

The origin of consonantal pre-aspiration in Gàidhlig, Icelandic and Faroese: a discussion

Edoardo McKenna

The phenomenon of consonantal pre-aspiration has received various definitions over the years, but essentially can be succinctly described as a period of usually glottal friction that occurs between the voicing of a stressed vowel and a following stop or sonorant and stop sequence (Helgason, 2002: 11; Bosch, 2006/2007: 270). A rather rare linguistic feature, it is attested in Europe only in the north-western region, namely in Icelandic, Faroese, most Scottish Gàidhlig dialects, a number of Norwegian and Swedish dialects, and virtually all the Saami varieties apart from Kola and Inari (Helgason, 2002: 31, 100); in all these languages consonantal pre-aspiration is normative in preserving the quality distinction between word pairs such as Icelandic *Hattur/Haddur* ['hahtyr]/['hat:yr], 'hat'/'hair', *Lampi/Lambi* ['lɛmpɪ]/['lɛmpɪ], 'lamp/lamb (dat.)', Faroese *Greytur/Rættur* ['grɛihtɔr]/['raht(:)ɔr], 'grouts'/'right', Gàidhlig *Mac/Mag* [mahk]/[mak], 'son'/'to mock', Saami ['pa:lahka:n]/['pa:laka:w], '(to give as) salary'/'to follow the path' (Thránsson, 1978: 24; Page, 1997: 168-170; Helgason, 2002: 7, 49, 100).

The historical evolution of this particular pronunciation among the above-mentioned languages has not been satisfactorily investigated, and there are several theories available on the issue; despite the isolated postulation of a Saami influence on Scandinavia (Naert, 1969: 438), however, the general consensus identifies the North Germanic languages as the initial source of this peculiarity (Posti, 1954). As for Gàidhlig, the absence of consonantal pre-aspiration in both ancient and modern stages of its Irish ancestor¹, coupled with the perceived identity of its rendition in both Icelandic and North Uist/Lewis dialects (Ní Chasaide and Ó Dochartaigh, 1984), has led most scholars to espouse the theory of its direct derivation from the Old Norse speech of the Viking colonies historically attested in parts of what is modern-day Scotland, as these were established

¹ On the dubious possibility of pre-aspiration in the area around Irish Gweedore, see Ní Chasaide and Ó Dochartaigh, 1984.

at roughly the same time as the Scandinavian settlements in the North Atlantic (Marstrander, 1932; Oftedal 1983: 99; Clement 1983: 104-105). In medial and final position after a vowel Old Norse preserved the contrast between long *tenues* and *mediae*, but neutralised their short counterparts as voiceless; it has however been postulated that in a subset of Old Norse dialects the distinction between the two types of long stops must have been expressed as an opposition between pre-aspirated *tenues* and voiceless *mediae*. The accepted view is that once the Scotland-based Norsemen shifted to the language of the autochthonous Gaels after a period of relative isolation, they found themselves unable to correctly reproduce the opposition between postvocalic short voiceless *tenues* and short voiced *mediae* which Early Gàidhlig² had in common with Old Irish; in order to overcome the obstacle, they are supposed to have adopted in some areas the aspirated pronunciation of long stops present in their substrate language, and to have subsequently reduced long consonants, as these were not in phonemic opposition to short stops in Early Gàidhlig (Borgstrøm, 1974: 95-96).

The official vulgate, however, is far from having satisfactorily solved all the obscure points. The data collected on local pronunciations by the Survey of the Gaelic dialects of Scotland, for instance, have not only convincingly demonstrated that the realisation of pre-aspiration across the districts ranges from a barely audible breathing to a variously distributed full velar fricative, but also that pre-aspiration achieves its greatest intensity in the Central Highlands virtually untouched by Scandinavian colonisation, and is conversely absent in large swathes of the territory formerly under Norse rule³ (Borgstrøm, 1974: 96-98; MacAulay, 1992: 156; Bosch, 2006/2007: 273-277).

² The common literary medium in Gaelic Scotland was essentially the same as Ireland's until the 16th-17th century; for the purposes of the present discussion, therefore, Early Gàidhlig will be used to indicate the unattested spoken renditions of Old, Middle and Classical Irish as postulated for Scotland, Gàidhlig will refer to all instances of recognisably Scottish varieties, while Goidelic will be loosely employed to cover linguistic forms common to both Ireland and Scotland.

³ The areas formerly occupied by the Norse invaders were most of Sutherland and Easter Ross, the south-eastern edges of the Highlands, Arran, the Kintyre peninsula, and scattered points on the mainland coast opposite them (see Figure 1).

