

# From Trondheim to Perthshire:

## A Macnaughtan DNA Odyssey

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Like many people these days, I decided to trace my ancestral genetic legacy through a DNA test. These tests have become much cheaper over the last 5 years – five major companies relentlessly market their products as providing unique insight into an individual's background. Unfortunately, most of the inexpensive consumer tests are highly generic, at best offering a **continent-level guess at personal ancestry**.

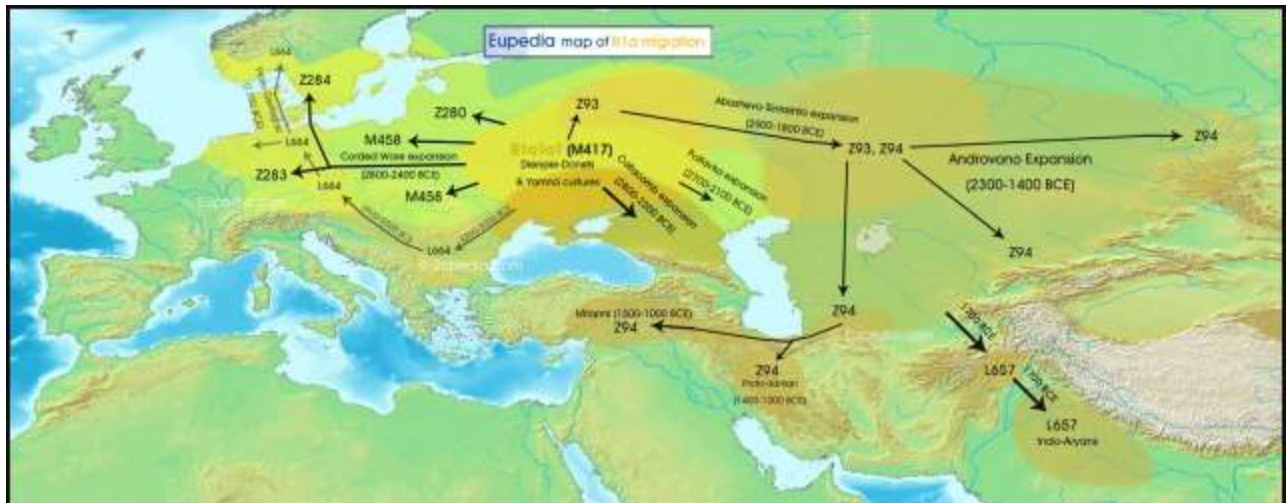
In my case, I decided to go with a particular test at FamilyTreeDNA, which was more expensive, but was able to provide a detailed breakdown. I opted for what's called the **Big Y** (\$500), which traces the Y DNA (father's line) at a highly granular level. The test places each man on a database alongside those individuals who are the closest match.

I fully expected to show up next to other Scots men, probably in **Haplogroup R1b**, which is prevalent in Scotland: about 70%, and even higher in Wales and parts of Ireland. It's sometimes called the "Celtic gene." Instead, I was a very specific mutation of **Haplogroup R1a**, in particular a type that appears most frequently amongst Norwegian men in the **Trøndelag**, around Trondheim on the central coast of Norway. This **Haplogroup R1a Z284**, also known as M17, is fairly common in Norway (20%) but rare in the British Isles (4%) and unknown in the rest of Europe. However, in Orkney and Shetland it reaches 20%, and **42% in the Faroe Islands**. A 2014 survey ("**The phylogenetic and geographic structure of Y-chromosome haplogroup R1a**") found that "the R1a-Z284 subgroup is confined to Northwest Europe and peaks at ~20% in Norway, where the majority of R1a chromosomes (24/26) belong to this clade. We found R1a-Z284 to be extremely rare outside Scandinavia."

Note the predominance of R1a Z284 on the north coast of Norway in the **Trøndelag** and elsewhere along the northern Norwegian coast. There are also outposts in the **Faroe Islands (42% R1a)**. This map only shows dominant frequencies – R1a Z284 is actually found throughout coastal Norway, but at lower frequencies. Further testing is likely to rearrange these frequencies in future years.

