Paper I Review of certain Connections between Gaeldom and Hindustan Liam SS Réamonn 8/Nodlaig/2005

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[I] Early Migrations from South Asia to Europe

Today, Ireland and Scotland are perforce the most westerly and Hindustan the most easterly homelands of the original Indo-European culture. After thousands of years of separation, not much should be left to bind Gael and Hindu together. However, although this is not widely known, linguistic and cultural ties are quite strong. This requires an explanation. Genetic research on world populations provides compelling evidence on when and from where migrations of early modern man occurred. Mitochondrial DNA (mtDNA) is transmitted through the female line. A mutation in the code occurs about once in every 1,000 generations. Combinations of mutations in females, living around the world, allow the construction of a 'family tree', which tracks human migrations. Analysis of the non-recombinant part of the male Y chromosome yields information on the routes of movements but not on the dates of these.

Much work, using scientific method, has yet to be carried out to improve upon and merge genetic evidence and evidence from linguistic, archaeological and climatic records. In this process, Papers I-IV bring together certain connections between Irish, Hindu and Germanic peoples.



Boann, The Cow Goddess, 1976 © With the kind permission of Jim Fitzpatrick

Genetic analyses indicate that, after several attempts, modern mankind made a successful exodus out of Africa into Asia, some 80,000 years ago. The people remained around southern Arabia for 30,000 years. One group of them then went to South Asia and succeeded in becoming the ancestors of today's inhabitants of the rest of the world.

Migration east and west from South Asia occurred when climatic conditions in the Fertile Crescent improved. Archaeologists classify the advent of early modern human cultures in Europe in two principal waves. The first was the Aurignacian Wave. It began 46,000 years ago. The second, Gravettian Wave, came after a cold, dry period from 40-34,000 years ago. It lasted from 33-21,000 years ago. Genetic markers leading up to the last ice age, some 20-18,000 years ago, parallel the cultural waves.

The Aurignacian Wave (Upper Palaeolithic)

mtDNA studies imply that the Aurignacian Wave originated in western South Asia 55,000 years ago. The migrants developed their characteristic technology in the area of the Zagros Mountains in Iraq and proceeded west from Kurdistan . *Passing through the Levant , to Anatolia , these colonising people travelled to Bulgaria and on into Central Europe*. They also moved southwards to Italy and then over to the Pyrenees. The genetic marker in Europe is also found in the Near East, the Gulf and Central Asia. Near Eastern daughter lines today include the Turks and Kurds, as well as Armenians, Azeris and other Caucasian groups. All of these people remained in the Fertile Crescent. The oldest great-granddaughter line (dated 40,000 years) is commonest in the Basque country, a refuge in the last ice age.

The Gravettian Wave (Upper Middle Palaeolithic)

The people of this wave gradually developed a high degree of skill in mining, toolmaking, cave art and burials. Two sister mitochondrial lines evidence the migration. The older, dating from over 33,000 years ago, characterises Germans, Slavs and Finns. The younger appeared later, in southwest Europe. A link with a male Y chromosomal clan, ubiquitous in (ie arising early in) but exclusive to Europe, emerges.

Both the parental mitochondrial line and the male clan (this latter being strong in the Ukraine and the Balkans) have no clear origin in the Levant. A route through the Caucasus to the Ukraine is possible for some of the many cohorts of this wave. The discovery of an early daughter of the founder female line in the northern Balkans, southern Spain and Morocco, suggests an early progression westward from the Ukraine .

Looking back in time, the earliest roots of the two sister mitochondrial lines are found in northwest India and Kashmir, dating from 40,000 years ago. The diversity (age) of another European male line in India and its low rates in the Caucasus supports the idea of migration (over 13,000 years) to Central Asia and from thence to Russia and Europe. *The Gravettian Wave may have come to the Ukraine both via the Caucasus and from Central Asia*. From this last, other migrants apparently also went to East Asia.

New genetic Tools

The International Haplotype Map completes an index of the full human genetic code (Nature, October, 2005).

The Human Genome Project sequenced the 99.9% of DNA which is shared by everybody. The new map has begun to plot the final 0.1% - the critical characteristics, which make people different. Some of this DNA is passed on, in blocks, known as haplotypes. There are slight differences across ethnic groups. In due course, analysis may further clarify the origins of peoples.

