# An Alternative to 'Celtic from the East' and 'Celtic from the West'

# Patrick Sims-Williams

This article discusses a problem in integrating archaeology and philology. For most of the twentieth century, archaeologists associated the spread of the Celtic languages with the supposed westward spread of the 'eastern Hallstatt culture' in the first millennium BC. More recently, some have discarded 'Celtic from the East' in favour of 'Celtic from the West', according to which Celtic was a much older lingua franca which evolved from a hypothetical Neolithic Proto-Indo-European language in the Atlantic zone and then spread eastwards in the third millennium BC. This article (1) criticizes the assumptions and misinterpretations of classical texts and onomastics that led to 'Celtic from the East' in the first place; (2) notes the unreliability of the linguistic evidence for 'Celtic from the West', namely (i) 'glottochronology' (which assumes that languages change at a steady rate), (ii) misunderstood place-name distribution maps and (iii) the undeciphered inscriptions in southwest Iberia; and (3) proposes that Celtic radiating from France during the first millennium BC would be a more economical explanation of the known facts.

#### Introduction

Philology and archaeology have had a difficult relationship, as this article illustrates. Texts, including inscriptions, and names are the philologists' primary evidence, and when these can be localized and dated they can profitably be studied alongside archaeological evidence for the same localities at the same periods. Such interdisciplinarity is harder in prehistoric periods from which no written records survive. While philologists can infer a great deal about lost proto-languages by working backwards from their descendants, their tools for localizing them in space and time are inadequate. This explains the endless debates about the 'homelands' and dates of Balto-Slavic, Indo-Iranian, Indo-European and other postulated proto-languages (Mallory et al. 2019) debates further complicated when simplistic assumptions are made about prehistoric populations' archlinguistic, ethnic and aeological, biological homogeneity (cf. Sims-Williams 1998b; 2012b). All too often, philologists have leant on outdated archaeological models, which in turn depended on outdated philological speculations—and *vice versa*. Such circularity is particularly evident in the study of Celtic ethnogenesis, a topic which can hardly be approached without understanding the chequered development of 'Celtic philology', 'Celtic archaeology' and their respective terminologies.

The term 'Celtic' has been used in many conflicting senses (Chapman 1992; Collis 2003; Renfrew 1987, 214). In this paper, 'Celtic' refers *both* to the peoples whom Greek and Latin writers called variously Celts, Galatians, Gauls and Celtiberians *and* to their related languages, as known from inscriptions or inferred from place- and personal names. Applying a single term both to a population and to a language should never be done lightly, but in the case of the Celts they do seem, at least from the middle of the first millennium BC onwards, to constitute a valid 'ethno-linguistic group' (for this term, see Mallory *et al.* 2019). No single material 'culture'

Cambridge Archaeological Journal 30:3, 511–529 © 2020 McDonald Institute for Archaeological Research. This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.

doi:10.1017/S0959774320000098 Received 13 Aug 2019; Accepted 29 Feb 2020; Revised 2 Feb 2020

can be associated with them, and there is no prima facie reason why we should expect one to do so. The relevant material 'cultures' are so varied as to cast doubt on the coherence of 'Celtic archaeology' and 'Celtic art'. Old attempts at archaeological definition such as 'The term "Celt" designates with certainty the La Tène cultural complex from 400 BC on' (Brun 1995, 13) now appear arbitrary; 'Celtic' is rightly regarded as a misleading label for the central European Hallstatt and La Tène material 'cultures' of the Late Bronze Age and Iron Age (Renfrew 1987, 240; Sims-Williams 1998a). The peoples of the first millennium BC who spoke the attested languages which meet the philological criteria for Celticity certain unique divergences from reconstructed Proto-Indo-European—corresponded encouragingly well in their distribution to the historically attested Celts, Galatians, Celtiberians, and so on, while corresponding poorly to the 'archaeological Celts' deduced from Hallstatt and La Tène archaeology.

This difficulty started to become apparent in the middle of the twentieth century, as archaeologists began to accept that the oldest Celtic-language inscriptions—of the sixth and second centuries BC respectively—were to be found in the context of the 'Golasecca culture' around the north Italian lakes (the site of the 'Lepontic' inscriptions) and in Celtiberia in northeastern Spain (Lejeune 1955; 1971). These were not 'Hallstatt' or 'La Tène' areas. Celtiberia, for instance, 'shared hardly any material features with the La Tène culture' (Beltrán & Jordán 2019, 244), even though its population spoke and wrote a Celtic language and identified themselves as Celts—the Latin poet Martial being an example (Collis 2003, 11, 23, 103, 195–6).

Language became prominent in definitions of Celticity, following the discovery of Lepontic and Celtiberian, coupled with the revival of archaeological interest in language and ethnogenesis inaugurated by Renfrew (1987, 212). To quote Beltrán and Jordán (2019, 244),

The undoubted status of the Celtiberians of Hispania as Celtic, demonstrated by inscriptions such as the Botorrita bronzes [near Zaragoza] as well as their clear differences from the La Tène Gauls, has helped to define the conception of Celt by emphasizing its essentially linguistic character.

They continue (Beltrán & Jordán 2019, 244-5):

At the same time, new perspectives question even the supposed central European origin of the Celtic language, suggesting a possible genesis along Europe's Atlantic facade, whence it would have spread towards central Europe.

Here they allude to the twenty-first-century hypothesis that situates what are called 'Celtic origins' (Cunliffe & Koch 2019) in the extreme west of Europe, a view now espoused by some who had previously favoured Celtic ethnogenesis in central Europe (e.g. Cunliffe 1992). According to this new 'Celtic from the West' hypothesis, the Celtic language was already current by 3000 BC throughout an 'Atlantic zone' that embraced the British Isles, northwestern France, western Spain and Portugal, and then 'spread eastwards into middle Europe during the Beaker period by 2000 BC' (Cunliffe 2018, 395). A variation on 'Celtic from the West' is 'Celtic out of Iberia' (Koch & Cunliffe 2016, 3): by 5000 BC an Italo-Celtic dialect of Neolithic Proto-Indo-European reached southwestern Iberia, where Celtic split off from Italic and spread as far as Scotland by 3000 BC (Cunliffe 2013, 247-8).

Thus there have been three main stages of scholarship: (1) the Celts are identified with the Hallstatt and La Tène 'cultures' of the first millennium BC: (2) then the discovery of contemporary Celticlanguage inscriptions (Lepontic and Celtiberian) in the 'wrong' areas casts doubt on whether the 'ethnolinguistic' Celts can be identified archaeologically; (3) most recently, however, they are associated with the archaeological cultures of the Atlantic zone of c. 3000 BC or even earlier. In this paper, I argue that both the new 'Atlantic' model and the older 'central European' one, though alluringly exotic, are unsupported by any solid evidence and are inherently implausible. I shall conclude by suggesting a realistic, if less romantic, scenario: 'Celtic from the centre'.

### Celtic from the East

For most of the twentieth century, archaeologists associated the emergence of the Celts and the Celtic languages with the central European 'Hallstatt culture'. The Late Bronze and Early Iron Age type-site in the Salzkammergut that gave this 'culture' its name lies within what in the Roman period constituted the Celtic kingdom of Noricum in central and eastern Austria and northern Slovenia. The supposition that Hallstatt itself was a Celtic site, perhaps connected with the Celtic *Taurisci* tribe, was already current in the mid nineteenth century, although some preferred to regard it as 'Illyrian' in origin (Müller-Scheeßel 2000, 71; Sims-Williams 2016, 9 n. 14).

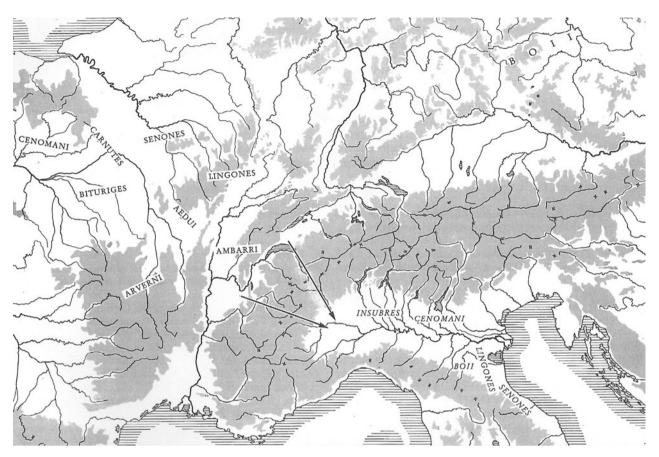
In the English-speaking world, Terence Powell's The Celts (1958) was a classic presentation of the 'Hallstatt Celts'. Behind Powell lay Joseph Déchelette's Premier âge du fer ou époque de Hallstatt (1913), the textbook used by Powell's Cambridge teacher H.M. Chadwick, and behind Déchelette lay the speculations of Bertrand and Reinach's Les Celtes dans les vallées du Pô et du Danube (1894) and Henri d'Arbois de Jubainville's Principaux auteurs de l'Antiquité à consulter sur l'histoire des Celtes (1902). On the basis of tendentious interpretations of passages in Hecataeus and Herodotus, all these scholars associated the original Celts not with Gaul, as might have been expected of Frenchmen, but with Noricum and the headwaters of the Danube in southern Germany, whence the Celts were supposed to have spread west to France and Italy (cf. Collis 1997; 2003; Sims-Williams 2016; 2017a). To some extent Déchelette's synthesis of archaeological and written sources survived intact into the present century, both among archaeologists (e.g. Spindler 2007) and among linguists, who continued to refer to 'the original Celtic homelands in the south of Germany and Austria' (Meid 2010, 14).

Nineteenth-century scholarship had prepared the way for an eastern location. The philologists known as 'Celtisten' or 'Celtomanen' had claimed, falsely, that the Germanic languages could be explained on the basis of Irish and Welsh, and hence that German civilization was fundamentally Celtic (Poppe 2001, 208–20). More respectably, most philologists since the 1830s had come to accept that the Celtic languages descended from Proto-Indo-European and must therefore be *in some sense* 'eastern' (Poppe 2001, 208–9), especially given prevalent assumptions about what Sir John Rhys (1877, 272) termed 'the supposed westward course of civilisation'.

But how far west had Proto-Indo-European travelled before it evolved into Celtic? This was-and remains—a problem, for the picture is complicated by awkward evidence for eastward Celtic movements in the historical period. Thus the obviously Celtic ethnic, place- and personal names of Galatia in Turkey (Freeman 2001; Sims-Williams 2006) are clearly due to the Celts' documented eastward migrations of the third century BC, as reported by Greek writers (Tomaschitz 2002, 142-79). Other eastward migrations raise similar problems. The Volcae Tectosages were settled north of the Danube in 'the most fertile areas of Germany, around the Hercynian forest', according to Julius Caesar (Gallic War 6.24). Their tribal name is linguistically Celtic ('property seekers'), as is the name of the Hercynian forest ('oak forest'), one of the earliest attested Celtic place-names, already mentioned by Aristotle; but Caesar is adamant that the *Volcae Tectosages* had migrated *eastwards* across the Rhine from Gaul (Falileyev 2010, 132, 214–15, 242; 2014, 46–7; Tomaschitz 2002, 180–84), and unfortunately we do not know which Celtic-speakers first named the great Hercynian forest—as the forest was so vast, those who named it may have lived a long way from it (Sims-Williams 2016, 9 n. 16).

