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Introduction

Hello, and welcome to the March 2011 issue of DNA Tribes® Digest. This month’s feature article will update our analysis of the Germanic sub-region of Europe, based on more detailed genetic divisions presently identified by DNA Tribes® Europa analysis.1 The background discussion will highlight archaeological evidence of early contacts with more distant cultures that have introduced important advances to Europe, including early agricultural, metallurgical, and transportation technologies from Southwest Asia and the Eurasian Steppe.

Best regards,
Lucas Martin
DNA Tribes

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1 A map of current DNA Tribes® Europa sub-regions can be viewed at http://dnatribes.com/dnatribes-europa.html. The previous DNA Tribes® analysis of Germanic genetic relationships is available at http://dnatribes.com/dnatribes-digest-2008-11-28.pdf. Since that analysis was performed, the more general “Norse” zone has since been split into the more specific Norse (Scandinavian) and Belgic (Low Countries and Northern France) sub-regions; additionally, the more general “Balkan” zone has been split into the more specific Balkan (western Balkan Peninsula) and Thracian (Lower Danube, including present day Romania) sub-regions.
An Updated Analysis of the Germanic Sub-Region

Historical Background

The Germanic sub-region of Europe characterizes populations of modern Germany and Austria (see Figure 1). Although these areas today share the German language, this part of Central Europe has been home to multiple cultures and a contact point for multiple migrations and waves of innovation from many directions since prehistory (see Figure 2).

One of the most important innovations to enter Europe in prehistory was agriculture. The first Neolithic farming communities spread here from the Fertile Crescent, Aegean, and Balkan Peninsula during a period when Central Europe was relatively warm and humid. These “Old European” farming communities shared the Linear Pottery (LBK) culture, also called the Danubian culture due to its spread along river systems surrounded by fertile loess soils.

In time, early LBK communities developed into more local cultures, such as the farming villages of the Rössen culture that linked Germany and Austria with more westerly areas of present day France, Switzerland, and the Low Countries. Eventually, these newly introduced “Old European” agricultural technologies would influence neighboring hunting-fishing communities, generating the Funnelbeaker (TRB) culture along the North Sea and Baltic Sea.

A new wave of eastern innovations came to Central Europe in the form of early Kurgan cultures from the Eurasian steppe. These societies had adopted animal husbandry from early farmers and developed a new way of life that used wheeled vehicles and early metal tools. This development towards pastoral lifeways is thought to have taken place in the eastern Khvalynsk culture near the Volga River and the western Sredny Stog culture near the Dnieper River. A notable feature of these cultures was burials in tumuli (kurgans) using ochre as a pigment. These cultures influenced the later semi-nomadic Yamna (Pit Grave) culture of the European steppe north of the Black Sea. Known for its use of early tumuli (kurgans), the Yamna culture is thought to be a parent culture of the Indo-European speaking societies of Asia and possibly (according to the Kurgan hypothesis) the origin of all Indo-European languages spoken today (both eastern and western).

After emerging on the Pontic Steppe north of the Black Sea, these Bronze Age Kurgan cultures are thought to have invaded and influenced Eastern Europe and (less directly) Central Europe in several waves. Two early “kurganized” cultures that combined indigenous farming traditions with new Kurgan innovations were the Baden and Globular Amphora cultures of Central Europe. One of these, the Baden cultures, is thought to have been linked to cultures of the Troad in Northwest Anatolia (later to be the site of Mycenaean era Troy). The maritime TRB culture of the North and Baltic seas was also kurganized, eventually participating in formation of the Corded Ware horizon, a massive zone of cultural contacts stretching between the Low Countries, North-Central Europe, and Russia.
In addition to these eastern steppe influences, Bronze Age Central Europe was also in contact with the westerly Bell Beaker culture. The Bell Beaker culture spread throughout the waterways of Atlantic Europe and Central Europe and was involved in the early development of metallurgy. The Bell Beaker culture is sometimes thought to be related to early Italo-Celtic (centum) languages. However, given its geographical distribution in Atlantic Europe and early roots in the Iberian Peninsula, contacts with early Iberian or Tartessian cultures (or perhaps with more distant Berber or Phoenician related cultures) would be additional possibilities.

