Chapter 2 – In the Beginning, God Created DNA

Who Am I?

Recently the DNA test for genealogical purposes has become a huge craze. One cannot avoid the barrage of TV ads from such companies as Ancestry and 23 and Me. The ads imply that you can, more-or-less, get instant information about your ancestors and pinpoint where they came from. So people all over the world get their kits in the mail, spit in a tube and mail it back to the company and anxiously await their results. Many are not really sure what they might get for their money. The big motivator for many is to simply find the answer to the age old question of "who am I?"

For me growing up the answer to the phrase of "who am I" came in the form of what genealogists call "family lore." It is the verbal explanation that parents give to their children about their family origins. In my family, we were told that our father was Irish and out mother was Scottish. We had the unique experience of our parents actually sharing the "same" surname. My father's family spelled it as "McLane" and my mother's family spelled it as "McLean." Somewhere along the line, someone made up the idea that "McLane" was the Irish spelling and "McLean" was the Scottish spelling. Actually it is just two spelling variations of the same surname, but more about that later in this book.

From a religious standpoint, my siblings and I were baptized and raised as Catholics. Catholicism had been passed down through my father's family, so an additional part of our "family lore" was that we were Irish Catholics with all the pathos and history that it implies. Our Irish grandfather used to tell the story of the three types of Irish, the shanty Irish, the clay pipe Irish, and the lace curtain Irish and we descended from the shanty Irish, meaning the financially impoverished people. We thought we were Irish Americans who may have had a typical such heritage as emigration to America during the Irish famine to such places as New York or Boston. Boy were we ever wrong about that!

However, because we lived in California and were somewhat far removed from extended family, we grew up knowing very little about our family history. So in the 1990s, I became interested in researching our family history. My first approach was to consider our "nationality" as Irish or Scottish as we were both of these "nationalities." Back then (only a little over 20 years ago) that was how people defined themselves. I remember when I first met my wife and her grandmother asked me what my nationality was and I answered "Irish." She quickly told me that it meant I had the traits for too much drinking and fighting. But to her, asking the question was all about finding out who I was.

Long story short, I found out that yes my father's family did come from Ireland, but his mother's family came from Denmark. Then my mother's family did come from Scotland, but her mother's family was from Iceland. So my initial answer of "who am I" was that I was 25% Irish, 25% Danish, 25% Scottish, and 25% Icelandic. But the big surprise was that other than my

Danish ancestors, the other three branches all came to North America through Canada. My Danish ancestors were the only ones to arrive through New York. So I had to add the extra nationality of "Canadian."

The Demise of Nationalities and Races.

The application of the science of genetics and using DNA in genealogy has totally uprooted all the previous concepts we may have held in terms of classifying human beings throughout history. It has rendered the concept of nationality and race to the trash heap of history. It has also severely altered some previous religious notions.

Understanding that human beings have occupied the earth for 200,000 years, the time that some nations have existed is a drop in the bucket. Considering that the Roman Empire only lasted for 1,000 years, many of the world's nations today have histories that are only measured in hundreds of years. So the concept of nationalities as a way to classify people was flawed in the first place. But we humans cling to it because our average life spans are so short that relating to ancient history in describing ourselves is difficult to grasp.

The other thing that modern humans cling to is the concept of race. The idea of race ultimately has its roots in tribalism. People of like appearances and ancestral background tend to group together and look upon those not in their tribe as "others." The concept of race as a rough division of anatomically modern humans (*Homo sapiens*) has a long and complicated history. The word race itself is modern and was used in the sense of "nation, ethnic group" during the 16th to 19th centuries and acquired its modern meaning in the field of physical anthropology only from the mid-19th century. The word "race", interpreted to mean an identifiable group of people who share a common descent, was introduced into the English lexicon in about 1580.