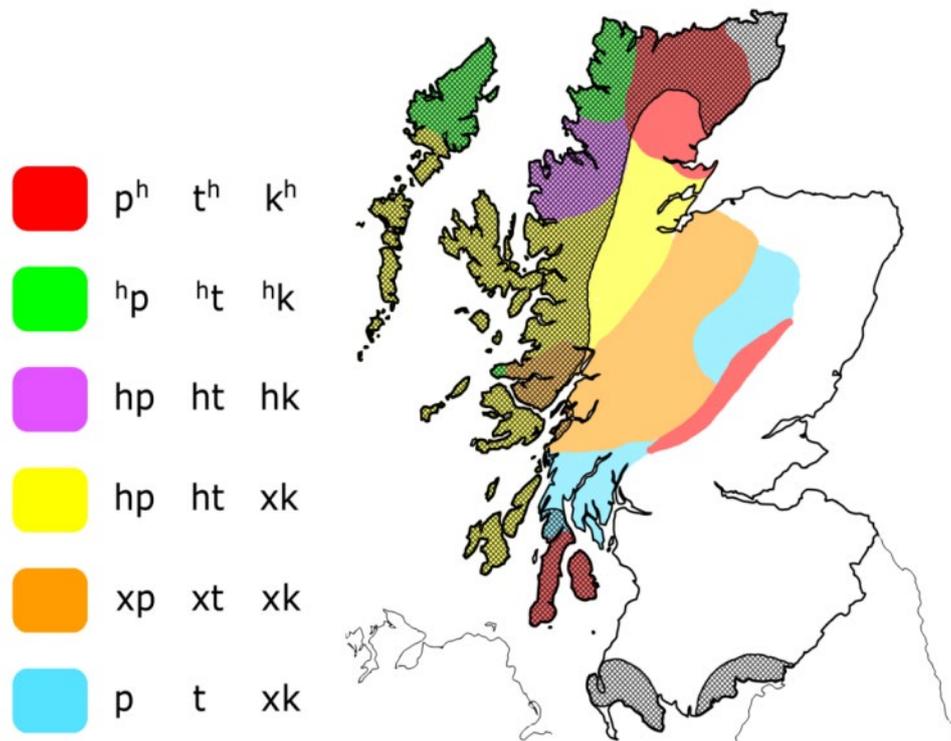


Figure 1 – Consonantal pre-aspiration in the various Gàidhlig dialects and the areas of Viking settlement (in chequered black).

Kenneth Jackson had already remarked on this seeming contradiction, and advanced the hypothesis that pre-aspiration's original centre of diffusion should in fact be identified where its realisation is strongest (Jackson, 1962: 10; Oftedal, 1962: 117). A couple of decades later Ó Murchú concurred, and argued that the feature must have been prompted by a weakening of voiced medial consonants into voiceless ones in parts of south-eastern Scotland; the more conservative north-western dialects subsequently accepted the innovation, and developed pre-aspiration in order to preserve the phonetic distinction between the voiced and unvoiced consonants inherited from Old Irish (Ó Murchú 1985: 195-198). Borgstrøm, for his part, claimed that pre-aspiration had spread from its initial base in Lewis, Northern and Western Sutherland, and the greater part of mainland Ross-shire due to the prestige it must have enjoyed, and had later evolved into the velar fricative variant attested in the Central Highland districts because of the locals' inability to cope with a non-native /h/ before stops, possibly on the analogy with the extant Gàidhlig cluster /xk/ (Borgstrøm, 1974: 99).

Although Borgstrøm did not provide any further explanation on the sociolinguistic context of the alleged prestige of the Northern varieties, both theories can in fact be refuted on the basis of the extant evidence. The 16th-century Book of the Dean of Linsmore and the Fernaig manuscript compiled some hundred and fifty years later were drafted in a quasi-phonetic transcription of Gàidhlig based on Middle Scots scribal practices, and originated exactly in those south-eastern areas where pre-aspiration was strongest: assuming the spelling conventions adopted adequately reflected contemporary pronunciation, it is interesting to note that neither displays any trace of pre-aspiration. If the year 1266 is postulated as the initial stage of linguistic separation between Early Gàidhlig and Manx, which never developed pre-aspiration, and if it is also accepted that the first written instance of Scottish pre-aspiration is to be found in the late 17th century Wardlaw manuscript (Jackson 1951: 91), it follows that the phenomenon must have come into being within the period between 1266 and the late 17th century: at that time, nonetheless, there existed no political or cultural centre in either the north-west or the south-east of Scotland that was sufficiently powerful or prestigious to actively spread it to other parts of the country.

Another potential objection is posed by what appears to be the underlying psychology of Old Norse as preserved in the modern Icelandic language. Empirical pronunciation tests of English and German wordlists have demonstrated that non-fluent Icelandic learners of languages characterised by a long vowel-short vowel contrast in stressed position tend to apply their native patterns of pre-aspiration: while consonants after a perceived short vowel are aspirated regardless of whether they are geminate or not⁴, single consonants after a long vowel retain their original quality, thus providing the opposition between, for instance, German *mit* ['mɪt] and *Mitte* ['mɪtə] on the one hand, and *Miete* ['mi:t(h)ə] on the other (Thráinsson, 1978: 13). Since the extant evidence would seem to indicate that pre-aspiration was first instigated in some Scandinavian dialects by consonantal gemination through assimilation, and that the process was completed well before the Vikings' emigrational wanderings (Marstrander: 1932: 302; Chapman, 1962: 84), it would seem logical to expect the same mechanism outlined above to apply to the Old Norse pronunciation of a foreign language with long-short vowels such as Early Gàidhlig: yet had that been the case, words like *siùcar*, sugar, and *còta*, coat, should have emerged as ['fju:k(h)ər] and ['kɔ:t(h)ə], rather than as ['fju:hkər] and ['kɔ:htə].

