A Genetic Signal of Central European Celtic Ancestry: Preliminary Research Concerning Y-Chromosomal Marker S28 (Part 2)

**Hallstatt Culture: 720 to 600 BC and 600 BC to 480 BC (Ha C and D)**

This interval represents a time of major changes in Europe, in the regions once characterized by the Pfyn and related cultures with roots extending back to the Neolithic, and the Urnfield groups which would morph into the peoples of the Hallstatt tradition with their characteristic elite burials.

Kristiansen (1998) proposes that the movement of Hallstatt C warrior elite spread across Central and Western Europe, at a time when trade routes to the north diminished. However those in the eastern tier maintained links to the Lusatian culture and the Baltic regions, with a continued emphasis on trade in amber and mining of salt in the immediate surrounds of Hallstatt in Austria. Hallstatt is actually at the southeastern tip of what was a very large oval shaped territory with the center of gravity northwest of the Alps. In Reinecke’s system of dating, this period is known as Hallstatt C and D. Hallstatt C (earliest phase) is characterized by rich horse and wagon burials (containing ornate horse tack) and includes the region from western Hungary to the Upper Danube. Hallstatt D is represented by a chieftdom zone and elite burials further to the west, with settlements concentrated near the headwaters of every major river from the Loire, to the Seine, Rhone, Rhine and Danube. The geographical re-alignment was likely a function of the establishment of a Greek (Phoenician) trading center in Massilia (Marseilles), circa 600 BC. This gave the princes access to the prestige goods of the Mediterranean world.

At the earliest stages the bronze weapons from western Hallstatt sources were traded extensively. They are few in number beyond a semi – circle over the northern Alpine zone (although found in Northern Jutland). The cultural flourishing here is outstanding and has been the subject of numerous books and articles. Designs, shapes, styles show Mediterranean (Phonecian, Greek, and Etruscan) and Eastern (e.g., Thrace, Pontic / Balkan areas) influence, but melded within a Celtic cultural matrix. The “Western
Hallstatt culture was represented in an arc via the Alpine areas of Switzerland, Bavaria, and Italy and to the north in Bohemia (Czech / Slovakia) and Moravia. The “Eastern Hallstatt” encompassed the eastern – most Alps and the Dinaric Alps of the Balkans.

Using place name evidence, Rankin (1987) concludes that the Celtic language that ultimately spread across the extent of Europe emerged out of the Urnfield complex. Furthermore it is in the Northern Alpine area where, the Celtic peoples had their original home, in the sense that it may have been the region in which they developed their individual character as distinct from other presumable IE [Indo – European] groups (p. 9).

The Hallstatt C and D periods of the 7th and 5th Centuries BC were a time when, the elite of the Middle European core zone adopted the burial wagon as a symbol of status (Cunliffe, 1997, p.294). Here the, principal concentration lay in southern Germany (Baden-Wurttemberg and Bavaria) (ibid, p.52).

Examples from the late 6th Century are found at Hohmichele near Hundersingen (near the hillfort at Heuneburg overlooking the Upper Danube); and Magdalenenberg near Villingen. It is this period that also gives us the fabulously wealthy barrow burials of the “princess” at Vix near Chatillon-sur-Seine, France (whose grave contents included the gargantuan bronze wine kater). Perhaps the most ornate of all is the circa 500 BC tumulus burial of the chieftain at Hochdorf near Hohenasperg, Stuttgart (the 6 foot 2 inch
Celtic prince being placed on a 9 foot long bronze couch supported by 8 female figurines on wheels); as well as the Hirschlanden (Baden-Wurttemberg) burial apparently surmounted with a lifisized stone statue of a Celtic chieftain. In the east was the Zavist settlement near Prague with its elaborate defensive works and an “acropolis” (likely a cult center). For details on the Celtic archaeological sites of Baden-Wurtenberg click here.

Although the present author does not recall others positing a Druidic origin for these burials, it would certainly “fit” considering the evidence of nobility and the lack of offensive weapons (hunting kits aside). It seems unusual that someone would not be buried with the symbols of their status. A warrior chieftain would surely have been sent to the afterlife with the usual paraphernalia that he would sport in the carrying out of his duties. As to the Vix and other female burials, It has been recorded elsewhere that women could be Druid priestesses. What is interesting is that it is in the secondary burials in the tumuli at locations such as Magdalenberg that burials are found where warriors are buried with weaponry such as spears (Collis, 2003).

Before considering the La Tene period there is one more potentially relevant development relating to the time interval from about 600 to 450 BC. This relates to a post – Cimmerian intrusion into Eastern Europe and westward by the Scythian warriors of the Pontic steepes. Kristiansen (1998) asserts that there is ample archaeological evidence to illustrate their incursion with typical assemblages of artifacts (e.g., bow and arrows, mirrors and earrings), expanding westward from the Carpathian Mountains into Western Hallstatt territory. At some point before 500 BC they were in the Lusatian areas and the interactions were not at that time peaceful. At about this time (the dawn of the La Tene Culture) the Lausitz (Lusatian) Culture went into very sharp decline – in the east likely due to Scythian aggression, and in the west due to internal factors (exhaustion of
the land). There is nothing that would suggest that these Scythians were R1b-U152, and much that would contradict any assertion to this effect.

An excellent map in Cunliffe (1997, p.64) shows the, shift in centers of power from c.700 to c.400 BC. The map above, however, provides an overview of major trends.

La Tene Culture: 480 BC - 1 AD

Much has been written on the “La Tene” finds in Lake Neuchatel at La Tene, Switzerland. Most of the items here appear to have been votive offerings and are extraordinarily rich in design, beauty and technological sophistication. Around 500 BC there occurred a very sudden extinction of the Hallstatt D fabulously wealthy princeums, and a shift in the Celtic power base to the north. The story can be told via the map above where the warrior aristocracy appears to abruptly move from Hallstatt territory (where society there goes into a precipitous decline, and in many cases experienced violent destruction) to the north and west. In Central Europe the interval from about 500 BC until the Roman occupation of Celtic lands circa 1 AD is called the La Tene culture, reflected in a new material culture and artistic style that appeared along side Greek and Etruscan artifacts in aristocratic graves. As an example, the four wheeled funary wagons were replaced in many instances by two wheeled chariots (e.g., James, 1993). La Tene, despite the prominence given this site, is situated at the extreme southwest corner of the expanse of territory.

It is important to note the dynamics of the transition between Hallstatt and La Tene. Collis (2003) states, In south-western Germany and eastern France, it is clear that the Hallstatt D / Early La Tene transition is associated with profound social and economic changes, and probably a shift of power to areas to the west and north. However, there is little evidence that there was also ethnic and language change (p.158). It appears that in Baden-Wurttemberg Hallstatt and La Tene co-existed for a time before La Tene replaced its predecessor.
It is now that the Greek and Roman writers refer to the Keltoi, Galli or other appellations. As new centers of power emerged to the north and the old Hallstatt chiefly zone became a cultural backwater. In the words of Cunliffe (1997), *during the course of the fifth century there arose two zones of power and innovation: a Marne – Moeselle zone in the west with trading links to the Po Vallley via the central Alpine passes and the Golasecca culture, and a Bohemian zone in the east with separate links to the Adriatic via the eastern Alpine routes and the Venetic culture* (p.66). These areas correspond to the Champagne, France to Trier, Germany regions, and the Czech and Slovakian Republics of today, with cemeteries which, *exhibit an unbroken burial tradition from Hallstatt times: the La Tene culture evolved in these regions, it was not brought from elsewhere* (James, 1993, p.29).

Livy, the eminent Roman historian, wrote that in the time of Tarquinius Priscus (circa 600 BC), and hence at a date earlier than noted below, Gaulish Celts initiated a wave of migration precipitated by overpopulation. Ambitgatus, a king of the Biturgis, was apparently the overlord of Gaul, and his nephews were chosen by lot to lead parties “wherever the gods indicated”. Segovesus found his way to the Hercynian Forest in Bohemia, and Bellovesus led his group into Italy (Mansvelli, 1991). Bellovesus led a large contingent of Bituriges, Arverni, Senones, Aedui, Ambarri, Carnutes and Aulerici through the Alpine passes to the region of Milan. Pompeius Trogus, writing circa 10 AD, added that other Celtic settlements at this time included Como, Brescia, Verona, Bergamo, Trento and Vicenza. This wave also appears to have resulted in the creation of the Insubres, a blend of indigenous Golasecca people and the incoming Gauls.

In essence the archaeological evidence would tend to support Livy’s view that the initial migrations began circa 600 BC; but clearly the major folk movement was initiated about two hundred years later.
As the year **400 BC** approached, circumstances conspired to trigger a mass migration of Celts – which would have wide-ranging effects throughout much of Europe and western Asia. Some useful resources include the 41 articles in “The Celtic World” edited by Miranda Green (1994), and the 61 articles found in “The Celts” edited by Kruta et al. (1991). Perhaps the best single source is Barry Cunliffe, “The Ancient Celts”, 1997.

In relation to the map below, it is proposed that the R1b-U152 heartland encompassed the lands of the Treveri, Haedui, Sequani, Helvetii and thus migrations from those areas would likely have included S28 dispersal to the regions show via arrows leading from the named tribal lands.

![La Tene Migrations circa 400 BC](image)

Cunliffe (1994) stated, *we must consider to what extent the west and north of Europe can be said to have been part of the Pan – European Celtic (or La Tene) culture. There were no historically recorded westerly migrations nor does the archaeological evidence suggest a close similarity between the culture of western communities and that of the central La Tene zone* (p.367).

**The Migration Period** - Most recent texts (e.g., Frey, 1995) give a date of circa **400 BC** for the migration of the Boii, Senones, Cenomani, and Lingones into the Po Valley and the Adriatic coast. These Celtic settlements came to be known as “Gallia Cisalpina” to the Romans. Other Celtic people moved east along the Danube at approximately this
time, and it is entirely possible that part of the movements of this group occurred northward. These events are well described by Plutarch in “Life of Camillus”. Plutarch wrote, The Gauls were of the Celtic stock, and their numbers were such, as it is said, that they abandoned their own country, which was not able to sustain them all, and set out in quest of another. They were many myriads of young warriors, and they took along with them a still greater number of women and children. Some of them crossed the Rhipaean mountains, streamed off towards the northern ocean, and occupied the remotest parts of Europe; others settled between the Pyrenees and the Alps, near the Senones and the Celtorians, and dwelt there a long time. But at last they got a taste of wine, which was then for the first time brought them from Italy. They admired the drink so much, and were all so beside themselves with the novel pleasure which it gave, that they seized their arms, took along their families, and made off to the Alps, in quest of the land which produced such fruit, considering the rest of the world barren and wild (15, p.128). The Rhipaean Mountains was the land where where headwaters of the rivers emptying into the Baltic and Black Seas emerged. This description appears to suggest that circa 400 BC the Gauls split to move to the west (toward the Pyrenees) as well as perhaps the Baltic and Carpathian Mountains. These events also appear to be recorded in the archaeological history of Jutland (see later). A reliance on the archaeological record to outline this massive migration is is found in Kruta (1991) who calls it, “The First Celtic Expansion: Prehistory to History” (p.206), and Vitali (1991) describes it in relation to the specific impact on Italy.

The Celts had settled as far east as Transylvania in Romania, and began to move into Illyria where, in 335 BC Celtic emissaries from the Adriatic met with Alexander the Great in Babylon. Nothing further is heard of the Celts in this region for 37 years.

In the year 298 BC the leader of the first documented group of Celtic people migrating east toward Greece was one Cimbaules. It was a common practice for a Celtic leader to have as a prefix to his name part of the tribal name. Boirix was the king of the Boii (from Bohemia), the name of the leader of the Cimbri when Teutobod was head of the Teutones at the time of their defeat in 101 BC (see later). Perhaps this gives support to the statements of Appian in relation to the events of 279 BC (see below) to the effect that the Cimbri were active participants in the sacking of Delphi which is close to Cimbaules’ recorded position 10 years earlier (Haywood, 2001). These people likely came from the Danube corridor including Moravia / Bohemia, as well as some (e.g., Senones, Boii) who settled in Italy 100 years earlier. Archaeological evidence indicates that when the Zavist settlement in Bohemia moved south, their former territory was taken over by migrants from western Switzerland and Baden–Wurttemberg.

The Sack of Delphi and Expansion to Anatolia - La Tene Celts invaded Thrace, Macedonia and Greece in 279 BC. As to the place of origin of the attackers, Pausanias declares that, These Gauls inhabit the most remote portion of Europe, near a great sea that is not navigable to its extremities, and possesses ebb and flow and creatures quite unlike those of other seas. Through their country flows the river Eridanus, on the bank of which the daughters of Helius (Sun) are supposed to lament the fate that befell their brother Phaethon. It was late before the name “Gauls” came into vogue; for anciently
they were called Celts both amongst themselves and by others (“Description of Greece”, [1.4.1] IV). This appears to suggest that the first wave of Celts came from the Baltic Sea region, the Eridanos to Greek writers was a river in Northern Europe that led to the source of the amber, all of which would be consistent with the territory of the Cimbri.