An early anthropologist named Johann Friedrich Blumenbach used crania research (description of human skulls) to divide the human species into five races in 1779. He defined them as: (1) the Caucasian race (Europe, the Caucasus, Asia Minor, North Africa and West Asia); (2) the Mongolian race (East Asia, Central Asia and South Asia); (3) the Aethiopian race (West Africa, Central Africa, South Africa, East Africa, and Australia; and (4) the American race (North America and South America); and (5) the Malayan race (Southeast Asia). Later races were further distinguished by skin color, facial type, cranial profile and size, texture and color of hair and eyes. There have even been perversions of this. For example, the attempt by Nazi Germany to define an "Aryan race." (Incidentally this had often included those in the DNA haplogroup of R1b, more about that later). Another example is the domination of American culture by White Anglo-Saxon Protestants (WASP). (More about that later too!)

It is interesting how these 18th century obsolete concepts of human classification have slowly crept into some of the official government documents and forms that are still in use today. For years, the race question has been part of the American census. And how often do we find ourselves filling out a government form where we are asked the "race question." But we are only given a short list of "acceptable answers" by checking the appropriate box.

The bottom line is, the concepts of nationality and race can no longer be used when we want to answer the question of who are we? The science of DNA has laid bear our antiquated view points of classifying human beings. The science had also challenged some religious notions. Through the ages, ancient genealogies always attempted to trace the ancestry of kings and queens back to biblical characters. After all, if we were all supposed to be descendants of Adam and Eve, it was only natural to try to define who we are according to biblical genealogies and stories. No one wants to see themselves as a descendant of a simple "caveman." In fact, I recently was going through the "Ancient Scottish Pedigree" contained in the Family Tree portion of the Family Search website. I continued to click on additional generations and was attempting to go back as far as I could and low and behold I found a link to an ancestor named "Jesus Christ." Did Jesus have a wife and children? With the story of the "Da Vinci code," some people think so. But for me, it was reason to classify anything found in the Ancient Scottish Pedigree before the year 1000 AD as "questionable."

Another example can be found in the book, *Heimskringla or the Lives of the Norse Kings* by Snorri Sturluson (our 18th great grandfather in the Ancient Icelandic Pedigree) written in 1220. In his book, Sturluson traces the ancestry of the Norse Kings back to a man named Odin who may indeed also be the mythological Norse God Odin. Scandinavian deities Thor and Freya are also mentioned. For those of Scandinavian descent, *Heimskringla* is like the "Scandinavian bible." Despite, Sturluson's assertion, the Ancient Icelandic Pedigree stops the ancestry of the Norse Kings in the year 680 with the birth of King Halfdan "white bone" Olafsson. Perhaps the keepers of the pedigree had doubts about links to deities.

The most recent religious concepts to be "debunked" by DNA are those proffered by Joseph Smith the founder of the Mormon faith. Considering that in his time it was still believed that all persons on earth descended from Adam and Eve, there remained the vexing question of "then where did the Indians come from?" In his *Book of Mormon*, Smith speculated that they were the descendants of the Lamanites who together with the Nephites had found their way to the new world in boats from the middle east. The Lamanites supposedly wiped out the Nephites and God turn their skin dark in punishment. This concept got stretched further by some who proffered that Pacific Islanders (Hawaiians, Tahitians, and Maori) all came from the coast of North American as descendants of the Lamanites and populated the pacific islands. The science of DNA has now proven that the Indians (Native Americans) came from Asia and that the genetics of the Pacific Islanders links back to populations that had inhibited the Island of Taiwan.

I want to point out that despite my sharing about the debunking of some religious notions, I am indeed a religious person with my own beliefs. But I am also a person who has had an education in science and I had a career that was engaged in the protection of natural resources. One thing I gained through my life experience is an appreciation and wonder for the natural world. I have seen and observed in the natural world great diversity and intricacy and it tells me that life is beyond just accidental events throughout time. However, I believe that the earth has been in existence for 4.5 billion years, rather than the 6,000 to 10,000 years proffered by a literal interpretation of the bible. I also believe that there really were dinosaurs who wandered upon the

earth 66 million years ago. Satan didn't just put their bones in the dirt to trick us! I find my Catholic beliefs to be perfectly compatible with science (as did Pope Pius XII when he declared that the Big Bang theory does not conflict with the Catholic concept of creation on November 22, 1951). We Catholic's believe in a contextual interpretation of the bible rather than literal. So I sort of lean towards the "divine intervention" concept of creation. Did the big bang just happen, or was there a supreme being involved in triggering it? Further was their some intervention when the spark hit the "primordial soup" puddle full of organic amino acids that formed into the first living thing? These are questions that can cause us to perceive things of great wonder and awe.