⁴ The VC sequence is unknown to Icelandic, the only ones allowed being V:C and VC:.

The districts of provenance of the Scandinavian settlers are also worth examining. On the basis of records such as the Icelandic *Book of the Settlements*, as well as place-names and linguistic evidence, it has been claimed that two-thirds of the initial Icelandic colony (A.D. 870-930) hailed from Western Norway, the largest contingents being from the Sogn and Agder districts, closely followed by those of the Trøndelag-Nordmøre-Romsdal area in North-Central Norway (Chapman 1962: 32-33). The colonisers of the Faroe islands (A.D. 825-875) were essentially from Sogn, Ryfylke, Jæren and Agder (Arge et al. 2005: 604), while those of Orkney, Shetland and north-eastern Caithness (9th century) came from the area between Nord-Trøndelag and Vest-Agder (Barnes 2008: 279), and Borgstrøm was rather certain that the Lewis settlers in the Western Isles (9th century) had previously spoken the pre-aspirated dialects of South-Western Norway (1974: 100).

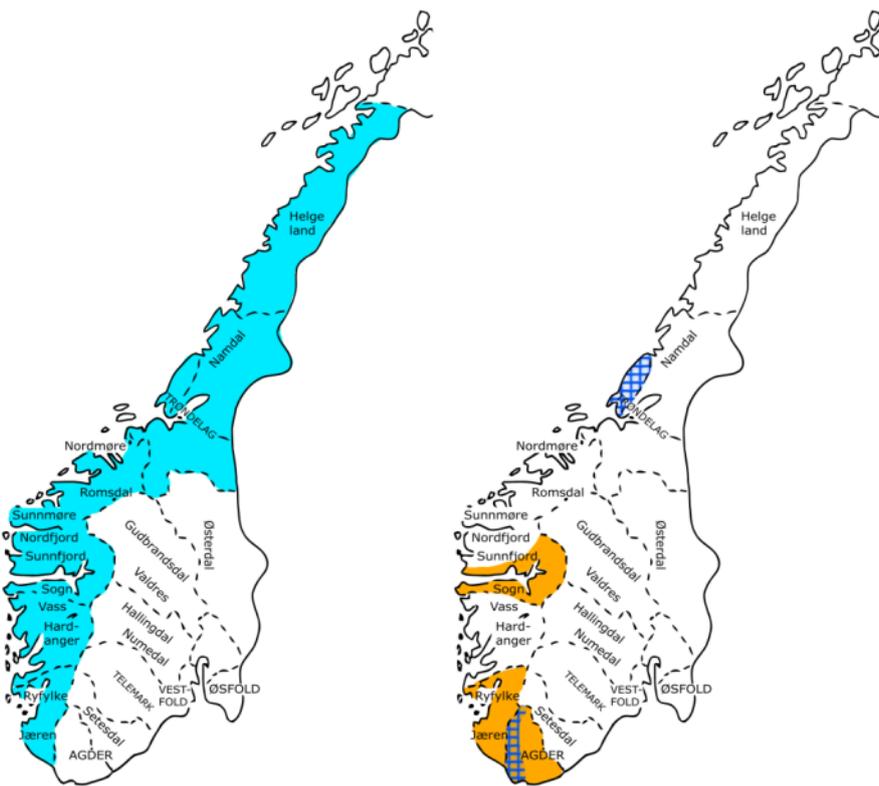


Figure 2 – The districts of provenance for the settlers of Iceland (blue), the Faroe islands (orange), and Orkney and Shetland (chequered blue).

Budding Scandinavian dialects are known to have existed at the time, and with the exception of the Western Isles they met with no linguistic competition. Since all the territories affected by the immigration flow were either essentially uninhabited, or else were swiftly depopulated to make room for the new-comers, as it probably happened in Orkney and Shetland (Barnes 2008: 279), is it linguistically conceivable that all these Viking outposts should develop (or preserve) the same pre-aspiration despite the different geographical origins of their speakers and their varying proportions in the new merged communities? The question appears to be pertinent, not only because the English language's divergent evolution within the historical colonisation of the virtually unpopulated Australia and New Zealand would empirically tend to rule out this possibility, but also because when the Danish scholar Jakobsen began to collect the last scraps of spoken Norn in Orkney and Shetland at the close of the 19th century he found no evidence whatsoever of pre-aspiration, to the effect that he later described Norn stops p, t, k as 'almost as strongly aspirated as in Danish', and b, d, g as 'half voiced' (1985: IX).

