

# Genealogy Logan Origins

## 46% Scandinavia

The Scandinavia cluster consists of present day Norway, Sweden, and Denmark. Due to the remaining ice sheets from the last Ice Age, modern humans did not permanently settle in this region until roughly 9000 BCE. During this time, Denmark and Sweden were connected via a land bridge that enabled migration from continental Europe to the Scandinavian Peninsula roughly 13,000 years ago.

These early hunter-gatherer populations settled along the waterways—lakes, marshes, and rivers. By 6000 BCE, the Ertebolle peoples had established complex hunter-gatherer settlements and seasonal camps along the coastlines. The cultural and technological achievements of these peoples are paralleled in regions of the North European plains stretching eastward to regions in Ukraine and Siberia.

By 2500 BCE, local populations in this cluster had begun farming and soon established strong trade links with continental Europe. These were particularly robust with populations along the Danube River basin stretching from present day Moldova, west to Germany, and south to the Roman Empire.

Chieftain tribes ruled ancient Scandinavia, and the Viking Age was born around 800 CE in the bay between the Gotta River in Sweden and Cape Lindesnes of Norway. Between 800 and 900 CE, Viking populations had taken control of trade from the Dnieper River to the Baltic Sea and Constantinople, connecting them to populations as far away as the Middle East, Western Russia, and Siberia to the east. During the Viking Age (800–1050 CE), Vikings spread from Scandinavia as far west as North America and east to Russia, raiding and colonizing any settlements that were in their path from Ireland and Scotland to England, France, Iceland, and Greenland. Viking populations moving into the east maintained control in the Slavic states along the Baltic Sea, Russia, and Steppe regions until they were forced out by invading Mongol armies.

By the 11th century CE, the Viking Age had ended, and the powers of Sweden, Denmark, and Norway battled for control of the Scandinavian cluster. In 1397, the Kalmar Union unified the three powers until the early 16th century CE.

## 28% West and Central Europe

The West and Central Europe cluster consists of present day countries of France, Belgium, Netherlands, Luxembourg, Switzerland, Austria, Czech Republic, and Germany. Modern humans began to populate West and Central Europe toward the end of the last ice age when the ice sheets north of the Mediterranean coast began to retreat.

Due to ancient interactions and exchanges with cultures from the British Isles, Scandinavia, Asia, and Africa, this cluster displays an incredible history of migration, invasion, and colonization resulting in continual shared genetic, cultural, and linguistic relatedness with nearly all of the other European clusters.

Long distance travel between continental Europe and populations in the British Isles are illustrated by the shared knowledge of specific pottery and metalworking technologies. Through analysis of his teeth, remains of an individual (the Amesbury Archer) buried around 2000 BCE near Stonehenge in England was

proven to have grown up in mainland Europe, thus illustrating the close connections between these two clusters.

The development of complex city-states was first established along the southern coastlines of France. Colonies of Greek, Phoenician, and Carthaginian settlers were the first to establish these complex societies; Roman colonies were quick to follow transferring cultural practices, such as the importance of wine drinking for the elites in central and eastern France.

To the north, barbarian tribes maintained semi-nomadic settlements throughout most of the cluster. By roughly 300 CE, Jutes, Angles, and Saxons, having originated in Scandinavia, were pushed westward by invading forces from Attila the Hun, further intensifying tension between the Romans and the barbarian tribes. With Germanic tribes being pushed out of eastern Europe as well, Slavic speaking peoples settled in their wake, occupying areas leading up to east Germany. Continual raids from various European and Asian groups ended the Roman occupation of this area by roughly 500 CE. During this time period, these various groups continued migration to further reaches of land once unified by Rome. These regions included Northern Italy, most of Britain, modern day France, and Spain; they also conquered most of Northern Africa, Sardinia, and Rome in the process.

It is after this migration that populations within this cluster began to establish complex and diverse civilizations that are later recognized as some of the most powerful and influential cultures in the world. These ancient histories continue to influence identities and histories of present day populations in this cluster.

