

## Paper V

# Proto-Indo-European (PIE); how certain unhybridised Daughter Languages arose; what new Links mean, between Proto-Celts, related tribes, Finns and the Han Chinese

### (A) The Baltics and neighbouring Regions in the Geologic Period

**Introduction:** Planet Earth has come through many climatic cycles. It is useful to review how these affected the area which became home to the first Indo-Europeans. They were not the first to arrive. Early hominids came before them. The effects on Man of recurring Climate Change should not be ignored.

- i) Climatic Cycles
- ii) Traces of Man's earliest Ancestors

### **(B) Colonisation in the Vicinity of the Baltics: early Indo-Europeans**

**Introduction:** Early Man was continually on the move. He succumbed where the Climate became adverse. He lived on where he could find sustenance. When he could establish in a territory and hold his ground, he developed a way of life. It was thus that Indo-Europeans gradually formed.

- i) Following the Younger Dryas Cold Event
- ii) Archaeology from the 6<sup>th</sup> to the 2<sup>nd</sup> Millennium BC
- iii) Movement around the Baltics from the 2nd Millennium
- iv) Who were the Indo-European Ancestors?
- v) The 'Centum/Satem' Rule

### **(C) Indo-European Migrations from the Urheimat**

**Introduction:** The ancestors of the Indo-Europeans learned to live through times of extreme cold and deprivation. They lived south of the Finns. This study shows an

**impact of Ancient Celtic on Finnish, c3500 BC. IE vocabulary adopted by the Finns provides a new insight into society at that time.**

**Proto-Celts migrated west into central Europe, to the south of the Proto-Germans. This study suggests that some Celts may have gone east, ahead of the Indo-Aryans - and left an impact on the Chinese language.**

**Irish vocabulary shared today, with Finnish, German, Hindi and Persian (whether coming from original PIE or from exchanges during the long periods of migration) may have relevance in better understanding how linguistic differentiation occurred.**

**The pioneering Proto-Celts spread all over Europe. They may equally have been dispersed in the Urheimat. Their pattern of settlement - without political unity - and other matters raised in this paper, might further be studied.**

**i) Celtic (Irish) cognates in Finnish, which are also related to words in German, Hindi and Persian**

**ii) The great Migrations west: early Celts and Germans**

**iii) The great Migrations east: Indo-Aryans and Tocharians**

## **(D) Linking PIE Descendents**

**Introduction: Having shown some evidence for linguistic differentiation in the Indo-European homeland, this subject is further examined to show that the culture was adopted throughout a large part of the world, almost as a matter of course, and to indicate what diversification occurred. Perhaps the attractiveness of a culture which had a complete package of positive attributes can be inferred from the standing, from Ireland to Mongolia, of a unique goddess.**

**i) Differentiation into Dialects**

**ii) Close PIE Dialects and their Descendents**

**iii) The greatest Goddess ever known**

**iv) Conclusion**

## **Addendum**

## (A) The Baltics and neighbouring Regions in the Geologic Period

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### i) Climatic Cycles

About 1.8 million years ago, the geologic Quaternary Period began with an ice age.<sup>1</sup> Perhaps 60 episodes of glacial advance and retreat occurred since this time. Major variations in polar ice result from changes in the Earth's orbit, called Milankovitch cycles. Other climate 'forcing mechanisms' are variations in solar radiation and greenhouse gas concentrations (natural and man-made), continental drift and mountain-building.

The last major glacial advance occurred c18,000 years ago (ya). The world is currently in the Holocene Epoch, which began 11,500 ya. An epoch has its own unique plants and animals.

There is a need for better data to bring the differing chronologies for climatic events more into line. Nomenclatures for these too can vary. Even throughout one region, dating is difficult, which complicates a co-coordinated approach. C<sup>13</sup> analysis, examination of ice cores (oxygen isotope ratios), deep ocean cores, pollen cores, terrestrial sediments, fossils of indicator species and archaeology are all dating techniques.

About 24 times, between 115,000 and 14,000 ya, sudden, warm events (interstadials) arose around Northern Europe (based on Greenland ice-core data). These oscillations, lasting from 200 to 2000 years, occurred sometimes within decades.

Changes to frequent, sudden, cold phases have equally been recorded in Europe. During the last 50,000 years these 'Heinrich events', lasting from several hundred to several thousand years, occurred c41,000, 35,000, 23,000, 21,000 and from 17,000 to 15,000 ya. The Last Glacial Maximum, when global ice was extensive, came about 21,000 ya. The Late Glacial Cold Stage occurred in the period 21,000-17,000 ya. Water everywhere turned to ice. In consequence, where this did not cover the land, it became arid.

In broad terms, three distinct stages of deglaciation in the Baltics have been dated, as follows: the Daniglacial (20,000-13,000 ya), Gotiglacial (13,000-10,000) and Finiglacial (10,000-8,000).

Deglaciation generally took hold c14,500-13,500 ya as the climate warmed and became moist. The cold, dry Younger Dryas Cold Event, often regarded as a Heinrich Event, followed within a century, c12,900-11,500 ya. After this, the climate reversed to warm again, within perhaps four decades. The Younger Dryas stadial may have followed the melting of the North American ice sheets and exemplifies rapid climate oscillation.

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<sup>1</sup> 'Quaternary' refers to the fourth and current period of the Cenozoic era, which began 65.5 m.y.a..

After the Younger Dryas, forests quickly grew back. It took around 2,000 years, however, for the ice substantively to retreat. Several thousand years of warm, moist climate followed. For the last 10,000 years, the Earth has been in an interglacial warm period (interglacials are often longer than interstadials). This, the Holocene Epoch, is witnessing the disappearance of ice sheets from the last glacial period.

The 'Holocene Climatic Optimum' or Holocene 'Wet Phase' lasted from about 9,000 to 5,000 ya. A severely cold and dry century came around 8,200 ya. Generally however, large natural wetlands developed in the Baltic Sea region, in Finland, Estonia, Latvia, Lithuania, Poland, Germany, Denmark, Russia and Sweden. To the north, trees encroached nearer to the pole than they now do. To the south, new vegetation became established in the Saharan and Arabian deserts.

Cold phases, associated with the Holocene Epoch and lasting some centuries, are dated c11,100, 10,300, 9,400, 8,100, 5,900, 4,200, 2,800 and 1,400 ya. These would be taken to include global events c8,600 and 2,600 ya.

Every 1,500 years, on average, a warm-cold Holocene cycle in the North Atlantic region and nearby oceanic areas of Europe occurs. This causes a  $c2^0$  oscillation in climate (much smaller than a glacial-interglacial difference). Today's overall cooler conditions set in about 5,000 ya. If Man now causes too many biological survival thresholds to be exceeded, there will be not be enough time for mitigation and recovery, within the human timeframe. The long-term impacts of climate disruption need, insofar as possible, better to be managed.

### **ii) Traces of Man's earliest Ancestors**

The genus Homo developed about 3 million ya in Africa. Homo Erectus, an extinct, African hominid, came to Europe - possibly before the Ice Age, c1.8 million ya. He was the first species to stand upright and may have used simple ovens. c250,000 ya, he disappeared from fossil records. He was succeeded in the Middle Palaeolithic period by a subspecies, called Homo Sapiens Neanderthalensis. The Neanderthals were successful in Europe.

They survived from 230,000 to 35,000 ya. They evolved physically, to withstand the cold of the glacial phases of the Late Pleistocene Epoch (also called Upper Pleistocene), which preceded the present Holocene Epoch. Their ritualistic treatment of animals has been noted. The name 'Neanderthal' derives from the Neander Valley (Düsseldorf), where the humanoid was discovered in 1856. c28,000-35,000 ya, Neanderthals exit from fossil records.