A possible answer may be provided by genetic research. Early studies on Iceland's ethnic composition had relied on serological allozyme markers and had obtained inconsistent results, with a Celtic component that ranged from Thompson's 98% in 1973 to Wijsman's 14% in 1984 (Helgason et al. 2000: 1000; Helgason et al. 2001: 724); at the turn of the 20th century, however, a new extensive survey of both the patrilineal Y-chromosomal and matrilineal mitochondrial DNA variations across the whole of the North Atlantic region radically modified perspectives. Although the two sets are only fractionally representative of all the possible genealogical pathways within the community, the fact that each is associated with one sex only has enabled a rather precise reconstruction of gender-related interactions. The outcome was staggering: with the exception of the male groups in Iceland and the Faroe islands, the Scandinavian genetic pool was in the minority everywhere, with substantial Celtic female admixtures varying from a minimum of 56% in Shetland to a maximum of 88.5% in the Western Isles. The genetic analysis also highlighted an asymmetry between the balanced Norse male-female ratio reported for Orkney and Shetland as opposed to the increasing discrepancies recorded in the Western Isles, Iceland, and Faroe islands, a contrast which is believed to be consistent with an acknowledged pattern of family-based settlement in safe colonies close to the centre of power, as opposed to more male-oriented individual enterprises in insecure frontier areas (Jorgensen et al. 2004; Goodacre et al. 2005; Als et al. 2006).

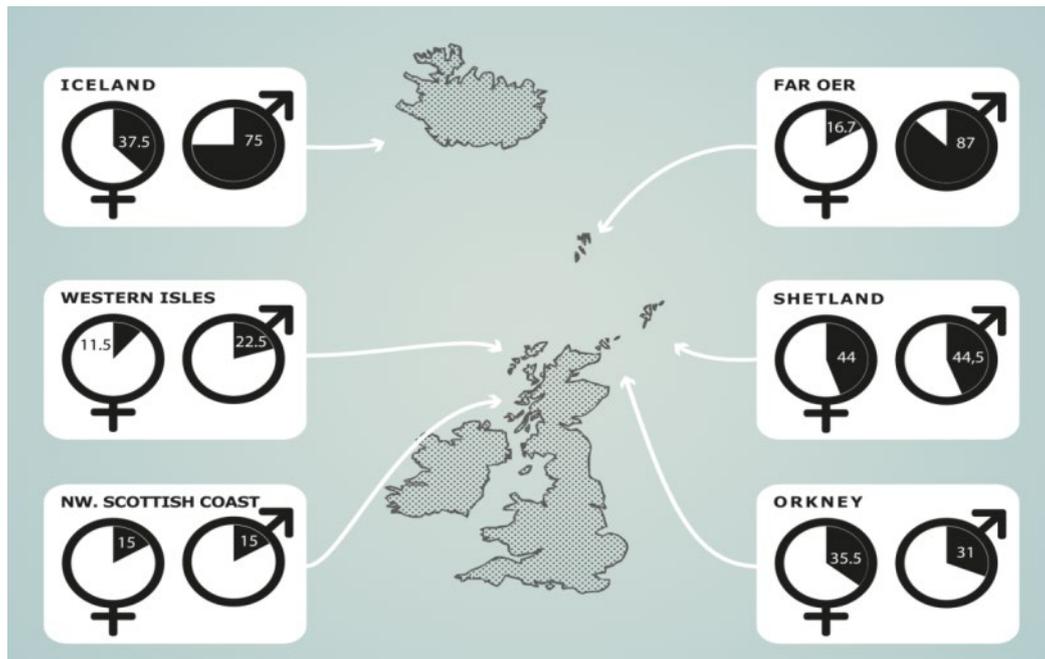


Figure 3 – The genetic composition of the male and female population in the various areas in percentage: Scandinavian in black, Celtic in white

However shocking the results may have been upon their publication, they seemed to allow only one possible explanation, namely that the emigrating Vikings must have procured themselves large numbers of Celtic women from the British Isles, either as wives or, more often, as concubines and slaves captured in their raids. That possibility had been contemplated for quite some time in academic circles⁵, and was quite compatible with the extant literary records and traditions. About twenty-five percent of the Norwegian settlers mentioned in the Icelandic Book of the Settlements were said to have hailed from the British Isles, while the Western Isles, in particular, were mentioned as a far more frequent point of departure than either Orkney or Shetland (Holm 1986: 323; Helgason et al. 2001: 732); the Icelandic sagas themselves, moreover, seem to implicitly consider the Hebrides, rather than Scandinavia proper, as the ancestral seat of most of the settlers (Smyth 1984: 161, 169). This element is not secondary, as Scandinavian colonisers had reached the Hebrides well before the occupation of either Iceland or Faroes; the area was settled so extensively

⁵ See Chapman 1962: 31; Jones 1984: 279; Clover 1988: 169-170.