Another linguistically Celtic (Falileyev 2010, 10, 77–8) but problematic eastern ethnonym is that of the Boii of Bohemia. No ancient author claims that the Boii were indigenous to Bohemia. Instead, Caesar and Tacitus relate that they crossed the Rhine eastwards into Noricum (Caesar, Gallic War 1.5) or Bohemia (Tacitus, Germania 28), while Strabo (Geography 5.1.6) states that they migrated from northeast Italy to 'the regions around the Danube, where they dwelt with the *Taurisci'*, a people he identifies as Celts (Geography 7.2.2, citing Posidonius) and as neighbours of the Norici—although according to Pliny (Natural History 3.20.133) the Taurisci and Norici were identical (cf. Collis 2003, 115-17, 120, 121, 185; Tomaschitz 2002, 85-7, 189). Here again, the classical ethnography, confused though it is, fails to support 'Celts from the East'.

The origin of the north Italian Celts presents similar problems, and any arrows on modern maps are speculative, as rightly noted by Cunliffe (1992, 133) and Collis (2003, 93-7; contrast Cunliffe 1997, 71–2, figs 55–6). No contemporary written evidence survives. Nevertheless, the tradition reported by Livy c. 26 BC, that the various contingents came from east central France, is quite credible, despite his confused chronology (Collis 2003, 97-8; Pare 1991) (see Fig. 1). Yet Bertrand and Reinach (1894, 26) rejected Livy's account entirely, with the exception of one sentence (5.34.8) which describes how a contingent of Gauls, following an expedition to Marseilles, travelled through the territory of the Taurini (around Turin) on their way to found Milan, after crossing the Julian(!) Alps. Bertrand and Reinach, like d'Arbois de Jubainville (1902, 240-41), insisted that the circuitous eastern route via the Julian Alps—in Slovenia, far from Turin! was no mistake, and emended Taurini to Taurisci to fit, so that the Gauls would start out from their supposed archaeological eastern homeland in Tauriscan Noricum. Most editors of Livy regard the Julian (Iuliae) Alps as a mistake to be emended, but some commentators still favour the northeastern route because 'archaeological evidence' (ultimately just the opinion of Bertrand and Reinach!) makes it more 'historically accurate' (Bonfante 1939; Ogilvie



**Figure 1.** 'The Celtic tribes which invaded Italy, mentioned by Livy and Polybius (italic script), and by Julius Caesar (normal script). The arrows show the routes taken by Celts over the Great St Bernard and Mont Cenis passes' (Pare 1991, 199). ['Mont Cenis' depends on the standard emendation of 'Iuliae' in Livy to 'Duriae'.] (Map reproduced by permission of the Proceedings of the Prehistoric Society.)

1965, 712; Ross 1996, 112–13; Tomaschitz 2002, 50; cf. Bayet & Baillet 1964, 57–8, 161–2). This is implausible. The argument is circular.

Perhaps because assumptions about the 'west-ward course of civilization' were so ingrained, nineteenth- and twentieth-century scholars underplayed the problem posed by the Celts' eastward migrations. The insistence of Bertrand and Reinach, d'Arbois de Jubainville and Déchelette that the Celts of Noricum and the upper Danube were indigenous, and that a Celtic 'Hallstatt culture' spread thence westwards to France, is a good example. Their alleged written evidence for a Celtic homeland in Austria and southern Germany does not stand up. It came from only two writers, both from Asia Minor: Hecataeus (c. 500 BC) and Herodotus (c. 450 BC).

According to Stephanus of Byzantium (Billerbeck 2006–, III, 396), Hecataeus, in a work now lost, referred to a 'Celtic city' called *Nyrax*. The nineteenth-century speculation that *Nyrax* can be connected with

the names of Noricum and/or its city Noreia was based only on a vague similarity, as already conceded by d'Arbois de Jubainville (1902, 14) and Déchelette (1913, 567) themselves. Philologically, it was inferior to Müllenhoff's perplexing speculation about a connection between Nyrax and the Sardinian word nurághe [fort], since attested as NURAC on a Roman inscription near Molaria in Sardinia (Müllenhoff 1870, 96–7; Sims-Williams 2016, 8–9; 2017a, 431). Stephanus' only other relevant citation again takes us well away from Austria: he cites Hecataeus as mentioning Massilia (Marseilles) as 'a city in Liguria near Keltikê' (Billerbeck 2006-, III, 274). Unfortunately, 'near Keltikê' (meaning Gaul) may be a clarification added in transmission and need not go back to Hecataeus' time. Fortunately, however, better support for an early Celtic presence in the Marseilles hinterland is provided by Celtic personal names on fifth- and fourth-century pottery from Lattes and Ensérune, and by Apollonius of Rhodes' allusion in

the third century BC to Celts and Ligurians along the river Rhône (Mullen & Ruiz Darasse 2019, 200–202; Sims-Williams 2016, 9–10; 2017a, 43).

Herodotus alone provided the French scholars with their evidence for fifth-century BC Celts around the source of the Danube in Germany, evidence which supposedly proved the Celticity of the 'eastern Hallstatt culture' and, by extension, the so-called 'western Hallstatt culture' which derived from it (Déchelette 1913, 570–71)—or so they believed, on inadequate archaeological grounds (cf. Müller-Scheeßel 2000). For Bertrand and Reinach (1894, 34, 133), the Celts of the upper Danube were at the southern end of an imaginary *empire celtique* (d'Arbois de Jubainville's phrase) which stretched north to Bohemia and Jutland; by contrast, their Celtiberians occupied an insignificant strip of land between the Rhône and the Pyrenees!

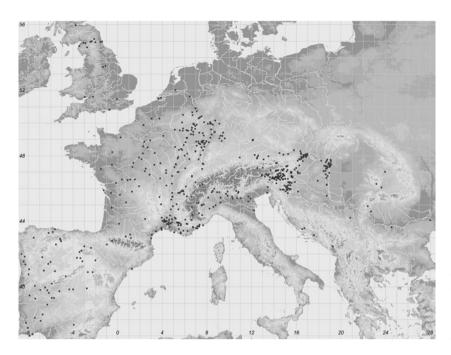
Unfortunately, all these scholars assumed that Herodotus knew where the source of the Danube lay—something the Romans did not discover until 15 BC (Strabo, *Geography* 7.1.5). The focus of both passages in Herodotus (*Histories* 2.33 and 4.4) is the immeasurable length of the Nile and its alleged symmetry with the Danube, which supposedly flowed through the whole of Europe to the Black Sea, starting from the land of the Celts, 'the westernmost people of Europe except for the Cynetes', and the 'city' (*polis*) of *Pyrene*. In the first passage Herodotus added that the Celts lived 'beyond the Pillars of Hercules' (the Strait of Gibraltar)—something that was certainly true of the Cynetes, who dwelt in the Portuguese Algarve.

Herodotus' 'city' of Pyrene, though followed by Avienus, must be a mistake for 'mountain' (i.e. the Pyrenees), as is shown by Aristotle's statement (Meteorology 1.13 [350b]) that Pyrene is a mountain in the west in Keltikê from which the Tartessos (Guadalquivir) flows westwards to the Atlantic beyond the Pillars of Hercules and the Danube flows eastwards across Europe to the Black Sea. Aristotle obviously overestimated either the length of the Guadalquivir or the width of the Pyrenees (or both). The best explanation of their lengthy Danube is that Herodotus and Aristotle imagined it to be connected with a Pyrenean river like the Ariège or—as supposed by Timagetus in the fourth century and perhaps by Apollonius in the thirdwith the Rhône, which in turn, according to Aeschylus and other ancient writers, reached Iberia (Strabo, Geography 3.4.19; Pliny, Natural History 37.11.32). We deduce, then, that Herodotus had heard about Celts in and around the Pyrenees c. 450 BC. The Celts in question may have been

specifically the historically attested Celtiberians of northeastern Spain, south of the river Ebro. In placing the Hispanic Celts 'beyond the Pillars of Hercules', Herodotus may have been influenced by the position of the Cynetes; or he may have exaggerated the extent of the Hispanic Celts, as later Greek writers did, as when Herodorus of Heraclea *c.* 400 BC assigned all the territory east of the *Mastinoi* (around Almuñécar) 'as far as the Rhône' to the *Kelkianoi* (Moravcsik & Jenkins 1967, 98–9)—probably a scribal slip for *Keltianoi* (see Sims-Williams 2016; 2017a).

Déchelette's much repeated suggestion (1913, 568) that Herodotus knew about Celts at the true source of the Danube *as well as* ones in the far west was an unconvincing attempt to shore up the eastern homeland theory.

Deprived of support from Hecataeus and Herodotus, the 'Celtic' label for the 'eastern Hallstatt culture' has to depend on Celtic placeand personal names. But these are attested too late to be useful. For example, Arto-briga, 50 miles northwest of Hallstatt, is a transparently Celtic placename, 'bear-fort', and so is Gabro-mago 'goat-field', 30 miles east of Hallstatt, yet they are only attested in late sources (Ptolemy c. 150 AD; the Antonine Itinerary; and the Tabula Peutingeriana) which long post-date the Celtic eastward migrations of the fourth and third centuries (Falileyev 2010, 58-9, 126; Talbert 2000, maps 19–20). We cannot assume (with Meid 2010, 14) that such names are ancient. Both in Austria and eastwards into Hungary (Pannonia), the Celtic place-names seem to form a superstrate above an older layer of toponymy which Peter Anreiter called 'Eastern Alpine Indo-European' (Anreiter et al. 2000, 115; Anreiter 2001; cf. Falileyev 2002). If a linguistic label really had to be attached to the 'eastern Hallstatt culture', Anreiter's 'Eastern Alpine Indo-European' would be preferable both to 'Celtic' and even more so to 'Germanic', recently suggested by Renfrew (2013, 216) when rightly questioning whether 'the Hallstatt chiefs of the Heuneburg in the 6th century BC ... spoke a Celtic language at all'. It has to be remembered that archaeological 'cultures' and languages do not have to coincide (cf. Lorrio & Sanmartí 2019; Sims-Williams 2012b, 441-2). It has also to be remembered that there were probably many more languages around than the familiar ones like Celtic, Germanic and Italic. According to Prósper (2018, 119), for example, 'Pannonia forms a part of a vast linguistic continuum in which an indeterminate number of Indo-European dialects was once spoken'.



**Figure 2.** Lapidary inscriptions of the Roman provinces that contain Celtic compound personal names (linguistically the most distinctive type). (Map by Keith Briggs, from Raybould & Sims-Williams 2009, 43.)

The density of Celtic-looking place-names in the East Alpine region is lower than in Britain or France (Raybould & Sims-Williams 2009, 40, 57; Sims-Williams 2006, 162–6, 175, 222), and the same is true further east (Falileyev 2014; Repanšek 2016; Sims-Williams 2006). The sparse but often militaristic nature of these eastern place-names suggests relatively late settlement by a Celtic-speaking elite (cf. Anreiter 2001, 203 nn. 702–3; Meid 2008, 189).