Another major wave of eastern innovations to influence Central Europe was the Urnfield culture that reached Europe after 1300 BC (not long after expansions of “kurganized” Hurrian cultures in Southwest Asia). The Urnfield culture was characterized by the presence of wagons, a cremation burial rite (similar to the funeral of Patroclus described in the Iliad), deposits of metal hoards of religious offerings in water, and forest clearances to create meadowlands suitable for animal pasturage. Another innovation was the Urnfield cultural numerals, a system of markings used in metal molds. Although undeciphered, these Urnfield markings somewhat resembled Mesopotamian cuneiform and the later Ogham alphabet of Ireland and Britain.

The Urnfield cultures are sometimes associated with Celtic languages; however, the presence of stilt houses (later associated with non-IE speaking Etruscan areas of Italy) suggests the possibility of additional cultural contacts during this period. Another complication with associating the Continental Urnfield horizon with Celtic cultures is that although Urnfield cultures traded with Atlantic Bronze Age cultures (later home to Goidelic and Brythonic Celts), Atlantic cultures melted down and recontextualized Urnfield imports. This suggests that if the Urnfield horizon shared Celtic languages, a cultural distinction

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2 The archaeologist Gordon Childe imagined these early metallurgists as traveling “Prospector” cultures involved in guild like transmissions of specialized technical knowledge, living relatively free lives outside of the confines of traditional society (somewhat like later Aegean myths of the Cabeiri and Dactyls). See G. Childe, The Bronze Age.

3 It was once thought that each archaeological horizon corresponded to a single “nationality” or culture. However, the more modern understanding of prehistory recognizes that instead, archaeological horizons can be generated by more complex interactions involving multiple languages and populations.
between Atlantic Celtic cultures and Central European Celtic cultures was already beginning to develop during the Bronze Age. 4

This regional distinction was further accentuated in the Iron Age, which was ushered in by the Thraco-Cimmerian expansions of the 8th-7th centuries BCE. 5 These Thraco-Cimmerian migrations came to Europe from near the Black Sea and Caucasus, when the Cimmerians were ejected from the Pontic Steppe by Scythian (Srubna) cultures expanding from the east (during a time of Assyrian expansions and conflict in Southwest Asia). The Thraco-Cimmerian expansions brought new innovations to Europe (some derived from the Kuban culture, possibly associated with early Nakh speaking cultures of the Caucasus), such as mounted cavalry (as opposed to earlier chariot warfare).

These technologies stimulated the development of new Central European cultures, including the Halstatt and later La Tene cultures associated with historical Celts and Germans described by Greek and Roman historians. Although specific historical links with Thraco-Cimmerians are unknown, some medieval dynasties of Central and Northwest Europe later claimed Anatolian origins. These include Scandinavian legends of dynastic origins in Thrace and ultimately Troy (recorded in the *Prose Edda*) and the origins of the Sicambri in the Pontic Steppe and Troy (recorded in the *Liber Historiae Francorum*). As late as the Classical period, traces in Central Europe of ancient cultural contacts with steppe cultures of the east included the traditional “Suebian knot” hairstyle (similar to the *khokhol* style preserved in the Pontic Steppe), still retained in the 1st century CE.

In the historical period, cultures attested in the Germanic sub-region of Europe include not only Germanic speaking societies, but also Slavic speaking peoples such as the Sorbs and Wends. Similar to the multiple migrations and links to neighboring and distant cultures attested in the archaeological record, the history of these centrally located lands in the heart of Europe has been shaped by diverse influences that continue to the present day.

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4 See *Europe Before History* by Kristian Kristiansen, pp. 150-151, 156. An economic contrast between Celtic speaking cultures that preserved more archaic lifeways (to some extent rooted in traditions dating to the Bronze Age) and more industrial oriented cultures of North and Central Europe continued into the modern period, underlining the Highland Clearances of Great Britain during the 18th-19th centuries CE.

