perspectives

Additional forms, which are not necessarily attested in French as actual lexemes:

- **akit-* ‘field’ < IEW 4 **ag-*. The usual PIE word is **agros*. Delamarre (2003:31) mentions a place name *Ahun* (Creuse) < *Acito-dunum* and Old Irish *ached*, *achad* ‘plaine, field’. A Kartic word.

- **matu* ‘bear’ (Delamarre 2003:221). Attested in Irish *math* ‘bear’. The Kartic reflex of PIE 707 **medhu* ‘honey’. Cf. Slavic **medv-edj* ‘honey-eater > bear’.
- **nant-* ‘valley’ (Delamarre 2003:231-232). Attested in Welsh *nant* ‘valley, water-course, stream’, Breton *nant* ‘vallée’, Old Cornish *nans* ‘vallis’. The word is mainly attested in place names. Its shape is fairly unusual for an Indo-European word. Delamarre (2003:232) mentions a possible derivation from **nmtó* ‘curved’.

A number of French words with no clear etymology can be explained by Kartic:

- *bache* (XIII^e s.) “culotte pour femme [panty]”. Cf. GREIMAS (1994:53) and *Gdf* (I, 445) “Femoralia, proprie *bache* mulierum”. *BIWg* (51) indicates that the word is only Gallo-Roman. It can be compared to Latin *vāgīna* ‘sheath’ < IEW 1110 **wag* ‘cover, protection’. Hence **wag* (LIV **weh₂ǵ-*) > Kartic **bak-* > *bache*. DELL (1028) does not accept the relationship between **wag* and *vāgīna* proposed in IEW. DE VAAN (2008:650) considers that the connection with Lithuanian *vóžti* ‘to cover’ is “obviously a gratuitous proposal”. This sounds a very harsh assessment. This root is not attested in Celtic.
- *barre* (fin XII^e s.) ‘bar, door; piece of wood’ < **barra*. Cf. GREIMAS (1994:58) and FEW (1, 260): “Der Ursprung von **BARRA* is noch unbekannt”. **Barra* can be derived from unsuffixed IEW 123 **bhelā-(ǵ/k)-* ‘poutre, planche’. Cf. Of French *bracon* as well.
- **bourra* ‘cloud, rain’. FEW (1.638 §9) lists a set of dialectal words under the same entry as *bourre* ‘uncarded wool’, which cannot be accepted. These corpora derive from IEW 1145 **wel-k* ‘humide, nuage’: Celtic **wolko* ‘rain, rainy weather’. Cf. MATASOVIĆ (2009:427). This root **bourra* has nothing to do with the late borrowing from Greek *bourrasque*. Cf. FEW (1, 441) *sv boreas*.
- *bracon* (1306) ‘branch; support’. Cf. GREIMAS (1994:75). From IEW 123 **bhelā-(ǵ/k)-* ‘beam, plank’ > Kartic **brak*. This word can be compared with Latin *fulc(t)rum* ‘support’ and French *balcon* < Italian *balcone* < Langobard **balko*. Cf. OE *bealca* ‘beam’. Cf. *barre*.
- *bren* (XII^e s.) ‘bran’. Cf. GREIMAS (1994:77). Cf. *brennaticum* (attested in 845) > FEW (I, 513b) Old French *bernage*, *brenage*, and *brin(n)a* ‘bran, dog food’ < **brinnos*⁹. The *TLFi* considers *bren*, *bran* to be of “obscure origin and maybe Celtic” while Greimas considers it “probably Gaulish”. For *BIWg* 88, “the Celtic origin runs into severe difficulties” while FEW (1, 517) writes: “Welcher Sprache **BRENNO-* entstammt, kann nicht gesagt werden.” **Brenn* is coherent with the Kartic reflex of IEW 120 **bhel-*. Regular phonetic reflexes of that root include: Latin *follis* < **bh(o)l-nis*, *folliculus* ‘small bag, balle’ (Cf. DELL 359), Celtic: French *balle* (1549) ‘husk, chaff’. **Brinn-* is the Kartic equivalent of Latin *follis*.
- *chalet* (1723) a Swiss word < **kalittu* ‘mountain shelter’: the Kartic reflex of IEW 442 **gher-* ‘house, enclosure’. Explanations derived from **kal-* ‘stone’ seem less adequate.
- **garr-* attested in *bigarré* ‘multi-hued’: possibly the Kartic reflex of IEW 547-553 **kel-* ‘colour’. Cf. FEW 4, 65 “Die geographie der hier vereinigten wörter ist merkwürdig widersprechend. Das adj. *garre* „bunt” ist von seinem ersten auftreten an eng begrenzt auf die Haute-Bretagne und das nächste Loiregebiet.”
- *jar* (dialectal French) ‘heap of stones in Loire’s riverbed’. The regular Celtic phonetics is French *caillou* < **kaljawo-* of which *jar* is the Kartic equivalent.
- *perruque* (1465) < Italian *perruca*, *parruca* ‘hair; fur’ < IEW 803 **pel* ‘skin, fur’. The regular Latin phonetics is *pelis*.
- *roche*, *roc* (XII^e) < Kartic **rokka* < IEW 683 **lēu/ləu* ‘stone’. FEW (10, 440) indicates that **rōkka* is attested in Galloroman, Catalan and Northern Italian.