In contrast to its shortage of Celtic place-names, Noricum has far more than its share of Celtic personal names—see Fig. 2—more for its size than any other part of the Roman Empire. This presumably reflects the relatively privileged status granted to the Noricans who identified as Celtic when the inscriptions were erected in the first three centuries AD, rather than the situation five or six centuries earlier (Meid 2008; Raybould & Sims-Williams 2007, ix; 2009, 37-43, 54-6). Subliminally, these impressive inscriptions may have reinforced modern impressions that Noricum and its region were near the Celtic homeland. For that eastern homeland there is no early evidence, as we have seen. 'Celtic from the East' resulted from a circular argument by which the classical sources such as Herodotus were misread so as to apply the Celtic label to the 'Hallstatt culture'.

#### Celtic from the West

The early Celts and their language were still associated with the 'Hallstatt culture' when the present

writer started to take an interest in the topic c. 1992. Thus, according to Barry Cunliffe's The Celtic World (1992), the emergence of the Celts and their Indo-European dialect took place within the 'Hallstatt culture' in about the eighth century BC (Cunliffe 1992, 15-19). By 1992, however, the paradigm was already shifting. In 1987 Colin Renfrew had published his controversial hypothesis that by 4000 BC Proto-Indo-European had already spread, with the Neolithic farmers, from Anatolia to France, Britain, Ireland, and probably 'much of Iberia also', and that the Celtic languages emerged in situ, 'essentially in those areas where their speech is later attested' (Renfrew 1987, 245)—a phrase intended to include Cisalpine and Transalpine Gaul, not just the Atlantic fringe (Renfrew 2013, 215-16). It was therefore inadmissible, Renfrew argued, 'to restrict Celtic origins in any artificial narrow way to a specific area localized north of the Alps', namely the region 'where aristocratic chieftains of the iron age are first seen, and where La Tène art developed' (1987, 249).

In 1993 I accepted Renfrew's negative conclusion that that region 'has no specially privileged claim to be the unique and original homeland of the Celts' (Renfrew 1987, 249), while doubting his positive hypothesis that the attested Celtic languages could have developed *in situ* over so vast an area as the one in which they were later attested (Sims-Williams 1993, 376–7; 1998b, 511). Simon James (1999, 83), however, thought that Renfrew's model could 'form the basis for comprehensive explanations

encompassing both archaeological and philological evidence'. But can the two disciplines be combined? From a philological point of view, it was difficult to be so optimistic (cf. Sims-Williams 1998b; 2012b). Philological evidence depends on local literacy or literate observers, and neither reached most parts of Europe until frustratingly late, in the first millennium BC and later. Where we do have early inscriptions, as in the Italian and Iberian peninsulas, we see a confusing patchwork of minor Indo-European and non-Indo-European languages, many of them with no surviving descendants (see the maps in Salomon 2017 and Sinner & Velaza 2019). There is no reason to hope that the linguistic geography anywhere in Europe was conveniently simpler before the first millennium BC—probably the reverse, for it is generally agreed that the number of languages world-wide has been diminishing for many millennia (Sims-Williams 1998b, 511, 517; 2012b, 436-7). Moreover, even if the first farmers brought a language to Europe, that language need not have been Proto-Indo-European; a language related to Hattic and Minoan is a rival candidate (Schrijver 2018). Nor can we assume that they only spoke a single language.

In 1997, in the first edition of *The Ancient Celts*, Cunliffe rejected Renfrew's view 'that the Celtic languages of the west simply evolved *in situ* from an indigenous Indo-European base' (Cunliffe 1997, 146–7). Instead, he hypothesized that a 'network of cultural interrelationships ... *c.* 1300–600' provided

a suitable context for the Celtic language in its [supposedly] more archaic form [Q-Celtic] to spread from its west central European homeland to the Atlantic zone ... If Celtic was the lingua franca of the Atlantic sea-ways, it may have been from the western coasts of Iberia that the inland Celtiberians developed their language and the Lusitanians theirs. (Cunliffe 1997, 155 [my parentheses] & map, p. 147)

So in 1997 Cunliffe still regarded 'west central' Europe as the homeland from which Celtic speech spread to the 'Atlantic zone', perhaps bypassing inland Celtiberia in northeast Spain. (Koch (1996, 19) had recently speculated that 'Old Celtic' was the *lingua franca* in which the 'élites of the British Isles and Armorica spoke to their dominant [Urnfield/Hallstatt] partners nearer the Alps', c. 1300–c. 600 BC.) The view that the Lusitanian inscriptions (in Portugal and adjacent parts of Spain) are Celtic is now generally rejected (Luján 2019; Wodtko 2017). Rather, Lusitanian is the most westerly Indo-European language attested in the Iberian peninsula, with no known descendants. It is an

alternative candidate for the Atlantic *lingua franca*, if there ever was one. The *lingua franca* hypothesis is undermined, however, by the conclusion reached by Heggarty (2017, 163), in another context:

trade and lingue franche, like religions and sacred languages, in fact tend to be rather poor drivers of first language expansions, replacing other languages. Trade languages often remain principally as second languages, and fail to replace native tongues. They do not even represent expansions at all, then, on the level of native languages and families. Like Swahili still today ..., many trade languages count far more second- than firstlanguage users. This leaves them highly susceptible to their apparent (but only second-language) 'expansion' collapsing back in on itself once circumstances change. Witness the declines of several once widespread trading languages of the Mediterranean (Phoenician, Greek, Sabir) or the eastern coast of Africa (Arabic, Portuguese, Swahili), none of which established itself as a first language across the whole region.

By 2001, in Facing the Ocean, Cunliffe was more certain than in 1997 about the Celtic lingua franca. It was 'inevitable that a lingua franca would have developed' among the Bronze Age communities of Atlantic Europe [my emphasis]. This lingua franca, spoken 'from Portugal to Britain by the middle of the first millennium BC', was Celtic, and could be argued to have 'developed gradually over the four millennia that maritime contacts had been maintained, perhaps reaching its distinctive form in the Late Bronze Age' (Cunliffe 2001, 293, 296). He termed it 'Atlantic Celtic' to 'distinguish it, conceptually, from the language which is generally assumed to have been spoken by the historical Celts whose migrations were recorded by the classical writers', adding that this suggestion

takes with it no implication that the two languages were different. Such were the complexities of the exchange networks ... that it would not be surprising if a common language had not developed over the entire region from the Atlantic to west central Europe where the rivers Loire, Saône, Seine, Rhine, and Danube come together. (Cunliffe 2001, 296–7)

He was now agnostic about where this 'common [Celtic] language' emerged, rejecting ideas about 'Hallstatt' and 'La Tène' westward migrations and declining to endorse theories about Celtic being carried much earlier by Renfrew's 'Neolithic cultivators' or by 'Beaker folk' (Cunliffe 2001, 295–6).

In time Cunliffe came to envisage a deeper chronology: that Celtic developed in the Atlantic zone as early as the fourth millennium BC, when

contact along the seaways began to get under way (Cunliffe 2009; 2013, 235-49; 2017, 254). In the new edition of The Ancient Celts (2018), he favours the hypothesis that a Proto-Indo-European language from Anatolia had reached the Atlantic along with Neolithic farming by 5500 BC (Cunliffe 2018, 55-6 and map, p. 57). He prefers this to the more popular theory that Proto-Indo-European first arrived three millennia later from the Pontic-Caspian steppe (e.g. Anthony & Ringe 2015; Olsen et al. 2019; Silva et al. 2019, 183; cf. Klejn *et al.* 2018) and now hypothesizes that 'Atlantic Celtic', having evolved in situ from hypothetical Neolithic Renfrew's Proto-Indo-European, was the primary form of Celtic, which then spread eastwards with the Maritime Bell Beaker culture in the third millennium:

An early Atlantic lingua franca could have been the base from which Celtic developed. If this is so, then the Celtic language originated in the same maritime region in which it is known to have been widely spoken in the first millennium BC. (Cunliffe 2018, 59–60)

#### Therefore,

If the beginnings of Celtic as a lingua franca lay in the earlier period [that of the Atlantic 'networks of connectivity', 5500-2800~BC], then the eastward spread of Bell Beaker culture [2700–2200 BC] could be the vector by which the Celtic language spread across much of western Europe. (Cunliffe 2018, 63 and maps, pp. 61, 395)

Furthermore, the *lingua franca*, as it spread east, was perhaps 'refreshed and extended' as a *lingua franca* by contact with a new wave of Indo-European reaching west central Europe from the Pontic-Caspian steppe in the third millennium (Cunliffe 2018, 65).

From a linguistic point of view, it is tricky to see how the Anatolian and steppe theories for Indo-European can be combined in this way (and for archaeogenetic objections, see Silva *et al.* 2019, 183). Would we not expect Celtic to be very different from the language of the steppe after a separation of many millennia?

It can hardly be overemphasized that the existence of *any* Atlantic *lingua franca*, while incapable of disproof, is *entirely hypothetical* (Isaac 2004; Sims-Williams 2012b, 432; 2016, 25 and n. 99). As Cunliffe himself has admitted, while people obviously communicated from Iberia to the Orkneys, this was 'not necessarily, of course, in the same language throughout' (2013, 237). Moreover, 'the hard archaeological evidence cannot, of course, directly answer these questions' (Cunliffe 2009, 59). He offers only three pieces of evidence that Celtic 'was already

a vibrant language, at least in the Atlantic zone, in the Late Bronze Age' (2018, 54), and all three are philological rather than archaeological.

1. 'Computerized analysis of word lists' (Cunliffe 2018, 409)

Recent work, using computer-modelling procedures to analyse standard vocabularies, has offered a different picture [from Celtic separating from Italic during the period 1300–800 BC] suggesting that the Celtic language group first became distinguishable from the rest of the Indo-European languages of the European peninsula around 4000 BC and that the distinction between the Goidelic and Brythonic groups of Celtic languages took place about 900 BC. (Cunliffe 2018, 30, cf. 55)

Here Cunliffe is relying on glottochronological work by the New Zealand team led by Gray and Atkinson (Atkinson et al. 2005; Bouckaert et al. 2012; Gray & Atkinson 2003; cf. Gray et al. 2011). Glottochronology typically uses 'the percentage of shared "cognates" between languages to calculate divergence times by assuming a constant rate of lexical replacement or "glottoclock" (Gray & Atkinson 2003, 436). Most linguists reject all forms of glottochronology as 'long discredited' (Dixon 1997, 37; cf. Holman et al. 2011, 862-70; Olander 2019, 15; Pereltsvaig & Lewis 2015). In California, Chang and colleagues, though sympathetic to the New Zealanders' methods, have arrived at less deep chronologies using the same data (Chang et al. 2015; Garrett 2018). After pointing out many anomalies in the New Zealanders' results —such as Irish and Scottish Gaelic not descending directly from Old Irish—the Californians date Proto-Indo-European to c. 4500 BC (which suits the steppe hypothesis) as opposed to the New Zealanders' c. 6000 BC date (which suited the Anatolian hypothesis). Where the New Zealanders calculated the separation of Goidelic (Irish) and Brythonic to c. 900 BC, Chang and colleagues date it to c. 400 BC. Even this date is unnecessarily early and casts doubt on the whole cognate-counting exercise, for, judging by the more reliable evidence of phonology, the two dialects were identical at the start of the first millennium AD, apart from the trivial Q/P distinction (Jackson 1953, 694). As conceded by Heggarty (2014, 571), 'language phylogenies are more reliably established from ... phonology and morphology' (cf. Olander 2019, 15).