## **20% British Isles**

Modern humans arrived on the British Isles roughly 40,000 years ago via a land bridge that connected these islands to continental Europe. Early hunter-gatherer populations were able to navigate into and out of this region until roughly 6000 BCE when melting ice sheets caused sea levels to rise and the connection was severed between the populations within the British Isles and continental Europe. Farming occurred largely as an indigenous adaptation with little evidence of acquiring this technology from surrounding colonizing regions. Small agricultural communities are even recorded as the primary lifestyle by Roman invaders in the early 1st century CE.

By the second millennium BCE, trade relationships spread, and under the control of the Chieftains of Wessex, trade routes spanned from Ireland into central and eastern continental Europe via waterways. The wealth amassed from this intensified trade likely enabled the Wessex Chieftains to begin construction on what would grow to become Stonehenge. These trade practices further solidified a deep genetic connection with populations in the West and Central Europe cluster and areas of Scandinavia.

By 43 CE, Roman forces had conquered Britain. However, by 500 CE, Germanic tribes (originating in present day Scandinavia and eastern Europe) and Asian forces toppled the Roman Empire, and the subsequent continental European expansions brought Saxon tribes into the British Isles. Powers in the British Isles also conscripted mercenary populations from continental Europe. The Saxons, Angles, and Jutes came over to support Briton forces defending against the Picts and Scots in the 6th century CE.

Starting in the late 8th century CE, the British Isles were invaded and settled by Viking parties during the Viking expansion. Normandy later invaded and solidified cultural and economic connections between the

British Isles and continental Europe. To this day, these ancient occupations and trading practices left a lasting impression on the genetic relatedness between populations in the British Isles cluster and Southeast Europe, Scandinavia, and West and Central Europe clusters.

#### **4% Asia Minor**

The Asia Minor cluster encompasses present day Turkey and Armenia. Home to the earlier migrations out of Africa, early settlements in the Turkish city of Catalhoyuk were also some of the first farming societies dating back to 7300 BCE. This region has an incredible history of short lived civilization and has been at the center of trade (both cultural and material) from the Persian Gulf to Southern Europe.

The early civilization of the Hittites (roughly 3,000 years ago) dominated most of modern day Turkey and even reached south into Syria and the Levant. Tablets found at Hattusa (the capital city of the Hittite civilization) were written in seven or eight different languages, illustrating the prominent role this city and civilization played in international travel during its reign.

What happened after the fall of the Hittites in the 13th century BCE and before the Phrygians gained control in the 8th century BCE has been lost to history. The Phrygian Empire came to power in the Asia Minor cluster roughly 2,800 years ago. The Phrygians are recognized for their immense mineral wealth and their famously mythologized King Midas.

Following the pattern of short lived rule in this region, the Phrygians began to lose power over modern Turkey in the early 5th century BCE, only about 300 years after they gained control. The demise of the Phrygians happened when the capital city of Gordion was destroyed by the Cimmerians (peoples having originated in the Steppes in southern Ukraine, who began to spread southward via the Black Sea).