Modern Man's ancestors migrated out from the territory of the Kikuyu (Kenya), 150,000 ya. Of original Homo Erectus stock, he became the only human species to survive outside of Africa. From 35,000 to 10,000 ya, Neanderthals lived beside Early Modern Humans, loosely called 'Cro-Magnon man'. [In 1868, workmen at L'abri de Cro-Magnon (in the village of Les Eyzies, *Département de la Dordogne*) discovered buried human remains, 30,000 years old, together with stone tools, carved reindeer antlers and ivory.]

Early Modern Humans are associated with the Aurignacian (42,000-28,000 ya), Gravettian (28,000-22,000 ya), Solutrean (22,000-18,000 ya) and Magdalenian (18,000-10,000 ya) cultures (all French sites). Each has tools, weapons and art: musical instruments have been found. A spear-throwing device and the bow and arrow had come into use by around 12,000 ya. The Lascaux cave paintings are ascribed to Early Modern Humans. Their life expectancy was generally less than 30 years.

Consistent with the hypothesis that humankind expanded from Africa, analysis of human DNA indicates interbreeding between people from Asia, Europe and Africa over the last 600,000 years. In 2003, the partial skeleton of a Homo Sapiens, c30,000 years old, was found in a Romanian cave (Peștera cu Oase). Interbreeding between Early Modern Man and Neandertals is thought to have resulted in both modern and archaic human skull characteristics. During some 20,000 years of living in proximity to each other, such interbreeding most likely occurred, albeit infrequently, so that the partially hybridized Early Modern Human evolved to become Modern Man.

The European 'Cro-Magnon' Upper Palaeolithic Era (the most advanced technical stage of the Old Stone Age) ended with Pleistocene Epoch, 11,000 ya. The Mesolithic Era then developed in different places at different times. Climate Change, during the Younger Dryas, replaced wooded countryside with steppes and impacted severely upon surviving humanoids.

In the Geologic Period, before humans came to the Baltics, an ice sheet covered the entire area. The Baltic territory and Russia were freed from ice during the second stage of its retreat (the Gotiglacial). The region reverted to cold steppe and tundra. ['Tundra' comes from the Finnish word 'tunturi', meaning treeless plain.] For those who came foraging, survival was precarious.

## **(B) Colonisation in the Vicinity of the Baltics: early Indo-Europeans**

**Introduction: Early Man was continually on the move. He succumbed where the Climate became adverse. He lived on where he could find sustenance. When he could establish in a territory and hold his ground, he developed a way of life. It was thus that Indo-Europeans gradually formed.**

### **i) Following the Younger Dryas Cold Event**

Greenland ice cores indicate a 6°C dip during the Younger Dryas Cold Event in the Baltic area (12800-11400 BC). After the ice sheets began to melt, an inland lake formed in the northwest of Finland. Despite extreme cold in the Baltics, the inhabitants adapted well to local environment niches. Fishing became possible. The people survived to see in the Post Glacial (or Holocene period). Reliable archaeology dates from around 6800 BC.

The Solutrean and Aurignacian industries relate to the Achen Climate Oscillation (9,500 BC), which ushered in dry but somewhat improved conditions. Palaeolithic descendants of the earliest inhabitants lived in the Baltics from 9000–6800 BC. The Gotiglacial ice

retreat marked the end of the Palaeolithic Age here. The earliest man-made tools discovered belong to this time. People used fire for cooking and heating. [παλαιός or Palaios is Ancient Greek for 'old'. λίθος or Lithos means 'stone'.] The Sub-Arctic conditions of the Late Finnglacial Period relaxed from 8300 to c6,800 BC. Temperatures nonetheless remained low and dwarf birch, willow and tundra conditions resulted from natural dwarfing.

According as the last ice sheets retreated, in the southeast area of the Baltic Sea, a 'reindeer-hunter' culture was developing. Reindeer always stayed near receding ice. Hunters, from central and western Europe, followed the reindeer northwards. They arrived in the East Baltic area around 7000 BC. The effective end of the Last Glacial Maximum in the region was 6500 BC.

Mesolithic man dates from c.6800-4500 BC. [μέσος or Mesos means 'middle'.] This period is marked by improvements in tools and weapons and domestication of the dog. Neolithic man, from the period 4500-2000 BC, made considerable advances. [νέος or Neos means 'new'.] Village life began. Farming and domestic activities thrived.

From 7500 to 5500 BC, the Boreal period of the northern hemisphere brought a dry climate to the Baltics, with cold winters and short summers. Hunting in the forests ended dependence on the reindeer. A relatively uniform culture extended from the western Baltic to southwestern Finland. Near to the coastal Ertebølle culture were people of the forest Maglemose culture, who lived in small groups, in the western Baltic area (Latvia). The similar Kunda culture existed on the eastern side (Estonia). The Kunda culture disappeared around 4500 BC with the onset of adverse climate. Overall, hunter-fishermen survived up to 3,400 BC, when climate again improved, prompting fresh migrations to and from the region.



Ethne, Mother of Lugh, 1979

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Hunters of the Mesolithic period, who survived to 6000 BC, expanded to colonise the continent of Europe. A broad archaeological story begins around 5,500 BC. The trail of

development becomes somewhat clearer when lasting artifacts are left behind. Differences between these are taken to represent different cultures.

Most migrant, pre-historic groups perished because of misfortune. Natural selection, as a result of poor health or a lack of social order, also played a part. The task of assigning archaeological finds either to survivors or later arrivals is a tentative art. The Russian steppe did provide an increasingly stable environment for groups who resided there. Some of these were later to become early Indo-Europeans.

Growth, on the margins of a thriving settlement, caused people to migrate to adjacent areas. Domestication of the horse facilitated migration, in the 3<sup>rd</sup> and 2<sup>nd</sup> millennia. Those who managed both opportunities and threats, through the varied circumstances in the region, developed a robust culture. Upwards social mobility allowed for meritocracy. Religious and philosophical thought underpinned collective strengths, over thousands of years. The possession of such strengths is to be seen from archaeology and linguistics.

#### **ii) Archaeology from the 6<sup>th</sup> to the 2<sup>nd</sup> Millennium BC**

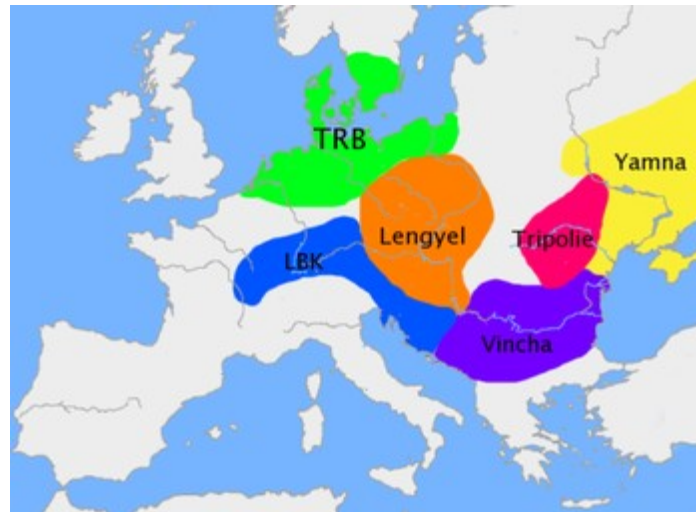
In northern and western Europe, in the late Copper and early Bronze Ages (from **4000 to 2000 B.C**), the distinctive decoration of beakers gave rise to a number of cultures, **importantly the Funnel Beaker**, the Corded Ware and then the Bell Beaker cultures. The Bell Beaker complex probably had its genesis at the mouth of the Rhine, where certain Corded Ware groups had begun to go to sea. Ceramic types have been used to define some cultures. Others are named after regions or sites.