Another attempt at glottochronology, by Forster and Toth (2003), cited by Cunliffe (2009, 58), dated the separation of Gaulish, Goidelic and Brythonic to '3200  $_{BC}$   $\pm$  1,500 years', supposedly the 'oldest feasible estimate for the arrival of Celtic in the British

Isles', while Novotná & Blažek (2006) calculated 1100 BC, and Holman *et al.* (2011, 854, 862) dated the separation of Goidelic and Brythonic to *c.* 1865 BC.

Such quasi-scientific studies simply illustrate, yet again, 'the fatal shortcomings of glottochronology', to quote Eska & Ringe (2004, 569). The 'computerized analysis of word lists' has not dated the emergence of Celtic, and probably never will, however often glottochronology is repackaged and recalibrated *ad hoc* (cf. Maurits *et al.* 2019).

Only the New Zealand group attempted to map how far Proto-Indo-European had travelled when its dialects emerged. Their proposed area of origin for Celtic—northern France, Britain, and Ireland—was the result of excluding Continental Celtic linguistic data (Bouckaert *et al.* 2012, 960), by far the earliest data available, and is therefore worthless, as rightly pointed out by Renfrew (2013, 214) and Heggarty (2014, 573).

It is worth recalling that there is no proof that Celtic was spoken in Britain before the late first millennium  $_{\rm BC}$  and that Ptolemy's *Geography* of c. AD 150 is the *terminus ad quem* for Celtic having reached Ireland. Even if the island's earlier attested name (whence *Hibernia* and *Éire*) is Celtic (Cunliffe 2013, 245), which is disputed, it could have been bestowed by overseas Celtic-speakers rather than by people dwelling in Ireland itself (cf. Coates 2012, 55, 73, 85–6; Sims-Williams 1998a, 20–21; 2011, 280–81; 2012b, 435 n. 86). Dates such as '3200  $_{\rm BC} \pm 1,500$  years' for the arrival of Celtic in the British Isles are pure fantasy.

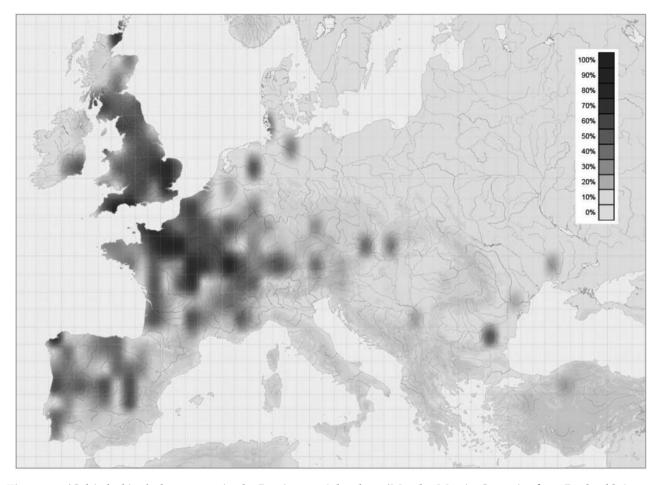
## 2. Ancient Celtic-looking place-names

The most thorough attempt to explore the extent of spoken Celtic is Patrick Sims-Williams's detailed research on ancient Celtic place names in Europe and Asia, published in 2006. It presents a set of data which, later replotted in a trend-surface map by Stephen Oppenheimer, shows that surviving Celtic place names are concentrated in Ireland, Britain, France, and Iberia, with less dense occurrences extending eastwards through the centre of Europe and around the Black Sea and cropping up again in Asia Minor. The eastern distribution neatly demonstrates the southern and eastern migration of Celts recorded by classical writers at their height between 400 and 200 BC ..., but it is the very strong western concentration that stands out. Taken at its face value the map seems to imply that the heart of Celtic-speaking Europe lay in the west, in the Atlantic zone. It should, however, be remembered that the data is achronic, reflecting the situation across many centuries, and includes only those names which have survived the vicissitudes of later history. That said, there is no reason to suppose that it is not representative of the region in which Celtic was

most frequently spoken (Cunliffe 2018, 54, cf. 31 (map) and Oppenheimer 2006, 53).

I do not agree with these deductions. My 2006 study was based on the database underlying the *Barrington* Atlas of the Greek and Roman World and its Map-by-Map Directory (Talbert 2000). This includes over 20,000 places, rivers, peoples, etc. (some with more than one name), about a third of them labelled 'unlocated', since they could not be pinpointed on the maps. Some names are attested as late as the seventh century AD and a few are even later, especially in France (Sims-Williams 2006, 16–18). Very few putatively Celtic ones are attested as early as the 'unlocated' Hercynia Silva (Talbert 2000, map 11), first mentioned by Aristotle (see above). Chronologically, then, we are at some distance from the Bronze Age. We cannot be sure that the names are ancient, and obviously place-names with Latin Augusto-, Caesaro-, Flavio-, or Iulio-+a Celtic element cannot be (Sims-Williams 2006, 307). Just as the Celtic names in the east can be attributed to migrants in the first millennium BC and later (see above), so can those in the west-although it would be speculative to suppose that they all do.

The 'strong western concentration' of names needs some explanation. I began the research by assembling and mapping by 1-degree square all 'Celtic-looking' names, i.e. names which might contain Celtic elements such as DUN, BRIG (Fig. 4, below), or MAG. The raw totals for 'Celtic-looking' names were given square-by-square and then presented as percentages of the total number of names in the square ('Celtic-looking' + 'non-Celtic-looking') (Sims-Williams 2006, 163–5). Since isolated 'Celtic-looking' elements were bound to turn up by chance in otherwise non-Celtic areas, most of the rest of my book was devoted to detailed sifting and mapping, with the aim of establishing the geographical range of Celtic names (Sims-Williams 2006, 301, 304, maps 11.1–2) rather than their density (Sims-Williams 2006, 173–305). In the map mentioned and reproduced by Cunliffe (2013, 242; 2018, 31), Oppenheimer (2006, 53, 279) returned to my raw 'Celtic-looking' data and attempted to reduce the risk of including pseudo-Celtic names in a mechanical way: by leaving out areas with less than 10 per cent of 'Celtic-looking' names. This was an understandable short-cut, given the time available to him (his book went to press soon after mine), but it unfortunately removed the valid Celtic names in north Italy such as Medio-lanum (Milan) which were swamped by Latin names. Oppenheimer (2010, 124) later reworked his map, without the 10 per cent cut-

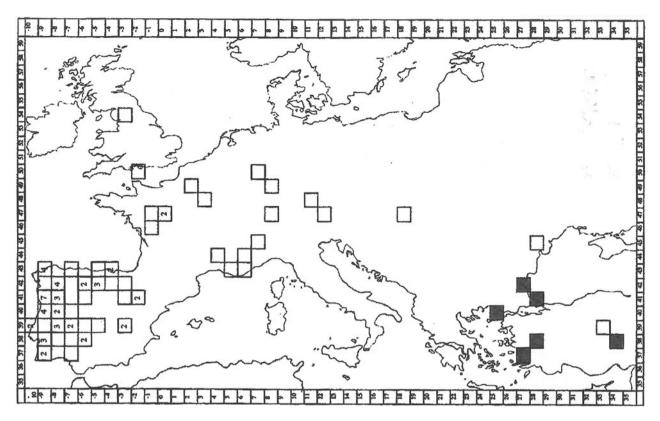


**Figure 3.** 'Celtic-looking' place-names in the Barrington Atlas data. (Map by Martin Crampin, from Raybould & Sims-Williams 2009, 57.)

off, and similar '100 per cent' maps were published by Cunliffe (2010, 17; 2019, 11) and Raybould & Sims-Williams (2009, 57, cf. 40 n. 165; see Figure 3). While these maps of 'Celtic-looking' names gave more weight to areas like north Italy, they also allowed in 'false friends' such as Thracian names in *-bria* which only resemble Celtic names in *-briga* by coincidence (cf. Sims-Williams 2006, 14, 50, 262, 269, 328; 2011, 279–80; see Figure 4).

Even 'taken at its face value', Oppenheimer's '90 per cent' map (like the '100 per cent' maps just mentioned) shows that the 'Celtic-looking' toponymy of France is at least as dense as that of the Iberian peninsula, and that the peninsula has great tracts which do not look Celtic at all, both in the south and in the east. The distribution of Celtic personal names in Latin inscriptions gives the same impression (Raybould & Sims-Williams 2009, 48; Sims-Williams 2012b, 439; see Figure 2, above). These blanks are not what one might expect if Celtic really spread from the Atlantic.

Moreover, the Celticity of the Iberian peninsula is exaggerated on all these maps. Nearly half of the relevant peninsular names contain Celtic versions of the Proto-Indo-European root  $b^h rg^h$ - 'high' which in Celtic developed the distinctive form \*brig-, whence the Celtic words \*brig-s and \*briga, which gave Old Irish brí and Welsh bre respectively. These Insular Celtic words mean simply 'hill', but on the Continent the meaning seems to be 'hillfort' or 'oppidum' and in northwest Hispania briga is often translated as castellum in Latin sources (Luján 2011; Sims-Williams 2006, 49–53, 307, 328; Untermann 2018, 136). For occurrences in the Barrington data (Talbert 2000), see Figure 4. Out of my 153 locations Hispania with 'Celtic-looking' (Sims-Williams 2006, 142–51), 62 (41 per cent) included BRIG (or its variants BRIC, BIRIK, BRIS, BRIA), the next most popular string being SEG (or SEK) 'power, victory', in 17 locations (12 per cent). Thus the Celtic-looking toponymy of Hispania is heavily weighted towards BRIG and is much less



**Figure 4.** 'Celtic-looking' BRIG place-names (cf. Sims-Williams 2006, 49–53, 308, 328). Figures indicate squares where there are 1+ examples. Solid squares have names in -BRIA which are unlikely to be Celtic.

varied than that of areas such as France and Britain. This monotonous lack of variety suggests that it lacks chronological depth. Moreover, alongside true Celtic compounds like Sego-briga 'power-hillfort' (in Celtiberia) we find many hybrids with non-Celtic or even Latin first elements, e.g. Conim-briga (now and *Flavio-briga* Coimbra, Portugal) (Castro Urdiales, Spain), the name of the latter colonia having replaced Amanum portus according to Pliny (Natural History 4.20.110). Such hybrids may sometimes indicate no more than an awareness of the prestige of Celtic culture in the way that modern Englishmedium creations like Bourn-ville and Minnea-polis reflect the prestige of French and Greek. It is well known that foreign place-name elements can be borrowed in bilingual communities and then spread into non-bilingual areas, a case in point in Welsh toponymy being cnwc 'hill', from Irish cnoc (Wmffre 2007, 54-6). Another example is \*burg- from the Proto-Indo-European root  ${}^*b^h rg^h$ -. This was borrowed by the Romans from Germanic (or from a language such as 'East Alpine Indo-European') as burgus 'watchtower, citadel', a word that then turned up in Latin place-names as far afield as north Africa (Sims-Williams 2006, 4, 317–18). In the same way,

Celtic *briga* may have been current as a term for various types of hillforts and oppida in Iberia well outside the Celtic-speaking regions (cf. Gorrochategui & Vallejo 2019, 340 n. 11; Luján 2019, 327–81; Sims-Williams 2012b, 44). And in areas where Celtic names are otherwise rare, *briga/castellum* may indicate relatively recent Celtic intrusions (Luján 2011). Given the chronology of hillforts in the peninsula (Arenas-Esteban 2012, 36; Fernández-Götz 2018, 146-7; Lorrio & Ruiz Zapatero 2005, 222), it is hard to imagine that many of the peninsular *-briga* names are much older than the first millennium BC.