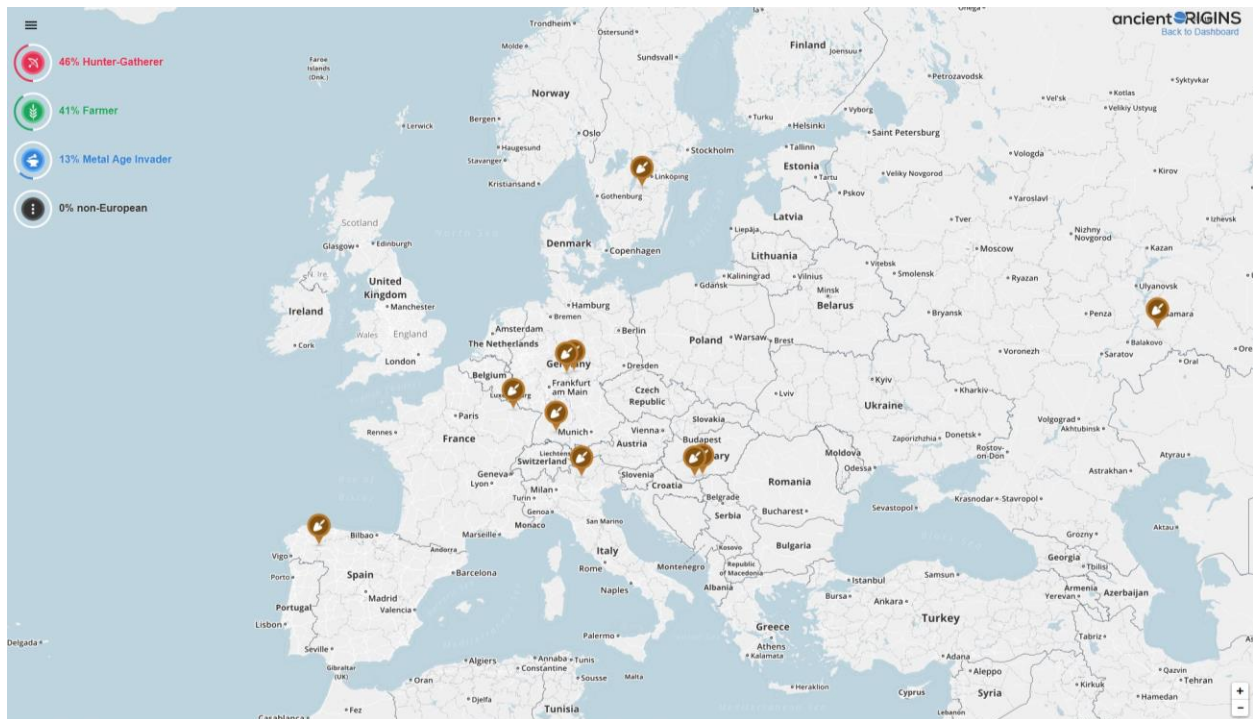
After Gordion was destroyed, it did not take long for the Persian Lydians to take control of the falling Phrygian empire in 547 BCE. An arm of the Persian Empire, the Lydian civilization is credited with having developed the earliest known coinage, a practice later adopted by the Greeks and the entire Persian Empire.

Later, Turkey was considered part of the Roman Empire with the large cities of Troy and Constantinople (present day Istanbul) playing a significant role in the adoption of Greek and Roman culture in the Asia Minor cluster.

#### **Ancient European Origins**

The European Continent has been witness to many episodes of human migration, some of which have spanned over thousands of years. The most up-to-date research into these ancient migrations on the European Continent suggests that there were three major groups of people that have had a lasting effect on present day peoples of European descent: Hunter-Gatherers, Early Farmers, and Metal Age Invaders. The graphics below display the percentages of autosomal DNA that you still carry from these ancient European groups. You can click on these graphics to display more information.

13% Metal Age Invader      41% Farmer      46% Hunter-Gatherer



## ÖTZI

Swiss / Italian Alps (~5,300 years ago)

The Tyrolean Iceman, better known as Ötzi, was found in the Ötztal Mountains on the border of modern day Austria and Italy. Found with items such as a copper hand axe, dagger, and arrows typical of Copper Age burials, Ötzi is thought to be a member of a 4th millennium BCE Farming culture from, what is currently known as, South Tyrol, Austria.

## MOTALA

Motala, Sweden (~8,000 years ago)

Remains of seven individuals were discovered in a European Mesolithic Hunter-Gatherer burial site east of lake Vättern near modern day Motala, Sweden. All of the individuals found belonged to the mitochondrial DNA haplogroups U2 and U5, which was quite common for Hunter-Gatherers of this time period and location. These mitochondrial DNA haplogroups can still be found in modern day populations, although in much lower frequencies. Of these seven individuals, five of them were males belonging to the Y-chromosome haplogroup I, thus providing evidence that even in Mesolithic times this Y-chromosome haplogroup was common in Northern European populations.

## STUTTART

Germany (~5,000 years ago)

Remains discovered in Stuttgart, Germany were identified as having been from a female, likely between 22–30 years old, who was a member of a Neolithic farming community. Evidence from excavations of this site shows inhabitants from a number of different cultures throughout the ancient past, and it is not specific to only Neolithic farming communities. Artifacts, such as pottery dating to around 5,500–4,800 BCE, and evidence of ritualized burial practices suggest that at least one of the remains and inhabitants

was likely from the Linearbandkeramik (LBK) culture. The LBK culture has been identified as one of the first farming cultures in Europe, and they are known for their distinctive pottery and burial practices.