The haplogroup R1a is itself a rather interesting case. Origins of the haplogroup are debated, but probably began with steppe horseemen around 5000 years ago. R1a is thought to have been the dominant haplogroup among the northern and eastern Proto-Indo-European tribes, who evolved into the Indo-Iranian, Thracian, Baltic, and Slavic peoples.

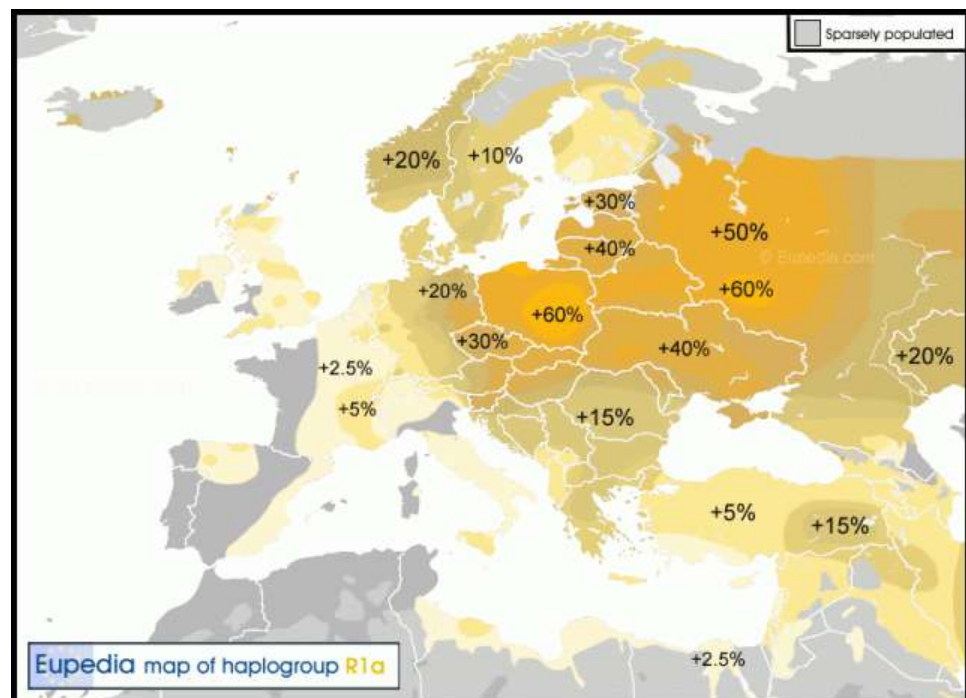




Their dramatic expansion was possible thanks to an early adoption of bronze weapons and the domestication of the horse in the Eurasian steppes (circa 4000-3500 BCE). The first major expansion of R1a took place with the westward propagation of the **Corded Ware culture** (2800-1800 BCE) from the northern forest-steppe. This was the first wave of R1a into Europe, which brought the **Z283** subclade to Germany and the Netherlands, and **Z284** to Scandinavia.

**Source:** Hay, Maciamo. "**Haplogroup R1a.**" Eupedia.com.

The heaviest concentrations of Haplogroup R1a are in southern Poland (**Ruthenia and Carpathia**), central Belarus, and Western Russia, especially **Voronezh**. In these regions, R1a is the predominant gene. Radiating out from these nuclei, the concentrations drop to 40% in Ukraine and the Baltic states, and fading away as the map moves west, south, and east. There is a particularly pronounced margin in Western Europe corresponding to the historic border between the Romance and Germanic languages.