There is a second, more technical reason why the Celticity of the Iberian peninsula may be exaggerated on the above maps of 'Celtic-looking' names. In the peninsula, and to a lesser extent in Britain and Ireland, there are a large number of 'unlocated' 'Celtic-looking' names in the *Barrington Atlas* data (Talbert 2000) which can in fact be located at least as closely as a 1-degree square, thanks especially to the work of Albertos (1990) in the case of about 20 of the *Atlas*'s 'unlocated' -briga names in Hispania (see Sims-Williams 2006, 50–52). Since it proved impossible to estimate how many 'unlocated non-Celtic-looking' names might belong in the same

1-degree squares, the inclusion of such 'unlocated Celtic-looking names' was bound to have exaggerated the percentages in the relevant squares (as cautioned in Sims-Williams 2006, 162). If this statistical problem could be solved, or if the maps were redrawn after eliminating the approximately locatable 'unlocated' names, the effect would be greatly to reduce the relative Celticity of the Iberian peninsula and the British Isles—precisely the Atlantic fringe that is so important for the 'Celtic from the West' hypothesis.

Thus Oppenheimer's map cannot be 'taken at its face value' (Cunliffe 2018, 54) in favour of 'Celtic from the West'. Cunliffe's most recent comment on the place-names is properly more cautious: 'While this evidence cannot be claimed as positive support for the Celtic from the West hypothesis it is at least consistent with it' (Cunliffe 2019, 12).

3. The 'recent demonstration that the inscriptions on the stelae of south-western Iberia were Celtic' (Cunliffe 2018, 409)

Since the original mapping was done [by Sims-Williams and Oppenheimer], the detailed work of John Koch on the inscriptions found in the extreme south-western corner of Iberia has shown that Celtic was the indigenous language spoken in this region and has added further data to the map. More to the point, it has shown that Celtic was being spoken in the region in the seventh century BC and quite possibly at least as early as the eighth century. Inscriptions from the Lepontic region of northern Italy take the use of Celtic in that part of Europe to at least as early as the sixth century. (Cunliffe 2018, 54)

While some date these southwestern Hispanic inscriptions (sometimes called 'Tartessian') to as early as the eighth century (Lorrio & Sanmartí 2019, 37), others prefer the sixth and fifth centuries (Correa & Guerra 2019, 126; for maps see 110-11 and de Hoz 2019a, 3). Whichever date is correct, if the southwestern inscriptions really were Celtic they would be the earliest Celtic inscriptions in the peninsula, for the northeastern Celtiberian inscriptions begin no earlier than the end of the third century BC. For decades, philologists have been searching for Celtic words or names in the southwestern ones and have retired defeated, and Koch (2019) seems to be the only Celtic linguist who still argues that 'Tartessian' is Celtic, on the basis of what some call 'circular reasoning' (Valério 2014, 446 & 458). It is therefore strange that in 2018 Cunliffe followed Koch and ignored the negative conclusions expressed between 2007 and 2017 by

James Clackson, Javier de Hoz, Jürgen Zeidler, Oliver Simkin, Alberto Nocentini, Joaquín Gorrochategui, Eugenio Luján, Joseph Eska, Blanca Prósper, Peter Schrijver, Tatyana Mikhailova, Jesús Rodríguez Ramos, Joan Ferrer, Noemí Moncunill, Javier Velaza, Sebastián Celestino and Carolina López-Ruíz (see Sims-Williams 2016, 14 n. 47; 2017a, 421 n. 3; and now Correa & Guerra 2019, 122, 134–6; Eska 2017; 2018, 326–7; Hewitt 2018; Stifter 2019, 120). The state of the question is summed up by de Hoz (2019a, 11):

J. Koch's recent proposal that the south-western inscriptions should be deciphered as Celtic has had considerable impact, above all in archaeological circles. However, the almost unanimous opinion of scholars in the field of Palaeohispanic studies is that, despite the author's indisputable academic standing, this is a case of a false decipherment based on texts that have not been sufficiently refined, his acceptance of a wide range of unjustified variations, and on purely chance similarities that cannot be reduced to a system; these deficiencies give rise to translations lacking in parallels in the recorded epigraphic usage.

The final remark relates to 'translations' such as 'the highest throne has delivered [the deceased] to the greatest tumulus. Raha the Bronze Minister now lies down' (Koch 2016, 465) and 'when/until for/to the bright ones I do not drink sub-true things' (Kaufman 2015, quoted by Eska 2017, 204).

The inscriptions in question are centred on the Algarve, the territory of the Cynetes. As the Cynetes are specifically distinguished from the Celts by Herodotus (see above), no one would expect them *a priori* to have a Celtic language. Even if there were one or two Celtic personal names in the inscriptions, which remains very doubtful (cf. Correa & Guerra 2019, 131–3; Gorrochategui & Vallejo 2019, 358; Koch 2016, 458–9; Sims-Williams 2016, 14; Villar 2007, 436-40), the simplest explanation would be that the people in question could be incomers from inland Celtiberia in the northeast.

Once these 'Tartessian' inscriptions are set aside, there remains little evidence for Celticity in the southwest of the Peninsula and none of it is early (on the mythical *Arganthonios* of Tartessos, see Sims-Williams 2016, 22–3; Valério 2014, 442). Celtic personal names are relatively rare in the Latin inscriptions (see maps in Raybould & Sims-Williams 2009, 43, 48 & 54–6), and south of latitude 40 and west of longitude -05, there are only about 26 plausible Celtic toponyms (fewer according to Untermann 2018), half of which are *-briga* names, in connection with which it is worth quoting de Hoz's

opinion (2019b, 153) that the -briga names of Andalusia, 'as reflected by both the written sources and archaeology', refer to 'settlements whose origins were no earlier than the fourth century BCE'. Some of the few Celtic-looking place-names are probably to be connected with incoming Celtic-speaking settlers, possibly those known as *Celtici* (Sims-Williams 2006, 226–7; 2016, 22; forthcoming). There were various groups of these Celtici in Roman Hispania, and there is no reason to doubt Pliny's statement in the first century AD (Natural History 3.1.13) that their rituals, language and oppidum-names showed that the Celtici of Baeturia in the southwest had immigrated from Celtiberia via Lusitania (de Hoz 2019b, 142-3; Lorrio & Sanmartí 2019, 40, 50; Untermann 2018, 338–41; Villar 2007, 418–21).

So Celtic may have spread *westwards* in the Peninsula *towards* the Atlantic in the latter part of the *first* millennium BC (cf. Lorrio & Sanmartí 2019, 48–53), not *from* the Atlantic *eastwards* in the *third* millennium, along with the Bell Beaker culture, as hypothesized by Cunliffe (2018, 63). Westwards could also be the direction of travel that brought Celtic to Brittany, Britain, and Ireland.

In principle, it is always worth investigating whether the spread of material 'cultures' can be correlated with the spread of peoples and languages. A particular weakness with the 'Celtic from the West' hypothesis, however, is its attempt to match up Celtic, or supposedly Celtic, linguistic data from the first millennium BC and later with archaeological data from the third millennium BC such as Bell Beakers (cf. Falileyev 2015). The chronological disparity is so vast that the hypothesis is impossible to confirm. 'Celtic from the East' was more realistic in focusing on philological and archaeological data from the same period (the first millennium BC). This led to its downfall, once the discovery of the Lepontic and Celtiberian inscriptions failed to correlate with the distribution of what was supposed to be 'Celtic archaeology'. By contrast, third-millennium linguistic data from the Atlantic seaboard is unlikely to be discovered, and to that extent 'Celtic from the West' is safe from refutation. Nevertheless, it remains a baseless speculation.

#### A simpler hypothesis: Celtic from the centre

A more economical view of the origin of the Celtic languages, consonant with the historical and linguistic evidence, might run as follows (cf. Sims-Williams 2017a, 432–5).

Celtic presumably emerged as a distinct Indo-European dialect around the second millennium BC, probably somewhere in Gaul (Gallia/Keltikê),

whence it spread in various directions and at various speeds in the first millennium BC, gradually supplanting other languages, including Indo-European ones—Lusitanian and 'Eastern Alpine Indo-European' are candidates—and non-Indo-European ones—candidates are Raetic, Aquitanian/Proto-Basque, 'Iberian', 'Tartessian' and Pictish (Rodway 2020; Sims-Williams 2012b, 431); and presumably there were dozens more languages about which we know nothing, especially in northern Europe.

The reasons for suggesting Gaul (perhaps including part of Cisalpine Gaul) are: (i) it is central, obviating the need to suppose that Celtic was spoken over a vast area for a very long time yet somehow avoided major dialectal splits (cf. Sims-Williams 2017a, 434); (ii) it keeps Celtic fairly close to Italy, which suits the view that Italic and Celtic were in some way linked in the second millennium (Schrijver 2016). During the first millennium BC, Celtic spread into eastern Iberia (probably well before the time of Herodotus and Herodorus), into northern Italy (as first evidenced by the Lepontic inscriptions in the sixth century: Stifter 2019), into Britain, and perhaps already into Ireland (though Ireland is undocumented), and also towards the east, eventually reaching Galatia in Turkey in the third century BC (as documented in Greek sources).

The Celts who took their language with them may often have adopted the material culture of the territories where they settled, thereby becoming archaeologically indistinguishable. At least latterly, some large-scale folk movements were involved, judging by the classical sources, but Celtic may also have spread incrementally and unspectacularly, following the model proposed by Robb (1991, as discussed by Sims-Williams 2012b, 436; cf. Mallory 2016; Wodtko 2013, 193-204). Since Celtic may well have been moving into areas with patchworks of minor languages-5000 speakers being the median for languages worldwide (Nettle 1999, 113)—quite a low number of Celtic speakers could be enough to effect a language shift. For example, if only 10 per cent of people in Britain spoke Celtic but the rest of the population spoke a dozen other languages, Celtic might have the advantage, especially when reinforced by the language of the adjacent part of the Continent.

Finally, in the latter part of the first millennium BC, Celtic may still have been expanding and consolidating in many areas, both east and west, before it was overtaken by the expansion of the Roman Empire.