[II] Ice Age Refuges: Europe and South Asia

In the Ice Age, ice caps grew up to three miles thick in Central and Northern Europe. North Eurasia became a polar desert, from England to the Baltics and beyond. Sea levels fell by around 400 feet. *In post-glacial times, around 16,500 years ago, surviving populations again expanded from shelter in the Ukraine, Italy and the Pyrenees.*

A new migration analysis, following the scientific process, suggests a collapse in Palaeolithic populations during the short Younger Dryas cold event 10,000 year ago. Europe suffered in particular, becoming a dry forest steppe. Mesolithic hunter-gatherers, exiting from their retreats in the following benign Holocene period, could have spread Indo-European languages (the 'Sparse-Wave' theory), before population growth in Neolithic times. This plausible theory, however, still lacks enough evidence.

Importantly, some 80% of modern European genetic lines derive from pre-glacial ancestor lines. New immigration from the Near East, beginning 8,000 years ago in Neolithic times, accounts only for about 15% of today's lines. There were, without doubt, climatic strictures on human cultural progress since the last Ice Age. The next major evidence of improving living conditions dates from about 5,500 years ago.

In the 1950s, Marija Gimbutas proposed that Proto-Indo-European was spoken in the chalcolithic steppe cultures of the 5th millennium BC, north of the Caspian Sea, between the Black Sea and the Volga: the Ukraine refuge. Inhabitants had learned well to overcome the rigours of the harsh climate and even to flourish. *These peoples comprised Indo-Europeans and other groupings*.

Some Indo-Europeans went southwards from the Ukraine via the Caucasus and moved west. *They formed the Hittite Empire in Anatolia and the Minoan-Mycenaean civilisation, from which Greek culture developed.* These developments ushered in the use of bronze in Europe. By the end of the 2nd millennium BC, however, the influence of these two peoples was declining.

The genetic distance between Irish, French and German people is small. That between the Hungarians, Yugoslavs and Greeks is greater. Successful farming in Anatolia did not result in large migrations westward and effect genetic homogeneity. In any event, Anatolia is not prime farming land and farmers prefer to homestead. Indo-Hittite is now regarded as an Indo-European branch, with special words for monkey, elephant and lion. Later archaeological record shows that Indo-Europeans came westwards from the Black Sea. To the south, their languages developed into Dacian and Thracian. In the northeast were Slavic and Baltic languages. Germanic languages were spoken around the North Sea area. In the southern reaches of the westward migration, were Italic and Illyrian languages. Having regard to close, persisting linguistic connections to other Indo-Europeans languages, Celtic cohorts were likely to have been migrating, to the south of the Germanic tribes. Indo-European culture prospered everywhere, as migrants mixed with indigenous folk from minor refuges.

Italy mainly housed the original inhabitants of the peninsula. Archaeological record north of the Alps, from the 2nd millennium BC, shows evidence of an indigenous 'Tumulus People'. Their culture joined with the northern Urnfield culture, in the Danube basin, in the following millennium. Subsequently, the region held a Celtic population.

Those in the Basque country refuge had retreated from northern and western Europe. They had brought their special technology with them. It defines their Solutrean Culture. The people here preserved more of their original genetic definition than those in any other refuge. They now migrated northwards along and in from coastal areas. They reached Ireland and went further by sea to Iceland.

Post-glacial re-emergence in Europe ushered in a new feature in human life: contention. Language and culture began to define the predominance of emerging races. By 1400 BC, the noble mindset and cultured underlay of the migrating tribes had given way to colonisation and hegemony.

Peoples in South and Southeast Asia were not so badly affected by the deprivations of the Ice Age. They were cut off by the growing Himalayan ice cap. However, they remained ready to take advantage of improving climates.

[III] The Proto-Indo-European Language (or PIE)

The Kurgan culture appeared on the steppe during the early PIE period (4500-3500 BC). Before migrating, the people were using hill-forts, two-wheeled chariots, stone idols and had practised herding. From 3500 to 2500, the Corded Ware culture spread from the Pontic Steppe to Russia . Indo-European cultures emerged and remained in loose contact, exchanging technologies and associated vocabulary.