that a new name had to be coined for it, namely *Inse Gall*, or 'the islands of the foreigners'. The Scandinavians rapidly enslaved or intermarried the local Celtic population and converted to Christianity, and by the 850s the ethnically mixed Norse-Gaelic *Gall-Ghàidheil* (or *Gaddgeðlar* in the *Orkneyinga Saga*) had emerged as notorious pirates and slave traders who relied on their conveniently situated base for their seasonal raids on either Ireland, mainland Scotland, or Norway itself. The defeat they suffered in 857 against the troops of the Norwegian king of Dublin Olaf the White, nonetheless, marked the end of their free-booting activity and provided the cue for their northward migration towards both Iceland and the Faroes; further impetus was probably impressed to their transfer by the flood of fugitives which reached the Hebridean shores in the year 900 in the wake of the battle of Hafrsfjord (Marstrander 1915: 5; Jones 1984: 90; Smyth 1984: 149, 157, 158; Karras 1988: 49; Jorgensen 2004: 19; Forte 2005: 90-97). All the main Icelandic sagas (*Eyrbyggja*, *Laxdæla*, *Njálls*, *Færeyinga*) and the *Book of the Settlements* itself teem with their hybrid names: the first man said to have set foot on the Faroes, Grímr Kamban, derived the second part of his name from the Goidelic *camm*, 'crooked' (Jones 1984: 270), two of the Hebridean king Ketill Flatnose's descendants were known as Helgi Bjólan (from Goidelic *beolán*, 'little mouth') and Olaf Feilan (from Goidelic *fáelán*, 'little wolf'), and despite their Nordic appearance even the seafaring Grjótgarðr and Snækólf would seem to conceal a Celtic origin through their claimed connection to the Scottish king Melkólf, or Malcolm. Some, like Auð the Deep-minded's slaves Erp and Hundi, or Hallstein Thorolfsson's salt-digging slaves, are explicitly defined as Scots, and an especially intriguing instance of ethnic ambiguity is posed by Hrapp, described as both a Scot and a Hebridean; others are hidden behind the Old Norse convention of calling Scottish Gaels 'Irish', and even Irish-sounding names like Kalman (Colman), Kylan (Cilian), Kári (Corrie) are in fact all of Hebridean extraction⁶. The social stigma attached to their origin appears to have endured for generations, as the insults Þjóstólf had to endure in *Njáll's Saga* show; indeed, many were Christians, a sure sign of Hebridean ancestry in the context of a community that was to remain pagan until the 11th century, and it does not come as a surprise that most of Iceland's Christian burials from the period have been found in the Dalir, Breiðafjörður, Kjalarnes and Akranes districts in the country's South, South-East and South-West, the regions where many people of Gaelic descent reportedly settled (Smyth

⁶ See the *Book of the Settlements*.

1984: 163; Sigurðsson 1988: 27; Sigurðsson, 2008: 564, 566). The same areas were described in the *Laxdæla Saga* as characterised by the use of the *skozkum södli*, or 'Scottish saddles' (Smyth 1984: 166), and are to this day closely associated with the practice of gathering *söl*, or dulse, an edible seaweed which in Europe is traditionally employed as bread substitute only in Iceland and, under the names *duileasg/duileasc* or *creathnach*, along the coasts of Western Scotland and Northern Ireland. The Celtic connection of dulse is borne out by the *Saga of Egill Skallagrímsson*, in which Þorgerðr manages to foil her father's attempts to starve himself to death by surreptitiously feeding the seaweed to him: while her Norse father was not acquainted with its nutritive properties, Þorgerðr had duly assimilated the customs she had learnt from her Irish mother-in-law Melkorka, or Mael Corcra (Sigurðsson, 1988: 98-99).

The final evidence of the close ethnic association between Iceland and the Western Isles is once again offered by genetics: among the lineages restricted to the North Atlantic islands only two are non-private (the one belonging to Haplogroup V with the substitution motif 16124C16298C16362C, and the one belonging to subcluster T2 with the motif 16093C16126C16153A 16294T), yet both are shared between Icelanders and Hebrideans. Another lineage, J1b1 with the substitution 16192T, is common to the same areas but also extends to Northern Ireland and the United States, where it is presumed to have been brought by British and Irish settlers (Helgason et al. 2000: 1008; Helgason et al. 2001: 732).

Ascertaining the feasibility of strong emigrational links to the Western Isles, however, does not contribute to solve Iceland's overall demographic puzzle. Only 16.7% of the 48 women whose origin is clearly stated in the *Book of the Settlements* derive their genealogical lines from the British Isles (Steffensen 1975: 446), a figure which is patently incompatible with the gender and ethnic ratios evinced from genetic research; Jenny Jochens managed to summarise the issue quite adroitly when she noted that:

according to *Landnámabók* [*Book of the Settlements*], the first generation of named settlers contained nearly six times as many men as women. Given this imbalance, it is remarkable that almost three-quarters of the men in this first cohort managed to establish families... Who were these unknown women who produced the first generation of native Icelanders? One intriguing proposition is that they were Irish slaves whose names were suppressed because their

ancestry was not worthy of comment and added little lustre to the family

Jochens 1995: 86-87

If it is considered that the settlers' initial number has been variously estimated as comprised between 8,000 and 20,000 individuals, that according to the records there were approximately 3,000 farms in Iceland by the end of the colonisation, and that the great demand for manpower prompted by this exponential growth has led to an estimated proportion of one slave to every five free men (Steffensen 1975: 446; Sigurðsson 1988: 31; Sigurðsson 2008: 563), it follows that the number of slaves postulated for Iceland may entail anything between 1,600 and 4,000 people; since Goodacre's results decree that about 60% of the female population was Celtic, and considering that most Celts were slaves, it is fair to assume that a good 60% of the figure thus obtained had to concern female slaves.