The beaker cultures extended to western Atlantic coastlands and megalith-building societies, which had not learned of Copper Age innovations (metallurgy, horses, woolly breeds of sheep, woolen textiles and alcohol). Megaliths in Ireland are ascribed to even older archeological cultures. Of particular interest here is Medb's Cairn (so renamed by the Celts), a pyramid constructed with loose stones on the top of a mountain, comparable in size and shape with an Egyptian pyramid.

Megalithic people, skilled in large stone-works, lived in the north-eastern European forests, from 4000 BC. The TRB (die Trichterrandbecherkultur) or Funnel Beaker culture, c4000–2700 BC, was the main north-central European culture. It introduced megalithic tombs in late Neolithic Europe. The Funnel Beaker culture, with its megalithic graves (in Mecklenburg-Vorpommern), is believed to have derived from the Ertebølle Hunter culture.

Beaker cultures were largely pre-Indo-European. They have been called the cultures of Old Europe. The people were later governed by Indo-Europeans, who came from the East. The political relationship between Old European cultures and the strong, Corded Ware culture, resulted in almost immediate acculturation.

### **Europe 3500 BC**



[http://www.bioscience.ws/encyclopedia/index.php?title=Funnelbeaker\\_culture](http://www.bioscience.ws/encyclopedia/index.php?title=Funnelbeaker_culture)

In the late 6<sup>th</sup> and 5<sup>th</sup> millennia BC, herders lived on the Russian steppes. They have been called Kurgans. The Russian word *курган* (kurgan) relates to an elaborate grave or tumulus, associated with these people and comes from the Turkic word for ‘castle’. The Irish cognate may be ‘carn’ (memorial mound). Kurgan leaders were buried in a tumulus, together with items of wealth, including horses and chariots.

The Yamna culture stretched from the Urals to north of the Black Sea and was a related culture. Yamna, ‘яма’ in Ukrainian, means ‘pit’. This culture started around 3600 BC, in the late Copper Age and early Bronze Age. The Copper Age is often termed the *Æ*neolithic Period (from Latin *aeneus* ‘of bronze’) or the Chalcolithic Period {Ancient Greek: *χαλκός* (*khalkos*), copper and *λίθος* (*lithos*), stone}. Archaeology points to a migration to central Europe by the Yamna Pit-grave people from their steppe zone north of the Black Sea around 2300-2200 BC. [A Thracian kurgan, the Aleksandrovo kurgan, is dated c400 BC].

Associated cultures spread west to the Balkans and the Danube, respectively the Vinča and Lengyel cultures (Hungary). The Linear Ware (or Long House) cereal farmers lived in the Danube basin, an outcome of Kurgan migrations west, c4000 BC. The Secondary Products revolution, during the following period, brought in the processing of cheese, leather and beer. Skills in mining, smelting and casting copper ore were also developed. The village-based Tripolye branch of the Danubian farmers specialised in growing fruit and in animal husbandry. The Dnieper-based Sredny Stog branch of the Kurgans (Eastern Ukraine) practiced both cereal farming and animal husbandry around 3000 BC. Their culture had evolved from the earlier Samara culture.

Kurgan culture expanded generally to cover the Pontic steppe from the Urals to Romania. [Pontus was an ancient district, of Persian origins, in northeastern Anatolia, adjoining the Black Sea.] Around 3000 BC, Kurgan hybrid cultures advanced into the former territories of the Funnel Beaker culture. As the Yamna culture peaked, its immigrants into the Baltics introduced the Neolithic Globular Amphora culture (die Kugelamphoren-



Kultur) and the Baden culture, from 3000 to 2000 BC. Specifically, these people came from the Kurgan Maykop and hybrid cultures, in the northern Caucasus region.

Globular Amphora, Baden and then the Corded Ware cultures were introduced into northern Europe. The Corded Ware culture stretched from north of the Yamna culture, through the Globular Amphora and Funnel Beaker areas, to present-day Germany. The Corded Ware culture was characterized by cord impressions on pottery. It represents early Indo-European (IE) culture in northwest Europe.

Proto-Indo-European (PIE) dialects developed at different rates, resulting from societal growth and migration. Contacts with speakers of earlier substrate languages probably speeded up the process of differentiation and dialect formation. Such processes complicate any analysis for dating proto-languages.



**Macha and Nemed, King of Ireland, 1975**  
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Fortified hill-top settlements and small rectangular houses were introduced. Through agriculture, civilisation took hold. Food surpluses were achieved and facilitated a greater population, in a stratified society. The Baden culture exerted influence in Central Europe in the Late Neolithic period (in the latter part of the 4<sup>th</sup> millennium BC and the earlier part of the 3<sup>rd</sup> millennium). Baden artifacts appear from the upper Danube to the Tisza (Hungary) and Marusza (Poland) rivers and from the Drava (Slovenia) river to north of the Carpathians. Baden culture played a rôle in cultural contacts between Æneolithic societies, especially in the transfer of innovations in religious and social advance.

The name of the Proto-Indo-European language relates to the places to which these people ultimately migrated, ie India and Europe. Words in PIE are reconstructed for artifacts found by archeologists, from the 4<sup>th</sup> millennium BC onwards. Words for 'wagon' and 'wheel' are common to Indo-European languages, which are interconnected

to this day. IE tribes cannot have separated, nor their dialects greatly differentiated, before such words had gained currency.

In the early 3<sup>rd</sup> millennium, the Baltic forest culture came under the influence of the expanding Danubian culture. Southern Balts took up farming. From 3400 to 2300 BC, a new culture took advantage of the sub-Boreal climate. The Comb Ceramics pottery tribe decorated pots with small indents, like comb teeth. These people are thought to have been of Finno-Ugric origin.

### iii) Movement around the Baltics from the 2nd Millennium

Archaeology indicates that several cultural groups co-existed in the Baltics and migrated through the steppes corridor during the period 2000-1800 BC.

Archaeological data point to movements by Kurgan peoples, whose ultimate origin was most likely beyond the Black and Caspian seas. The Battle Axe spur arrived in the central and southern Baltics, to replace the Globular Amphora and Comb Ceramics cultures, around 1500 BC. The Kurgans can be regarded as the forebears of the Battle Axe people. They brought characteristic burial rites, pottery and boat-shaped stone axes. Economic activities included tillage, textiles, cattle and sheep.

Before the Kurgans settled in Central and Northern Europe, differentiation of PIE into the forerunners of several modern languages, was underway.



[http://www.enotes.com/topic/Bactria%E2%80%93Margiana\\_Archaeological\\_Complex](http://www.enotes.com/topic/Bactria%E2%80%93Margiana_Archaeological_Complex)

### iv) Who were the Indo-European Ancestors?

Analysts now most usually consider that PIE first developed on the Russian steppes in the 5<sup>th</sup> millennium BC. [Theories on the ascendancy of the Danubian or Anatolian cultures are no longer supported.] The Sredny Stog and Samara cultures have been

mentioned in this regard. There is a question whether the patriarchal Kurgan or the matriarchal Tripolye culture was dominant in Indo-European formation. Either way, tribes which survived will have adopted the best approach for meeting differing threats to their existence. The Celts, whose writ ran over much of Europe up to 500 BC, brought a balanced system to Ireland in the ancient Brehon Laws.

The Kurgan territories most likely extended from the lower reaches of the Dnieper to reach the Tripolye (to the west). Finnish settlements (to the north) and Kurgans shared fairly extensive contiguous areas. To the south, Kurgans ranged from Yamna, on the Black Sea, southwest to Usatavo (dated 3500-3000 BC). This was an **archaeological culture** (in Moldavia and the southern Ukraine) which faced the Black Sea. The Andronovo horizon represented the first introduction of herding economies in many places east of the Urals.

Accordingly, an extensive geographic range for the Kurgans may be loosely defined. Within this vast area, certain tribes were developing a powerful culture. This was to become IE culture and it would help to sustain the people as they undertook hazardous migrations to seek out new resources. From 3000 BC on, spurs with various cultural characteristics radiated out from the Urheimat (or common homeland).