'Celtic from the Centre' may lack the time-depth and exotic locations that appeal to romantics, but the economical hypothesis sketched above is realistic and fits the known facts. According to Caesar, central France was occupied by the *Galli* (Gauls), who called themselves *Celtae* in their own language (*Gallic War* 1.1), and according to Livy it was the homeland of the Gauls who migrated to Italy (see Figure 1). It is an obvious place for Celtic ethnogenesis. That said, it must be admitted that while the most economical hypothesis is often the best available option, it is never necessarily correct. Even the above hypothesis entails a gap of perhaps a millennium between the hypothetical emergence of the Celtic language and its first attestation in the Lepontic inscriptions of the sixth century BC. Currently we have no direct linguistic evidence about what occurred during that gap.

#### Conclusion

Some general lessons can be learnt from the above study. Except when lucky enough to find inscriptions, archaeologists can rarely shed direct light on ancient linguistic geography. Philologists may contribute more, provided that early and locatable place- and personal names survive, or informative texts. Their main efforts, however, have always been devoted to the reconstruction of protolanguages, working back from the attested data to starred proto-forms, using well-tried comparative methods. Valid though they may be in context of the discipline, such reconstructed languages tend to belong in 'asterisk reality', fixed neither in time or space. This is frustrating from an archaeological standpoint, since "when?" and "where?" are precisely the questions which archaeologists ... like to ask' (Renfrew 1987, 286). When philologists do offer them answers, their answers should not be accepted uncritically. 'Celtic from the East' is a case in point. Misunderstood classical texts and placenames led nineteenth-century philologists to locate the origin of the Celtic languages in southern Germany and Austria c. 500 BC, and their opinion led archaeologists to label the 'Hallstatt culture' as Celtic, a label which in turn led philologists to use 'Hallstatt' archaeology as a basis for linguistic geography—and so on by a circular argument. 'Celtic from the West' is similarly flawed. It was conjectured that the Celtic languages originated along the Atlantic seaboard before 3000 BC, on the basis of (1) 'glottochronology' (regarded as a pseudo-science by most philologists), (2) Celtic-language place-names attested three or more millennia too late, and (3) firstmillennium BC inscriptions on stelae in southwest Iberia which hardly any philologists now regard as Celtic or even Indo-European in language. On the basis of this dubious philology, it is suggested that 'the eastern spread of Bell Beaker culture could be the vector by which the Celtic language spread across much of western Europe' (Cunliffe 2018, 63). The 'Bell Beaker culture' seems set to replace the 'Hallstatt culture' as a surrogate for solid information about prehistoric linguistic geography. It is a baseless speculation.

From a methodological point of view, 'Celtic from the East' was preferable to 'Celtic from the West': it at least compared (dubious) philological data with archaeological data from within the same millennium. This eventually enabled it to be falsified. By contrast, 'Celtic from the West' compares (dubious) philological data from the first millennium BC and later with archaeological data from a period several millennia earlier from which no philological data survive.

I have argued above, and elsewhere (Sims-Williams 2012b, 440), that instead of such unbridled speculation it would be better to work carefully backwards from the earliest known philological data in the mid first millennium BC. When we do so, we come up with the plausible hypothesis that Celtic need not have begun to spread from a central homeland (roughly France) much before c. 1000 BC. This economical hypothesis represents a reasonable starting point for future work and is open to falsification by the discovery of new inscriptions or other data.

*Mutatis mutandis*, the above case study may be useful to those considering the prehistoric linguistic geographies of other areas. To mention just one example, some archaeologists have a 'presumption', on the basis of the 'Corded Ware culture', that 'some form of Germanic was spoken in south Scandinavia from *c* 3000 BC onwards', whereas 'linguists have rarely imagined that the Germanic language itself came into existence much before 500 BC' (see Mallory *et al.* 2019, 1483). In such situations, archaeologists and philologists need to reconsider the nature and validity of the evidence they use.

#### Note

 Since terminology can be a source of interdisciplinary misunderstanding, this Note summarizes the meaning attached to 'Celtic' in this article.

The term 'Celts' is a convenient umbrella for Greek *Keltoi* and *Galatai* and Latin *Celti/Celtae*, *Galati* and *Galli*. These names may reflect a single term that mutated as it passed from mouth to mouth (Sims-Williams 2011). Whether or not that be the case, it is clear that ancient writers regarded the names as more or less synonymous, as when Caesar equates *Galli* and *Celtae*. Sensibly, modern

writers have come to prefer 'Celts' to 'Galatians', which is associated in the Bible with Asia Minor, and to 'Gauls', which is especially associated with France (Sims-Williams 1998a, 16).

Originally the adjective 'Celtic' (including here 'Galatian', 'Gaulish', 'Gallic', etc.) referred primarily to a self-styled or externally perceived ethnic group of Keltoi/Galatai/Galli and secondly to the characteristics that were typically noted by ancient ethnographers, such as language, customs, dress, weapons, and so on. While the use of 'Celtic' in relation to art and archaeology is no older than the nineteenth century (Collis 2014), its use in relation to language is much older. For example, in the ninth century AD Heiric of Auxerre correctly identified the Gaulish place-name Augusti-dunum (Autun) as being in Celtica lingua (Blom 2009, 16–17; Sims-Williams 2017b, 353). This is one of many justifications for applying the Celtic label to the older languages of Ireland and Britain, in which the corresponding word for 'fort' is Irish dún, Welsh din(as), etc. Ancient texts, admittedly, never label the inhabitants of these islands as Celts, Gauls, or Galatians, and it is significant that when Pytheas sailed from Kent (Kantion) to the Gaulish coast in the fourth century BC, he sailed 'to' Keltikê (Strabo, Geography 1.4.3), as if Britain was not part of Keltikê. Too much importance should not be attached to this. It is only natural to distinguish islands from the mainland. Both in the ancient and the modern world, distant Sri Lanka/Cevlon has always been distinguished from mainland India, without any implication as to whether it may be similar or different in language and culture. Again, modern parlance contrasts 'Britain' and 'Europe', without necessarily implying that Britons are not also Europeans. In the case of ancient Britain, we have it from Tacitus that in language, customs and religion the Britons resembled the mainland Gauls (Agricola 11), the people who called themselves Celtae according to Caesar. It is therefore understandable that modern writers have often applied the adjective 'Celtic' to the Britons, giving more weight to the factors mentioned by Tacitus than to the differences visible in the archaeological record, such as round versus square dwellings (emphasized by James 1999, 40). Only a few archaeologically identifiable ethnic traits counted for ancient ethnographers, certain types of weaponry for instance (Lorrio & Sanmartí 2019, 40), and the shape of houses was not one of them.

It is sometimes suggested (Chapman 1992) that the ancients used the term 'Celt' as a vague term for western barbarians, rather as the Byzantines, remembering their ancient history, referred to the western Crusaders as *Keltoi*, or as the British referred to the Germans as 'the Hun' during World War I (Sims-Williams 2012a, 33). There is very little evidence for such a vague usage of 'Celt'. The *locus classicus* is Ephorus in the fourth century BC. In an astronomical context, Ephorus assigned the four points of the compass schematically to Indians, Ethiopians, Celts and Scythians. Since no Greek can

have been unaware that Persians, Egyptians and others also inhabited the east and south, it follows that it cannot be assumed that Ephorus was only aware of Celts in the west. In fact, in another context, Ephorus did distinguish between Celts and Iberians. A century earlier, Herodotus had already contrasted the Cynetes (in Portugal) with the Celts, while Herodorus of Heraclea distinguished between the Kelkianoi (Keltianoi?) and five other Hispanic peoples, including the Cynetes. Other early Greek writers, including Timagetus, Timaeus and Apollonius of Rhodes, continued to refer to the Celts as a distinct people (see further Sims-Williams 2016; 2017a). Among the Romans, Varro (116-27 BC), for instance, named four peoples besides the Celtae who settled in Hispania (Pliny, Natural History 3.1.8). So 'Celt' was not normally a vague term like our 'oriental'. Another claim that is sometimes made is that language was not a factor in ancient Celtic ethnography. This seems not to be the case (cf. Sims-Williams 2017a, 435-7). In the second century BC, Polybius noted that the Veneti in the plain of the Po near the Adriatic differed in language from their Celtic neighbours (Histories 2.17.5), and in the first century AD, Pliny noted that the language and place-names of the Celtici of Baeturia linked them with the Celtiberians (see above), while Tacitus distinguished between the Germani, Cotini and Osi on the basis of their German, Gaulish and Pannonian tongues (Germania 43). Tacitus was also aware of Gallo-Brittonic linguistic similarities (see above)—similarities still visible to us today in the ancient place- and personal names on either side of the Channel. Since the similarity between the Celtic dialects must have been more obvious in the time of Tacitus than it is to us two millennia later, observers would not need a modern 'classification of languages' (Collis 2017, 60) in order to perceive it.

Reassuringly, the ancient inscriptions and names which linguists categorize as 'Celtic'—on the basis of the bundle of distinctive divergences from Proto-Indo-European that also characterize the medieval Gaelic and Brittonic languages-are found in the very areas which the ancients labelled as 'Celtic', notably Cisalpine and Transalpine Gaul (Gallia), Galatia (also called Gallograecia) and Celtiberia (meaning 'the land occupied by the Iberians who are Celts'; cf. Hoenigswald 1990; Pelegrín Campo 2005). Awareness of some of this Continental evidence led Early Modern scholars to label the Insular languages as 'Celtic'. The linguistic evidence for this is watertight, and no modern philologists would dispute the 'Celtic' label, any more than they would dispute the 'Greek' label for the Greek dialects irrespective of whether or not the original speakers of Greek identified themselves as Greeks.

In short, while ancient comments on barbarian ethnology and language may often be misguided (Bickerman 1952; Blom 2009; Harrison 1998), valid information can still be gleaned from them, and they should not be discarded out of hand.

#### Acknowledgements

I am grateful to the Editor, Dr Robb, and his referees for their helpful comments, and also to Professors Raimund Karl, James Mallory and Marged Haycock.

Patrick Sims-Williams
Department of Welsh and Celtic Studies
Aberystwyth University
Parry-Williams Building
Aberystwyth SY23 3AJ
UK

E-mail: pps@aber.ac.uk

#### References

- Albertos Firmat, M.L., 1990. Los topónimos en *-briga* en Hispania. *Veleia* 7, 131–46.
- Anreiter, P., 2001. *Die vorrömischen Namen Pannoniens* [The pre-Roman names of Pannonia]. Budapest: Archaeolingua.
- Anreiter, P., M. Haslinger & U. Roider, 2000. The names of the Eastern Alpine region mentioned in Ptolemy, in Ptolemy: Towards a linguistic atlas of the earliest Celtic placenames of Europe, eds D.N. Parsons & P. Sims-Williams. Aberystwyth: CMCS Publications, 113–42.
- Anthony, D.W. & D. Ringe, 2015. The Indo-European homeland from linguistic and archaeological perspectives. *Annual Review of Linguistics* 2015(1), 199–219.
- Arenas-Esteban, J.A., 2012. The Celtiberian world: a long process of cultural hybridization, in Archaeological, Cultural and Linguistic Heritage: Festschrift for Erzsébet Jerem, eds P. Anreiter, E. Bánffy, L. Bartosiewicz, W. Meid & C. Metzner-Nebelsick. Budapest: Archaeolingua, 33–46.
- Atkinson, Q.D., G. Nicholls, D. Welch & R. Gray, 2005. From words to dates: water into wine, mathemagic or phylogenetic inference? *Transactions of the Philological Society* 103(2), 193–219.
- Bayet, J. & G. Baillet, 1964. *Tite-Live: Histoire romaine* {Titus Livius, Roman history], t. V. Paris: Les Belles Lettres.
- Beltrán, F. & C. Jordán, 2019. Writing and language in Celtiberia, in *Palaeohispanic Languages and Epigraphies*, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 240–303.
- Bertrand, A. & S. Reinach, 1894. *Les Celtes dans les vallées du Pô et du Danube* [The Celts in the valleys of the Po and the Danube]. Paris: Ernest Leroux.
- Bickerman, E.J., 1952. Origines gentium. *Classical Philology* 47(2), 65–81.
- Billerbeck, M., 2006–. *Stephani Byzantii Ethnica*. Berlin: Walter de Gruyter.
- Blom, A.H., 2009. *Lingua gallica, lingua celtica*: Gaulish, Gallo-Latin, or Gallo-Romance? *Keltische Forschungen* 4, 7–54.