From 2500 to 2000, the main languages were forming from the original PIE linguistic core. Proto-Indo-Iranian was spoken north of the Caspian Sea, in the Sintashta-Petrovka culture. Many researchers think that from 2000 to 1000, Indo-Aryans and Iranians spread rapidly to Eastern Anatolia, Iran and North India. In Central and Western Europe, the Proto-Celtic Urnfield and Hallstatt cultures brought the Celts to the fore.

Once the great ebb and flow of migrations had run their course and the land was settled, the demise of a culture, in these early times at least, meant that people just changed their language to that of the current political rulers. Both anthropology and the genetic record speak of biological continuity from then on.

In 1647, Marcus von Boxhorn first proposed the possibility of a common origin for Indo-European languages, using the term 'Scythian' rather than 'PIE'. His work was not given due recognition. Sir William Jones is usually accredited with noting Indo-European links in 1786. The '*Comparative Grammar*' of Franz Bopp (1833) put Indo-European studies on an academic footing. Archaeology affords items, from four millennia ago, for which there are words in PIE.

Inscriptions in daughter languages of the Anatolian proto-language, like Hittite, date from 1900 BC. With such records and using the principles of linguistic change, PIE vocabulary was reconstructed. It describes mountains, lakes and rivers, such as found in eastern Anatolia/Trans-Caucasia - a major staging-post for migrations from the Ukraine. The thousand-word lexicon also describes family members, bodily parts, trees, winds, domestic animals, wagons, axles, wheels and reins. Words for houses, taming animals, pottery and wagons (both of the agricultural and military kind), imply the culture must not have sundered before Neolithic times.

The word for 'mother' in Old Irish was 'máthir, in Ancient Greek it was 'meter', in Latin, 'mater', in Sanskrit (3,000 years ago), 'matar'. Correspondences are so good that the original Indo-European can be reconstructed as 'mater'. The Greek 'nephos' (cloud), Latin 'nebula' Sanskrit 'nablas' are of the same root. [Aspirants such as *bhl* are retained even in the interior of words. The Old Irish, 'nél' (cloud) cannot share this root but may go back to the Greek 'miglos' (mist).] The Sanskrit *raj*, Latin *rex* and Celtic *rix* all mean king: they derive from an earlier Proto-Indo-European word of the same meaning.

Not only similarity in vocabulary persists but also, in Indo-European tongues of direct descent, in grammar too. The level of grammatical distinction in a language reflects on the level of culture and the nuances of meaning employed in everyday speech.

Pure IE languages can decline nouns, in up to eight cases. The article and adjective may be inflected, to agree with the noun. There is a single, plural and dual number. There are masculine, feminine and neuter genders. Verbs may be conjugated in given tenses - in active, passive or middle voices.

[IV] Linguistic Half-lives around the Baltic Sea

In the 1st millennium BC, Celtic was spoken from North and Central Europe to Iberia. To the north and northeast were the Germanic, Baltic and Slavonic languages. In Italy there was the Italic branch (importantly Latin) and further east were Thracian, Illyrian, Albanian and Greek. Armenian was then spoken in southwest Asia. Indic people were in south-central Asia. The Iranian branch lived on the Russian steppe. Indo-Iranian splintered into Sanskrit, which gave Hindustani and Bengali, and Zend, which gave Iranian.



Wotan on Sleipner by Arthur Rackham an illustration for Wagner's *Die Walküre*

Given their impacts on Greeks, Romans and others, the prior establishment of Celts in northcentral Europe may be inferred. Later, the Germans moved from lands north of the Black Sea into the Roman Empire. Languages in Italy and the Balkans bear similarities to Celtic, indicating the same general origin. The Slavs migrated from the southern part of the Baltic Sea.

The whole region of the Balts is significant as a starting point for dispersal.

The linguistic forerunners of Celtic, Romance, Germanic, Slav, Baltic and Indic were probably once all mutually intelligible. The survival of certain words from reconstructed PIE in later, dated languages indicates the half-life datum for differentiation. Two IE languages drift apart at around twice the rate at which each separates from the original.

Applying scientific method, the date can be estimated when Indo-European groups began to leave the homeland, as well as the rates at which emerging languages changed from PIE. Using the 'glottochronology' principle, the date of dispersal and the rates of linguistic change have been estimated. The dispersal date is 4700 BC +/- 400 years. *The half-life of change from PIE is 2240* +/- *140 years*.