Ascribing comparable dynamism to IE migrations which survived to leave their mark, the IE Urheimat can be located in the Sredny Stog culture on the Dnieper, in the eastern Ukraine and in the related Maykop culture in the northern Caucasus. The Urheimat is thus placed within the Kurgan range, north of the Black Sea, in an area of particular cultural confluence.

#### v) The 'Centum/Satem' Rule

Indo-European languages are commonly divided into 'centum' and 'satem' languages, after the Latin and Avestan words for 'one hundred'. Speakers of 'satem' languages (eg Indo-Aryan) have been assigned to the Yamnaya horizon and speakers of western Indo-European languages to the Corded Ware horizon. The ancestors of the Balts and the Slavs have been assigned to the Middle Dnieper culture, wherein a 'satem' language developed, later to be drawn into the sphere of influence of western or 'centum' Indo-European languages. Satemisation was complete by 2500 BC. The break-up of PIE into attested proto-languages had occurred by 2000 BC.

The 'centum-satem' division has carefully to be used in tracking the descent of eg Slavic and Indo-Aryan. Despite its classification, Russian is closer to German than to Sanskrit. Greek (a 'centum' type) is close to Sanskrit.

That there should be linguistic anomalies in the Indo-European family is to be expected because of complex interactions over time. Such variations, indeed, support the case that the great migrations east and west radiated from a core culture.

Balto-Slavic culture is identified with the Battle Axe culture. The Corded Ware culture lay to the west of this, along northern Europe. The Balto-Slavs became established around the west, south, and east of the original Urheimat. The Latvians went north. The Prussians, at the western extremity, were assimilated by the Germans. The Lithuanians did not migrate. Their language, said to be the purest form of the Indo-European language, is more comparable with Sanskrit than other Indo-European descendents. Overall, the pattern of differentiation of Balto-Slavic followed that of the parent Indo-European. Filippo Sasseti, from Florence, noted similarities between Sanskrit and Italian, in 1585. He is regarded as the founder of Indo-European studies.

### **(C) Indo-European Migrations from the Urheimat**

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**Proto-Celts migrated west into central Europe, to the south of the Proto-Germans. This study suggests that some Celts may have gone east, ahead of the Indo-Aryans - and left an impact on the Chinese language.**

**Irish vocabulary shared today, with Finnish, German, Hindi and Persian (whether coming from original PIE or from exchanges during the long periods of migration) may have relevance in better understanding how linguistic differentiation occurred.**

**The pioneering Proto-Celts spread all over Europe. They may equally have been dispersed in the Urheimat. Their pattern of settlement - without political unity - and other matters raised in this paper, might further be studied.**

**i) Celtic (Irish) cognates in Finnish, which are also related to words in German, Hindi and Persian**

Archaeology suggests Indo-European migrations from the Urheimat to include those of (i) the Tocharians and Anatolians (up to 2,500 BC) to the east and south, (ii) the Proto-Greeks to the Balkans and Proto-Indo-Iranians to east of the Caspian Sea (up to 2000 BC) and (iii) the Proto-Germanic and Proto-Celtic tribes to the west and southwest (up to 1,500 BC). As noted, the Balto-Slavs did not migrate as significantly, which underscores the historic significance of the region.

Significant connections in language exist between Gaelic, Hindu and Persian and between Gaelic and German. After 5,000 years of separation, these - and other connections in religion, folklore, law and music remain relatively substantive. Migration by all these groups most likely occurred from places i) where early Proto-Celts and Indo-Iranians lived and ii) where early Proto-Celts and Proto-Germans lived.

PIE was spoken in the IE Urheimat, towards the end of the 4<sup>th</sup> millennium, as the Finns migrated westwards from beyond the Urals. Indicating linguistic and cultural identities were well developed in the Urheimat, a list of words in Modern Finnish, with Modern Irish, German, Hindi and Persian cognates, is given in the **Addendum**. They underscore the existence of a cultured, prosperous relationship between Finns and Indo-Europeans. There was little competition for resources. Neither Irish nor Finnish absorbed large cultural impacts throughout history. The languages have remained relatively pure and this informs linguistic comparisons.

The list of words identified covers many of the cornerstones of stable, human settlement. Leadership and the accoutrements of this are covered. Concepts of family appear. Effort, in agriculture and fishing, is the established driver of economic prosperity. The division of labour with the Indo-Europeans, through trade, further enhances well-being. Protected centres of population have appeared. They can support theatre and art. Matters of thought and philosophy are covered.

The list was drawn up with a view to identifying Irish and German cognates. The words in question cover matters of everyday life. Irish cognates reach 83% of the list. German cognates total c60%. Irish and German together share 44% of the list. Hindi accounts for 41% of the list and Persian for 29%. Common Hindi and Persian roots total 25%. Some 33% of the words appear in three or four of the IE languages. These statistics need further refinement. Initial inference may establish possible lines of enquiry.

Proto-Celts may have been living along the IE borders with the Finn, with the linguistic effect noted. Proto-Celts and Germans may have begun to differentiate. Already separated from them, the Indo-Aryans were themselves witnessing the emergence of differences. There is no reason to expect that they shared the same culture until well into the journey east.

Cognates, common to three or four IE dialects and accounting for a third of the list, could be early loanwords into Finnish taken before PIE showed a significant break-up, before c3,500 BC. That borrowings occurred mainly after linguistic differentiation had begun in the Urheimat may be inferred because many Finnish cognates relate to only one or two IE languages.

That loanwords from differentiating IE sources, such as the Indo-Aryans, were absorbed by different Finno-Ugrian groups, suggests that both they and some IE groupings were moving at roughly the same time.

Irish has special sets of common roots with German, Hindi and Iranian respectively (given in other papers in this series). It is possible that Proto-Celts, in the company of Indo-Aryans, migrated from the eastern sector of the border with the Finns. Other Celtic stock travelled, in the company of Proto-Germans, from the western sector. Thus, with on-going contact, loanwords continued to be exchanged between developing languages.

## ii) The great Migrations west: early Celts and Germans

Proto-Celtic speakers migrated west from the Urheimat, travelling with groups from the Italic branch and spreading across **Europe** into northern **Italy, France, Spain** and **Turkey**. They finally reached the **British Isles**. The Baden culture, of the northern Balkans, is thought to have produced the forebears of IE culture in Italy. Umbrian was Italic, for example. Latin became predominant. Provincial Vulgar Latin dialects, rather than the classical language, survived and governed the emergence of Romance languages.

The Germanic tongues resulted from changes in PIE grammar, vocabulary and phonology (Grimm's Law). Germanic vocabulary and syntax, which do not seem to have an Indo-European origin, has been taken to indicate that Proto-Germanic derives from an Indo-European dialect which absorbed elements of a non-Indo-European substrate language.

Thus, it has been deduced, the Proto-Balto-Slavic language (of the Western Corded Ware culture) was possibly merged with the languages of the Funnel Beaker and Italo-Celtic people from Central Europe. It was around two millennia after this Proto-Germanic culture that the inferred off-shoot, the Jastorf culture (600-300 BC), was identified as Germanic. This line of argument is, however, somewhat at variance with the Finnish-German cognates list. It suggests that German culture was fairly well formed before leaving the Urheimat.

The Proto-Germanic tribes travelled to the north of the Proto-Celts, and followed their path westward. The Germanic language developed into three groups: East, North and West, so called after their territorial positions. Gothic is the only attested language from the East. Vandalic, however, was spoken by the Vandals, who migrated to north Africa. North Germanic languages developed in Scandinavia. West Germanic languages divided into High German in southern **Germany** and Low German in the Low countries.