The Roman writer Appian of Alexandria (circa 95 AD to 165 AD) was very specific here. In discussing the Illyrians in his “History of Rome: The Illyrian Wars” he said, according to the Greeks, they occupied the Adriatic Coast of the Balkans to the foothills of the Alps and the headwaters of the Danube. Appian notes that the Celts, Illyrians, and Galatians descend from the same peoples (via three sons of Polyphemus). One of the Illyrian Celtic tribes was the Scordisci (who during his day were settled in Pannonia – Hungary). Another Illyrian tribe in the 3rd Century BC was the Autarienses who were overtaken with destruction by the vengence of Apollo. Having joined Molostimus and the Celtic people called Cimbri in an expedition against the temple of Delphi, the greater part of them were destroyed by storm, hurricane, and lightening before the sacrilege was committed (p. 4). Pausanias (“Guide for Greece”, 10.19.4-23.9) provides a very detailed compilation of the tripartite Celtic assault on the Balkans and Greece, many of whom were the veteran troops of Cimbalus above. Apparently the leader of the Celtic band that stormed Delphi was Brennus, with Cambutis (another Celtic chieftain or a spelling variation of Cimbalus?) leading the infamous assault on Callium characterized by notorious atrocities, prior to marching to Delphi.

The events subsequent to 279 BC thwarted any large-scale Celtic expansionism in the area except the influx of three tribes to Anatolia and the Thylian settlement on the Black Sea. The remenants of the many groups of Celts in the area appear to have moved north and grouped together to form the Illyrian Scoridici tribe. Theodossiev (2004) has
marshaled considerable archaeological data to shed more light on the specifics of the Illyrian – Thracian connection.

According to Appian, frogs, plagues, and pestilence were to follow. It is possible that, if Appian is correct, then the Cimbri headed back to Jutland in 278 BC – a time when there was a great increase in the number of votive offerings involving the sacrifice of humans. Appian recorded that later, the god visited the Celts with an earthquake and overthrew their cities, and did not abate the calamity until these also fled from their abodes and make an incursion into Illyria among their fellow – culprits, who had been weakened by the plague. While robbing the Illyrians they caught the plague and again took to flight and plundered their way to the Pyrenees (p. 4). Pausanius described earthquakes and rock slides that kept the Celts from plundering Delphi. Other sources make it clear that valuables were in fact taken from Delphi. Justinius (quoting Pompeius Trogus) specifically noted that a group of the Tectosages retreated from Delphi and moved west to settle in Toulouse (in the south of France near the Pyrenees) where they deposited the treasures from Delphi in sacred lakes. Then in 106 BC, Caepio led his Roman forces to put down a revolt by the Volcae Tectosages, and ordered the lakes to be drained, apportioning the votive offerings of Delphi treasures to himself. Strabo as well as Justinius attributed Caepio’s later misfortunes to the wrath of Appolo since the venerated valuables were once again disturbed (Cunliffe, 1997).

The archaeological data supports the historical record in that there is a sudden influx of Danubian artifacts (in other words a back migration) during the 3rd Century BC in the west as far as southern France – and north to Jutland. Hence it is likely that both the Tectosages of Toulouse and the Cimbri and other unnamed tribes headed west shortly after 279 BC to establish themselves in other locations or those previously vacated. It is interesting to note that the respected author Hubert (1934) stated during the La Tene period, until about 300 BC, there was little evidence of cultural equivalency in the artifact assemblage or burial customs between those residing in Northern Jutland and Central Europe. However by this date what is seen in Jutland becomes more and more what one would find in the Alpine regions to the south.

Actually, in the late La Tene period of 200 BC to 1 AD, a particularly Celtic phenomenon, with a wall and ditch enclosure, has been found from the Atlantic coast of France to Bohemia – the lands of the historical Central European Celts, but with the largest number to date being found in southern Germany with 200 plus sites in Bavaria and Baden-Wurttemberg. These are the mysterious Viereckschanzen found outside fortified settlements are now interpreted as ritual cultic sites, where possibly sacrifices and other activities were presided over by the “Celtic clergy”, the Druids (Maier, 2000). Again this phenomenon appears to reflect a cultural continuity that corresponds to the historically attested Celts with their epi-center in the region encompassing the headwaters of the Danube and Rhine Rivers.

Konstam (2003) considers the La Tene “Celtic homeland” to have, originally encompassed parts of the Czech Republic, Hungary, Austria, Switzerland, and southern Germany (p.20). Three foci noted by Cunliffe relating to the La Tene Celts are the
Marne (eastern France), Moselle (western Germany), and Bohemian (Czech Republic). Haywood (2001) adds that at a later date the primary tribal areas corresponding to these clusters are, respectively, the Parsii, Treveri, and Boii (see p.37). By the 4th Century BC there was strong cultural continuity between Celtic areas of France, Switzerland, Italy, Southern Germany, Austria and Bohemia. By the mid 3rd Century there were two divisions, the western (e.g., Switzerland) and eastern (eastern Alps to Transylvania).

It should be noted that as the centuries unfolded the apparent separation of Central Europe into Celtic tribes in the south and German tribes in the north blurred to a degree especially in border areas and with the continued push of the Germanic tribes to the south. For example, late in the 1st Century AD, just before the Romans established the Limes (defended border), and the provinces of Germania Superior and Inferior, the Germanic Batavi, and the Celtic Treveri under Julius Classicus and Julius Tutor with the Celtic Lingones led by Julius Sabinus, attempted to establish an independent Gallo-Germanic empire on both sides of the Rhine (Maier, 2000). Also we will see that the Allemanni, the prototypic German group of the 4th Century AD, was likely an amalgam of Celt and German. A circa 400 AD medical compendium, *De medicamentis*, includes herbal remedies and magical formulae, which are wholly or partially preserved in Gaulish (Maier, 2000, p.103). Circa 470 AD Sidonius Apollinaris noted that the local Arverni of Gaul still spoke the Celtic language. However, within a hundred or so years or so of the latter date it appears that few in any Central European Celts could speak the language of their ancestors, and the Celtic cultural features dissipated to the point of being largely unrecognizable (the demise being well described by Collis, 2003).
In the above map the La Tene Celtic homeland is shown in yellow. The dark green represents some limited cultural and perhaps folk movements to the west, plus regions where other cultures which spoke what are today known as Celtic languages, but who were not at the time known as Celts (not until the 16th Century was the term applied to the insular people who spoke Goidel or Gaelic). The light green depicts expansion areas where La Tene Celts settled, according to documentary sources, and where their descendants could be found today. The continuity is reflected in many archaeological assemblages such as, the occurrence of Attic Red Figure Ware dating to the fifth century BC turning up in graves in northern France and southern Germany, such as Klein Aspergle in Baden-Wurttemberg, or Somme Bionne in Champagne (Collis, 2003, p.78). These rather specific regional links may extend back thousands of years, for example that between the Languedoc and southern Germany; while the cultural links of Provence are more clearly with the peoples of the Swiss plateau (Collis, 2003, see p.177). A very tentative genetic spin would propose that the former include R1b-U152 with DYS492=14; and the latter DYS492=12 (with more mixing with the passage of time).

The Volcae

The above map shows how some tribal groups seem to pop up everywhere in the 3rd and 2nd Centuries – such as the Boii in Switzerland, Italy, Western France and Eastern Europe; as well as the Volcae in Anatolia, Transdanubia, and Southwestern France.
La Tene Celtic Europe (with documented tribal territories) circa 400 to 50 BC

The above map shows the La Tene Celtic world at its peak. The white line encompasses regions where Celtic language and culture is found, although to the Classical authors (and up to the 16th Century), the word Celt was never applied to insular peoples such as Britain and Ireland. The eastern locations, however, were areas where La Tene Celts migrated beginning circa 400 BC (Livy provides evidence of a migration circa 600 BC). The yellow line shows the locations of Celtic oppida (early towns). The red area depicts the regions where Celtic inscriptions have been found. If the north and eastern ends were joined, sweeping around the Volcae, this would be the Celtic extended homeland. The heartland would be the regions around the headwaters of the Rhone, Rhine and Danube Rivers. The tribes as depicted on this map are those believed to be residing in those locations circa 250 BC. Click here for more information on this map.

Critique Concerning the Historical and Archaeological Evidence

John Collis (2003) has provided a unique brief synopsis of the primary contributions of each historian or commentator (largely of the Greco-Roman world) who spoke of the Celts. He has also taken pains to discuss the weaknesses in the evidence sources that many authors take as a given. For example it is rare to have an original source to work with. What is extant is typically a fragmentary distillation of the writings of earlier lost sources and there is no way to ascertain the accuracy of what is found in many historical sources (e.g., the number of copying errors perpetuated by subsequent authors). Some histories were written many hundreds of years after the events being described, and are likely filtered through biases (e.g., stereotypes of a people often poorly understood), and influenced by politics (e.g., the need to portray Celts as cruel and disloyal to justify an invasion). He also details the process, beginning in 1582, which led to the erroneous
beliefs that the peoples of Ireland and Britain were considered as Celts by Classical authors, or viewed themselves as Celts in Medieval or earlier times. Hence, *by the early nineteenth century it was universally accepted that the pre-Roman inhabitants of Britain were Celts* (p.73).

At this point the focus will shift to individual European countries, picking up the thread of later La Tene developments, and linking these to genetic findings from academic and commercial sources in relation to haplogroup R1b-U152.

**West to East List of European Countries: La Tene History and R1b-U152 Status**

Below, each European country or region is listed with a description of known (via historical and archaeological sources) La Tene era movements, and later tribal constellations. The best single source is *An Atlas for Celtic Studies* by John T. Koch (2007). Integrating archaeological, linguistic and historical evidence, this work shows archaeological finds, Celtic place names, and tribal locations presented in a large multipage colored road atlas format. Information will then be provided concerning:

1) The percentage of R1b-M269 also known as R1b1c (old style), R1b1b2 (Karafet et al. (2008), R1b1b2a2 (ISOGG, 2008) reported in recent population genetics
studies of these areas. In the vast majority of instances (based on recent unpublished work) R1b-M269 west of Poland and Italy is also noted by a downstream SNP known as R1b-S116. It has been shown that R1b-M153, R1b-M167, R1b-M222, and R1b-U152 are all subclades of R1b-S116. However R1b1c9 (old style), or R1b-U106 is ancestral or negative on S116. U152 (published by Sims et al., 2007) was originally known as S28 (when it was discovered by EthnoAncestry) and so the two terms are equivalent. Similarly the SNP designators U106 and S21 are the same. Unless otherwise stated, the data presented here is from Perici et al. (2005) with summary statistics from a variety of studies.

2) Predictions in relation to the likely overall percentage of R1b-U152 also known as R1b1c10 (old style), R1b1b2h (Karafet et al., 2008), and R1b1b2a2g (ISOGG, 2008) in each country and region.

3) Actual academic research or commercial test findings relating to those found to be R1b-U152

SPAIN and PORTUGAL: It appears that Spain was but little touched by La Tene, either culturally or in terms of folk movements. This country has been something of an enigma to archaeologists attempting to trace the antecedents of the people known as the Iberians as well as the CeltIberians. A growing consensus among researchers is that in general the CeltIberian culture grew from indigenous groups with a process of cultural diffusion serving to explain any similarities between Iberia and Central Europe.

Haywood (2001) reported that, The earliest Celtic migration for which there is some evidence crossed the Pyrenees into the Iberian peninsula in the 7th or 6th century BC (p.36). Konstam (2003) noted that in the 5th Century BC, (unspecified) Celts from the “homeland” migrated west to Spain. Cunliffe (1997) stated that, despite the largely indigenous population of Iberia, The possibility that groups of La Tene Celts may have moved south into Celtiberian lands, as raiders, settlers, or mercenaries, cannot, however, be ruled out. Celtic war bands may have attached themselves to the incursions of the Cimbri in 104 BC and Caesar specifically mentions the arrival in Lerida, in 49 BC, of 6,000 Gauls, including Gallic cavalry, Ruthenian archers, and their families. The contribution of these and other possible intruders to Celtiberian culture seems to have been minimal (p.142). In the same work Cunliffe discusses how the hillfort at Las Cogotas on the edge of the north Meseta in the province of Avila appeared to suddenly emerge as an fortified structure about 400 BC – at precisely the time of the great La Tene migrations. This observation may be of particular salience in relation to the finding noted below. The people in this area became the Vettones tribe, who emerged at Las Cogotas in the 5th Century BC. La Tene cultural links are supported by finds of fibulae virtually identical to those seen in Eastern France, and antenna-hilted daggers of the “Waldalgesheim Style” seen commonly in the Rhineland. The evidence from Avila suggests that there may have been two groups present, where the La Tene element may have been an elite warrior class, buried typically with a full La Tene “package” of grave goods. However, in total, the archaeological picture cannot be compared with the Celtic migration to Italy or to east-central Europe (Lenerz-de Wilde, 1995, p.538). Lenerz-de Wilde interprets the evidence as a likely migration where a, small number of Celtic
immigrants came up the valley of the Ebro into the eastern Meseta, there to establish their knowledge of metallurgy, and were thus rapidly integrated into the local elite. Furthermore that the, radical changes of 400 BC must be linked to military operations (p.544). Her interpretation is that these incoming Celtic groups capitalized on the trading relations that had been in place since Hallstatt times, and on the trade routes that had been long established. One problem in attaining more precision is that there were no Greek or Roman authors to record the contemporary events occurring in Spain, and we are left to come up with interpretations based largely on archaeological data. Caesar did report that the Berones from the north (presumably Gaul) took part in the migration and that at one time all the people in the area were known as Keltoi and controlled Spain before the Carthaginians (prior to the 3rd Century BC) – see Collis (2003).