5 Archaeological evidence related to the Thraco-Cimmerian migrations that introduced Iron Age technologies to Europe is discussed in *Europe Before History* by K. Kristiansen, pp. 185-209. An alternate interpretation of these archaeological data was proposed by Marija Gimbutas: that “Thraco-Cimmerian” technologies were brought to Europe by Proto-Scythians (not Cimmerians), who had pushed the Cimmerians into Anatolia (not Europe). See *The Kurgan Culture and the Indo-Europeanization of Europe* by M. Gimbutas, pp. 28-30. Several place names similar to “Cimmerian” (although possibly unrelated) appeared in other parts of Europe, including the archaic name of Jutland (“The Cimbrian Peninsula”) and the place names “Cumbria,” “Cumberland,” and “Cymru” in Great Britain.
Genetic Analysis of the Germanic Sub-Region

Genetic contributions to the Germanic sub-region were identified based on autosomal STR data. Results are summarized in Table 1 and illustrated in Figure 3.

<table>
<thead>
<tr>
<th>European Sub-Region</th>
<th>Genetic Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgic</td>
<td>46.7%</td>
</tr>
<tr>
<td>Norse</td>
<td>19.5%</td>
</tr>
<tr>
<td>Balkan</td>
<td>17.6%</td>
</tr>
<tr>
<td>Polish</td>
<td>9.2%</td>
</tr>
<tr>
<td>Other</td>
<td>7.0%</td>
</tr>
</tbody>
</table>

Table 1: Genetic contributions to the Germanic sub-region.

Discussion: Results in Table 1 indicate genetic contributions from neighboring areas of Europe to the west, north, east, and southeast. Western influences include the Belgic contribution (46.7%), perhaps reflecting longstanding contacts dating to the Neolithic LBK farmers, Bell Beaker horizon of the Copper Age, Urnfield horizon of the Bronze Age, and Halstatt and La Tene cultures of the Iron Age.

Northern links include the Norse contribution (19.5%), perhaps reflecting early contacts with the early TRB hunting-fishing culture and later Bronze Age links with Scandinavia (perhaps somehow related to dynastic traditions of Cimmerian links between Thrace, the Pontic Steppe, and Anatolia).

Eastern links include the Polish contribution (9.2%), perhaps reflecting ancient contacts in Central Europe (including steppe links coming westwards north of the Carpathian Mountains) as well as historical contacts with Slavic cultures such as Sorbs and Wends.

Southeastern links include the Balkan contribution (17.6%), perhaps reflecting the expansion from the Balkan Peninsula of “Old European” LBK farming cultures, as well as later links dating to the Bronze Age Urnfield culture and Iron Age Thraco-Cimmerian migrations into East-Central Europe. In addition, links with the Belgic region could have provided an additional link with southerly cultures, both derived from older LBK farmers and through later Mediterranean contacts with Western Europe.
**DNA Tribes® SNP Update for April 2011**

We are pleased to announce an update for *DNA Tribes® SNP* analysis:

**New African populations:** Several new populations have been included in *DNA Tribes® SNP*.

- Algeria
- Bamoun Cameroon
- Brong
- Bulala Chad
- Egypt (Sample 2)
- Fang Cameroon
- Fulani Nigeria
- Hadza Tanzania
- Hausa Nigeria
- Igbo Nigeria
- Kaba Chad
- Khomani San South Africa
- Kongo
- Libya
- Mada Cameroon
- North Morocco
- Saharawi
- Sandawe Tanzania
- South Morocco
- Tunisia
- Xhosa

**More detailed Ethiopian population analysis:** The general Ethiopian population comparison is now a comparison to three more specific ethnic groups: Amhara, Oromo, and Tigray.

**Updated African regions:** New population data are now incorporated in continental and regional admixture analysis. Based on the inclusion of new data, ancestry from Sub-Saharan Africa is now expressed as admixture from the West African, East African, and Southern African world regions.

**Northwest European coverage in world grid map:** The world grid map now includes expanded geographical coverage for a fuller visualization of Northwest Europe.

**New sample reports:** Updated *DNA Tribes® SNP* reports for several world populations are available at [http://dnatribes.com/snp.html](http://dnatribes.com/snp.html). An update to your personal *DNA Tribes® SNP* report can also be ordered at this link.