Proto-Celts are identified with the Globular Amphora culture, **3400-2800 BC**. Emerging from Bell Beaker stock (related to the Baden culture), c2000 BC, they extended their range from southern Germany across Europe. They are associated, in the late Bronze Age (1200-700 BC), with the Urnfield culture of Central Europe. As migrants of the western IE spur, they spoke the south-central Indo-European dialect (Proto-Celtic). They are later closely associated with the Hallstatt and La Tène cultures, this latter on the north side of Lake Neuchâtel.

The La Tène culture flourished from Spain over to Galatia in (Turkey) during the late Iron Age, from 450 BC up to the Roman conquests in the 1<sup>st</sup> century BC. The defeat of the allied Celtic Cimbri and German Tuetones, in 102 BC, was a final blow to the Celts. It brought about the decline of Celtic influence over much of Europe.

The La Tène culture was contemporary with the Jastorf culture of Northern Germany c500 BC. The two cultures do not come into view for two millennia after the migrations

began. During the long interim, it is to be expected that many linguistic groups succumbed and left few marks behind.

The Romans did not differentiate clearly between Celts and Germans. The recorded names of both tribes and chieftains indicated that both Celticised Germans and Germanised Celts coexisted. As Celtic power waned, however, the tribes generally went over to German culture.

A Celtic chieftain's grave was found in 1977 at Hochdorf, dated c550 BC. The chieftain was richly attired, with gold-decorated shoes, neckring, belt, bracelets and brooches. There was a gold dagger sheath and an iron dagger, again decorated with gold. There were some five hundred samples of textiles. Other artifacts included a drinking horn. This was a symbol of power in western Asia around the seventh century BC. Trade between Persians and Greeks and then Etrusks brought drinking horns to the Celts. Other witnesses of the Celtic inhabitation of Southern Germany can be found in the vicinity of the Hochdorf Chieftain. His grave goods were of a peaceful nature.

Celts and Germans were mutually intelligible until at least c1900 BC, after which dialect continua probably existed. The undisturbed Hochdorf discovery indicates that the two peoples enjoyed a peaceful and prosperous life. To this day, many placenames in Germany are explicable through Irish. Modern Irish and German have not only many words with a common root but, more importantly, many common grammatical structures.

Appearing in divers tribes and cultures over time, Celts had migrated westwards until they covered a vast swathe of Europe. Eventually they came to Ireland, between the years 500 BC and 500 AD. They brought ancient beliefs and ways to Ireland, lore which they had brought from the steppes.

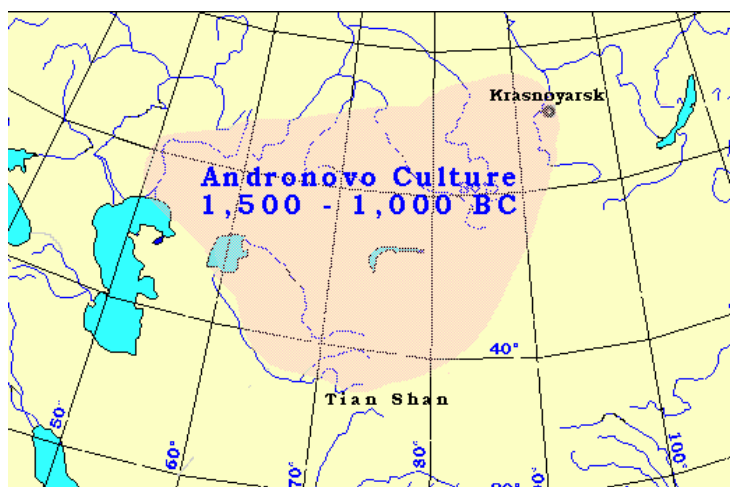
### **iii) The great Migration east: Indo-Aryans and Tocharians**

The Afansievo (eastern Asia), Yamna, Corded Ware and Globular Amphora cultures may all be dated around 3600-3000 BC, indicating that Proto-Indo-European originated c4,500 BC. Late Indo-European was spoken by all these groupings c3,000 BC. Proto-Anatolian was the only significant off-shoot to have differentiated.

In the northeastern regions of the Androvono culture, the Sintashta-Petrovka cultural development thrived up until 1800 BC. It is the oldest of an archaeological complex of Bronze Age, early Indo-Iranian cultures. It was characterised by compact, fortified settlements. Bronze metallurgy was highly developed. This and animal husbandry (cattle, sheep and horses), comprised the main economic activities. Mortuary rituals were used, which reflect many aspects of Aryan rituals in the Indian Rg Veda. Buried vehicles, characteristic of Yamna graves, included the oldest, dated spoke-wheeled chariots - buried with two-horse teams. The Indian Vedic rite used race horses. The two-horse teams at Sintashta meant that the ritual required fast animals. In both cases the careful arrangement of certain bones and the ritualistic consumption of horseflesh is implied. The Vedic procedure included the sacrifice of a goat, symbol of Pusan, the god



of pathways. At Sintashta, horses and cattle were killed with a single ram – perhaps to guide the beasts in the path to the spirit world.



[http://s155239215.onlinehome.us/turkic/btn\\_Archeology/BernstamCh1AndronovCultureEn.htm](http://s155239215.onlinehome.us/turkic/btn_Archeology/BernstamCh1AndronovCultureEn.htm)

Towards the 1500s BC, Sintashta-Petrovka cultures moved eastward. They went across Central Asia going south (into Iran, Afghanistan and India) and east, until they reached the rich ores of the Altai mountains. They survived until the last millennium BC. The area encompassed was vast, reaching as far east as the earlier Afanasievo culture.



[http://www.semp.us/publications/biot\\_reader.php?BiotID=665](http://www.semp.us/publications/biot_reader.php?BiotID=665)



The Afanasievo culture (3<sup>rd</sup> millennium), is considered to be the original homeland of the Indo-European Tocharians, who migrated to China. They migrated in advance of the Indo-Aryans. These latter left written records on the Tocharians, c500 BC. Lexical parallels show that, in Central Asia, they maintained close contact with East Iranians, during the 9<sup>th</sup>-7<sup>th</sup> centuries BC. Supporting argument for Tocharian migration from the west derives from original IE linguistic forms, discovered by archaeologists.

Traditional histories of India, like the Puranas and Brahmanas, note that, in addition to northern Indian kingdoms, there were kingdoms beyond the Himalayas with the same culture (original Indo-European). The land of the Uttara Kurus, for example, is described as a spiritual paradise. It lay in the Tarim basin.

The Tocharians arrived in Xinjiang's Tarim Basin, around 3,000 BC. It was then a region very suitable for farming. ['Tarim' means 'unbridled wildhorse' or 'confluence of streams' in ancient Turkic.] Chinese sources refer to Tocharians as Yuezhi. Their language is the probable source of Chinese words for wheels, wheel spokes, axles and chariots, which were first invented by Indo-Europeans.

Many Tocharians were driven into Bactria around 60 BC, when they came to Greek attention. It was Greek historians (like Ptolemy) who used the name '*Tokharoi*' (Τόχαροι). Takhar Province in Afghanistan is named after them. Caucasoid mummies, 3,000 year-old, have been found in the Tarim Basin. With physical characteristics and linguistic evidence, it has been suggested that these people were related to early Celts. It would be of interest, therefore, to look for Irish words with Chinese cognates.

<b>Irish</b>	<b>Chinese</b>
cuan (harbour)	chuan (boat)
dó (two)	dōu (both)
an- (very)	hěn (very)
cé (who?)	shéi (who?)
dia (day)	tiān (day, nasal)
coinne (appointment to visit)	kàn (visit)
peann (pen, nasal)	bǐ (brush)
dóigh (way)	ào (way)

Commonly surmised loan words are 蜜 mì 'honey', 獅 shī 'lion' and perhaps also 馬 mǎ 'horse', 犬 quǎn 'dog', and 鵝 é 'goose'. For these, Modern Irish cognates are 'mil' (honey), 'sár-' (supreme), 'marcach' (rider), 'coinín' (rabbit) and 'gé' (goose). The \*m-r-(ŋ) root for horse is widespread, from Ireland to Korea. In Chinese, 'mǎ' closely resembles 'marc' in O Irish {'marcach' means 'rider' in Modern Irish: the O High German 'merha' (mare) is also close}. Such cognates as these have been seen as accidental or onomatopoeic or somehow problematic. The attestation of cognates, as a group, lies in their number. The field has, no doubt further treasures, which wait to be revealed.