R1b-M269 percentages in Spain – While there is considerable regional variation, about 65 to 90% of Spaniards are in one clade or another of this haplogroup. Most are expected to be R1b1b2* (R1b-S116*) with R1b-M167 likely being the second most common variety. Alonso et al. (2005) observed 53% R1b-M269 in Iberians, and of these 2% were R1b-M153 and 2% were R1b-M167. Among the combined Basque groups, 86% were R1b-M269, with 11% of these R1b-M153, and 3% being R1b-M167. The markers M167 and SRY2627 are equivalent, and the former notation will be used here. A sampling of a wide variety of regions in Spain can be found in Flores et al. (2004). Brion et al. (2004) completed a regional study of northern Spain – Galicia (NW) and Cantabria (NE). As is all too typical, the genotyping lacked depth including only 92R7-P*(xR1a,R1b-M167) and so we must assume that these were R1b-M269. The results varied quite significantly by microregion. Thus for Galicia, the numbers varied from 39% to 65% assumed R1b-M269; and for Cantabria 40% to 63%. They also measured R1b-M167 which should be added to the above to give the full R1b-M269 percentages. Here the percentages for Galicia varied from 0% to 6%; and for Cantabria, 0% to 8%.

Beleza et al. (2005) published an extensive study of Portugese haplotypes and haplogroups. 53% were R1b-M269. Of these 4% were R1b-M167.

R1b-U152 predictions – It seems evident that R1b-M269* will predominate in Iberia. It is a toss up as to whether R1b-M2696 (apparently scattered widely throughout Iberia) or R1b-U152 will be the next most frequently occurring subtype. Since relative few from this area have tested it is difficult at this point to come up with anything more specific. It is possible that some of the Celtiberians, believed to have emigrated from the east in the 8th or 7th Centuries BC are R1b-U152, and if so, the numbers of Spaniards who are S28+ could be much larger than anticipated. It is not expected, if the S28+ in Spain is via La Tene migrations, that this haplogroup will make up more than 10% of the R1b-M269 in that country.

It is probable that there was a migration of La Tene Celts from Spain to Portugal, but there is insufficient information upon which to make any sort of informed estimate. A reasonable guess would be the same percentage as R1b-M167, in other words less than 10%.
R1b-U152 findings – In a small commercial sample one individual from Mexico who traces his ancestry to Avila, Spain (in what is known as the Meseta region), has been determined to be S28+. There is no data from Portugal to date.

IRELAND: There is nothing in the historical or archaeological record that would suggest that Ireland experienced any influx of people during the La Tene expansion. The few La Tene artifacts all appear to be locally made and there is nothing else in the record that would point to anything other than an indigenous population who adopted some of the La Tene cultural “package”, adapting it to fit within their own cultural framework (e.g., Raftery, 1991). In the McEvoy (2004) genetic study of the Celtic origins of Ireland and the Atlantic Façade of Europe, they state, archaeological evidence for large-scale Iron Age migrations into the British Isles has been singularly lacking. In Ireland, for example, La Te’ne artifacts are relatively rare and are almost always of indigenous manufacture rather than of external origin (Raftery 1994), leading archaeologists and historians to question the accepted idea of Celtic migration to Ireland (O’Donnabha´ in 2000). More generally, Renfrew (1987), among others, proposed that the roots of insular Celtic identity lay within the region in which the Celtic languages were historically spoken, in the diffusion of Indo-European speakers into Britain and Ireland with the arrival of the Neolithic in 4000 B.C. They summarize the studies of both mtDNA and Y-DNA and conclude that there is little evidence of any Central European influence, but a shared ancestry across the, Atlantic zone, from Iberia to western Scandinavia, that dates back to the end of the last Ice Age (p.693). There is nothing in the genetic or archaeological data that would suggest any Hallstatt or La Tene immigration to Ireland and no support for the “Book of Invasions” relating to the Gaels and Fir Bolg (e.g., James, 1993). La Tene metalwork does not appear until about 250 BC, and this is in a distinctive Irish style, only showing a degree of stylistic influence, not pointing to any direct contact with the La Tene world.

R1b-M269 percentages in Ireland – Of all countries in Europe, Ireland has the largest R1b-M269 population (likely all R1b-S116), reaching the saturation point along the west coast. Ireland is over 90% R1b-M269.

R1b-U152 predictions – Myres et al. (2007) found 7% of their Irish sample were R1b-U106. In the opinion of the present author all of these can be attributed to the known presence of English, Viking and Norman invaders. It will be interesting to compare this percentage to nearby England with an undisputed input from Anglo – Saxon and Viking sources. Some R1b-M167 has been observed in Ireland (perhaps 5% of the R1b-M269 total). The vast majority will be R1b-M269*/R1b-S116* (including subtypes known as Irish Type III, and South Irish – each of which have very distinctive haplotypes), as well as the Uí Neill Northwest Irish R1b-M222. The prediction here is that most of the R1b-U152 is from Norwegian Viking sources, and from the English and Norman plantations. Considering that to date more Irish than any other group (with the possible exception of English) have been tested for R1b-U152, and only three have been found S28 positive, it is expected that less than 5% of Irish will be R1b-U152.
R1b-U152 Findings - Two individuals from Ireland who are R1b-U152 have English surnames; and one a Scottish surname.

**SCOTLAND:** As with Ireland, there is nothing from the historical or the archaeological record that would substantiate a belief that La Tene Celts settled in Scotland from the ancestral home in Central Europe.

**R1b-M269 percentages** – Scotland has a very high percentage of R1b-M269 at about 75%, less than Ireland but more than England. This appears to reflect the fact that Scotland has experienced much more direct contact with Anglo-Saxons, many of whom moved north in the Middle Ages. It also has a very strong Viking history, but primarily in the eastern Mainland and the Isles – but little along the far western coast or interior.

**R1b-U152 predictions** – Based on the percentage figures and no evidence of any La Tene migrations, clearly most of Scotland will be R1b-M269*, particularly in the Highland region and the west coastal area. What is expected, however, is a relatively large R1b-M222 input, and a much smaller R1b-M167 input to the population structure of the western area. Here the Scotti (Dal Riata) from what is today Ulster invaded Scotland and took over the reins of power from the Picts. In the R1b-M269 department, they would doubtless be R1b-M269* but with a high percentage of the “Scots” haplotype identified by Dr. James F. Wilson (population geneticist) and a number of genetic genealogists. The R1b-U152 would be Norse Viking in the north, and Norman and Fleming along the east coast and Lowlands (see England below).

**R1b-U152 findings** – Very few Mainland Scots have tested S28 positive, one being from the Moray Firth (an area of Viking settlement) and another from Caithness which experienced the largest Viking presence, one from the capital of Edinburgh, and one from Kinrosshire – all on the east coast. This despite a relatively large number of Scots having tested for this marker.

**NORTHERN ISLES:** Orkney and Shetland will be considered separate from the rest of Scotland. Until 1468 each was under the control of Norway, and had been settled by the Norse from the 9th Century. After 1468 Mainland Scots families settled in Orkney and Shetland and came to make up about 50% of the population. Neither is considered to have been the direct recipient of any La Tene era population infusion from Central Europe – and the debate continues whether there were any Picts residing there when the Vikings arrived, whether they were all put to the sword, or whether there was an absorption of the aboriginal population by the Scandinavian invaders (the fact that virtually all place names are Norse would argue against Pictish survival to the present).

**R1b-M269 percentages** - About 66% of Orcadians and Shetlanders are R1b-M269.

**R1b-U152 predictions** – The Scottish Mainland Pictish – Celtic component are likely to be almost entirely R1b-M269*. Those who have English surnames will probably result in about 10% R1b-U106 (S21), and those of Norse ancestry possibly 50% (over 60% of
Norwegian R1b-M269 is S21+ based on preliminary findings with an academic sample. This leaves a very small percentage who might be R1b-U152.

**R1b-U152 findings** – A large Orcadian sample has been tested and as predicted only about 5% of the R1b-M269 is R1b-U152. What is particularly interesting is that so far, without exception, all of those who tested S28+ have farm/place names which in Orkney means a Norse background, or are known to have arrived from Norway during Medieval times. There are other families who came later from Norway who test S28+ but no one else. In a small sample of Shetland R1b-M269, two families were determined to be R1b-U152. Interestingly, both originated in Orkney. The interpretation of these results will depend on the findings of the Norwegian sample noted later.

**WALES:** Wales is considered to be the location where the Celtic – speaking British retreated after the Anglo-Saxon invasions of the 5th Century AD (joining their fellow P-Celt speakers). There is no evidence at of any La Tene Central European migration to this area. However the exception might be the Island of Anglesey (Mona) which was the “headquarters” of the British Druids, which in turn attracted those from the Continent to study.

**R1b-M269 percentages** – Wales is predominantly R1b-M269 with 85 to 90% being typical.

**R1b-U152 predictions** – The majority of those from Wales will be R1b-M269*, but there will likely be some regional differences such as the 40% finding of haplogroup E3b in Abergele, North Wales (otherwise rare in Britain). Wales could have received R1b-U152 via three sources – Continental migrants (e.g., Flemish) in recent times; Belgae refugees during the time of the Roman purges of the Druids in the 1st Century AD (there is evidence for R1b-U152 being found within the historical territory of the Belgae – parts of modern Belgium, France, and southern Holland); and Vikings. The island of Anglesey (Mona) is a bit of an enigma here since any one of the above three hypotheses could apply. This was for example the last hold out of the Druids, although they were apparently all killed or taken as slaves by the Romans. Also, recently there has been a recognition that there is more evidence of Scandinavian settlement on Anglesey than for even East Anglia or Northwest England (known from place names and historical records to have likely received a substantial Viking genetic input), as well as the recent population genetics study by Bowden et al. (2007). Hence, if R1b-U152 were found on Anglesey any of these hypotheses (or more than one) could hold true.

**R1b-U152 findings** – To date there have been no customers of EthnoAncestry or Family Tree DNA, the only companies which offer S21 and S28 testing, who are of Welsh descent and who have tested S28+. However in a research sample of the Island of Anglesey, while the percentage or R1b-M269 matches that of Wales in general, a substantial proportion were R1b-U106 (say about 30%) and R1b-U152 (say about 20%). This finding does not have an obvious explanation, although referring to the above three possibilities may point in the right direction. This finding was totally unexpected and it will be interesting to see if it is possible to provide a cogent explanation.
ENGLAND: La Tene influences can have differing interpretations in England. However there is a general consensus that, it now seems likely that Celtic speakers already populated much of northwestern Europe and the British Isles, perhaps from far earlier times. The expansion of La Tene art may simply reflect the spread of a new fashion which arose in one part of the Celtic – speaking region (James, 1993, p.12).

First there is the “mysterious” Arras culture of eastern Yorkshire of the 3rd to 1st Centuries BC. This culture does indeed have features which more closely approximate a La Tene tribe, including chariot burials, than any others in Britain in this time period. According to James, these observations have fuelled much speculation about the possibility of early migration from Gaul to northeast England. But there are too many differences between the burial rites in the two areas to support such a view (p.102). Equally unclear is the relationship of the Parisii of this area in Yorkshire extant at the time of Caesar, with the Celtic tribe of the same name residing on the Seine River near Paris. There is also a Brigantes tribe in eastern Switzerland as well as a very large and powerful tribe of that name in northern England (where little R1b-U152 has to date been found). James (1993) concluded that the, identity of tribal names was a coincidence (p.102).