I find one of the biggest wonders of all to be DNA. Each of us, other than identical twins, has a code within us that uniquely identifies us and determines who we are both physically and perhaps even our personalities. The same holds true for all living things. It is like a hidden code or language that has been implanted into life since the beginning. Only now have human beings began to understand this language and it is being translated one genome at a time. It is a living code that slowly reveals the mysteries of God. So God might not have created the earth in a literal seven days, but in the beginning, God created DNA.

So the science of DNA has now created an entirely new and more correct version of human history. We no longer can lean on nationalities and race. Discarding those, we now use "ethnicities" to describe who we are!

The Pie Chart



In the Ancestry ads on TV they display a very detailed pie chart that illustrates the different percentages of ethnicities that make up a person's DNA. The pie chart you get with your results is not nearly as detailed as the one you see on TV. Nevertheless it is an attractive icon that makes people want one. One of the other things you get with your results is a description of your ethnicities and a rather long list (matches) of persons you are related to. I have found that since very few of my identified matches ever respond to my messages, that most people are just as well satisfied with getting their pie chart and are not generally interested in the other aspects of genealogy.

The DNA analysis that you get from Ancestry is called autosomnal DNA.

Autosomnal DNA is an analysis of your entire DNA and its relationship to <u>all</u> the others in your family tree. It should be noted here that the autosomnal results can be slightly different for each sibling, so while my results are accurate for me, they may only be an approximation of what my siblings results might be. In contrast to autosomnal DNA, a Y-DNA analysis only includes a persons male (paternal) line of ascent and Mt-DNA (mitochondria) only includes a person's female (maternal) line of ascent. More about those later.

There are two parts of figuring out how the various persons on your list are related to you. There is the DNA and how closely Ancestry estimates your relationship (ie: 1st cousin, 2nd cousin, etc.) and a comparison of your researched family trees, sometimes called "the paper trail." I enjoy examining the family trees and then comparing them to my own to figure out the actual relationship. I have

Norway 31% > Scotland 27% > Your community with a connection to this ethnicity region ① Scottish Highlands & Islands > Argyll & Bute Ireland 25% > Your community with a connection to this ethnicity region ① Leinster, Ireland > Sweden & Denmark 12% > England & Northwestern Europe 4% > Baltics 1% >

now done this on over 230 of my DNA matches and over 230 of my wife's DNA matches. One thing I have learned from this experience is that the DNA doesn't lie! Through this exercise I have found lost lines of my relatives and I have positively proved some of my "paper trail." I have even helped a few persons that descend from adoptions and illegitimacies find their biological family trees.

But when I first received my pie chart, boy was I surprised. First, as you can see, my pie chart was not as near as detailed as what was presented in the ads. The greater ethnicities shown with the pie chart was 31% Norway and 27% Scotland. The other 58% would be found in the category of the 4 "other regions."

So to learn more required turning the page to another graphic called the ethnicity estimate. As can be seen in that graphic, the detailed ethinicity estimate is: 31% Norway, 27% Scotland, 25 % Ireland, 12% Sweden and Denmark, 4% England and Northwest Europe and 1% Baltics. My biggest surprise was the 4% England.

My first thought was, Oh no! Were English!. This coming from a family who learned about how the English had oppressed our Irish and Scottish ancestors and how their tyrannical King George caused the American Revolutionary War. Further, one of our Irish ancestors, Miles Murphy, had been imprisoned by the English for his involvement in the 1798 Rebellion. But it

probably shouldn't have been that much of a surprise understanding that Ireland, Scotland, Wales, and England are part of the British Isles. I will describe later how this ethnicity came into our DNA story through a Y-DNA test that I took.