Migration from the IE homeland to the east, west and south is well recognised. The trail of archaeology by the early Indo-Aryans goes from the Ukraine towards the Himalayas but does not show ingress into India. There is a lack of archaeology at the points of farthest migration, east and west. This is of no great import: the tools of ancient history are themselves not forensic.

There is little archaeology to link the Irish with Continental Europe. It has been suggested that this is because they came by sea from the Middle East. The better explanation is that migration occurred in small groups, which had not the resources for setting up major settlements. Equally, Indo-Aryans on the steppes had most likely broken down into clans.

### (D) Linking PIE Descendents

**Introduction:** Having shown some evidence for linguistic differentiation in the Indo-European homeland, this subject is further examined to show that the culture was adopted throughout a large part of the world, almost as a matter of course, and to indicate what diversification occurred. Perhaps the attractiveness of a culture which had a complete package of positive attributes can be inferred from the standing, from Ireland to Mongolia, of a unique goddess.

Linguists and archaeologists both point to the use of fortified hill settlements on high river banks from the earliest Chalcolithic Period (5<sup>th</sup> millennium BC) up into recorded history. The daughter languages of PIE (whether ancient or modern) are linked, for example, by their words for 'town' or 'castle', law, niece, foot and silver:

<b>Irish</b>	<b>German</b>	<b>Lithuanian</b>	<b>O Prussian</b>	<b>O Indic</b>	<b>Sanskrit</b>	<b>Greek</b>
baile	Burg	pilis	pil	pūr	pūh	πολις (polis)
	<b>O Irish</b>	<b>German</b>	<b>Latin</b>		<b>Sanskrit</b>	
law:	recht (law)	Recht	rectio (government)			
niece:	necht	Nichte	neptis		naptih	
foot	coss (foot)	Fuss (foot)	coxa (hip)		kákṣah (armpit)	
		k→b (bh/f)				

The words for silver/white:

<b>Greek</b>	<b>Celtiberian</b>	<b>O Irish</b>	<b>MWelsh</b>	<b>Latin</b>	<b>Sanskrit</b>	<b>O.H.G.</b>	<b>Ger.</b>
argos	arkanta	airget	aryant	argentum	arjuna-	Sillabar	Silber
<b>Avestan</b>	<b>O.Pers.</b>	<b>Goth.</b>	<b>Rus.</b>	<b>Lith.</b>	<b>Hittite</b>	<b>Armenian</b>	<b>IE</b>
erezata-	ardata-	silubr	serebo	sidabras	harki-	arcat	*arg-ent-
		<b>Breton</b>		<b>Hittite</b>			
		<i>arc'hant</i>		<i>harki</i>			



Dun Guaire, 1998

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The division of labour, between warrior and labouring classes, is also indicated linguistically and archaeologically. There are many graves which contain just a flint knife or a pot, and others which have rich furnishings. The frequency of double graves reflects the custom of self-immolation of the widow. This custom is recorded in Lithuania during the 14<sup>th</sup> century. As the sun is the source of fire, so fire is the gateway to the next life.

All Kurgan sites show the importance attached to stock – the bones of cattle, sheep, goats and dogs are ubiquitous. Bearing in mind how words may change over time, the names of archaeological elements, given hereunder, further support the concept of a common homeland for Indo-European languages, within the Kurgan range.

	<b>Sanskrit</b>	<b>Avestan</b>	<b>Lithuanian</b>	<b>Irish</b>		
cereals:	yavah	yavo	javaĩ	eorna		
	<b>O Slav</b>	<b>Lithuanian</b>	<b>O Irish</b>	<b>O Prussian</b>	<b>Latin</b>	<b>Gothic</b>
grain:	zrōno	žirnis (pea)	grán	syrne	granum	kaurn
	<b>Latin</b>	<b>Lithuanian</b>	<b>O Irish</b>	<b>O Slav</b>	<b>Gothic</b>	<b>Lithuanian</b>
seed	semen	sēmuo	síl	sowing: sėti	saian	sėti

**PIE Irish Latin German O Norse Lithuanian Polish hindi**

salmon - - - Lachs lax lasisa losos  
 or pool \*lak loch lacus Loch lak- =  
 (salmon-pink laquer)

Kurgans gained metallurgical skills before the end of the 3rd millennium BC, from the Near East, Transcaucasia, Anatolia and Transylvania. They found copper in the central European mountains and introduced the Bronze Age into Europe.

In the 3<sup>rd</sup> millennium BC, the Balkan-Danubian Usatavo culture, on the north-western side of the Black Sea is tentatively linked with the proto-Greeks. In later times the area was home to the Dacians and Thracians. East of this, the Yamna Pit Grave culture is linked to the Indo-Iranians. The Sintashta-Petrovka culture arose during 2200-1800, east of the Urals. It was linked to the Poltavka culture, a late development of the Yamna culture.

### i) Differentiation into Dialects

Linguistic differentiation was well underway by 2000 BC, when the written word, together with archaeology, facilitates a better appreciation of ancient times. Cognates for 'seeing/knowing' in Indo-European derivatives are shared over a wide area and underscore that linguistic differentiation is linked to geographic separation:

1] Original language: **PIE** \*wid (to see/know – the asterisk indicating reconstruction)

2] Ancient languages of Urheimat, following the great migrations:

<u>East</u>	<u>Centre</u>	<u>West</u>
<b>Sanskrit</b>	<b>Greek</b>	<b>Latin</b>
Veda (sacred lore)	eidon (εἶδον, I saw)	videre (to see)
		<b>O Irish</b>
		fiss <sup>u</sup>

3] Modern languages:

<u>East</u>	<u>Centre</u>	<u>West</u>
<b>Hindi</b>	<b>Russian</b>	<b>German</b>
jñāna (knowledge)	vidyeht (видеть, to see)	wissen (to know)
		<b>Irish</b>
		fios (knowledge)

The example given and indeed others, supports the concept of the differentiation of PIE into dialects, across territories as widely apart as Ireland and China. There are, as is to be expected, always issues relating to such analysis.

Only a properly robust choice of indicators can provide a useful tool for determining the branching descent of languages. One language can borrow significantly from others spoken nearby, for example, whether or not they come from different branches of a parent tongue.

### ii) PIE Dialects and their Descendants

A linguistic trail, as demonstrated by reference to Greek and Indo-Aryan languages, shows the territorial spread for Indo-European cultures:

**Hellenic Branch:** - Mycenaean (1,500-1000 BC) - Doric (1000-500 BC) - Attic (or Classical Greek, 500 BC): Modern Greek survives (a diglossic language until the 1970s).

[Mycenae is a Bronze Age archaeological site (1900-1100 BC) in southern Greece. Doric was spoken in Sparta, an ancient Greek city-state (1000 BC).]

**Indic Branch:** - Vedic Sanskrit (1500-500 BC), Sanskrit (500 BC) – Pali (100 BC): Marathi, Hindi/Urdu, Bengali and Sindhi survive. Romany also survives: the Roma tribe migrated to Europe from India. They used various names over the ages.

[Vedic Sanskrit was an old form of Sanskrit, related to Avestan. Pali is a sacred language of Buddhism.]

**Persian Branch:** - Avestan (1500-500 BC), Bactrian (500 BC), O Persian (500 BC), Scythian (700 BC-300 AD): Persian, Kurdish, Ossetian, Tadjik, Baluchi and Pashtu survive.