It can be noted that a number of Latin, which are not perceived as borrowed by the Romans themselves, display Kartic features. For example:

- *crista* ‘crest’. Not etymology in DELL (224). This is the partially Kartic reflex of **ghr̥stā* < IEW 445 **ǵher* ‘pricky, shaggy (hair, vegetation)’. The regular Latin reflex is *hirsutus*. The

⁹Cf. *TLFi* with a possible Basque borrowing in Bizkayan *birrin*.

phonetics of *crista* < *ǵhrsta, with devoicing but retention of *r, is the same as in *rat-* ‘rat’ < *(H)red-.

7. The phonetics of Kartic as compared to Celto-Gaulish

The corpus of Kartic words is sufficiently numerous to describe the historical phonology of the language with more precision:

PIE *e > Kartic *a: French *barre* < *bhel(H)a ‘bar, rod’; “Gaulish” *brācae*, *brācēs* ‘trousers, breeches’ < *bhlēg; French *chemin* < *camminus* ‘path, road’ < *ghengh-smn; French *garr- < *kel- ‘(1) colour; (2) leg’; *kalittu ‘mountain shelter’ < *gher- ‘house, enclosure’; *lancea* > French *lance* ‘spear’ < *reg- ‘straight (line, rod)’; Celtic *(s)latta ‘post, rod’ < *rēt- ‘post’; Celtic *matu ‘bear’ < *medhu ‘honey’; Italian *perruca*, *parruca* ‘hair; fur’ < *pel; *tann- ‘oak’ < *dem-no- ‘timber’; [irregular r] *rat-* ‘rat’ < *(H)red-;

PIE *ei > Kartic *a: Latin *camox* < *gheim- ‘(mountain) goat’; Latin *cateia* ‘a kind of spear’ < *ghei-dh- ‘to propel, prick’; Latin *sap(p)īnus* ‘fir-tree’ < *seip- ‘sap’; *taxus* (in Latin), *tasgos*, *tascos* > French (dialectal) *taisson* ‘badger’ < *dhēig-so ‘digger’;

PIE *a > Kartic *a: *arinca* ‘kind of grain, spelt’ < *al-; Celtic *akit- ‘field’ < *ag-; French *batche* < *waga ‘sheath’; Latin *bat[t]uō-* ‘to beat, fight’ < *bhau-t- ‘to beat’; French *bracon* < *bhlāgon ‘beam, plank’; French *chêne* < *cassanos ‘oak’ < *ghasto ‘rod, staff’;

PIE *o > Kartic *u: Latin *bucca* ‘mouth, cheek’ < *Hwókos ‘mouth’; French *bourra ‘(1) cloud, rain; (2) raw wool’ < *wol(H)a; *rusca ‘bark’ < *lopskā;

PIE *vP [v = ə (?)] > Kartic *o: French *clot* ‘hole in the ground, ditch’ < *ghrvbhta ‘digging’; *rokka < *lvwka ‘stone’;

PIE *u > Kartic *u: *tsukka ‘stump’ < IEW 1032 *st(e)uk-.

Resonants: *brikkos ‘motley, speckled’ < *bhłk; French *bren* < *bhł-nos; French *chemin* < *camminus* ‘path, road’ < *ghengh-smn; [irregular r] Latin *crista* ‘crest’ < *ǵhrsta;

In my opinion it is quite unbelievable that these corpora would just amount to chance coincidences and that thirty words, and probably more, can be etymologized using PIE and regular sound laws without that feature having some linguistic relevance. Our conclusion is that Kartic exists and acts as a substrate of Celtic and Italic. A component of so-called “Gaulish” people is in fact not Celtic but belongs to its own subbranch of Indo-European languages. The phonetic profile of Kartic is neither Celtic nor Italic.