The language groups considered in the study had to be free from cultural dilution. Modern Germanic, Slavonic, Baltic and Celtic groups were chosen as well as Latin (for which allowances were made, as the classical form was used). A list of 124 words common both in modern and olden times was drawn up, with confidence they would have been represented in PIE. Factors such as language group size, inter-group diffusion and mobility fell to be addressed. Results were smoothly graded. The continued existence of listed words, in pairs of languages, gave the percentage of survivors. The lower the percentage indicated, the greater the length of time of separation. Dates of separation were calculated, with the following implications:

- *⊾ c*5000 BC: all emerging Indo-European languages were mutually intelligible;
- ▲ c1900 BC: Latin had left the group; Proto-Celtic was intelligible only to Germanic.

Perhaps somewhere around 1500 BC, Celts and Germans parted company, as the Celts travelled in the vanguard south- and westwards. Differentiation coincides broadly with migrations but there were always local dialects. In Germany, the frontier between Celts and Germans, tribes could be Celts or Germans, Celticised Germans or Germanised Celts. It is not known with what ease cultural diffusion between the two groups could still occur during the Bronze Age (c1500-500 BC).

Different dynamics would be needed for bringing Hindu into this analysis. Importantly, cultural connections between the Irish and the Hindus have yet more rigorously to be established. Mutual comprehension, to a degree, may have been possible at least until around the time when Irish and German were still mutually comprehensible.

The Indo-European Urheimat may be argued to have been in the North Caucasus, around South Asia or in Southern Arabia, depending how far back it is appropriate to go. Much is made of the quantum leap by cultures from hunter-gathering to herding or farming. Enclosed farming was conducted in Ireland, in Achadh Chéide, around 5,000 years ago. It may be taken that mankind adopted or set aside lifestyles to suit the climate and the environment. Where it sprung up, farming (rather than a substantive step forward in itself) was more likely to be a reaction to favourable circumstances. Over a period, it could lead to further social progress.

[V] A variable Trait for combating UV Radiation

People who resided in the Ukraine ice-age refuge would have developed pale skin. In Irish mythology, powerful warriors and beautiful women are often described as having fair hair and blue eyes.

Of the early dozen Roman emperors, on whom there is information regarding colouring, five had fair hair, two dark. Nine had blue/grey eyes. Homer's epic warrior heroes, in pre-classical Greece, were usually fair-haired - though by 200 AD most Greeks were black-haired. Greek and Roman writers, before and after Christ, wrote that Iranian and related Indic tribes, who lived on the steppe, had fair/red hair and blue eyes.

Indo-Europeans, from India and Iran to Ireland, referred to themselves as Aryan – meaning 'noble'. In Ireland, this is evidenced in the name Éire, the Princess Overlighting the Land. Erin (Irish, gen: Éireann) is effectively the same name as Iran and may be related to Iraq. Also, 'aire' means 'nobleman' and Ír held the kingship of Ireland for five years. To have a sense of nobility and honour are, to this day, core values in Gaelic and Hindu tradition.

Some 2,000 years ago, the Indian Rig-Veda type-casts Aryans, in battle with the DAsas, as having white colour and the great warrior-god Indra as having fair hair. In the 2 nd century BC, the famed grammarian Patañjali, says, in the Mahabhasya, that a brahman (not an aboriginal caste) has fair skin and kapila-kesa (ruddy) hair.

Climate and Colour

Skin colour is not a permanent characteristic. Four-to-six genes determine the amount of the pigment melanin in the skin. Pheomelanin acts on the red-yellow scale. Eumelanin acts on the brown-black scale. In lower latitudes, dark skin prevents low folate (ie low fertility). In cloudy regions, production of vitamin D 3 (for maintaining bone structure) requires lighter skin. Migrants anywhere carry a sufficient gene pool so that, in around 30 generations, their descendents have normally evolved a colour suitable for the prevailing UV radiation levels.

[VI] An Ghaeltacht (Gaeldom): formed by cultural Diffusion

IE settlers migrated swiftly and became minorities where they settled. The arrival of groups, in different places, meant that the racial composition of their new homeland was not disturbed. *Their superior, knowledge-based culture won the adherence of local peoples.* This facilitated acculturation. Celtic migrations may have had a ritual dimension, conducted in such numbers as to provide a suitable retinue for their leaders.