In the years before the birth of Christ the nature of the contact between people of Southeast England and the Belgae across the Channel can be documented from coins circa 125 BC; and with artifact assemblages pointing to the possibility that some Belgae, in returning from the Danube area after the sack of Delphi in 279 BC to the region between the Seine and Moselle Rivers, also migrated across the Channel at this time. Later, by the time of the invasion of 43 AD by the Romans under the command of Agricola, there were tribes on each side of the Channel with the same name (e.g., Atrebates, Catuvellauni), and an acknowledged relationship between families of for example the Cantii of what is today Kent County England and the Belgae tribes across what amounts to a very small expanse of water. Caesar reported that these incursions were very recent, hence the 1st Century BC. The haplogroup structure of the Belgae, as reflected in the modern occupants of the region, includes R1b-U152. There does not, however, appear to be much archaeological evidence of Belgae migration to the areas in England where R1b-U152 clearly clusters (the eastern coastal areas within the Danelaw).

Other possible sources of R1b-U152 include the Angles from the Southeastern part of the Jutland Peninsula, and the Jutes from the opposite side of said peninsula (facing England). This matter is discussed in length is another work by the present author – as is the evidence in favor of R1b-U152 being among the haplogroups of Northern Jutland from whence came the Danish Vikings who settled in the Danelaw of eastern England from Essex in the southeast. A similar situation is apparent for the Norwegian Vikings who established themselves in the Wirral Peninsual and Cumbria in northwest England after they were expelled from Dublin in 902 AD. For a detailed consideration of the data in relation to this hypothesis, click here.
A more inclusive interpretation is that La Tene influences (and hence R1b-U152) in Britain have occurred since about 450 BC, and include the Arras – Parsii of Yorkshire, other La Tene migrations of elite groups to East Anglia and other coastal areas of England, the Belgae from about 250 BC to the days of the Roman occupation, the Roman auxiliary troops, merchants and administrators, Normans, post Conquest migrations from Normandy and Flanders, the Flemings, and the Huguenots. A more detailed exploration of this matter can be found here.

Preliminary data (click here) shows that the R1b-U152 genetic haplotypes of England are indeed what appears to be an amalgam of what is seen in those from other parts of the La Tene Celtic world (e.g., France, Belgium, Switzerland, Northern Italy, Eastern Europe).

**R1b-M269 percentages** - Generally samples from England return about 65% R1b, although there are regional differences that can be quite marked (Weale et al., 2002). It should be noted that in addition to Ireland, England is highly over-represented in all databases related to genetic genealogy. Proportionately much higher numbers of English have been tested than say Polish. The result is that the numbers of S28+ in the above database represents the bias toward England that would not be reflected in a random sampling of populations from Europe, and all data must be assessed by taking into account the present day skewing effect (toward more English of all clades turning up only because many more English have been tested). Hence if one were to look at a map of the present distribution of R1b-U152 in England, showing what seems to be an extraordinary concentration of this haplogroup here, one might be falsely led to conclude that this was the likely homeland of R1b-U152. If fact this is an illusion since proportionate to the numbers tested in Switzerland for example, the latter would likely have ten times the ratio of R1b-U152 to other haplogroups in relation to the distribution in England.

**R1b-U152 predictions** – It is not clear whether the people of the Arras and Parisii cultures in Yorkshire included R1b-U152. It is, however, highly likely that the areas of Southeast and Southcentral England settled by the Belgae (and those who followed from the same geographical area to about 1685) will include a sizeable percentage of R1b-U152 reflecting the haplogroup structure of the source population.

A very tentative prediction is that R1b-U152 will constitute about 5% of English R1b-M269, but 10% or more in those regions with documented Belgae, Norman etc. settlement.

**R1b-U152 findings** – To date there has been a research study of a village in Norfolk and despite 60% R1b-M269, there was no R1b-U152 (rather the findings were about evenly split between R1b-M269* and R1b-U106). However, in commercial testing including members of the “East Anglia Project”, there are a noteworthy number of S28+ in England, almost all in or near the Danelaw (as predicted), and a very high percentage near the coast. A secondary location is the area of Chester.

It is noteworthy that to date, 83% of the English R1b-U152 (N=18) comes from within the Danelaw. The outliers come from Berkshire, Cornwall and Worcestershire. It is
perhaps significant that 56% come from East Anglia (Essex, Suffolk, Norfolk, Lincolnshire). In other word over half of the R1b-U152 comes from 4 of 39 historic counties of England. While this area appears to have seen relatively heavy settlement of Danish Vikings, it is also the area where the Belgae descendants are likely to be concentrated.

A recent study by Bowden et al. (2007) explored the prevalence of Viking DNA signatures in those residing in the Wirral Peninsula (near Liverpool) and adjacent areas. While they found evidence of a substantial Viking component in their samples, they did not type for R1b-U106 or R1b-U152 so presumably the Viking percentages would increase perhaps substantially, with perhaps relatively high percentages of R1b-U106 and a much smaller amount, if any, of R1b-U152 due to the evidence noted below.

**NORWAY and SWEDEN:** The possible movement of La Tene peoples into Northern Scandinavia is not noted by the very few references to this area by Classical writers as it was beyond their scope of awareness and reliable information sources. However, it is proposed here that the La Tene influence was indirect, via the Celtic Cimbri of Himmerland and Vendesysel in Northern Jutland, Denmark. It is difficult to know precisely when a migration to the north may have occurred, but if Northern Jutland was settled by the Cimbri about 400 BC, then, since it appears that overpopulation was an issue in the years leading up to the migrations of circa 113 BC, it is expected that the nearby lands to the north received some spill over of the excess population. There have been strong historical connections between Jutland and the Vestfold (Vik) area of Norway, and Halland and Skane in Sweden, plus the area adjoining southern Norway. For much of the early historical period, before Norway became a separate state, these areas were effectively a part of Denmark.

Therefore, the R1b-U152 in for example Southern Norway can be tentatively attributed to the Cimbri (La Tene Celtic). It could also be due to immigration such as Walloons (Belgians) brought to this region in the 1600s. Only further research can tease out the facts here.

**R1b-M269 percentages** - R1b-M269 is typically about 25% of the haplogroups in most Norwegian and Swedish samples.

**R1b-U152 predictions** – Since the Oslofjord area, including Vestfold, is immediately to the north of the Jutland Peninsula, it is predicted that of the 25% R1b-M269, R1b-U152 will be found primarily in this area with a decreasing frequency away from this nucleus. Similarly, the highest concentration in Sweden should be Halland and other areas adjoining Norway, based strictly on proximity factors.

**R1b-U152 findings** - An academic study of a sample of Norwegians found that over 60% of the R1b-M269 was R1b-U106. While R1b-U152 comprised around 20% of the sample, all were located in Southeast Norway (in other words Vestfold and adjacent areas) – hence there appears to be a concentration here. Comparing this data with that for Orkney, it appears that the R1b-U152 in the latter location is a function of migration from
the area around Oslofjord and adjacent areas. To date one Swede has tested R1b-U152, and his ancestors are from the border with southeast Norway. There is, however, a possibility that his ancestors in Medieval times were Walloon.

**DENMARK:** The historical and archaeological data point to La Tene Celtic migrations to the northern part of the Jutland Peninsula beginning about 400 BC when they likely arrived and by 325 BC, according to Philemon, named the Baltic Sea in their P-Celt (likely Gaulish) language, the “Morimarusa” (dead sea) and the more northerly reaches became known as the “Cronium” sea (frozen). Further influxes occurred in 279 BC and 101 BC. Archaeological data provide some interesting prospects. For example, the Mindelheim sword type is dated to Hallstatt C (later 8th, early 7th Centuries). This style is found in Hallstatt and across the Hallstatt cultural region almost exclusively – however with a major outlier centered in Jutland and the adjacent Danish Islands. This region, despite its remoteness from the La Tene Celtic heartland, has produced some of the most impressive and awe inspiring Celtic artifacts such as the Gundestrup Cauldron, the Braa Cauldron, the Dejdjerg wagons and a wide array of artifact assemblages identical to those of Central Europe. There is no evidence of La Tene Celts outside this area in the Northern Germanic sphere – except to their immediate north in Norway (e.g., Vestfold).

For a detailed look at the post 400 BC La Tene in Denmark click [here](#). A detailed analysis of the Celtic connections of the Cimbri can be obtained [here](#). Please note that this manuscript must be significantly revised in light of the failure to find U152 in Denmark.

**R1b-M269 percentages** – The only area noted as having a direct La Tene connection is Northern Jutland and adjacent islands. Only a single academic study has explored the haplogroup structure of this area relative to other more general Jutlandic samples (Borglum et al., 2007). They did not genotype below the level of R1b let alone R1b-U106 and R1b-U152. They found that R1* (probably R1b-M269) composed 46% of the general Danish sample; but only 36% from the Cimbri homeland of Himmerland. There are few published studies which include Danish samples. Bosch et al. (2003) used a sample size on only 58 in their study of Scandinavian (Danish) admixture in Greenland. As is often the case, the level of genotyping is not deep and certain inferences must be made. They observed that 55% of their sample was R1* (xR1a, R1b-M167). This is in all probability R1b-M269 and subclades. There is no indication of the breakdown of R1b except that there were no R1b-M167. Rosser et al. (2000) with a sample of 52 Danes found 50% R1b.

**R1b-U152 predictions** – Based on historical and archaeological data, it would seem likely that the percentage of R1b-U152 would be somewhat higher in Northern Jutland than the rest of the country. The Myres et al. (2007) study found only 35% R1b-M269, of which 50% was R1b-U106. If this data is representative of the country as a whole, then Northern Jutland may have perhaps 50% R1b-U152 – in stark contrast to the findings in relation to Friesland, just to the southwest, with virtually no R1b-U152.
R1b-U152 findings – To the best of this writer’s knowledge about 8 men of Danish descent have tested for the subclades of R1b-M269, and 5 are R1b-U106 and 3 R1b-M269* (S116*). Since the original hypothesis was that the R1b-U152 in the coastal areas of England comes from Northern Jutland, it does not appear that the hypothesis is going to stand up. It will be essential to test a large regional sample from this area to better understand whether there is enough S28 / U152 here to explain at least some of the S28 / U152 found in areas known to have been settled by those from Northern Jutland (e.g., East Anglia and parts of Normandy). However at this point it is not parsimonious to assert that the Cimbri were the primary source of U152 in England.

BENELUX COUNTRIES: Here we find a region that appears to be at the interface between the Gauls and Franks and other Germanics, particularly in Belgium. This is the area where the various Belgae tribes existed. Some are believed to be Celtic, and others Germanic. According to Caesar, the Belgae claimed (with pride) to be descendants of tribes from east of the Rhine. The archaeological evidence suggests that Danubian tribes began to reoccupy areas vacated in the 5th Century BC, presumably when the Senones and others left in large numbers to invade Italy. For example, at this time the well-known Schwarzenbach gold covered bowl from Saarland east of the Rhine has an almost exact parallel is the ornamental work on a drinking horn found near Limburg, Belgium, and gold-sheet work from Durnnberg, Austria and a warrior grave at Chlum in Bohemia (Cunliffe, 1997). Subsequent to the sack of Delphi, beginning about 270 BC, groups from the east arrived in waves to establish themselves in the Belgae and adjacent areas (Kruta, 2004).

The Atrebates are found both in Belgium and in southern England. Some tribes originated elsewhere. The Nervii and the Atuatuci (Tungri) are, according to Caesar, descendants of the Cimbri and Teutones who moved through the area on their cross Europe trek to find a home – ultimately being defeated by the Romans in 101 BC. There is no evidence that people from the three La Tene foci migrated directly to the Benelux countries. They may well have a combination of Celtic (via secondary migrations) and Germanic haplogroups embedded in their population structure – but at this point one can only speculate.

In the southern tier there is a much higher probability of seeing S28-R1b-U152. For example, within the territory of the powerful Celtic Treveri are the elite burials of Goeblingen – Nespeit in Luxembourg.

The Netherlands have closer connections with the Germanic population back to the time of Strabo, Ptolemy and Pliny the Elder. It is here, where the various elements such as the Frisians and the Saxons, who in many cases appear to have abandoned their villages to migrate as perhaps tribal units to England in the 5th Century, had their home.

R1b-M269 percentages – In Belgium the R1b-M269 element is about 65%, and Holland is typically about 70% R1b-M269.
R1b-U152 predictions – It is expected that there will be a noteworthy difference between the two areas in terms of R1b-M269 haplogroup structure. Both areas will likely show R1b-U106 as the predominant variety, but with Holland (including Friesland) having the largest percentage. With known findings of between 60 and 75% R1b-U106 in Holland, it does not leave a great deal of room for R1b-U152 since R1b-M269* (S116*) is likely to be the second largest grouping in northern Germanic countries. It is Luxembourg, the land of the Treveri, where substantial percentages of S28-R1b-U152 are anticipated.

R1b-U152 findings – The Myres et al. (2007) study found 65% R1b-U106 and its subclade R1b-U106b (S29 / U198) at 4% yielding about 70% who tested positive for S21 in Holland. This is almost identical to the findings of another study by Dr. Wilson with a Friesland sample. The question then is whether there are any R1b-U152 in the remaining 30%. The answer is to be found in the latter unpublished study which found less than 1% R1b-U152. This is a very dramatic finding. It says that R1b-U152 is almost entirely absent from parts of the northern Germanic region. There appears to be, even to this day, a sharp north–south division in relation to S21 and S28, the latter being more common to the point of predominating in the southernmost Germanic areas (as will be seen later), but almost non-existent in the northernmost Germanic areas (above the Main River).