- Bonfante, G., 1939. Il problema dei Taurisci e dei Carni e l'entrata dei Galli in Italia [The problem of the Taurisci and the Carni and the entry of the Gauls into Italy]. Revue des études indo-européennes 2, 16–23.
- Bouckaert, R., P. Lemey, M. Dunn, *et al.*, 2012. Mapping the origins and expansion of the Indo-European language family. *Science* 337, 957–60.
- Brun, P., 1995. From chiefdom to state organization in Celtic Europe, in *Celtic Chiefdom, Celtic State: The evolution of complex social systems in prehistoric Europe*, eds B. Arnold & D.B. Gibson. Cambridge: Cambridge University Press, 13–25.
- Chang, W., C. Cathcart, D. Hall & A. Garrett, 2015. Ancestry-constrained phylogenetic analysis supports the Indo-European steppe hypothesis. *Language* 91 (1), 194–244.
- Chapman, M., 1992. *The Celts: The construction of a myth.* Basingstoke: Macmillan.
- Coates, R., 2012. A toponomastic contribution to the linguistic prehistory of the British Isles. *Nomina* 35, 49–102.
- Collis, J., 1997. Celtic myths. Antiquity 71, 195-201.
- Collis, J., 2003. *The Celts: Origins, myth & inventions*. Stroud: Tempus.
- Collis, J., 2014. The Sheffield origins of Celtic Art, in Celtic Art in Europe: Making connections, eds C. Gosden, S. Crawford & K. Ulmschneider. Oxford: Oxbow, 19–27.
- Collis, J.R., 2017. Celts ancient and modern: recent controversies in Celtic Studies. *Studia Celtica Fennica* 14, 58–71.
- Correa, J.A. & A. Guerra, 2019. The epigraphic and linguistic situation in the south-west of the Iberian peninsula, in *Palaeohispanic Languages and Epigraphies*, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 109–37.
- Cunliffe, B., 1992. The Celtic World. London: Constable.
- Cunliffe, B., 1997. *The Ancient Celts* (1st edn). Oxford: Oxford University Press.
- Cunliffe, B., 2001. Facing the Ocean: The Atlantic and its peoples 8000 BC–AD 1500. Oxford: Oxford University Press.
- Cunliffe, B., 2009. A race apart: insularity and connectivity. *Proceedings of the Prehistoric Society* 75, 55–64.
- Cunliffe, B., 2010. Celticization from the West: the contribution of archaeology, in Celtic from the West: Alternative perspectives from archaeology, genetics, language and literature, eds B. Cunliffe & J.T. Koch. Oxford: Oxbow, 13–38
- Cunliffe, B., 2013. *Britain Begins*. Oxford: Oxford University Press.
- Cunliffe, B., 2017. On the Ocean: The Mediterranean and the Atlantic from prehistory to AD 1500. Oxford: Oxford University Press.
- Cunliffe, B., 2018. *The Ancient Celts* (2nd edn). Oxford: Oxford University Press.
- Cunliffe, B., 2019. Setting the scene, in *Exploring Celtic Origins: New ways forward in archaeology, linguistics*,

- and genetics, eds B. Cunliffe & J.T. Koch. Oxford: Oxbow, 1–17.
- Cunliffe, B. & J.T. Koch (eds), 2019. Exploring Celtic Origins: New ways forward in archaeology, linguistics, and genetics. Oxford: Oxbow.
- d'Arbois de Jubainville, H., 1902. Cours de littérature celtique, t. XII, Principaux auteurs de l'Antiquité à consulter sur l'histoire des Celtes [Course in Celtic literature, vol. 12: Principal authors of antiquity to consult on the history of the Celts]. Paris: Fontemoing.
- de Hoz, J., 2019a. Method and methods: studying Palaeohispanic languages as a discipline, in Palaeohispanic Languages and Epigraphies, eds A. G. Sinner & J. Velaza. Oxford: Oxford University Press, 1–24.
- de Hoz, J., 2019b. The linguistic situation in the territory of Andalusia, in *Palaeohispanic Languages and Epigraphies*, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 138–59.
- Déchelette, J., 1913. Manuel d'archéologie préhistorique et celtique, t. II.2, Premier âge du fer ou époque de Hallstatt [Manual of prehistoric and Celtic archaeology, vol. 2.2: First Iron Age or Hallstatt period]. Paris: Picard.
- Dixon, R.M.W., 1997. *The Rise and Fall of Languages*. Cambridge: Cambridge University Press.
- Eska, J.F., 2017. Review of Kaufman 2015. *Journal of Celtic Linguistics* 18, 202–8.
- Eska, J.F., 2018. Laryngeal realism and the prehistory of Celtic. *Transactions of the Philological Society* 116(3), 320–31.
- Eska, J.F. & D. Ringe, 2004. Recent work in computational linguistic phylogeny. *Language* 80(3), 569–82.
- Falileyev, A., 2002. Review of Anreiter 2001. *Acta Onomastica* 43, 119–24.
- Falileyev, A., 2010. *Dictionary of Continental Celtic Place-Names*. Aberystwyth: CMCS Publications (searchable map at http://hdl.handle.net/2160/10148).
- Falileyev, A., 2014. In Search of the Eastern Celts: Studies in geographical names, their distribution and morphology. Budapest: Archaeolingua.
- Falileyev, A., 2015. Introduction. A folk who will never speak: Bell Beakers and linguistics, in *The Bell Beaker Transition in Europe: Mobility and local evolution during the 3rd millennium BC*, eds M.P. Prieto Martínez & L. Salanova. Oxford: Oxbow, 1–7.
- Fernández-Götz, M., 2018. Urbanization in Iron Age Europe: trajectories, patterns, and social dynamics. *Journal of Archaeological Research* 26, 117–62.
- Forster, P. & A. Toth, 2003. Toward a phylogenetic chronology of ancient Gaulish, Celtic, and Indo-European. *Proceedings of the National Academy of Sciences* 100(15), 9079–84.
- Freeman, P., 2001. *The Galatian Language*. Lewiston/Queenston/Lampeter: Edwin Mellen Press.
- Garrett, A., 2018. New perspectives on Indo-European phylogeny and chronology. *Proceedings of the American Philosophical Society* 162(1), 25–38.
- Gorrochategui, J. & J.M. Vallejo, 2019. The parts of Hispania without epigraphy, in *Palaeohispanic*

- Languages and Epigraphies, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 335–64.
- Gray, R.D. & Q.D. Atkinson, 2003. Language-tree divergence times support the Anatolian theory of Indo-European origin. *Nature* 426, 435–9.
- Gray, R.D., Q.D. Atkinson & S.J. Greenhill, 2011. Language evolution and human history: what a difference a date makes. *Philosophical Transactions of the Royal Society B* 366, 1090–100.
- Harrison, T., 1998. Herodotus' conception of foreign languages. *Histos* 2, 1–45.
- Heggarty, P., 2014. Prehistory by Bayesian phylogenetics? The state of the art on Indo-European origins. *Antiquity* 88, 566–77.
- Heggarty, P., 2017. Towards a (pre)history of linguistic convergence areas: correlates in genetics, archaeology, history and geography. *Bulletin de la Société de Linguistique de Paris* 24, 135–78.
- Hewitt, S., 2018. Review of Kaufman 2015. *Studia Celtica Fennica* 15, 120–30.
- Hoenigswald, H.M., 1990. Celtiberi: a note, in *Celtic Language*, *Celtic Culture*: *A Festschrift for Eric P. Hamp*, eds A.T.E. Matonis & D.F. Melia. Van Nuys (CA): Ford & Bailie, 13–15.
- Holman, E.W., C.H. Brown, S. Wichmann, et al., 2011. Automated dating of the world's language families based on lexical similarity. *Current Anthropology* 52 (6), 841–75.
- Isaac, G.R., 2004. The nature and origins of the Celtic languages: Atlantic seaways, Italo-Celtic and other paralinguistic misapprehensions. *Studia Celtica* 38, 49–58.
- Jackson, K., 1953. Language and History in Early Britain. Edinburgh: Edinburgh University Press.
- James, S., 1999. The Atlantic Celts: Ancient people or modern invention? London: British Museum Press.
- Kaufman, T., 2015. Notes on the Decipherment of Tartessian as Celtic. Washington (DC): Institute for the Study of Man.
- Klejn, L.S., W. Haak, I. Lazaridis, et al., 2018. Discussion: Are the origins of Indo-European languages explained by the migration of the Yamnaya Culture to the West? *European Journal of Archaeology* 21(1), 3–17.
- Koch, J.T., 1996. Ériu, Alba, and Letha: when was a language ancestral to Gaelic first spoken in Ireland? Emania 9, 17–27.
- Koch, J.T., 2016. Phoenicians in the West and the break-up of the Atlantic Bronze Age and Proto-Celtic, in *Celtic from the West 3*, eds J.T. Koch & B. Cunliffe. Oxford: Oxbow, 431–76.
- Koch, J.T., 2019. Common Ground and Progress on the Celtic of the South-Western (S.W.) Inscriptions. Aberystwyth: University of Wales Centre for Advanced Welsh and Celtic Studies.
- Koch, J.T. & Cunliffe, B., 2016. Introduction, in Celtic from the West 3, eds J.T. Koch & B. Cunliffe. Oxford: Oxbow, 1–10.
- Lejeune, M., 1955. *Celtiberica*. Salamanca: Ediciones Universidad de Salamanca.