[Avestan was the language of the Zoroastrian religion. Scythian horsemen were fabled warriors from north of the Black Sea. Bactrian was an Eastern Persian language. Persian is spoken in Iran and Afghanistan. Kurdish was banned until recently in Turkey.]

It has been argued that Latin and Greek can be clearly separated because Latin has no dual number, no aorist tense and no middle voice. Indo-Aryan languages, on the other hand, have these features. In stating this, it should be said that modern Irish has a dual number.

It may be that, following on an initial differentiation of PIE languages, a proto-Greek spur moved from north of the Black Sea, leaving behind an Indo-Iranian cluster. Sanskrit and Avestan were the main languages used when the literature of their civilisations was committed to writing. Avestan and the related O Persian are the only Old Iranian languages for which written documents exist.

### iii) The greatest Goddess ever known

Some 5,000 years ago, it may be imagined that their Indo-European neighbours told the Finns of the goddess Tara. An ancient Finnish saga speaks of the Women of Wisdom, known as Tar. The Celts brought her to Ireland – to the Hill of Tara, where High Kings were crowned. The goddess' name may lie embedded in the Latin word 'terra'.

When the Indo-Aryans went east to India, they also brought Tara with them. Tara (तारा) and Kali (काली) became two of Hinduism's ten Maha-vidyas (Great Wisdom goddesses).

Their names are closer to the Irish cognates in the genitive case: Cnoc na Teamhrach (the Hill of Tara) and Sliabh na Caillí {the Mountain of the shrouded Woman (Kali)}.

Tara is probably the longest-worshipped goddess. She became the Mother Creator in Hinduism. Her common manifestations are as the White Tara (promoting peace) and the Green Tara (an earth goddess). In Sanskrit, her name means 'star'. She was absorbed into the Buddhist pantheon, now its most widely revered deity. She is a 'bodhisattva' (one wishing to attain Buddhahood), enlightened with the highest levels of wisdom and compassion. She is known in Nepal, Tibet and Mongolia and, indeed, over more of the Earth than any other goddess before her.

#### **iv) Conclusion**

A coherent picture emerges that all the Indo-Europeans shared a common Urheimat (homeland) north of the Black Sea. After the ice sheets of the Last Glacial Maximum receded, this hardy people thrived, in an unforgiving environment. They gradually improved their way of life. Their numbers grew and migrations became more successful. Some went west and others east. This narrative sketches out their complex background, focusing on new evidence on the rôle played by the Celts.

One matter is beyond question: ancient Irish linguistic connections to Finnish and Indo-Aryan languages were made, perforce, before or during the migrations. Irish cultural connections with the German come well into the historic period. The antiquity of the resulting linguistic connections can therefore be less clear-cut.

Connecting archaeology to linguistic groups is difficult. Many migrating groups perished. Others kept going, even if increasingly dispersed (so to leave few archaeological traces).

Proto-Celtic society was both unified and well formed in the Urheimat by 3000 BC. They occupied much of the border with the Finns and had a relatively strong impact on the Finnish language. [Modern Irish testifies to this: it is the oldest and purest of the Celtic languages spoken today.] The Finns were culture-takers. They were few in number and highly adapted to the rigours of their territory.



**Streng, Champion of the Fir Bolg, 1976**  
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Pioneering in nature, Proto-Celts travelled west with Proto-Germans but then continued, on their own, to France, Spain and Ireland. Evidence indicates that Proto-Celts also travelled east, keeping in contact with eastern Indo-Iranians but continuing, on their own, into China.

Celts who went east or west retained many elements of original IE culture, developed together with Proto-Germans, Indo-Aryans and others. Some differences in related vocabulary between i) Irish and German and ii) Irish, Hindi and Persian, may derive from exchanges during the centuries-long migrations.

This short work covers many topics very lightly. It is hoped that matters related to the main arguments are treated in sufficient detail. Ancient linguistic ties form the main basis of the ideas advanced.

## **Addendum**

### **Modern Finnish and Modern Irish Words which have a common Root/Consonant Cluster**

Finnish and Estonian are members of the Baltic-Finnic group of languages. Most of

these are disappearing. Hungarian is a member of the wider Finno-Ugrian (Uralic) family.

In Finnish, nouns are inflected using suffixes. Irish and German use prepositions with noun case endings. There is, nonetheless, the following similarity between Irish and Finnish prepositions and suffixes:

<b>Finnish</b>		<b>Irish</b>
paati-ssa	in the boat	sa bhád
paati-lla	with the boat	leis an mbád

Finnish can boast of a richness of noun inflections, with 15 cases. Irish has five or six. The Locative Case, in placenames, such as ‘an Muileann gCearr and Loch gCarmáin, is no longer widely learnt. Grammarians, of languages which have lost noun inflection, sometimes say that this results from innovation and shows development away from archaisms. Grammarians, of languages which have kept inflection, have said that cases facilitate nuanced meaning. An official ranking of grammars can be unhelpful.

To trace Indo-European back beyond the Sredny Stog Urheimat, a typological similarity between Indo-European and north-western Caucasian languages may suggest IE is a branch of Uralo-Altaiic, which was influenced by a Caucasian substratum.

A number of IE languages have, in any event, left their traces on Finnish. A small number of Proto-Indo-European words, during 4-3000 BC, were absorbed by Proto-Finno-Ugrians. These include ‘nimi’ (name), ‘vesi’ (water) and ‘nainen’ (woman), for which corresponding words in Irish are ‘ainm’, ‘uisce’ and ‘nighean’.

The earliest interactions between Proto-Indo-Europeans and Proto-Finno-Ugrians must have occurred in the adjoining heartlands of both cultures; the territory north of the Black Sea for the IE peoples and eastwards to the great bend of the Volga for the Finns – where several Finno-Ugrian languages persist.

Loanwords from differentiating IE sources, such as the Indo-Iranians, were absorbed by different Finno-Ugrian groups, suggesting a common expansion began at roughly the same time. The Celtic and German word for sea was adopted as ‘meri’, which with other similar words, indicates that the Finns were an inland people and only picked up these words as they reached the Baltics. The following Indo-European loanwords have been reported and Irish cognates are given.

<b>Finnish</b>	<b>Irish</b>
ostaa - to buy	Ostán – hotel
varsa – a foal	faolán - a wolf (dental exchange)
marras – dead, as in marraskuu – the dead month (November)	marbh - dead



Proto-Celts, Saxons and Indo-Iranians were using their common tongue, but in ever-specialising ways, as the prospect of their grand migrations to Northern and Central Europe and South Asia grew nearer.

The argument that Indo-Iranian borrowings came from the South-Asian migrants coming west would imply a radically different mechanism for borrowings from Celtic. With such a stock of Finnish words taken from the Celts, who share as many and more common roots with the Indo-Iranians, it is likely that the same transfer mechanism to Finnish occurred in both cases.

The list below contains a list of Irish words related to Finnish - together with German, Hindi and Persian words similarly connected. The processes of gradual change in words, such as metathesis, syncope, dental exchange and lenition may be seen to operate. The ultimate origin of words is difficult to determine but, in the list below, some effort has been made to exclude words which derive directly from Latin or are of altogether modern devising.