## **LOSCHBOUR**

Luxemburg (~8,000 years ago)

Remains of an 8,000 year old Hunter-Gatherer were discovered at a burial site located in a rock shelter in Loschbour, Luxembourg. The remains are believed to have belonged to a male between 34 and 47 years old. Similar to the remains found in Motala, Sweden, this Hunter-Gatherer male also belongs to the Y-chromosome haplogroup I and mitochondrial haplogroup U.

## **LINEAR POTTERY CULTURES**

Central Europe (~8,000 years ago)

Roughly 8,000 years ago Farming Cultures, such as the Linearbandkeramik (LBK), migrated from the Mediterranean Near East into the European continent. This migration moved through Greece, quickly spreading into the Balkans and arrived in Central Europe by around 5,700 years ago. Archaeological evidence of early Farming Cultures habitation has been found near rivers and lakes; suggesting that these peoples followed the fertile loess soils, often found along bodies of water, to build their communities. Timber longhouses, constructed from wicker like materials that were walled together with a mud plaster, were built together in loose groups to form the communities of the Farming Cultures. In addition to the unique architecture, researchers also use remains from the distinctive pottery practices to identify LBK communities. LBK pottery is unique in its use of parallel lines to form spiral designs, and designs of triangles and chevrons around bands on earthen bowls.

## **CORDED WARE**

Central Europe (~4,000 years ago)

The Neolithic Early Farming culture of Central Europe was culturally and physically replaced by 2,800 BCE. The new inhabitants of this region, the Yamnaya, brought culture and Early Bronze age technology originating from the Eurasian Steppe. Later cultures inhabiting Central Europe, most notably the Corded Ware culture of the late Neolithic, could identify an average of 75% ancestry from the Yamnaya culture. The remaining 25% show ancestry from Early Neolithic Farming Cultures like the Linearbandkeramik. Changes in subsistence strategy and culture can be identified through DNA analysis, as well as changes in cultural practices such as burial rituals and practices. Cultural evolution in this area is displayed in the arrival of pit burial practices and agro-pastoral subsistence strategies.

## **YAMNAYA**

Eurasian Steppe (~5,800 years ago)

At roughly 3,800 BCE, the people of the Yamnaya culture emerged in the Eurasian Steppe. The Yamnaya relied on a subsistence strategy of pastoralism, and displayed an advanced understanding of metals (primarily copper) and animal domestication. They mined the metals they used to construct daggers, axes, and jewelry; and used domesticated horses to guide the movement of their herds. Large swaths of land are necessary for herds to graze; and as little evidence of Eastern Yamnaya settlements have been found, experts suggest that the Yamnaya peoples were partially nomadic. It is likely the Yamnaya peoples spent much of their time in wagons moving their herds in response to seasonal changes. Archaeological digs on land used for ancient Yamnaya burials have discovered that burials were ritualized, as scientists

have unearthed material goods and wheeled carts buried with high ranking individuals. Finally, DNA evidence shows that a common Y-chromosome haplogroup of the Yamnaya pastoralists is R1a and R1b, which is still prevalent in Western Europe today.

## **LA BRANA 1**

La Brana, Spain (~7,000 years ago)

Remains of a 7,000 year old Hunter-Gatherer, dubbed La Brana 1, were discovered in a cave in Northern Spain. Through analysis of DNA extracted from a tooth, La Brana 1's remains have since shed some much needed light on the Mesolithic inhabitants of ancient Europe. DNA analysis has concluded that La Brana 1 carried genes that are associated with disease resistance, thus challenging the existing belief that the emergence of these genes coincided with the arrival of later farming communities. Analysis also suggests that this Hunter-Gatherer is more closely related to modern-day Northern Europeans than to Southern Europeans who have shown greater similarity with Hunter-Gatherer remains from regions in Sweden and Siberia.