- Lejeune, M., 1971. Lepontica. Paris: Les Belles Lettres.
- Lorrio, A.J. & G. Ruiz Zapatero, 2005. The Celts in Iberia: an overview. *e-Keltoi* 6, 167–254.
- Lorrio, A. & J. Sanmartí, 2019. The Iberian peninsula in pre-Roman times: an archaeological and ethnographical survey, in *Palaeohispanic Languages and Epigraphies*, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 25–55.
- Luján, E.R., 2011. Briga and castellum in north-western Hispania, in A Greek Man in the Iberian Street, eds E. R. Luján & J.L. García Alonso. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck, 225–42.
- Luján, E.R., 2019. Language and writing among the Lusitanians, in *Palaeohispanic Languages and Epigraphies*, eds A.G. Sinner & J. Velaza. Oxford: Oxford University Press, 304–34.
- Mallory, J.P., 2016. Archaeology and language shift in Atlantic Europe, in *Celtic from the West 3*, eds J. T. Koch & B. Cunliffe. Oxford: Oxbow, 387–406.
- Mallory, J., A. Dybo & O. Balanovsky, 2019. The impact of genetics research on archaeology and linguistics in Eurasia. *Russian Journal of Genetics* 55(12), 1472–87.
- Maurits, L., M. de Heer, T. Honkola, M. Dunn & O. Vesakoski, 2019. Best practices in justifying calibrations for dating language families. *Journal of Language Evolution*. https://doi.org/10.1093/jole/lzz009
- Meid, W., 2008. Celtic origins, the Western and the Eastern Celts. *Proceedings of the British Academy* 154, 177–99.
- Meid, W., 2010. *The Celts*. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
- Moravcsik, G. & R.J.H. Jenkins, 1967. Constantine Porphyrogenitus, De Administrando Imperio. Washington (DC): Dumbarton Oaks Center for Byzantine Studies.
- Mullen, A. & Ruiz Darasse, C., 2019. Cultural and linguistic contacts in southern Gaul, in *Palaeohispanic Languages and Epigraphies*, eds A. G. Sinner & J. Velaza. Oxford: Oxford University Press, 198–218.
- Müllenhoff, K., 1870. *Deutsche Altertumskunde* [German antiquity], Band I. Berlin: Weidmann.
- Müller-Scheeßel, N., 2000. Die Hallstattkultur und ihre räumliche Differenzierung: Der West- und Osthallstattkreis aus forschungsgeschichtlichmethodologischer Sicht [The Hallstatt culture and its spatial differentiation: the Western and Eastern Hallstatt area from a research-historical-methodological viewpoint]. (Tübinger Texte: Materialien zur Ur- und Frühgeschichtlichen Archäologie 3.) Rahden/Westf.: Verlag Marie Leidorf.
- Nettle, D., 1999. *Linguistic Diversity*. Oxford: Oxford University Press.
- Novotná, P. & V. Blažek, 2006. On application of glottochronology for Celtic languages. *Linguistica Brunensia* 54, 71–100.
- Ogilvie, R.M., 1965. *A Commentary on Livy Books 1–5*. Oxford: Clarendon Press.

- Olander, T., 2019. The Indo-European homeland: introducing the problem, in *Tracing the Indo-Europeans: New evidence from archaeology and historical linguistics*, eds B.A. Olsen, T. Olander & K. Kristiansen. Oxford: Oxbow, 7–34.
- Olsen, B.A., T. Olander & K. Kristiansen (eds), 2019. Tracing the Indo-Europeans: New evidence from archaeology and historical linguistics. Oxford: Oxbow.
- Oppenheimer, S., 2006. *The Origins of the British*. London: Constable.
- Oppenheimer, S., 2010. A reanalysis of multiple prehistoric immigrations to Britain and Ireland aimed at identifying the Celtic contributions, in *Celtic from the West: Alternative perspectives from archaeology, genetics, language and literature*, eds B. Cunliffe & J.T. Koch. Oxford: Oxbow, 121–50.
- Pare, C., 1991. Fürstensitze, Celts and the Mediterranean world: developments in the West Hallstatt Culture in the 6th and 5th centuries BC. *Proceedings of the Prehistoric Society* 57(2), 183–202.
- Pelegrín Campo, J., 2005. Polibio, Fabio Píctor y el origen del etnónimo 'celtíberos' [Polybius, Fabius Pictor and the origin of the ethnonym 'Celtiberians']. *Gerión* 23(1), 115–36.
- Pereltsvaig, A. & M.W. Lewis, 2015. *The Indo-European Controversy: Facts and fallacies in historical linguistics*. Cambridge: Cambridge University Press.
- Poppe, E., 2001. The Welsh language in German philology around 1850, in 150 Jahre 'Mabinogion' Deutschwalisische Kulturbeziehungen [150 years of the 'Mabinogion' German–Welsh cultural relations], eds B. Maier & S. Zimmer. Tübingen: Niemeyer, 203–21.
- Powell, T.G.E., 1958. *The Celts*. London: Thames & Hudson. Prósper, B.M., 2018. The Venetic names of Roman Siscia. *Voprosy onomastiki* 15(3), 105–24.
- Raybould, M.E. & P. Sims-Williams, 2007. A Corpus of Latin Inscriptions of the Roman Empire Containing Celtic Personal Names. Aberystwyth: CMCS Publications.
- Raybould, M.E. & P. Sims-Williams, 2009. *Introduction and Supplement to the Corpus of Latin Inscriptions of the Roman Empire Containing Celtic Personal Names*. Aberystwyth: CMCS Publications.
- Renfrew, C., 1987. Archaeology and Language: The puzzle of Indo-European origins. London: Jonathan Cape.
- Renfrew, C., 2013. Early Celtic in the West: the Indo-European context, in *Celtic from the West 2*, eds J.T. Koch & B. Cunliffe. Oxford: Oxbow, 207–17.
- Repanšek, L., 2016. *Keltska dediščina v toponimiji jugovzhod*nega alpskega prostora [The Celtic heritage in the toponymy of the southeastern Alpine region]. Ljubljana: Založba.
- Rhys, J., 1877. Lectures on Welsh Philology. London: Trübner. Robb, J., 1991 Random causes with directed effects: the Indo-European language spread and the stochastic loss of lineages. Antiquity 65, 287–91.
- Rodway, S., 2020. The ogham inscriptions of Scotland and Brittonic Pictish. *Journal of Celtic Linguistics* 21, 173–234.

- Ross, R.I., 1996. *Livy Book 5*. London: Bristol Classical Press. Salomon, C., 2017. *Raetic: Language, writing, epigraphy*. Zaragoza: Prensas de la Universidad de Zaragoza.
- Schrijver, P., 2016. Sound change, the Italo-Celtic linguistic unity, and the Italian homeland of Celtic, in *Celtic from the West 3*, eds J.T. Koch & B. Cunliffe. Oxford: Oxbow, 489–502.
- Schrijver, P., 2018. Talking Neolithic: the case for Hatto-Minoan and its relationship to Sumerian, in *Talking Neolithic*, eds G. Kroonen, J.P. Mallory & B. Comrie. Washington (DC): Institute for the Study of Man, 336–74.
- Silva, M., K. Dulias, G. Oteo-Garcia, et al., 2019. Once upon a time in the West: the archaeogenetics of Celtic origins, in *Exploring Celtic Origins: New ways forward in archaeology, linguistics, and genetics*, eds B. Cunliffe & J.T. Koch. Oxford: Oxbow, 153–91.
- Sims-Williams, P., 1993. Le lingue celtiche [The Celtic languages], in *Le lingue indoeuropee* [The Indo-European languages], eds A.G. Ramat & P. Ramat. Bologna: il Mulino, 373–408.
- Sims-Williams, P., 1998a. Celtomania and Celtoscepticism. *Cambrian Medieval Celtic Studies* 36, 1–35.
- Sims-Williams, P., 1998b. Genetics, linguistics and prehistory: thinking big and thinking straight. *Antiquity* 72, 505–27.
- Sims-Williams, P., 2006. Ancient Celtic Place-Names in Europe and Asia Minor. Oxford: Blackwell/Philological Society.
- Sims-Williams, P., 2011. Celto-Etruscan speculations, in *A Greek Man in the Iberian Street*, eds E.R. Luján & J. L. García Alonso. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck, 275–84.
- Sims-Williams, P., 2012a. Celtic civilization: continuity or coincidence? *Cambrian Medieval Celtic Studies* 64, 1–45.
- Sims-Williams, P., 2012b. Bronze- and Iron-Age Celtic-speakers: what don't we know, what can't we know, and what could we know? Language, genetics and archaeology in the twenty-first century. *Antiquaries Journal* 92, 427-49.
- Sims-Williams, P., 2016. The location of the Celts according to Hecataeus, Herodotus, and other Greek writers. *Études celtiques* 42, 7–32.
- Sims-Williams, P., 2017a. The earliest Celtic ethnography. *Zeitschrift für celtische Philologie* 64, 421–42.
- Sims-Williams, P., 2017b. The Celtic languages, in *The Indo-European Languages*, ed. M. Kapović. Abingdon: Routledge, 352–86.
- Sims-Williams, P., forthcoming. Review of Untermann 2018 and Sinner & Velaza 2019. *Journal of Celtic Linguistics*.
- Sinner, A.G. & J. Velaza (eds), 2019. *Palaeohispanic Languages and Epigraphies*. Oxford: Oxford University Press.

- Spindler, K., 2007. Die frühen Kelten historische und archäologische Evidenz [The early Celts historical and archeological evidence], in *Kelten-Einfälle an der Donau* [Celtic ideas on the Danube], ed. H. Birkhan. Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 495–502.
- Stifter, D., 2019. Ancient Celtic epigraphy and its interface with Classical epigraphy, in *Sprachen Schriftkulturen Identitäten der Antike* [Languages writing cultures identities in antiquity], eds P. Amann, T. Corsten, F. Mitthof & H. Taeuber. Vienna: Verlag Holzhausen, 97–123.
- Talbert, R.J.A., 2000. *The Barrington Atlas of the Greek and Roman World*, with 2-vol. *Map-by-Map Directory*. Princeton (NJ): Princeton University Press.
- Tomaschitz, K., 2002. Die Wanderungen der Kelten in der antiken literarischen Überlieferung [The wanderings of the Celts in antique literary tradition]. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Untermann, J., 2018. Monumenta Linguarum Hispanicarum, Band VI, Die vorrömische einheimische Toponymie des antiken Hispanien [The pre-Roman indigenous toponymy of ancient Hispania]. Wiesbaden: Reichert.
- Valério, M., 2014. The interpretative limits of the Southwestern script. *Journal of Indo-European Studies* 42(3/4), 439–67.
- Villar, F., 2007. El Celta de la Península Ibérica [The Celtic of the Iberian Peninsula], in *Gaulois et Celtique Continental* [Gaulish and Continental Celtic], eds P.-Y. Lambert & G.-J. Pinault. Geneva: Droz, 413–46.
- Wmffre, I., 2007. Post-Roman Irish settlement in Wales: new insights from a recent study of Cardiganshire place-names, in *Ireland and Wales in the Middle Ages*, eds K. Jankulak & J.M. Wooding. Dublin: Four Courts, 46–61.
- Wodtko, D.S., 2013. Models of language spread and language development in prehistoric Europe, in *Celtic from the West 2*, eds J.T. Koch & B. Cunliffe. Oxford: Oxbow, 185–206.
- Wodtko, D., 2017. *Lusitanian: Language, writing, epigraphy.* Zaragoza: Prensas de la Universidad de Zaragoza.

# Author biography

Patrick Sims-Williams is a Fellow of the British Academy and was formerly Reader in Celtic & Anglo-Saxon in the University of Cambridge and Professor of Celtic Studies in Aberystwyth University, Wales. His current areas of research include interdisciplinary studies of 'Celticity' from anthropological, archaeological, historical, literary and philological points of view.