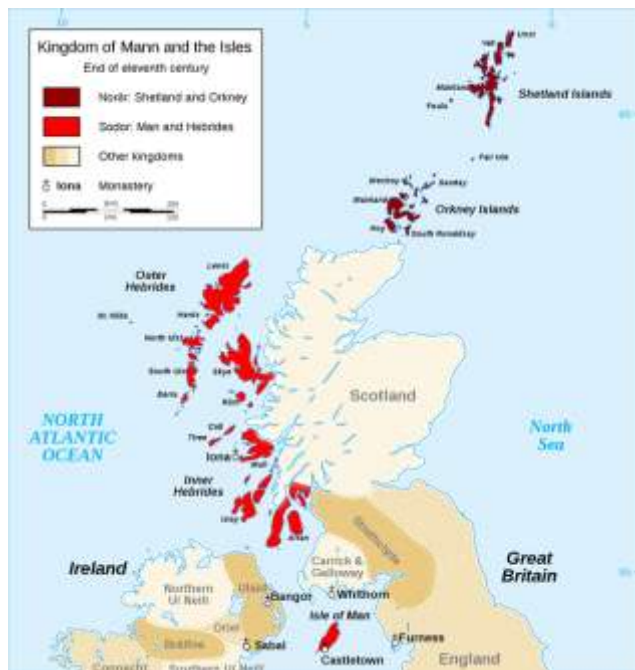


It seems likely that the R1a migration route into Norway was westward from Russia, Poland and into northern Germany, then across the Kattegat into Norway – probably around 1700 BC.

A number of well-known people carry the R1a Z284 gene, including the **Scottish philosopher David Hume and Tom Hanks, the actor.**

In my case, the genetic marker for R1a Z284 mutated even further around 900AD, and is now found only in Britain amongst a few families.

How could this be?



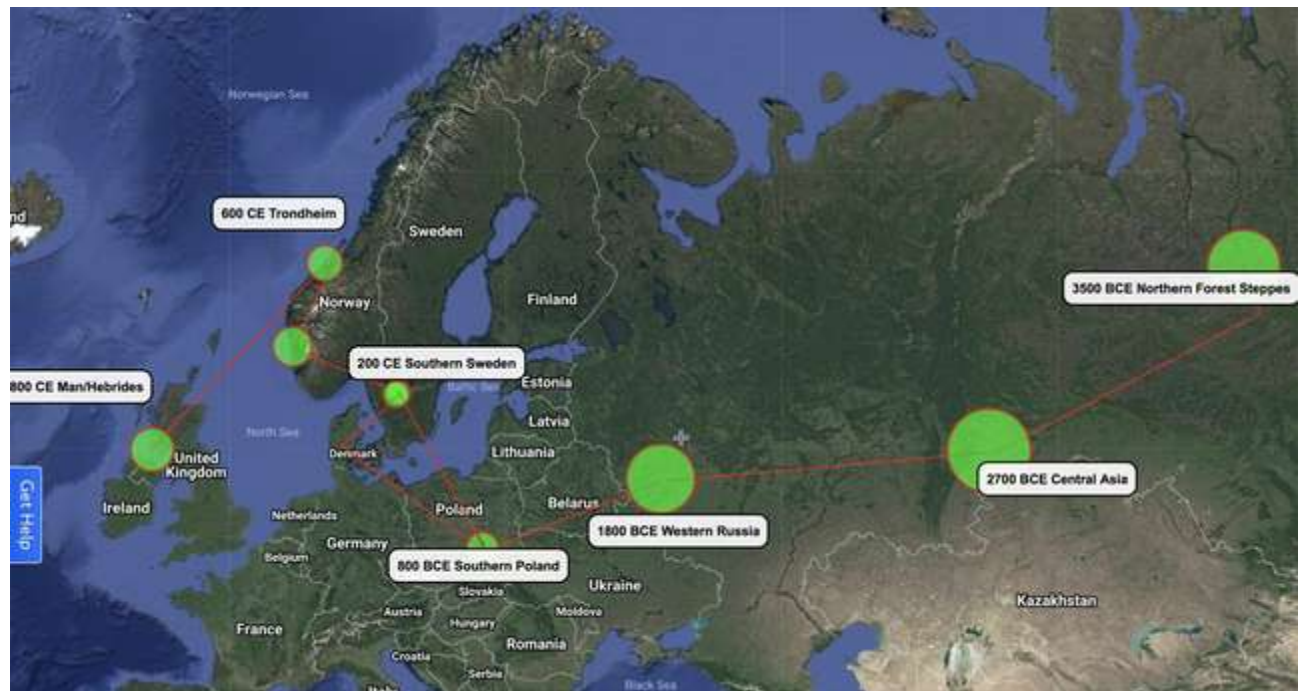
My theory is that a Norse raider or trader – my ancestor – arrived somewhere in the Hebrides or the Isle of Man, at least by 850AD, when the Viking longships were invading much of Western Europe. He joined ship from his home near Trondheim, or possibly transhipped from the Faroes. His descendants remained in Western Scotland, unlike most of the Norse who returned home with their loot. These areas in Western Scotland were ruled by Norse kings for about 400 years from 850AD to 1250AD, when they were finally defeated by the Scots.