In the commercial testing to this point, a participant whose ancestors are from the Liege Region of Belgium (within the domain of the Aduatuci tribe, a branch of the Cimbri) tested U152+, and two other Belgians from nearby. Clearly many more observations will be necessary before any conclusions can be drawn. Two individuals from Luxembourg have tested positive for R1b-U152, and one from Central Netherlands.

FRANCE: One of the three late Hallstatt and La Tene foci (western) is located in France (Gaul), the Marne (Champagne) group. It is from here in central eastern France that circa 600 BC, and a later wave circa 400 BC, migrated into the Po Valley of Italy (e.g., Collis, 2003). By the time of Caesar, most of Gaul was composed of Celts with tribes such as the Aedui, and Averni.
It is unclear how many of these groups trace descent from the La Tene peoples, and how many were the aboriginal groups from the area who became “Celticized”. The continuity factor is reflected in the following statement by Collis (2003). He said that what has been observed is that there is, a connection between western Languedoc and areas to the north and west that is long-lived; the similarity of the pottery in the Late Bronze Age, the Hallstatt and La Tene metalwork, and the monnaies a la croix (the ‘Tectosages cross’) variants of which also turn up in southern Germany; the connections of Provence are more with the Swiss plateau (p.177).

However, many of the same tribal names pertaining to the migrations of circa 400 BC were present at the time of Caesar in the middle of the 1st Century BC, occurring within the broad territory stretching from the Marne south to the Massif Central and from the Rhone to the Middle Loire Valley (Cunliffe, 1997, p.75). There are a number of reports of large areas of the ancient homelands being abandoned (confirmed by the
archaeological record). However, after the defeat at Delphi in 279 BC, many Celts appear to have turned westward and returned to their old haunts, and as well pushed further west where there is found, the sudden appearance of La Tene material in the Languedoc region and in the Garonne Valley (Cunliffe, 1997, p.87). The archaeological assemblages (e.g., use of anklets by women) have clear links with for example the Carpathian Basin. An example is the Tectosages of Toulouse – likely related to the Tectosages of Anatolia – and apparent possessors, along with the Cimbri of Jutland, Denmark of some of the treasure that resulted from the sack of the shrine at Delphi. The writings of Scipio and Appian as well as archaeological discoveries in these areas tend to confirm the reports.

Kruta (2004) has explored the rather dramatic influx that occurred into areas of France that had been largely abandoned when the migration to Italy began in the 5th Century BC. The oldest artifacts date to 275 BC, and are consistent with those seen in the east along the Danube and Balkan areas. Hence the lands of the Marne – Champagne as well as the region around Paris, and the Toulouse area saw a sudden influx of newcomers after the retreat from Delphi in 279 BC. These groups brought with them characteristic artifacts such as a type of chain to attach swords in the “ladder design” that is found at an earlier date in Celtic cemeteries near Belgrade (former Yugoslavia). Also a chariot burial among the Parisii is virtually identical to one at Mezek in Bulgaria.

General areas of Celtic concentration include the eastern area adjoining Switzerland, the Lorraine region, and a tongue of land further north among the Marne group including Prunay and Cuperly along the Seine River south to Conflans; plus a group settled north from the headwaters of the Loire River. One of the most concentrated areas was Auvergne (e.g., around Celles), the home of the most important Gaulish tribe at the time of the invasions of Italy, the Arverni (Buchsenschutz, 1994). Mont Lassois, Burgundy, the Saone River valley and the whole eastern – central regions were populated with Celtic people. There are also a large number of scattered areas which have strong Celtic connections such as Agris near the Bay of Biscay, and settlements south to just above the Mediterranean Sea. However, the many settlements just north of the Mediterranean, while possessing La Tene features, appear to have populations whose origins are not in the Continental Celtic world.

A region of France, far removed from the Celtic heartland, is Amorica. It appears that the peninsula in the far northwestern corner of France (which to this day retains much of its Celtic heritage) might have been the recipient of a migration of some La Tene people from eastern France (although there are no historical records which would confirm the archaeological evidence). This is all within the realm of speculation since all of the data could easily be explained via cultural contacts. If there was some input from Marne and Southern Germany, it may have come to naught. There was a severe collapse of the economy and population decline circa 300 AD. It is well known that in the 5th Century AD this area received a substantial input in the form of migrants from western Britain attempting to escape the depredations of the Anglo – Saxons (such that Amorica is now called Brittany).
In general, after La Tene times, the population scattered to the point where the descendants of these people could be found almost anywhere in France. The biological contribution of the R1b-U152 component of the La Tene population to the numerous Celtic-speaking tribes of Gaul and inhabitants of the oppida encountered by Caesar 350 years later is not known. Those who are descendants of the Aedui, Bituriges and Arverni (proximal to Switzerland) are the best candidates. In addition, the Sequani of Alsace, and the Ambirii and Allobroges of the Jura where the old lakeside villages were situated may have included those with a high percentage of R1b-U152.

**R1b-M269 percentages** in France - It is unfortunate that France is under-represented in population genetics studies exploring Y-chromosome markers. On the basis of those available, an estimate of 60% R1b-M269 seems reasonable. The Myres et al. (2007) study found 14% R1b-U106 of the R1b-M269 total. R1b-M269* likely predominates. Some R1b-M2696 has been observed in France (FTDNA Database) but apparently percentages are lower than what is found in Iberia.

**R1b-U152 predictions** – Based on nothing more than small samples and preliminary data, it is expected that perhaps 5% of the R1b-M269 will be R1b-M167, 15% R1b-U106, 50% R1b-M269* (S116*), and hence about 30% S28-R1b-U152. There will likely be strong regional differences with the largest percentage of S28 being in the central and southern areas, plus a high percentage in the region closest to Switzerland and the east in general.

**R1b-U152 findings** – To date dramatically fewer French (in relation to British) have tested for the subclades of R1b-M269. Two have been found positive for S28, one whose ancestors come from the Seine River Valley, with the surname “Beaugrand dit Champagne” suggesting an origin in the classic ancient La Tene homeland. Another traces his descent to the Bay of Biscay in the far west (within the territory of the Pictones, Santones, Bituriges Vivisci – near a group of Boii to the south). Clearly little further can be said at this time until a broader and larger sample becomes available. Recently two U152 from Alsace have been identified, as well as one north of Marseilles.

**GERMANY**: One of the three La Tene foci was the Moseelle (Mosel) in the central part of eastern Germany. It emerged out of the Hallstatt cultures in centers such as Heuneburg and Upper Danube sites, with Bavaria and Baden being heavily settled by Celtic peoples of the old Hallstatt areas. Many of the more southerly settlements were ultimately abandoned and the center of gravity shifted to the north (southeastern Germany), particularly west of the Rhine, along the lower Mosel – near Koblenz. Some of the primary Celtic areas of the Moselle region are for example around Pfalzfeld and Mainz on the Rhine River, and another heavily settled area along the Danube including Manching and Kelheim in the southeastern tier. The former region was the stronghold of the powerful Treveri tribe whose linkage extends to Anatolia where in the 4th Century AD St. Jerome commented that the language of these Galatians was similar to that of the Treveri. This statement also reflects the fact that even as late as the 4th Century AD the Celtic Treveri in today’s Germany were still speaking their own language. Wells (1994) noted that the Treveri, *appear to have been essentially autochthonous since the Bronze Age* (p.605). Their homeland was around present Triers to Koblenz and east across the
Rhine. There appear to have been few if any Celtic settlements in Germany above a line extending eastward from Koblenz thus pointing to a clear north (Germanic) and south (Celtic) division that may still be reflected in the population structure of today.

To the north and east of the Treveri, Germany was inhabited by Germanic tribes such as the Langobards, Hermanduri, Cherusii, Rugii, Chauci and Saxons. There is no evidence of anything other than trade relations between these latter groups and the Celtic tribes to the south. Ultimately groups such as the Alamanni and Suebi invaded the southern lands, but their effect on the population structure there is unknown.

The settlements in Germany from the Upper Danube to the Moeselle experienced a population decline at the beginning of the 5th Century BC, associated with the mass migration to Italy noted elsewhere. Celtic and German settlements in the Roman Limes region of southern Germany is shown here.

The map above shows, for example, the important Hallstatt sites such as Heunenberg, Hochdorf and Hohensberg which are all within what is today Baden-Württemberg. To date this area is a major “hotspot” for S28, whereas the region to the west “should” sport a higher concentration due to the intrusions of Germanic peoples such as the Allamanni whose border with the Roman Empire at the time of Caesar was the Rhine. Hence it appears that a large aboriginal Celtic population remained in the area during even during the Germanic expansions and the subsequent Age of Migrations. They are likely descendants of the Vendelici tribes (see below), as well as the Helvetii and allied tribes (e.g., Raurici, Latobriges, Tulingi, Leuni and Boii).

Below is a map of Bavaria showing the Celtic sites documented in that state. Clearly there was a very heavy Celtic presence there, at least in the southern areas (below the Danube River) which remained under Roman control until the fall of the Empire in the 5th Century AD. The major tribe at the time of Caesar was the Vendelici (Vindeliker), which
was composed of tribal units including the Briganti, Estionen, Licca, Cattanaten, Cosuaneten and Rucinaten. The Noricum tribes of Austria such as the Alauinen, as well as the ubiquitous Boii were found in the east. It is likely that some of the Celts were pushed west, and others merged with the Germanic incomers.

La Tene and Roman Bavaria

The Alemanni - Applying to both southern Germany and Switzerland is the migration of the Alemanni south into Baden-Wurttemberg and much of Switzerland. The name Alemanni means “all men”. They appear to have possible connections to other “Germanic” tribes such as the Marcomanni, Hermanduri, and Quadi. These groups may have emerged out of the Celtic lands in Baden-Wurttemberg and Bavaria and regions of nearby Czech Republic and Austria. Although the Rhine was simplistically thought of as the division between the Celtic and Germanic peoples, it is evident that, in reality the situation was far more fluid. In the middle of the first century BC the tribes on both sides of the river were very mixed and it is unlikely that rigid ethnic differences could be recognized (Cunliffe, 1999, p.427). In discussing how the Romans repelled the invasion of Gaul when Arovistus of the Senones crossed the Rhine in 70 BC, Allen (2007) notes, Further east, Celtic Thuringia seems to have remained unaffected for almost another century (p.198). Perhaps it is more realistic to state that in the years approaching the
destruction of the Roman Empire, the mixed Germanic – Celtic peoples of the area brought their culture south and west in successive waves, although the genetic structure of the population may have changed little from the Hallstattt and La Tene times.

R1b-M269 percentages – Unfortunately when a German sample is reported it does not generally come with any regional designation. About 50% R1b-M269 would be typical. Kayser et al. (2005) sampled widely in Germany, genotyping to M173-R1* - as usual, the assumption is that most of these would be R1b-M269. The percentages vary from 32% in Rostock (23% in Berlin), to 55% in Freiburg (in the south, near Switzerland).

R1b-U152 predictions – The Myres et al. (2007) study included a sample from Germany, but there was no indication as to any regional structure that may have been present. Here 43% were R1b-U106. It is expected that there will be a significant division in the haplogroup structure as one travels from the North Sea to the Alpine region. The Frisian sample probably hints at what one might expect in the northern tier (in other words predominant R1b-U106), the rest largely R1b-M269* (which include both S116+ and S116- according to recent unpublished work), and perhaps only a thin scattering of R1b-U152. However as one approaches the Alps, the territory of the La Tene Celts in Bavaria and Baden-Wurttemburg, it is expected that a majority of R1b-M269 will be R1b-U152.

R1b-U152 findings – An increasing number of men with German heritage have been tested by EthnoAncestry and FTDNA, but all of those who tested S28 positive are from the Baden-Wurttemberg area and immediate surrounds in Bavaria and the Frankfurt area as far as the Saarland – Triers area, and none to date from the northern half of the country. The data suggest a line from Cologne or Koblenz south that is Celtic – precisely what is seen in the Koch (2007) atlas of the Celtic world.

SWITZERLAND: This country is situated right in the middle of the migrating Gauls and Bohemians, and the strongly Celtic Northern Italy. In the words of Kruta (1991), Switzerland, serves as a kind of revolving platform between the Celtic Transalpine and Cisalpine worlds (p.208), giving it a unique position in the Celtic world. It also became the home of one of the most numerous and powerful Celtic tribes, the Helvetii. The Helvetii, or at least some of the tribe, had originally lived beyond the Rhine (Allen, 2007, p.159) but were forced into Switzerland by virtue of the pressure of German-speaking peoples moving from the northeast, and at some point had amalgamated with some of the Boii and others. Many hundreds of thousands, in the time of Caesar, destroyed their oppida and villages in preparation for a migration to the west to the lands of the Santones on the Atlantic coast. Caesar got wind of the plan (a census of those involved in the migration has survived) and sent all back to their Alpine homes. Allies named by Caesar include, the Tulungi, the Latobrigi, the Raurici and the Boii (Collis, 2003, p.107). It is likely that their descendants reside there to this day, and if the Alamanni and Suebi ruled the area by elite domination rather than population replacement then the Celtic element will be the most numerous.