Another thing I became aware of is not thinking in terms of Irish and Scottish being two separate things. In terms of ethnicity, they are the same thing, namely Celtic. For brevity purposes, I will use the word "Celtic" in this discussion. (There will be more provided later about how Scottish and Irish are the same ethnicity, namely "Celtic.") Also Celtic is roughly equivalent to Gaelic or Gaels. So the Scotland ethnicity added to the Irish ethnicity meant that I am 52 % Celtic which is indeed my highest percentage. The following is a discussion of this Celtic ethnicity. The ethnicities of England, Wales, and Northwest Europe and Norway, Sweden and Iceland will be discussed later in this chapter.

Another graphic shows a connection to specific DNA communities as: "Scottish Highlands & Islands", "Argyll & Bute", "Iceland", and "Leinster, Ireland." My "paper trail" had already provided connections to these communities, so I knew these DNA reports were me!

In 2022, Ancestry.com added a new feature that displays ethnicity according to which ethnicities are inherited from the paternal (father) line and the maternal (mother) line. The ethnicities I inherited from my father are: "Ireland 25%, Sweden and Denmark 12%, Norway 8%, England and Northwestern Europe 4%, and Baltics 1%. So the "family lore" of my father being Irish proved to be true. Then as can be seen the England ethnicity came from my father. As his mother's family were from Denmark, that explains the Denmark, Norway, and Baltics ethnicities.

The ethnicities I inherited from my mother are: 27% Scottish and 23% Norway. So the "family lore" of my mother being Scottish proved to be true. As her mother's family was from Iceland, that explains the Norway ethnicity.

This Ancestry.com feature of classifying the DNA matches as either "paternal", "maternal" and "unclassified," would prove to be very useful since my parents had the same surname: "McLane" and "McLean." So knowing which McLean line (paternal or maternal) a DNA match had helped to determine how I was related to them.

A General Description of the Celtic Ethnicity

Located among the isles of the eastern North Atlantic Ocean, our Ireland and Scotland region remains linked to Celtic culture. Here, along with a handful of other isolated communities within the British Isles, you can find some of the last holdouts of the ancient Celtic languages that were once spoken throughout much of Western Europe. And though closely tied to Great Britain, both geographically and historically, people in this region have maintained their unique character through the centuries.

After the Ice Age glaciers retreated from Northern Europe more than 9,000 years ago, hunter-gatherers spread north into what is now Great Britain and Ireland during the Middle Stone Age. Some 3,000 years later, during the New Stone Age, the first farming communities appeared in Ireland. The Bronze Age began 4,500 years ago and brought with it new skills linked to

metalworking and pottery. During the late Bronze Age, Iron was discovered in mainland Europe and a new cultural phenomenon began to evolve.

According to long-standing theory, around 500 B.C., the Bronze Age gave way to an early Iron Age culture that spread across all of Western Europe, including the British Isles. These new people originated in central Europe, near what is Austria today. They were divided into many different tribes, but were collectively known as the Celts. New genetic evidence may challenge this theory of Irish origin.

From around 400 B.C. to 275 B.C., various tribes expanded to the Iberian Peninsula, France, England, Scotland, and Ireland—even as far east as Turkey. Today we refer to these tribes as "Celtic," though that is a modern term which only came into use in the 18th century. As the Roman Empire expanded beyond the Italian peninsula, it began to come into increasing contact with the Celts of France, whom the Romans called "Gauls."

The Romans eventually conquered the Gauls and began an invasion of the British Isles in 43 A.D. Most of southern Britain was conquered and occupied over the course of a few decades. As the Roman Empire advanced, the Celtic tribes were forced to retreat to other areas that remained under Celtic control, chiefly Wales, Ireland, Scotland, the Isle of Man, and Brittany. The Roman presence largely wiped out most traces of Celtic culture in England—even replacing the language (but not the Celtic DNA). Since the Romans never occupied Ireland or Scotland in any real sense, they are among the few places where Celtic languages have survived to this day.