The dominant Norse-Gael dynasty in this period were the **Uí Ímair**, or Dynasty of Ivar, who ruled much of the Irish Sea region from

around 900AD, and who probably survived until 1270 on the Isle of Man. This was the fabled **Kingdom of the Isles**, or the *Suðreyjarin* in Old Norse.

A number of semi-legendary rulers held sway over this volatile and violent kingdom for the four centuries of its existence. It is possible that my “Trondheim” genetic marker originated with a member of this extended family. Whether that Norse man was a member of the dynasty or a humble peasant is as yet unknown. One argument in favor of a dynastic origin is that the Norse rulers had lots of children, since they could afford them and needed to ensure their own succession. They also had lots of concubines, since pagan custom at the time was unconstrained by the teachings of the Church. It is a known phenomenon that rulers tended to leave a wider genetic legacy than common folk – in the old days, the powerful got to perpetuate their line a lot more successfully. In fact, some would argue that was their main job.

The Manx branch of my “Trondheim” marker developed into families with the last names **Keig/Skeig, Cretney, Curphey, Cormode, and Oates**, who are still well-known on Man. These families are likely descended from the **Crovan dynasty**, the last Norse rulers of Man, who were themselves probably part of the Dynasty of Ivar. As of this writing, there are moves to test the preserved remains of the Crovan kings to see if the marker is present. The particular mutation of the gene is currently shared only by 7 members of my family, another distant Macnaughtan, and the Keigs of Man. There are certainly many more who remain untested.



The peculiar R1a Z284 marker shared by these Macnaughtan members and the Manx Keigs mutated outside Norway, so it is likely to have originated around 850 or 900AD, after the original Viking left Norway. We know this took place in Britain because the mutation no longer appears in Norway. At around this date, the genetic history of the Macnaughtans and the Keigs diverged as the subclade split one last time.

The interesting thing about genetic tracing is that it is highly conclusive and definitive – it will reveal actual scientific evidence. The “proof” that this reveals so far is that an unknown proportion of men with the surname “Macnechtan” (and its many variants) are of Norse Viking background, descended from this one individual who must have left Norway in the mid-ninth century. The proportion of descendants may be 5%, it may be 20% (but probably not higher). One other Macnechtan individual outside my family has already tested positive for this “Trondheim” marker, but we will not know the full extent of the marker until many more men from the clan are tested. The more men who are tested, the more accurate and refined the results become.