It should be noted that the descendants of the Rhaetan people of the Alpine region (in La Province de Rhaetia between the historical Nori of Austria and Helvetii of Switzerland)
are of uncertain lineage. They may be partly Celtic,Italic and Etruscan. The map below shows the various Celtic and Rhaetic tribes of Switzerland.

Raetian was a non-Indo-European language and perhaps a remnant of the aboriginal speech of the peoples of the entire region.

There are numerous tribal units throughout the country, but particularly Helvetii, Allobroges, Raetian, and Vendelici (e.g., Brigantii) groups plus other powerful and once numerous tribes such as the Sequani. These groups occupied the lands held for thousands of years by the “lake-dweller” peoples extending back to Mesolithic times, and the evidence of cultural continuity points to the likelihood that they are the lineal descendants of these early European peoples. Ultimately ancient DNA testing of skeletal remains from the region will provide the hard evidence. There is also no good reason to suppose that the population living here today is anything but an amalgam which includes a significant genetic contribution (including the Y-chromosome) from all of the earlier peoples of the area.

The map below gives a good sense of where the Helvetii were established at the time of Caesar. Their territory is within the dotted circle. Their establishment as a tribe can be dated to a recent find of a potsherd from Mantua in Lombardy, Northern Italy dated to circa 300 BC (Collis, 2003). Mantua was an Etruscan city captured by the Cenomani at about this time. This artifact appears to establish a connection between the Helvetii and that region, and is the, earliest contemporary mention of a Gallic people (p.114). Since pots don’t “travel well” it is possible that they (or part of the tribe) were residing in this location at this early period.
R1b-M269 percentages – Few population genetics studies have included Switzerland. The available data suggests that about (50%) of the Swiss are R1b-M269. At some point it would be helpful to compare the German, French and Italian – speaking cantons in terms of haplogroup structure. Myres et al. (2007), with a Swiss sample of 90, found that 58% were R1b-M269. Thomas et al. (2007) explored the haplogroup structure in Ladin and German speaking communities in the South Tyrolean Alps and found that up to 70% of the former and 44% of the latter were P* (xR1a), generally meaning R1b-M269, compared with 37% of a metropolitan Italian community.

R1b-U152 predictions – Assuming that the majority of Swiss are descendants of the Helvetii and related Celtic tribes, then it is expected that 50% or more of the R1b-M269 will test S28 positive. In the above Myres et al. (2007) study 23% of R1b-M269 was S21-R1b-U106 (likely descendants of the Germanic invaders who poured into the region as the Roman Empire began to crumble).

R1b-U152 findings – To date, most of the R1b-M269 Swiss have tested S28 positive. There are presently 9, compared to the more numerous Germans testing. Switzerland is a true S28 / U152 “hotspot”.

CZECH REPUBLIC AND SLOVAKIA (FORMER CZECHOSLOVAKIA): What is noted here applies also to Austria and Hungary. It appears that the La Tene in the east
evolved out of the local Hallstatt culture (Jerem, 1994). Hence subsequent migrations should be seen as augmenting the local Celtic population. There were trade relations, for example, between this area and Danubian Germany (e.g., Manching) and the Swiss settlements.

During Hallstatt C times (7th Century BC) the culture of Bohemia (e.g., wagon burials) has its strongest connections to southern Germany, Switzerland, and eastern France. One of the most important Celtic sites is the fortified settlement of Zavist near Prague. This region was the most eastern of the three La Tene clusters. It was also home of the once numerous Celtic Boii (e.g., around Bratislava). Since many of these left to settle in Italy about 400 BC, some of the former areas occupied by the Boii were settled by Celtic migrants from the Champagne region of France, western Switzerland, and Baden-Wurttemberg. For example the Zavist settlement was destroyed about this time and new burial types and artifact assemblages comparable to western Switzerland ad Baden-Wurttemburg appeared suddenly. A short while later, at Duchov the material culture circa 370-300 BC, particularly distinctive brooch types, was identical to that seen at the large Munsingen Cemetery near Berne Switzerland. A result was likely a great deal of haplotype mixing and adding complexity to the search for clusters characteristic of one region (as has been attempted with some success for haplogroup M170-I). Bohemia (with its intense La Tene focus) largely encompassed the western side of the Czech Republic (with sites such as Jenisuv Ujzed and Msecke Zehrovice); while Moravia was situated directly to the east and settled via Bohemia (Maloreric being an important site).

**R1b-M269 percentages** – Some studies combining both countries come up with a figure of about 35% R1b-M269. A study of various regions of the Czech Republic (Luca et al., 2006) offer figures from 23 to 34% P*(xR1a) suggesting a fair degree of consistency in the Czech Republic for this haplogroup.

**R1b-U152 predictions** – The Myres et al. (2007) study found 30% R1b-M269, of which 50% was S21-R1b-U106. Some of this may be due to the Sudetenland Northern German peoples who were settled in the Czech Republic prior to WWII. Assuming that this figure can be considered valid (the sample size was only 36), then the remaining 50% is likely divided between a small amount of Eastern R1b-M269*, Western R1b-M269*, and, probably 30% being R1b-U152.

**R1b-U152 findings** – One individual with a Czech surname has tested R1b-U152. His ancestors are from an area of the Czech Republic near the Moravian border. Another individual with a Hungarian surname has ancestral roots in a village in Slovakia bordering on Hungary.

**AUSTRIA**: This country was the homeland of the Hallstatt culture which preceeded La Tene. It is likely that many of the eastern La Tene peoples emerged out of the Hallstatt tradition. The indigenous group was likely augmented in the 5th Century with migrations from the west, as well as the Scordisci who formed after the sack of Delphi in 279 BC. Austria (plus Slovenia and northwest Croatia) was known as Noricum in Roman times, the home of the powerful Nori tribe of Celts, who were a confederation of about 12
smaller tribes (e.g., Taurisci) who coalesced in the 2nd Century. The capital was Virunum near Klagenfurt in the Magdelensberg area (south of Hallstatt and Durnberg, and southwest of Vienna). By 15 BC Noricum was annexed and absorbed into the Roman Empire – before being overrun by Germanic tribes from the north.

R1b-M269 percentages – About 30% of Austrian males are R1b-M269. There would likely be strong regional differences.

R1b-U152 predictions – The Myres et al. (2007) study found 83% of R1b-M269 to be S21-R1b-U106. It should be noted that their sample size was only 22 and only 6 were R1b-M269, so it is unclear if this represents the country as a whole. It would seem likely that at least 25% of R1b-M269 would be R1b-U152 due to the probable survival of Celtic elements within the culture. Austria is a crossroads, so a very mixed picture can be expected. The haplogroup structure of Rhaetia cannot at present be predicted, other than positing a lower R1b-U152 percentage relative to their La Tene neighbors since for example 15% of Austrian Tyrol males belong to haplogroup G.

R1b-U152 findings – No commercial samples have tested U152 to date, although one individual from Poland has a German surname and is from a town that was largely settled by Austrians. However in a recent study of Neiderstatter et al. (2008), they parsed R1b-M269 into three groups. They sampled an area of the Tyrol near Innsbruck and found that 31% were haplogroup R1b-M269 of some sort. R1b-U106 made up the lion’s share of the M269 population at 60%, while 21% were R1b-U152 and 19% were “unresolved” M269. R1b-U152 made up a total of 7% of this Austrian sample.

ITALY: The Alpine region of Italy had a pre La Tene population of Celts or proto – Celts known as the Lepontic – speaking (a Celtic language) Golasecca Culture centered in the Lake District whose antecedents may have resided in the area since the Bronze Age or earlier. It is unknown what haplogroup structure they possessed. The archaeological data (styles of pottery and imported objects) strongly suggest that during La Tene A, there were links between the Saarland in Germany (Reinheim and Schwartzburg) and the Ticino Valley in northern Italy and southern Switzerland (Collis, 2003). However about 600 BC, and again circa 400 BC, a large number of Hallstatt / La Tene Celts migrated from the Seine, Marne and Rhine regions (where there was a radical drop in population after this move) to the Italian Lake Country via the St. Bernard Pass. This settlement included the Po Valley and generally speaking all of Northern Italy. A component of the latter wave attacked Clusium in Etruscan territory soundly defeating their foe; and on 18 July 390 / 387 BC ransacked Rome. Meanwhile, at about the same time, a large contingent from the Bohemian cluster pushed south across the Inn River Valley and into Northern Italy. This appears to have been a very large-scale migration involving many hundreds of thousands of individuals who found new homelands, but also appear to have maintained ties with their homeland (including back migration). Ultimately the main tribes in the region became the Insubres (perhaps partly the Golasecca group) in western Lombardy and near Milan; the Cenomani from the Marne settling at for example Padua, Brescia and as far as the River Adige. The Senones also from the Marne established the city of Sienna along the Adriatic Sea, and settled as far south as Picenum (just to the
north were the Lingonii). The Boii from Bohemia, divided into 112 sub-tribes according to Cato, settled at Parma, Bologna and many other locations on the south side of the Alps. The Gaesatae from the Rhone Valley in France also settled in the area at this time.

In 283 BC the Romans established Sena Gallica on the Umbrian coast. From this point there was a continual “Italianization” of Celtic Italy, and one might presume, an introduction of a greater variety of Y-chromosome haplogroups in the area.

There is good evidence that many of these, particularly the Senones and Boii were forced to migrate eastward when Rome rallied between 225 BC (Battle of Telemon) and 186 when a Celtic horde was sent packing. It is highly likely that to this day there are numerous descendants of these La Tene Celts throughout Alpine and northern Italy and southward along the Adriatic Sea.

It is also possible that R1b-U152 represents an indigenous haplogroup for other other regions of Italy such as the Ligurian coast and Sardinian. This is a hypothesis that needs to be explored. It is also highly likely that many R1b-U152 in Central and Southern Italy may be descendants of Gauls. In discussing the chronic shortage of agricultural laborers in Italy, Cunliffe (1997) reports that, The estates required large bodies of agricultural workers. With extensive rural depopulation, labour for hire was not readily available. A more certain way to fuel productivity was with slave labour. Slaves were cost effective, not least because they could breed in captivity and slaves could be sold. By the beginning of the first century BC the reliance of the Roman economy on slave labour was considerable. One estimate is that in the early first century BC there were 300,000 Gaulish slaves in Italy alone, a total of which required to be topped up at the rate of 15,000 a year (p.215). Gaulish chieftains were willing to trade one slave for an amphora of wine – clearly a good deal for the Roman “merchants”. Furthermore in the latter part of the first century BC, Caesar’s campaigns in Gaul are estimated to have provided a million slaves, most of them destined for the Roman markets (p.212).

R1b-M269 percentages – The haplogroup structure of Italy is immensely diverse, and varies strongly by region. It varies from about 32% in the southern area of Calabria, to 62% in the North-central region – suggesting high regional differentiation with a sharp north – south line and pointing to a high continuing presence of Celtic Y-chromosomes in the north.

R1b-U152 predictions – It is expected that the largest percentage of S28 in Italy will be seen in the Alpine regions, and the north, central and eastern coastal areas. However, there will likely be S28 to an unknown percentage in places such as Sicily. Here, for example, in the Middle Ages, northerners migrated to this region in large numbers.

R1b-U152 findings – The Myres et al. (2007) study found 9% of R1b-M269 in their Italian sample was R1b-U106. It is likely that this reflects the historically documented incursions of the Lombards, Visigoths and other Germanics at the fall of the Roman Empire.
In the new revision of the Y-chromosome Consortium (Karafet et al., 2008), R1b-U152 is being placed as R1b1b2h on the new phylogenetic tree. Two subclades have been identified, which used to be considered sister clades to R1b-U152. These are M126-R1b1b2h1, and M160-R1b1b2h2. There have been a number of academic studies using these latter two markers, and they have been tested extensively in the commercial sphere but have not been observed beyond the original study in which they were published. Underhill et al. (2000) tested a sample of 60 “Europeans” and found 1 who was M126+, and 3 who were M160+. In closely examining the data, it appears that all of these individuals were Italians. It would, however, appear that these two markers may in fact be “private SNPs” and unlikely to be seen again except in the same area or with the same families tested in the original study.