<b>Finnish</b>	<b>Irish</b>	<b>German</b>	<b>Hindi</b>	<b>Persian</b>
aasi – ass	asal (m, ass)	Esel (m, ass)	--	--
aate – concept	iodam (m, concept)	Idee (f, idea)	andājā (idea)	eedeh (idea)
aike – period	achar (m, period)	--	--	--
aisti – sense	aiste (f, essay)	--	itihās (story)	neveshteh (written)
apina – ape	--	Affe (m, monkey)	--	--
auki – open	oscailte (open)	--	khulā (open)	--
bailata – party	bail (f, prosperity)	--	--	--
kaarre-curve/career	coradh (m, bend)	Karriere (f, gallop)	~karanā (to submit)	kar (job)
elvitaa – revive	bith (Lit. m existence/ lenition)	--	jīvita (living)	--
hallinta – to reign	halla (m, hall)	--	hāla (hall)	--
haltija – owner	--	halten (to hold)	--	--
herra – man	fear (m, man)	Herr (m, man)	mard (man)	mard (man)
hilli – coal	gual (coal)	Kohle (f, coal)	koelā (charcoal)	--
hunaja – honey	--	Honig (m, honey)	--	--
iva - mocking	íde (f, mocking/lenition)	--	--	--
kaani –khan	ceann (m, head)	--	khan (head)	kha:n (head)
kamari – room	seomra (m, room)	Kammer (f, closet)	kamrā (room)	sara: (room)
kani – rabbit	coinín (m, rabbit)	Kaninchen (n, rabbit)	khānā (pig)	khar (donkey)
karhea – rough	cruaidh (rough)	Klunkern (m, rocks)	karā (hard)	sakhareh (rock)
kari – rock	carraig (f, rock)	hart (hard)	karā	sakhareh
karva – hair	gruaig (f, hair/consonant cluster)	--	--	--
kasa – pile	casla (m, creek/stony place)	--	kathor (stony)	--
katu – street	cathair (f, city)	--	shahar (city)	shahr (city)

kasku – story	case (m, cast/story-tellers)	--	--	gheseh (story)
kaupata – sell	--	verkaufen (to sell)	--	--
keihäs – spear	gae (spear, O.Irish)	germanisch (spear-carrying)	--	--
kello – bell	clog (m, clock)	Glocke (f, bell)	--	--
keppi – stick	cipín (m, twig)	--	chipakānā (stick)	choobak (stick)
kierukka – coil	ciorcal (m, circle/c.cluster)	Kreis (m, circle)	chakkar(circle)	gerdi (circle)
kiperä – bent	crapailte (bent/metathasis)	--	--	--
koira – cur	--	Kalb (m, calf/dental exchange)	kutta (m, dog)	--
kori – basket	coirb (f, basket)	Korb/Koreb (m, basket)	--	--
koulu – school	sgoil (f, school)	Schule (f, school)	--	--
kuningas – king	ceann (head)	König (m, king)	--	kei (king)
kumma – strange	--	komisch (strange)	--	--
kuulua – be heard	chuala sé (he heard)	--	--	--
kyse – question	ceist (f, question)	--	kyā (what ?)	kei (when)
laakea – level	loch (m, lake)	Loch (n, hole)	--	--
laho – rot	lobhtha (rotten)	--	--	--
laiskasti – lazy	leisciúil (lazy)	--	--	--
lapsi – child	leanbh (m, child/loss of nasal)	--	--	--
lanka – thread	cf Irish ‘fad’ and German	‘Faden’ lang (long)	--	--
lasti – load	last (m, load)	Last (f, load)	--	--
lausua – say	luadh (mention, praise/dental exchange)	--	--	--
lehti – paper	léite (read)	--	--	--
liuos – solution	--	Lösung (f, solution)	--	--
loiskia – splash	loscadh (extinguish)	--	--	--
maa – piece of earth	magh (f, plain)	--	--	--
mahti – might	smacht (m, might)	Macht (f, might)	--	--
mehiläinen – honeybee	mil (f, honey)	--	--	--
meinata – plan	meon (m, mentality)	Meinung (f, intention)	man (mind)	man (mind)
meri – sea	muir (f, sea)	Meer (n, sea)	--	--
merki – mark	marc (m, mark)	merken (to notice)	--	--
mestari – master	máistir (m, master)	Meister (m, master)	--	--
meteli – clamor	meitheal (m, group of labourors)	--	--	--
mörskä – dump	marbh (dead)	Mord (murder)	marnā (to die)	Mord (died)
nainen – woman	nighean (f, daughter)	--	--	--
naku – naked	noctaithe (naked)	nackt (naked)	naṅga (naked)	nang (shame)
-- niemi – cloak	néal (m, cloud)	--	--	--
--	--	--	--	--
nimi – name	ainm (m, id.)	Name (m, id.)	nam (id.)	nam (id.)
noki – soot	anocht (tonight)	Nacht (f, night)	--	--
olut – beer	ól (drink)	öl (oil)	tel (oil)	tel (oil)

pää – head	pálás (m, residence of head)	Palast (m, palace)	prāsād (palace)	--
paatti – boat	bád (m, boat)	Boot (n, boat)	pot (ship)	--
pari – pair	péire (m, pair)	Paar (n, pair)	--	--
peili – game (stupid)	peil (f, football)	Spiel (n, game)	khel (game)	khól
piinata – pain	pian (f, pain)	--	--	--
pikku – small	beag (small)	--	baccā (m, child)	bacheh (child)
pukki – billy-goat	poc (m, id.)	Bock (m, id.)	bakrā (m, id.)	boz (id.)
punki – mite	ponc (m, dot)	Punkt (m, point)	ank (point)	--
raha – money	--	--	raja (m, tribal chief)	--
rauha – peace	--	ruhig (quiet)	--	a:ra:mesh (peace)
rettti – wheel	roth (m, wheel)	Rad (n, wheel)	rāh (road)	rah (road)
rikas – rich	righe (m, king)	reich (rich)	rājā (king)	--
ritari – knight	ridire (m, horseman)	Reiter (m, knight)	--	--
saksa – German	sacsanach (English)	sächsisch (Saxon)	--	--
seistä – stand	seasta (permanent)	--	--	ist (stand up)
sekä – in addition	agus (and/methatesis)	--	aura (and)	a: (and)
soinnutus – harmonisation	soinneanta (calm)	--	samāntā (harmony)	--
soma – pretty	sona (happy)	schön (fine)	sundar (pretty)	--
sukia – brush	scuaib (f, brush)	--	--	--
seitsemän – seven	seacht (id.)	sieben (id.)	sat (id.)	haft (id.)
silmä – eye	súil (f, eye)	--	sulgānā (to light)	su (vision)
taide – art	taide (m, research)	--	--	--
tänti – aunt	aintín (m, aunt)	Tante (f, aunt)	--	--
tanssi – dance	damhsadh (m, dance)	tanzen (to dance)	--	--
tarjous – offer	tairiscint (to offer)	--	--	--
tila – ground	talamh (m, ground)	--	--	--
tilkka – small drop of a certain liquid	--	--	tilika (dye mark on lady's forehead)	--
tollo – dummy	dúr (stupid/dental exchange)	Tor (m, fool)	--	--
toimi – measures, policy	tomhas (measure, extent)	--	--	--
tökkiä – dig	tochailt (dig)	--	--	--
tori – marketplace	tóir (f, trail)	--	talāsh (to search)	talāsh (to try)
(trampled upon)	(trampled upon)	(to trample)		
tora – quarrel	torann (noise of action)	--	tornā (to break)	--
tumma – dark	dorcha (dark/dental exchange)	dunkel (dark)	andherā (dark)	--
turve – turf	--	Torf (m, turf)	--	--
tytär – daughter	--	Tochtar (f, daughter)	--	--
utare – Udder	úth (m, udder)	Euter (n, udder)	thana (udder)	--
uuni – oven	oighean (m, oven)	Ofen (m, oven)	--	--
väki – folks	focal (m, word)	Volk (n, people/metathesis)	--	vazeh (word)

valli – embankment	<b>balla (m, wall/lenition)</b>	Wall (m, rampart)	--	--
valta – power	--	walten (to rule)	--	--
vati – basin	--	Vase (f, vase/dental exchange)	--	--
villi – wild	--	wild (wild)	--	--
virka – office	--	Werk (n, labour)	--	--
vitzi – joke	--	Witz (m, joke)	--	--

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