The Celtic civilisation was perhaps the first to flower in Europe. Celts invented harvesting implements, pincers and keys. They devised the war chariot. They forged iron rims for wheels and shod their horses. They produced coats of mail. They introduced Romans and Greeks to soap. They excelled in eloquence, poetry and music and were knowledgeable in religion and law. Celtic society was egalitarian, with rights for all classes and a degree of social mobility.

Irish became the language of the Gaeltacht (Ireland, Scotland and the Isle of Man). There are absorptions from earlier languages. A verbal noun is used instead of a present participle. An impersonal passive construction expresses agency, not a verbal subject in the nominative case. The verb too is positioned at the start of a sentence. *Eskimo and relatedBerber {properly termed Amazigh (of pure Aurignacian origin)} tongues are comparable in these ways.* Pre-Celtic peoples are described in the mythology. They include the Fir Bolg (the Men of the God of Lightning) and the Tuatha Dé Danann (the Tribes of the Goddess Danu).

The Irish word for 'African' is 'fear gorm' or 'blue man'. The 'Blue People' are a subgroup of the Amazigh and are so coloured because of a blue dye used in fabrics. The word applies inaccurately to all Africans. The word 'fear dubh' or 'black man', in any event, would normally mean a black-haired man. In the northern Six Counties of Ireland, there is a village, near the town of Ballymena, called Galgorm (meaning blue foreigner). It is possible that the name derives from early travelers from North Africa.

An Spinc is the name of a rock outcrop in Cill a' Ghallagáin, in Mayo. It has a remarkable resemblance to the Egyptian Sphinx. The name is found elsewhere – applied to a similar mountain formation in County Wicklow and to a townland in Country Offaly.

[VII] Hindustan : Issues of Evidence on the IE Homeland

It is often assumed that Indian culture, with others of the Indo-European family, began in the Ukraine. However, there is a lack of archaeological evidence to support any Iranian (Aryan) and Indic (Indo-Aryan) influx into Iran, Afghanistan and India, in the 2nd millennium, such that both the linguistic and religious character of these countries could have been so fundamentally altered. Specifically there are -

- * no archaeological links between India and any other Indo-European country;
- A no archaeological trails leading towards India; and
- no internal indications of change in human conditions in northwest India, during the 2nd millennium, consistent with an Aryan influx.

There is the argument that the original Indic stock had settled in Central Asia and completely Aryanised the Turkmen and Bactrian natives there. These latter then moved into the Punjab, Aryanising the population there. However, a 'pass-the-baton' sequence is hardly credible.

The Rig-Veda is not the end-product of a long process of migration. The script is of a developed society, which must have been settled and have flourished, for a considerable period of time. The Bhagavad-Gītā (Song of the Blessed One, from 200 BC), is too the product of the highest level of philosophy and scholarship. The conceptual analysis and its extent are unique. The antiquity of the text makes it altogether extraordinary.

The Rig-Veda defines five tribes. The PUrus (on the Sarasvati river, near Delhi) were the most important. The Anus inhabited the Punjab and the Druhyus Afghanistan. The two other tribes lived in the south. It may be held that the Anus and the Druhyus were the first to bring Indo-European culture outside India . Both the Rig-Veda and Indian tradition retain memories of emigration.

The Druhyus, it is said, in conflict with the other tribes fled to the north of Afghanistan, taking Ayran culture beyond Indian borders. The Rig-Veda records the names of ten tribes of Anus and Druhyus, found in later historical times in Iran, Afghanistan and Central Asia. Two other tribes migrated to the Caucasus: the Simyus (or Sirmios - ancient Albanians) and the Alans (or Hellenes – often regarded as being ancient Greeks).

The two migrations indicate a plausible expansion of the original Indo-European culture, from an Indian Urheimat. But there is other evidence of cultural export.

Trade over long distances was a feature of ancient times. The Scythians traded with Europe and with India . This would have allowed for eastern cultural influence through migration and cultural diffusion.