8. The localization of Kartic

If we now take in earnest the issue of localizing Kartic it can be observed that most words with Kartic features are attested in (dialectal) French, Provençal, Catalan and Northern Italian. Only a handful are attested in Celtic or Germanic: *brikkos ‘motley, speckled’ < *bhłk; *garra ‘thigh, calf’ < *(s)kel; *(s)latta ‘post, rod’ < *rēt- ‘post’; Latin *sap(p)īnus* ‘fir-tree’ < *seip- ‘sap’; *taxus* (in Latin), *tasgos*, *tascos* > French (dialectal) *taisson* ‘badger’ < *dhēig-so. In addition it can be noted that words like Latin *crista* ‘crest’ display partial Kartic features and are not, or maybe no longer, perceived as foreign words. The giver language must therefore have been rather close to Latin itself.

The paradoxical conclusion is that the Belgians, whose name cannot be Kartic, would appear to be more Celtic than the population of the *Gallia comata* or *Gallia bracata* on their south, who was probably a mixture of Celtic people with an older layer of Kartic people. In all cases it can be noted that the number of words of truly Celto-Gaulish origin which made their way into French is not significantly higher than that of Kartic origin.

9. Kartic and some other Western European substrates and languages

Kartic shares with another substrate, North-West-Block, the feature of preserving PIE **p* when Celtic languages uniformly mute this proto-phoneme. Kartic *patta* < **ped-* can be compared with Dutch *pink* ‘little finger’ < IEW 808 **penk(w)* ‘finger; five’. Dutch (and Frisian) *pink* can be neither Germanic nor Celtic. In addition it can be noted that Dutch *pier* ‘worm’ can be derived from IEW 649 **kwer* ‘worm’ (apparently a novel idea). This shows that North-West-Block retains **r* and possibly changes labio-velars into labials, two changes that Kartic does not seem to undergo if the testimony of *taxus* (in Latin), *tasgos*, *tascos* ‘badger’ < **dhēigw-so* is accepted. This means that Kartic is definitely a different substrate from North-West-Block, as was already expected from their respective locations.

Another potential substrate is the “bird-name language” proposed by Peter Schrijver, with a kind of initial *a*-mobile presumably accented:

- **mesəl-* ~ **aməsl-* ‘black-bird’: Welsh *mwyalch*, Latin *merula* > French *merle*, OHG *amsla*, *amasla*, *amisla*, *amusla*, OE *ōsle*.
- **lāw-* ~ **alaw-* ‘lark’: OE *lāverce* > *lark*, OHG *lērahha*, *lērihha*, Middle Dutch *leewerke*, “Gaulish” *alauda*. This item has been borrowed into Finnish as *leivo(nen)*.

It can be noted that “Gaulish” *alauda* cannot be Kartic because of voiced *d*, all the less so as in our opinion this word can be further analyzed as a derivative of IEW **leu* ‘to sing’. Apparently Delamarre (2003) does not cite Schrijver's idea anywhere but one name of the lark happens to be “Gaulish” *bardala* ‘singer’. Another example of bird name with *a*-mobile, not listed by Schrijver as far as we know is: Latin *aquila* ‘eagle’ ~ Germanic **ku-tya* ‘kite’, which can be further compared with Celtic forms with *s*-mobile: Old Breton *scubl*, Breton *skoul*, Old Cornish *scoul* ‘kite’, Welsh *ysglyf* ‘bird of prey’; French *écoufle*, Provençal *escofle* ‘kite’ in Delamarre (2003:269). On our opinion Schrijver's “bird-name language” is also Indo-European.

Kartic therefore appears to be equivalent to neither North-West-Block nor the “bird-name language” with *a*-mobile (and *s*-mobile as well).

10. Conclusion

In the paper we have tried to make a critical inventory and analysis of available lexical data that can be attributed to “Gaulish” and “Pre-French” substrates. Our survey indicates that the division in three ethnolinguistic entities indicated by Caesar is certainly to be taken in earnest. “Gaulish” people certainly were not just Celtic. In addition to traceably Celtic words it is possible to determine a whole corpus of non-Celtic lexemes that are nevertheless Indo-European. These corpora display a consistent and coherent set of phonetic features that we have called Kartic. It is not just that Kartic has a phonetic coherence but in addition it also has a geographic coherence, pointing to the fact that Celtic languages, and in that case, Celto-Gaulish, was doubtless preceded by an Indo-European language over a vast area sprawling from the Atlantic Ocean to Northern Italy, and from the Pyrenees to Switzerland.

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