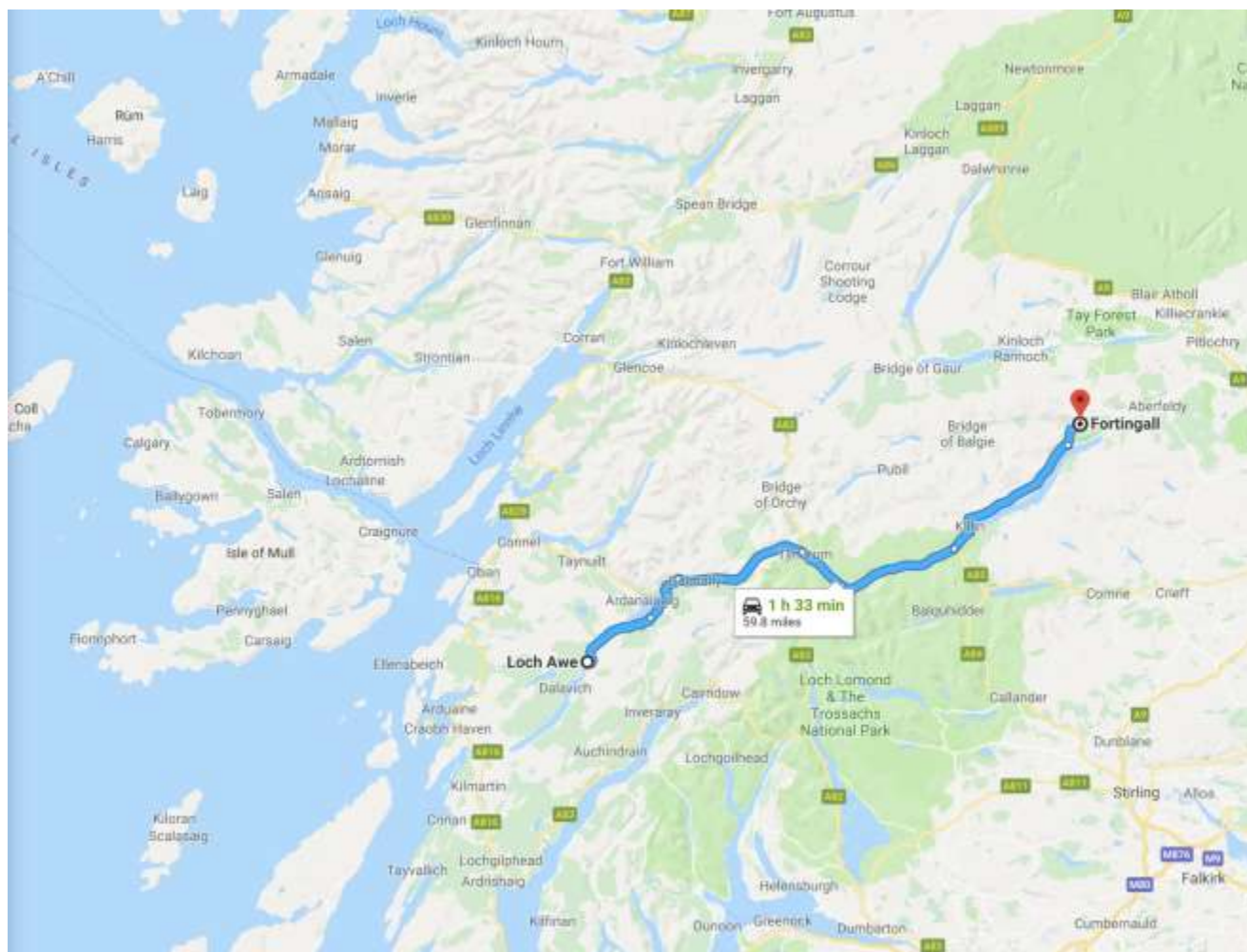
Some clans have actually done this comprehensive testing. The most remarkable and famous examples are the MacDonald descendants of the famous 12<sup>th</sup> century Norse Gael warlord **Somerled**, the first Lord of the Isles. His genetic marker was also haplogroup R1a, although a different subclade than mine. **All of the MacDonald chiefs** and many clan members are descended from Somerled, bearing the same mutation. Other family names descended directly from Somerled include men associated with the Clan Donald: the surnames MacAlister (40%) and MacDougall (30%). Somerled was very prolific! Incidentally, there has been a long debate about whether Somerled was of Gael or Norse paternal heritage, much of it fired by various political agendas. The discovery of his R1a genetic marker pretty much settles that argument for the Norse side.

What can we conclude from this new science? Much remains speculative, but it is certainly fun to imagine how my Norse ancestors eventually ended up in **Fortingall Parish** in Perthshire, where most Macnechtans were concentrated. The earliest records for my family date back to 1760 in Drumcharry, near Fortingall, so there is a huge 5-century gap between Man and the Hebrides in 1260, and Perthshire in 1760.