In the commercial testing of the Italians who at present have opted for full subclade testing, some have tested R1b-M269* (a larger percentage of S116- than S116+), others R1b-U106, and others R1b-U152 (by far the largest percentage of R1b-M269 in Italy). There appears to be a sharp division in the Y-DNA population structure of Italy. A reflection of this is that over two thirds of the R1b-U152 in Italy comes from the north, largely from the Alpine areas close to Switzerland or Germany. One is from Sicily, but from a town known to have been settled in the 12th Century by Italians from the north. There were Celtic settlements in Central Italy and Celts were used as mercenaries by princes in kings in the Romano world from about 278 BC. “Outliers” could be Celtic descendants or perhaps R1b-U152 from areas along the Mediterranean. Then there is the harsh reality that at the time of Caesar’s campaigns it is estimated that of the 6 million Italians, one million were slaves. Many came from Gaul and hence might be expected to include a sizeable percentage of U152. Many slaves prospered, obtained their freedom, but remained in the areas to which they had been brought in chains. However, outliers will be found in every country which will not alter the major trends. It will take an academic population genetics study to shed light on a possible origin of some Italian R1b-U152 from Italic or other sources.

A study by Contu et al. (2008) found that 17% of Sardinians were R1b-M269, and an examination of the haplotypes in the supplementary materials points to a very high diversity, and that all appear to be Western ht 15. Testing of a Sardinian with a native surname showed him to be R1b-U152. Further work in this area needs to be done, but if Sardinians are primarily R1b-U152 it shifts the probable center of gravity to the south where the point of origin could be found (to the immediate north along the Mediterranean).

GREECE: The La Tene Celtic peoples began to arrive in Macedonia and Greece in the early part of the 3rd Century. Large numbers pushed south as far as Delphi in 279, and a contingent moved on the coastal community of Callium, committing wanton acts of destruction including rape. They did not apparently stay long (although some small settlements could have occurred), but moved northward to emerge as the Scordisci tribe, or east to cross the Bosphorus and enter Turkey. Many appear to have turned west to reach Toulouse, France and those who were Cimbri moved north to Jutland to rejoin their kinsmen (or merge with the Scordisci). An unknown number of warriors remained to
serve in Greece as mercenaries. The Greek king Pyrrhus of Epiros returned to Greece after the Delphi incident, **taking a large number of Celtic warriors with him**; **Celts remained in the armies of Epiros and, indeed, of the Greek city states for many years afterwards** (Ellis, 1998, p.209). Furthermore, Celts were hired as mercenaries by the Macedonian king Antigonatus. The fate of these Celts is unknown.

**R1b-M269 percentages** – About 23% of Greeks are R1b-M269. Some will likely be of the Anatolian – Near East variety, with p49a,f Taq Haplotype 35, typically with DYS393=12, DYS461=11, and DYF385=10,10 or 9,10. Those with the “Eastern” variety will still test R1b-M269* based on the R1b-M269 subclade SNP testing available today. It is unknown how much R1b-U106 can be expected, although there is nothing in the historical or archaeological record that would suggest a figure higher than 10%. In the Pericic et al. (2005) study only 5% of Macedonians were R1b.

**R1b-U152 predictions** – Typically when armies move through a region in the manner characteristic of the La Tene Celts, they do not leave a large genetic footprint. It would seem reasonable to expect that less than 10% of Greek R1b-M269 will be R1b-U152.

**R1b-U152 findings** – The only Greek to test for R1b-U152 was positive for S28. His ancestors came from the south of the country. This 100% figure could well have been a fluke and few others will ultimately emerge. Clearly little can be said until a reasonable sample size is obtained.

**BALKANS – FORMER YUGOSLAVIA**: During their foray to the east in the 4th Century, the La Tene Celts (some likely from Gaul, others from Bohemia and Moravia) invaded the Balkan region, and established permanent settlements after the sack of Delphi in 279 BC. Their original settlements included locations in Austria, Croatia, Hungary, Serbia, Slovenia, Slovakia, Bosnia and Herzegovina. After the retreat of the Celts from Delphi in 279 BC, the Scordisci tribe evolved with one of their settlement foci at Belgrade. Celtic concentrations were found in Slovenia and northwestern Croatia. These areas were controlled by Celtic tribes such as the Taurisci, Carni, Istri, and Iapod – during the heyday of the Roman Empire. It is noteworthy that in 231 BC a group of Celtic tribes in the region of modern Kotor on the Adriatic Illyrian coast (in the Republic of Montenegro north of Macedonia and Greece) was ruled by King Agron then Queen Teuta. The latter attacked the nearby Greek state of Epiros, and successful Roman intervention led to a treaty in 228 BC (Ellis, 1998). The fate of these folk are unknown – although this region is immediately east of the Adriatic coast of Italy.

**R1b-M269 percentages** – Pericic et al. (2005) found that whereas only 1% of Bosnians and 4% of Herzegovinians were R1b, 11% of Serbians, 16% of Croatians, and 21% of Kosavar Albanians were in this phylogenetic category.

**R1b-U152 predictions** – it is completely unknown at present how many from the Balkans would emerge as R1b-M269*, “Eastern” versus “Western” varieties. The documented presence of Celtic tribes until relatively recent times does suggest that perhaps 30% of the R1b-M269 here is R1b-U152.
R1b-U152 findings – None to date.

ROMANIA AND BULGARIA: These areas are the former Thracian and Dacian areas. Any La Tene settlements here likely occurred in the era surrounding the attack on Delphi in 279 BC. Some Celts may have attempted to settle here permanently, such as the group at Tylis (Thy) on the Black Sea, who obtained their wealth from robbing others. Considering that in Jutland the region of Thy was a heavily populated region at this time (apparently also experiencing a precipitous population decline), it could be posited that Tylis on the Black Sea was settled by Cimbri (who were known to Germans as “robbers”). The Tiza and Transylvanian settlements nestled into the Carpathian Mountains were, at least for a time, extensive. Koch (2007) noted, The Carpathian basin is thus curious in being surrounded by Celtic linguistic evidence, but showing a gaping void at the very centre, while nonetheless having in this empty zone both abundant Late Bronze Age and Later Iron Age materials of types closely associated with Celtic name evidence further west. This uneven pattern makes it difficult, to reach any conclusion about how Celtic speaking Transylvania ever was, much less whether it had been continuously Celtic speaking since the beginning of the Urnfield period c. 1400 BC until the Dacian wars of the 1st century BC (p.28).

The Thracians and Dacians may, however, have pushed all Celtic groups out of the area, or at least destroyed any power they might have had, in 231-1 BC. Taylor (1999) reports that, The Transylvanian Celts (the Boii and Helvetii) were defeated by Burebista in 60 BC and forced westward (p.404) which begs the question as to how many Celts, if any, remained in the Transylvanian area after that date. Cunliffe (1999) in discussing the armor of the Dacians, stated that at the end of the 1st Century AD the Dacians used, shields like those of the Celts, from whom they were in part descended (p.438).

The map below shows later La Tene sites and presumably settlement in Romania. According to the Alznik web pages, The greatest density of Latene sites are in the south of Muntenia with a low level throughout Oltenia, south Transylvania and across the Carpathians into Moldavia.
R1b-M269 percentages – Both countries have an R1b-M269 population of about 18%. Dieterien and Lucotte (2005) measured p49a,f Taq Haplotype 15 (likely R1b-M269 “Western”), and found 23% of Romanians and 13% of Bulgarians had this marker. This appears to be rather high, especially considering that much of the R1b-M269 is expected to be of the “Eastern” or Haplotype 35 variety.

R1b-U152 predictions – Based on the Cinnioglu et al. (2004) study, the R1b-M269 in the Balkan and areas of Romania and Bulgaria may be of the above noted “Eastern variety” and hence R1b-M269*. If any, the numbers of R1b-U152 would be very minimal – although the Dieterien and Lucotte (2005) study puts a different spin on the expected population genetics.

R1b-U152 findings – None to date.

HUngary: Some of the possible Celtic descendants here would likely have been long established since at least Hallstatt times being close to the Bohemian focus, and others can be attributed to the massive migrations of La Tene Celts (e.g., Taurisci) to Pannonia and surrounds about 400 BC. This folk movement particularly impacted western Hungary.

Areas such as Sopron in Northwest Hungary is known to have had a large Celtic presence that appears to have continued as the Roman town of Scarbantia. Other towns in Southwest Hungary, such as Kaposvar, are reported to have had Celtic settlements since 400 BC. The material culture was typically similar to that of Bohemia-Bavaria, but elements of Switzerland, the Middle Rhine, and the Marne can also be detected. According to Cunliffe (1997), in the years after the sack of Delphi in 279, the tribal configuration is not clear but much of Transdanubia was in the hands of the Taurisci. The Volcae Tectosages are also mentioned and it is possible that the Boii were establishing some enclaves in the north (p.86).
**R1b-M269 percentages** – Hungary has about 15% R1b-M269. The Behar et al. (2004) study compares members of the Jewish communities across Europe to non-Jewish Hungarians. Of the 54 Hungarians, 10 (19%) were P25-R1b1 (most were probably R1b-M269). Using the markers signifying the two major groupings of R1b-M269, 33% were “Eastern” (Haplotype 35) and 66% had “Western” (Haplotype 15) motifs.

**R1b-U152 predictions** – Hungary borders on the “eastern world” so it is unclear at this time whether the R1b-M269 there presently can be attributed to the Ottoman Turks and other groups migrating from the east, Germanics moving south to the Black Sea, or the Celtic peoples who settled in earlier times. It would be reasonable to assume that about 33% of Hungarian R1b-M269 is R1b-U152 (with 33% each for R1b-U106 and R1b-M269* “Eastern”).

**R1b-U152 findings** – The only Hungarian who tested for S21 and S28 was positive for the latter. It will probably be some time before the picture clarifies (e.g., very few Hungarians have taken commercially available R1b-M269 subclade testing).

**POLAND:** The Koch (2007) atlas shows the Lugii at the far northeastern edge of the Celtic world (the Wroclaw group of La Tene burials). Subgroups include the Helvecones, as well as the Boii and Tectosages, the Cotini, the Hercuniates as well as the Anartii (Anartes). To explain the presence of these groups, during La Tene times there was an incursion of Central European Celts into this country. Cunliffe (1997) reported that during the early La Tene migrations, the Celts moved northward of the Sudetin Mountains into Southern Poland, then Lower Silesia (e.g., Wroclaw, Okawa, and Strzelin) apparently from Bohemia. In addition, *In Upper Silesia, in the valleys of the Rivers Cyna and Troja, the initial La Tene settlement is a little later, dating to the second half of the third century, and may have originated as a result of the movement of peoples from Moravia* (p.87). A particularly extensive area of settlement was around Wroclaw on the Oder Riber. Although typically considered to be a Slavic country, Poland does have a number of ethnic minorities, particularly German.

**R1b-M269 percentages** – Typical percentage of R1b-M269 are around 15% to 25%. Kayser et al. (2005) sampled from 9 regions in Poland, genotyping to M173-R1* - the assumption is that most of these would be R1b-M269. The percentages varied from a low of 7% in both Lubin and Suwalki, to 15% in Bydgoszcz (17% in Warsaw).

**R1b-U152 predictions** – Myres et al. (2007) found that 36% of their large (N=110) Polish R1b-M269 sample was R1b-U106. This leaves considerable room for there to be a substantial R1b-U152 population, most likely in the southern part of the country. There will probably be a north – south R1b-M269 gradient as seen in Germany where the north is primarily R1b-U106, and the south will emerge as largely R1b-U152, and the easternmost areas being largely haplotype 35 (“Eastern” R1b-M269).

**R1b-U152 findings** – Two individuals of Polish descent have to date been found to be R1b-U152. The ancestors of one are from Galicia in Southern Poland, but due to having a German surname and being from a town that was settled by Austrians, he may better
included among the latter. The other is also from Southern Poland, but has an indigenous surname, and is from a region bordering on Slovakia.

**UKRAINE, RUSSIA, UYGURS:** During and shortly after the primary period of La Tene migration to the east, contemporary Celtic artifacts and burials are found in considerable numbers, but only in spotty locations, in the Pontic region, north of the Black Sea, as far as the Sea of Azov, the eastern frontier of the Celtic world (Cunliffe, 1997, p.176) according to Greek geographers. The areas of heaviest concentration are 200 or more miles north of the Black Sea along the Rivers Dnieper and Dniester and the basin of the Kuban River in Ukraine and Moldavia. Place names such as Karrodunon along the Dnester River, as well as Gallitsyje and Galich in western Ukraine are, suggestive of settlement on a more permanent basis than that of merely a roving war band (p.175). Scattered cemeteries with La Tene items are found along the Dneiper River, as well as portable items found in local Greek colonies. Seven La Tene artifacts have been discovered in Belarus and Russia, but with little to suggest permanent settlement (Koch, 2007) – although bands of mercenaries could have settled in widely dispersed locations.

It is not beyond the realm of possibility that some of the Celts in this region became part of the Khazaria kingdom, whose king converted to Judaism in 700 AD.