Such a large crowd of Celtic slaves is consistent with the sagas' stereotypical representation of 'thralls' (slaves) as black, short and stocky in antithesis to the blond tall heroes, and would seem to justify the ethnic differences expressed by the characters' descriptions in Icelandic literature (Brink 2008: 49, 52); this would however shed no further light on these slaves' origin. Most Celtic slaves mentioned in the *Book of the Settlements* are in fact Irish and of royal blood, with family connections to a semi-mythological Irish king Kjarval (or Cerball), and are in all likelihood often kept in captivity for the purpose of obtaining a ransom (Holm 1986: 318). The absence of any reference to other Celts in servitude may however be easily explained by the fact that in Icelandic terms female individuals were genealogically relevant only if they had a status worth mentioning (Clover 1988: 174-175); as the large majority of the slaves was obviously not of any meaningful social standing, there could have been a hidden socio-political agenda behind the compilation of the records aimed at rebutting those very external allegations of a bastardised ascendancy largely made up of slaves which the epilogue from the *Book of the Settlements'* *Dórðarbók* explicitly bemoans. Would it therefore be so far-fetched to advance the hypothesis that this nameless mass of Celtic slaves may have been brought along by those same *Gall-Ghàidheil* who emigrated from the Hebrides? Could it be, in other words, that when the *Gall-Ghàidheil* lost their excellent connections to the large slave markets in Dublin after the defeat they suffered in 857 at the hands of Olaf the White (Holm 1986: 330) they may have been forced to draw most of their Icelandic slaves from the areas closest them, either the

Hebridean islands themselves or the coastal strip of North-Western mainland Scotland? Such a hypothesis would be largely consistent with the Faroe Islands' patchier dissemination of pre-aspiration⁷, in the light of the fact that its colonisation, unlike the Icelandic one, began some thirty years before the 857 defeat, and may be presumed to have been geographically more heterogeneous in its admixture of Celtic slaves. Moreover, assuming that such a huge mass of hybrid female *Gall-Ghàidheil* and Scottish concubines in bondage did exist, would it not be linguistically conceivable that they may have exerted a noticeable influence on the speech of their offsprings? In 1946 Auguste Brun's study on the linguistic choices of a Franco-Provençal community widely demonstrated that younger generations tend to adopt their mothers' linguistic habits, rather than their fathers' (as discussed in Coates 1998); if the above questions are therefore answered in the affirmative and accepted as premise, it becomes necessary to consider, as Pierre Naert did (1969: 478), the eventuality that pre-aspiration may not have been a gift to the Western Isles' Gaels from the few Scandinavian settlers genetically attested there, but rather an autochthonous Scottish feature which the mixed Hebrideans and their Scottish slaves exported to both Iceland and the Faroes as an added Celtic quality to their spoken Old Norse.

Coeval Early Gàidhlig glosses in Old Norse scripts show that by the time the two linguistic communities came into contact in North-Western Scotland the Old Irish geminates had already been reduced, as the Old Norse transliteration *brekan* for *breccán*, 'tartan', demonstrates (Borgstrøm 1974: 96); therefore, pre-aspiration cannot in this case be considered a reflex of long stops, as it has been alleged with other languages (Helgason 2002: 100). Could pre-aspiration in Gàidhlig be in fact a relic of one of those substrate languages which Borgstrøm so readily dismissed (1974: 94)? And in consideration of the fact that despite its conservative spelling the Goidelic name *Becán* was in the period in question already pronounced with a voiced middle consonant (as its modern rendition as *Beagán* testifies), is it conceivable that its Old Norse transcription as *Bekan* may in fact be a faithful rendition of its contemporary Scottish pronunciation with a voiceless non-aspirated media, rather than the result of a phonetic limitation intrinsic to Old Norse (Borgstrøm 1974: 96)? Whatever its developmental mechanisms, the notion of a Scottish origin would also provide an excellent explanation for the full presence of pre-aspiration before the L/M/N/R +

⁷ See the relevant chapter in Helgason, 2002.

P/T/K and PP/TT/KK + J/R/V clusters exclusively in Southern Icelandic dialects, i.e. exactly in those areas where Celts from the British Isles are believed to have settled in great numbers (see above; and Helgason 2002: 46-47); in this scenario, the northern Icelandic dialects which assimilated pre-aspiration at a later stage did so only partially, and did not extend it to all environments.

The main obstacle to the theory adduced here is the presence of various degrees of normative consonantal pre-aspiration in a handful of Scandinavian dialects, such as Norway's Jæren and Gudbrandsdalen, and Sweden's Härjedalen, Gräsö, the Åland Isles and the Åboland archipelago⁸ (Helgason 2002: 60-86).