One possibility is that this Norse family group were on the losing side when the Scottish kingdom eventually overthrew Norse rule in Man and the Western Isles at the **Battle of Largs** (1263), the **Treaty of Perth** (1266), followed by the decisive **Battle of Ronaldsway** on Man in 1275. Perhaps they were refugees who fled to Argyll, where the earliest Macnechtan chiefs were establishing themselves. Around 1246, **Gilchrist MacNachtan** appears as a “baron” in Argyll. Along with his father Malcolm, this is the first documented appearance of the name Macnachtan. Is it possible that Baron Gilchrist was one of these Norse refugees? It’s impossible to know unless ancient remains can be DNA-tested, or clear living descendants can be determined.

Another possibility is that this Norse family didn’t stop in Argyll at all, but transited directly east to Glen Lyon and Fortingall in Perthshire. At around this time, there were Macnechtan **thanes** running the show in Perthshire, so it is equally possible that this was the route taken. The distance from Argyll (Loch Awe, where the Macnechtan chiefs held the castle of **Fraoch Eilean**) to Fortingall is only 60 miles.

The most likely scenario is that my Norse ancestors latched onto one of these local Macnechtan lairds either in Argyll or in Perthshire. In those days, surnames were unimportant or even unknown for common folk, so they perhaps adopted the name of the local landowner, a not uncommon practice.



I suppose the broadest conclusion I can draw from this is that the identity of “clan” is a very complex and subtle thing. Many strands of genetic ancestry went into the makeup of what we now call the Macnechtan clan. Probably many were descended from the **Scoti** who moved from Ireland in the 6<sup>th</sup> century and established the kingdom of **Dál Riata** in Argyll. Others may well have been **Picts** who merged with the Scoti in the 9<sup>th</sup> century. Some could have been **Northumbrian Angles** who somehow washed up in Scotland, while a few might have been Normans who established aristocratic lineages in Scotland after William the Conqueror. And an unknown few were Norse Vikings who made their way from Trondheim to Perthshire – a remarkable journey by any measure. All these strains flowed together in Argyll and Perthshire and coalesced to make up a “clan” we call Macnechtan.

The other conclusion I can draw from this is that perhaps it’s not that important. It is interesting – a tiny pinhole of insight back many centuries, revealing a hitherto unknown story. It’s fascinating and intriguing, but maybe doesn’t mean too much. Let’s face it: my Norse ancestor was 10 to 11 centuries ago, or 40-45 generations. That represents a minuscule percentage of my genetic makeup. The peculiarity of this is that it can be accurately traced, and this is a new development. But in those 40 generations, countless other genetic inputs have flowed into my

family from 40 mothers, creating a new identity with every generation. This is a good thing: we are made up of many diverse influences that make the individual, and genetics is one of the least important. This is something we need to keep in perspective: it's interesting, but doesn't mean a great deal.

It's fun to speculate on the tumultuous history of those times. I really recommend the two TV series "[Vikings](#)" and "[The Last Kingdom](#)" which both give a wonderful flavor of Britain in the 9<sup>th</sup> century. They cover exactly the period and events when my Norse ancestor first staggered off a longship somewhere in Scotland, no doubt drunk, cursing Odin profusely, and complaining about the weather.

*Kingdom of the Isles* by R. Andrew McDonald is an excellent history of the period, while Alistair Moffatt's *The Scots: A Genetic Journey* analyzes the various appearances of the R1a (M17) haplotype across Scotland. Perhaps the best-known book on the subject is *Saxons, Vikings, and Celts: The Genetic Roots of Britain and Ireland* by Bryan Sykes, although much of the information in this 2007 book has become outdated.

In truth, I can never know the story and fate of my distant Macnaughtan ancestor. His existence is confirmed by DNA testing, but everything else is just a fascinating dream.

#### **Further Reading**

Macnaughtan, Don. "[The Perthshire Macnaughtan Families](#)."

McDonald, R. Andrew. *Kingdom of the Isles: Scotland's Western Seaboard, c.1100-1336*. John Donald, 2008.

Moffatt, Alistair. *The Scots: A Genetic Journey*. Birlinn, 2017.

Sykes, Bryan. *Saxons, Vikings, and Celts: The Genetic Roots of Britain and Ireland*. Norton, 2007.