Click [here](#) for a detailed map of the Ta Tene Celtic finds from the Balkans to the Ukraine to Turkey.

**Percentages** – Very few R1b-M269 show up in samples of Ukraine and Russia – typically 2 to 7%, but some up to 25%. There are, however, some examples showing percentages of R1b-M269 as high as what is observed in Scotland. The Bashkir are a Turkic community residing in the vicinity of the Volga and Ural Rivers, near Kazakhstan. 75% of the Perm and 77% of the Baimakskiy tribes are R1b-M269. If the few Kazakh’s tested are any indication (see MQKB4 in [www.ysearch.org](http://www.ysearch.org)), the Bashkir may be largely of the “Eastern” (Haplotype 35) version. However the answer will only come when some of this group is tested for the R1b-M269 subclade markers. Similarly Karafet (2001) found that 32% of the Uyghurs of the Siberian – China border (near the Tarim Valley) were R1b. Again, the probability is that the “Eastern” type will predominate. Derenko et al. (2006) explored the haplogroups of South Siberian haplogroups. Some notable examples which are R1* (xR1a) (so R1b-M269?) include the Teleuts (13%), Khakassians (8%), Shors (20%), Evenks (6%), and Tofalars (13%).

**R1b-U152 predictions** - It is expected that, due to the presence of early Germanic peoples such as the Bastarnae, and migrations of Germans there in more recent times (e.g., “Wolgadeutsch”) that most would be R1b-U106. The Myres et al. (2007) study found 21% of their Russian sample to be R1b-M269, and of these 33% were R1b-U106. The Ukrainian results were 25% R1b-M269 of which 38% were R1b-U106. It is difficult to call the likely percentage of the other 60 to 66%, but the archaeological and linguistic evidence suggests that some will be descendants of Celts and hence likely R1b-U152. It is far too early to make any conclusions, especially since Russians and Ukrainians are
highly under-represented among those who have been included in subclade testing for R1b-M269.

**R1b-U152 findings** – To date one of the very few Ukranian R1b-M269 to test for the subclades of this grouping is R1b-U152. His ancestors are from Galicia in Western Ukraine.

**BALTIC COUNTRIES – LATVIA, LITHUANIA, ESTONIA**: There is no evidence of any La Tene migrations to these regions, unless the Cimbri from Jutland established a colony here.

**R1b-M269 percentages** – Percentages of P* (xR1a) range from 5% in Lithuania (Kasperaviciute et al. (2004), to 11% in Latvia 7% in Estonia (same study). This study highlights the importance of regional studies since within Lithuania there were zero percent presumed R1b-M269 was seen in the East aukstaiciai sample, compared to 15% of those from North zemaiciai.

**R1b-U152 predictions** – Considering the proximity to Northern Germany, it is expected that most Baltic R1b-M269 would be R1b-U106. However, this is far from certain, and there is simply insufficient data upon which to posit any sort of reasonable prediction based on facts of any nature.

**R1b-U152 findings** – A number of Jewish R1b-U152 have been found whose ancestry traces to the region between the Baltic and Ukraine. Their migration paths doubtless differed from those of non-Jewish R1b-U152 and so will be discussed separately below.

**TURKEY**: Cinnioglu et al. (2004) concluded that, the last ice age modulated R1b3-M269 distribution to refugia in Iberia and Asia Minor from where it subsequently radiated during the Late Upper Paleolithic and Holocene. The R1b3-M269 related, but opposite TaqI p49a, f h15 and ht35 distributions reflect the re-peopling of Europe from Iberia and Asia Minor during that period (p.134).

The documentation in relation to the La Tene migration to Anatolia is very clear and very precise. In 278 three tribes (e.g., Tectosages) comprised of 20,000 men, women and children, moved to the region around the capital of Turkey today, Ankara. They became known as the Galatians. As late as the 4th Century AD, St. Jerome reported that they still spoke a language similar to that of the Celtic Treveri at Trier.

**R1b-M269 percentages** - It is fortunate that a very comprehensive and regionally organized study of Anatolia was completed by Cinnioglu et al. (2004). He found that 14.5% of his sample was R1b-M269.

**R1b-U152 predictions** – The Myres et al. (2007) study found that 3% of the Turkish sample were R1b-U106. While it would seem logical, considering the documented presence of Celtic people originally from Gaul, that most of the rest would be R1b-U152, this appears to be very unlikely. A Turkish sample was tested for the marker which
serves to divide the R1b-M269 world into east and west, and all were established to be p49a,f Taq haplotype 35 (Eastern), whereas the Western variety is 15 (although no known S21 or S28 individuals have been tested for the p49a,f marker). In addition, the majority of samples (Cinnioglu includes haplotypes with10 YSTR markers) have DYS393=12 and DYS461=11, classic indicators of the Eastern variety. An inspection of each haplotype shows 9 individuals who do have the Western 13/12 motif on the above markers. So 76 of the sample of 523 were R1b-M269, and 2 were R1b-U106. This leaves, realistically, 7 (7%) who may be R1b-U152. A few individuals who have the 12/11 motif, although from western countries, have tested R1b-M269*. Perhaps their ancestors were recruited from the Balkan region to serve in the Roman Army, being deployed to locations such as England.

R1b-U152 findings – None tested to date.

OTHER: Even in the days of the La Tene peoples (let alone circumstances relating to modern transportation over the past few hundred years), people travelled more widely than this study has yet noted. Just as an example, after the sack of Delphi in 279 BC, various nations in the region began to hire the Celts as mercenaries in places as far away as Syria (where 15% R1b has been observed in a sample of 20 as reported in Semino et al., 2000). In 217 BC there were 14,000 Celts in the army of pharaoh Ptolemy IV of Egypt (Ellis, 1998). In Hadra, southeast of Alexandria, Egypt funerary stelae naming various Gauls are found in a Celtic cemetery, thus suggesting that some groups in far off lands retained their identities until, in this case, the last century BC (Cunliffe, 1997). Rafferty (2001) notes that Celtic mercenaries were recruited during the 3rd Century BC in southeast Europe to serve at Alexandria, Fayum, and Abydos (the latter well up the Nile River), Egypt. Whether these people buried here left descendants living to this day is an open question. Dieterien and Lucotte (2005) examined the distribution of p49a,f Taq Haplotype 15 (associated with the “Western” variety of R1b-M269). The large (n=162) sample from Alexandria, Egypt found 7% Haplotype 15; and 11% of 102 Moroccans were Haplotype 15 - all potential Celt descendants.

It may be important to examine the haplogroups for Ashkenazi and Sephardic Jews. Although an ethnic – religious group, years of isolation mean that there will be some haplogroups and haplotypes more characteristic of Jews compared to others residing in the same country (e.g., Hungary). Their migrational history is entirely different from that of their surrounding neighbors. An inspection of the R1b Jewish DNA Project illustrates the diversity within this group, largely with ancestry in Eastern Europe. A large percentage are clearly of the “Eastern” variety of R1b-M269 with DYS393=12 and DYS426=11. Others are more typical of the western haplotypes. Behar et al. (2003) only genotyped to P*(xR1a) which could include haplogroups Q, R1b1* and others, but most are probably R1b-M269. Percentages varied between Ashkenazi Cohen with 3% to Sephardic Isrealis at 21%. Behar et al. (2004) did a deeper level of genotyping, although only to P25-R1b1* (the percentage which are R1b-M269 is likely the majority here), and found 09% of Ashkenazi Jews in this category. Assuming that all were R1b-M269 (there were perhaps some P25+ who were not M269+, being R1b1*), then using only the haplotypes that can be clearly classified as “Eastern” (DYS393=12; DYS426=11) or
“Western” (DYS393=13; DYS426=12), then 22% were in the former category and 78% in the latter. Hence an unknown percentage of Ashkenazi may be R1b-U152 (or R1b-U106 as well as R1b-M269*).

The Jewish R1b DNA Project has an increasing number of members who have tested R1b-U152. Although the reported ancestral origin of members of this project include countries from Latvia on the Baltic south to Ukraine in Eastern Europe. It appears likely that their ancestors migrated from the Upper Rhine area, the first documented reference is to Cologne on the Rhine in 391 AD, and soon after to Worms and Mainz – all in the south of Germany. At a later point the Ashkenazi Jews shifted their center of gravity to the east (as far east as Russia and the Ukraine). Some in that region may be due to local introgression, but the percentage of R1b-U152 in Russia for example is likely to be low to non-existent. There are a few haplotypes, clearly related, but with high diversity, that suggest a founder effect where a few R1b-U152 men may have been the ancestors of a very large number of Jewish men living today in Eastern Europe. Most have not been tested for DYS492, but there is a large diverse group with a rare haplotype (e.g., DYS385a=14) and the DYS492=14 which places them in a clade found most commonly in southern Germans. Other Ashkenazi have the modal value of 12 (or in one case 11), which is still the most common motif across the R1b-U152 world.

Commercial Testing Summary of S28-R1b-U152 by Country and Region:

Table 1. Geographical distribution of S28 tested and other R1b-M269 derived individuals

<table>
<thead>
<tr>
<th>Origin</th>
<th>-</th>
<th>+</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>30</td>
<td>4</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>Europe</td>
<td>12</td>
<td>7</td>
<td>19</td>
<td>37</td>
</tr>
<tr>
<td>Ireland</td>
<td>47</td>
<td>0</td>
<td>47</td>
<td>0</td>
</tr>
<tr>
<td>Scotland</td>
<td>21</td>
<td>1</td>
<td>22</td>
<td>5</td>
</tr>
<tr>
<td>unknown</td>
<td>52</td>
<td>1</td>
<td>53</td>
<td>2</td>
</tr>
<tr>
<td>Wales</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>13</td>
<td>179</td>
<td>7</td>
</tr>
</tbody>
</table>

The above table was completed 27 October 2006, based on data then available, by Dr. John McEwen. He indicates that the data points to a number of conclusions. The first is the high % of those tested in Europe in haplogroup R (defined as west of the Black Sea) that are S28+ and the second is that the level in England is one third of Europe, and it declines again in Scotland and Ireland. These results do have some biases, but they coincide with other evidence. The numbers publicly available strongly support a high prevalence in Europe.

See full analysis click here.

Other Haplogroups: It is also very likely that the La Tene Celts were composed of other haplogroups, although perhaps none so plentiful as R1b-U152. It is likely that each moved up the Danube or into the eastern La Tene Celtic territories at varying times. Investigations by Ken Nordtvedt (personal communication, 2007), suggest that these are
specific groupings which tend to cluster in areas where the La Tene Celts were known to have settled. In the haplogroup I category there is M223-I1b2a – Continental; also M253-I1a – Eastern European. Each likely originated in the Balkans and may have been associated with the adoption of agriculture, merging with the R1b-U152 western European Paleolithic or Mesolithic descendants. In addition, another group is M17-R1a1 – Central European. This particular variety likely came from the area of the Black Sea, perhaps as Scythians. Each has YSTR haplotype marker repeat values that are characteristic to the cluster, and which serve to differentiate each from others with the same YSNP designator.

**In Conclusion** - The Hallstatt peoples of Central Europe emerged from Urnfield predecessors and in turn the ancestors of the latter can be traced to Mesolithic times in the Alpine regions. The La Tene Celts followed after the Hallstatt shifts in centers of gravity of power and prestige to the west then to the north (e.g., Marne, Moeselle, Bohemia). As the 6th gave way to the 5th Century BC, a combination of overpopulation and a desire for new and better lands, pushed the La Tene Celts in a primary south and eastward expansion. The result was that between 600 and 250 BC the La Tene peoples were found scattered into Central Spain, and peppered in a band from the Bay of Biscay down into central Italy, across the entire Alpine region of France, Switzerland, Italy and southern Germany; and through Eastern Europe from southern Poland, through Hungary and into the former Yugoslavia and Greece – as far as Anatolia. The movements were somewhat chaotic, and included expansions to the Jutland Peninsula and southern Norway, as well as a return flow to occupy lands abandoned generations earlier and extending to the far southwest of France.

There is an excellent body of historical sources via the Greco – Roman Classical writers, combined with extensive archaeological investigations, which profile the specifics of these migrations. The present paper presents a brief summary of the events noted above as well as tracing the antecedents and descendants of these people.

The present work appears to be the first to trace the La Tene people back to Paleolithic times; and to identify a Y-chromosome marker by which the descendants of the La Tene Celtic people can be recognized (largely within the territory occupied by their ancient ancestors). While there were doubtless other haplogroups linked to Hallstatt and La Tene, it may be that only R1b-U152 is infallibly associated with this people. Thus it is proposed that anyone who tests S28 positive can be reasonably assured that his direct male line ancestor belonged to one of the tribes of the Hallstatt and La Tene Celts. The one caveat relates to the individuals in Sardinia and perhaps along the Ligurian Coast of Italy where U152 may be found at relatively high frequency, but there is nothing to suggest that they would ever have been Celts – no matter how much the definition is stretched.

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