Figure 4 – The districts of modern consonantal pre-aspiration in Scandinavia

It could of course be argued, as it has been, that they are the scattered remnants of an isogloss which historically covered a much wider area; the alternative view submitted here, on the other hand, is that they may in fact have been imported from outside Scandinavia through contacts with

⁸ Swedish Arjeplog is not considered here, as it would seem that its pre-aspiration is a substrate borrowing from Saami (Helgason 2002: 79).

returning immigrants. Eiríkr the Red, for instance, was originally from Jæren (Sigurðsson 2008: 566), while according to the *Härjulfssaga* the first known personality from the otherwise semi-deserted Härjadal was Härjulf Hornbrytare, a troubled leader and the great-grandfather of the Bjarni Herjólfsson from the *Greenlanders' Saga* who later resettled in Norway from his native Iceland: could all these literary traditions of ancestral family ties possibly conceal a broader net of preferential links between certain areas of the mother country and the Atlantic colonies, through which people (and speech varieties) travelled reasonably frequently?

Another fascinating avenue which could be explored is the slave trade. In the 9th century Scandinavia's only urban and commercial centres were Birka (A.D. 750-970) and Kaupang (A.D. 800-930): both were closely located to the districts where pre-aspiration is recorded today, and both were solidly connected to the slave trade routes that linked the British Isles and Jutland's Hedeby (A.D. 808-1050), the most thriving slave mart in Northern Europe (Skre 2008: 83-86), and continued eastwards past the last Norse outpost on the Åland Isles and the Åboland archipelago (Karras 1988: 49; Graham-Campbell 1980: 88-89).



Figure 5 – The trade and commercial routes during the Viking Age

Slave trading was vital for Norway's commerce and rural economy, particularly if one considers that the 12th-century *Frostathing Law* envisaged three slaves as the proper complement for a farm of twelve cows and two horses: Sandnes has calculated that at the time of slaveholding's peak there must have been anything between fifty to seventy-five thousand slaves throughout Norway (Jones 1984: 148; Karras 1988: 78). Kaupang's mart, in particular, was ideally placed half-way between the slaves' supply from the British Isles and the prospective buyers from the Rogaland area around Stavanger, which as one of the wealthiest Norwegian regions of the time had enough self-confidence to oppose the emergent King Harald in 872, and which also included Jæren; moreover, the presence of Celtic slaves in Scandinavia is confirmed in the literary sources by Höskuld's purchase of Irish Melkorka/Mael Corcra in Norway (*Laxdæla Saga*), as well as by the Norwegian King Óláfr Tryggvason's gift of his two Scottish slaves Haki and Hekja to Leif to assist him in his celebrated voyage to Vinland (*Eiríkr the Red's Saga*). The farmsteads of the Norwegian Viking Age tended to be isolated, and typically entailed a proportion of two-three slaves for each master: given their numerical superiority, would it be so daring to suspect that the normal practice of allowing slaves into the household as a kind of extended family (Karras 1988; 76, 79) may have potentially affected their masters' speech, especially if, as it seems feasible, a varying percentage of the slaves originally spoke related Goidelic varieties and possibly shared a common Hebridean or Scottish mainland background?

It is very likely that these issues will remain open for some more time to come; an answer, nonetheless, will only be reached if all possible avenues are addressed. It is hoped that, at least in that respect, the present discussion may have been of some contribution.

All images and maps were made by unaManu Design.

References

- Als T. D., Jorgensen T. H., Børglum A. D., Petersen P. A., Mors O., Wang A. G. 2006. 'Highly discrepant proportions of female and male Scandinavian and British Isles ancestry within the isolated population of the Faroe Islands'. *European Journal of Human Genetics* 14: 497-504.
- Arge, S. V., Sveinbjarnardóttir G., Edwards K.J., Buckland P.C. 2005. 'Viking and Medieval settlement in the Faroes: people, place and environment'. *Human Ecology*, Vol. 33, No. 5: 597-620.
- Barnes, M. P. 2008. 'The Scandinavian Languages in the Viking Age'. In Brink & Price (2008): 274-280.
- Borgstrøm, C. Hj. 1974. 'On the Influence of Norse on Scottish Gaelic. Preaspiration of stops and pitch patterns'. *Norsk Tidsskrift for Sprogvidenskap* Suppl. Vol. XI: 91-103.
- Bosch, A. 2006/2007. 'Revisiting Preaspiration: Evidence from the Survey of the Gaelic Dialects of Scotland'. *Proceedings of the Harvard Celtic Colloquium*, Vol. 26/27: 269-290.
- Brink, Stefan & Neil Price (eds.) 2008. *The Viking World*. London, New York: Routledge.
- Brink, S. 2008. 'Slavery in the Viking Age'. In Brink & Price (2008): 49-56.
- Chapman Kenneth G. 1962. 'Icelandic-Norwegian linguistic relationships'. *Norsk Tidsskrift for Sprogvidenskap* Suppl. Vol. VII.
- Clement, R. D. 1983. 'Gaelic: Phonetics, Experimental and Instrumental'. In Thomson, D.S. (1983): 104-105.
- Clover, Carol J. 1988. 'The Politics of Scarcity: Notes on the Sex Ratio in Early Scandinavia'. *Scandinavian Studies, Norse Values and Society*, 60/2: 147-188.
- Coates, Jennifer (ed.). 1998. *Language and Gender: a Reader*. Oxford: Wiley Blackwell.
- Forte, Angelo & Richard Oram & Frederik Pedersen. 2005. *Viking Empires*. Cambridge: Cambridge University Press.
- Goodacre S., Helgason A., Nicholson J., Southam L., Ferguson L., Hickey E., Vega E., Stefánsson, Ward R., Sykes B. 2005. 'Genetic evidence for a family-based Scandinavian settlement of Shetland and Orkney during the Viking periods'. *Heredity* 95: 129–135.