Both the Gael and Hindu share a religious heritage. Celtic gods have been depicted in a pose similar to that of Hindu gods. Certain names of Indian tribes and of their priestly classes have survived in far-flung corners. In this connection, the Irish for soul is 'anam', the Vedic 'atman'. The Irish word for 'breath' is 'anáil', the Vedic is 'prana'. The Irish for 'idle talk' is pabaireacht', the present-day Hindu for 'sin' is 'pāb'.

Gaelic Monks used colour dyes, based on plants and minerals. One of the earliest surviving Irish manuscripts is a book of psalms in Latin, from the 6th century (the Cathach). The blue stone, <u>lapis lazuli</u>, was an important export from Afghanistan. In addition to other features, books in Old Irish are a valuable source of ancient pre-Christian, Celtic art. The historian Ludwig Bieler viewed the Irish writing as 'a deliberate creation of several scripts inherited from antiquity'. Roman, Greek and Arabic influences are clear. Indian manuscripts from the 7th century provide unique insights into the lives of people in Greater India.

When the Celts were ravaging Asia Minor, King Antiochus I (successor of Greek Alexander the Great) challenged them. He had sixteen elephants from India and deployed these living tanks in 269 BC, in the Battle of the Elephants.

Finally, place- and river names normally come from older languages. However, in northern India , such names mostly derive from Sanskrit and its daughter languages.

[VIII] Gaelic-Hindu Links: no general Pattern

As noted, many Indo-Europeans migrated rapidly, in small groups, possibly driven by augury and ritual. It is possible that dilution of the IE stock happened in Ireland mainly after arrival but took place during migration to India.

On the steppe, in the 3 rd millennium BC, Indic migrants may have joined tribes well inured to the environment. These went south into Iran and India, meeting with Elamite and Dravidian cultures respectively. IE ways took root and flourished. *References in the Rig-Veda to fair-skinned folk must needs be reconciled with the absence of Aryan burial sites*. Indeed, individuals of fair complexion live today in South Asia. And as for Celtic physique in Ireland, a black-haired, smaller stature is quite common.

Migrants entering India from the steppe could have already adopted the language and religion of the Indo-Europeans. *In turn, these could have adopted portable technologies already proven by their fellow-travellers*. For example, the construction of burial sites might not seem useful to a nomadic people. The archaeological remains in and around northern India may need analysis in a wider context, to explain apparent gaps.

In relation to the emigration texts of the Rig-Veda it is to be noted that, in defining the movements of people, researchers focus on what are the more significant events. When Indo-Europeans moved after the Ice Age, for example, many others had moved before them, though not numerous enough to leave their mark on the terrain.

The records of the Rig-Veda must, nonetheless, be accepted and taken on board. They can improve substantively imperfect insights and deductions. Another view on the Alans, for example, says they went as far as Gaul (406 AD), where one group settled in the Loire basin, and another proceeded to Spain, where they met the Visigoths.

As regards the heritage of place- and river names and the absence of linguistic adoptions by the Indo-Europeans entering the Punjab, there is the precedent of the Jutes. They invaded England at the same time as the related Angles and Saxons. After some time, it was practically as if this tribe had never existed. Otherwise, considerable Celtic involvement in Asia Minor left meagre archaeological and linguistic traces. It can be difficult to determine the origin of a name. The rivers Don, Dneiper, Dneister, Donets, Danube and Douro are usually taken as being cognate with the Indo-European goddess Danu (meaning 'inimical people' or 'anti-god' in Sanskrit). Both Danu and the 'dn' prefix may also be cognate with the Gaelic word 'domhain', meaning 'deep, dark', a term applicable to a major waterway.

Interactions between emigrants from India and other people, in Southwest Asia or wandering the steppe, should be further researched. As for the exceptional cultural connections between India and Ireland, there are the makings of an explanation in the information reviewed.

The main practitioners of Indo-European culture were pioneering Celts and Hindus. Their priestly castes developed prodigious intellectual and memory capacity, so the culture – clearly everywhere fashionable with young and old – could be kept intact during migration. Indo-European ideas comprised a code for society, with which people everywhere identified, and a rational explanation of the universe. From 1600 to 1800 AD, Gaelic culture and its adapted Indo-European ways were methodically eradicated (though refuges persist). Only the Brahmans now protect the great tradition.

Indo-European culture was imprinted on Gaelic and Hindu culture. It will be worthwhile to look further at these matters in Paper II.

Useful Reading

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