- Graham-Campbell, J. 1980. *The Viking World*. London: Frances Lincoln/Weidenfeld & Nicolson.
- Helgason A., Sigurðardóttir S., Gulcher J. R., Ward R., Stefánsson K. 2000. 'mtDNA and the origin of the Icelanders: deciphering signals of recent population history'. *American Journal of Human Genetics* 66: 999–1016.
- Helgason A., Hickey E., Goodacre S., Bosnes V., Stefánsson K., Ward R., Sykes B. 2001. 'mtDNA and the islands of the North Atlantic: estimating the proportions of Norse and Gaelic ancestry'. *American Journal of Human Genetics* 68:723–737.
- Helgason, Pétur 2002. *Preaspiration in the Nordic Languages. Synchronic and Diachronic Aspects*. PhD dissertation, Department of Linguistics, Stockholm University, November 2002.
- Higgs, Jo-Ann. W. & Robin Thelwall (eds.) 1984. *Topics in Linguistic Phonetics. In Honour of E.T. Ulldal*. Occasional Papers in Linguistics and Language Learning 9. Ulster: The New University of Ulster.
- Holm, P. 1986. 'The slave trade of Dublin, ninth to twelfth century'. *Peritia. Journal of the Medieval Academy of Ireland* Vol. 5: 317-345.
- Jackson, Kenneth. 1951. *Common Gaelic: The Evolution of the Goidelic Languages*. London : British Academy.
- 1962. 'The Celtic languages during the Viking period'. In Ó Cuív (1962): 3-11.
- Jakobsen, Jakob 1985. *An Etymological Dictionary of the Norn Language in Shetland*. Lerwick: Shetland Folk Society.
- Jochens, Jenny. 1995. *Women in Old Norse Society*. Ithaca: Cornell University Press.
- Jones, Gwyn. 1984. *A History of the Vikings*. Oxford, N. York: Oxford University Press.
- Jorgensen T. H., Buttenschön H.N., Wang A. G., Als T. D., Børglum A.D., Ewald H. 2004. 'The origin of the isolated population of the Faroe Islands investigated using Y chromosomal markers'. *Human Genetics* 115: 19–28.
- Karras, Ruth M. 1988. *Slavery and Society in Medieval Scandinavia*. New Haven [Conn.]: Yale University Press.
- MacAulay, Donald (ed.) 1992. *The Celtic Languages*. Cambridge, New York: Cambridge University Press.
- Marstrander, Carl J. S. 1915. *Bidrag til det Norske Sprogs Historie i Irland*. Kristiania: Jacob Dybwad.

- 1932. 'Okklusiver og substrater'. *Norsk Tidsskrift for Sprogvidenskap* 5: 258-314.
- Naert, P. 1969. 'La différenciation des consonnes en corrélation quantitative en islandais et en féroyen'. *Orbis* 18: 426-438.
- Ní Chasaide, Ailbhe & Cathair Ó Dochartaigh. 1984. 'Some Durational Aspects of Preaspiration'. In Higgs and Thelwall (1984): 141-157.
- Ó Cuív, Brian (ed.) 1962. *Proceedings of the International Congress of Celtic Studies*. Dublin: DIAS.
- Oftedal, M. 1962. 'On the frequency of Norse loanwords in Scottish Gaelic'. *SGS* 9: 111-127.
- Ó Murchú, M. 1985. 'Devoicing and pre-aspiration in varieties of Scots-Gaelic'. *Ériu* 36: 195-198.
- Page, R. B. 1997. 'On the origin of preaspiration in Scandinavian'. *American Journal of Germanic Linguistics and Literatures* 9(2): 167-190.
- Posti, L. 1954. 'On the origin of the voiceless vowel in Lapp'. *Svenska landsmål och svenskt folkliv* 76-77: 199-209.
- Sigurðsson, Gísli. 1988. *Gaelic Influence in Iceland. Historical and Literary Contacts. A Survey of Research*. Reykjavík: Bokautgafa Menningarsjóths.
- 2008. 'The North-Atlantic Expansion'. In Brink & Price (2008): 562-570.
- Skre, D. 2008. 'The Development of Urbanism in Scandinavia'. In Brink & Price (2008): 83-93.
- Smyth, Alfred P. 1984. *Warlords and Holy Men. Scotland AD 80-1000*. London: Edward Arnold.
- Steffensen, Jón. 1975. *Menning og meinsemdir: Ritgerðarsafn um mótunarsögu íslenskrar þjóðar og baráttu hennar við hungur og sóttir*. Reykjavík: Ísafoldarprentsmiðja.
- Thomson, Derick S. (ed.) 1983. *The Companion to Gaelic Scotland*. Oxford: Blackwell.
- Thráinsson, H. 1978. 'On the phonology of Icelandic preaspiration'. *Nordic Journal of Linguistics* 1: 3-54.