Probably there is nothing in Irish history which has caused more confusing than the terms Scotia and Scot, which, at first applied to Ireland and Irishmen. It came to be applied later to Ireland's northeastern neighbor, Alba (Scotland), and its inhabitants.

It was Roman historians that first proffered that there was a difference between the Irish Celtics and the Scot Celtics. The Romans called the area that is today's Scotland, Caledonia. They called Ireland, Hibernia. They coined the term Scoti which was to apply to all Gaelic people. Orosius, the 3rd century geographer, used the phrase "Hibernia, the nation of the Scoti." Then during the time of Roman Emperor Constantine in the 4th century, many writers used the term Scotia and Scot in reference to the native people who lived in a place called Eirinn.

Charlemagne's geographer used the phrase "In the Island of Hibernia, or Scotia," when talking about St.Columba. Then when he talked of St. Kilian, he said, "He came from Hibernia, the Island of the Scots."

But the term Scots eventually began to be used in reference only to the Gaelic people who occupied Calendonia. As time went by references were made to either the "Irish" or the "Scots" as if they were two separate groups. It seems the geographic separation between Hibernia and Caledonia and nation building (Scotland, Ireland, England) seem to enhance that. Yet, the Irish and the Scots stem from the same genetic origins, spoke a common Gaelic language, had (at least for a few centuries) the same religion and shared customs and practices. So the perception of them being two separate groups persists to today. And our family and Ancestry.com bought into this myth.

The modern name of Ireland seems to have originated with the Northmen (Vikings) in

about the 7th century – being probably formed from Eire, they called it Ir or Ire, and after that the English called it Ireland, and its natives Irish.

Beginning in the late 8th century, Viking raiders began attacking the east coast of England and the northern islands off Scotland. The first recorded Viking raid in Ireland was in 795 A.D. on the island of Lambay, off the coast of Dublin. During the next few centuries, they controlled parts of the islands, exacting tribute, and pillaging villages and monasteries.

During the 9th century, the Vikings established trading ports in Dublin, Cork, Waterford, Wexford, and Limerick. As they settled in Ireland and Scotland, Vikings intermarried and assimilated with the native population. Today, many Irish surnames, such as Loughlin, Doyle, and Cotter, are of Viking origin, and some Scottish clans have deep Viking roots.

During the 12th century, Ireland consisted of a number of small warring kingdoms, and England was ruled by Norman kings (the Normans originated in Northern France where they gave their name to the region of Normandy). The Welsh resisted the Norman invasion and by 1100 had driven the Normans out of large parts of Wales. When Diarmait Mac Murchada, the king of Leinster, was deposed by the Irish high king, he turned to Henry II of England for help. Henry sent Norman mercenaries to assist, and Mac Murchada regained control of Leinster, though he died shortly thereafter. Then in 1171, Henry II seized control of Ireland, and with the support of Pope Adrian IV, he took the title "Lord of Ireland," and the Norman lords established a presence in Ireland.

A 1536 Act of Union united Wales with England under Henry VII, who had been born in Wales. As Norman influence declined in Ireland, the English monarchs took a more direct role in the governance of Ireland. In 1542 after a failed Irish rebellion, Henry VIII created the Kingdom of Ireland, bringing the area under direct English rule.

Around this time Henry made another decision that had far-reaching consequences for Ireland. In 1527 after the Pope refused to annul Henry's marriage to Catherine of Aragon, Henry broke away from the Roman Catholic Church and created the Church of England, with the English monarch as its head. This English Reformation resulted in a rise in Protestantism across England, Scotland, and Wales. Ireland was resistant to Protestantism, and when England attempted to force it upon them—and failed—the Crown replaced Irish landowners with thousands of Protestant colonists from England and Scotland. These colonies became known as the Plantations of Ireland. Their long-term effect was to replace the Catholic ruling classes with Protestants. Then in the 1600s, Penal Laws were introduced, which denied Catholics many landownership and political rights. The repression of Catholics in Ireland continued up until the 1830s when Daniel O'Connell led the campaign for Catholic Emancipation.

Where Does Our Celtic Paper Trail Lead

We have one Celtic paper trail that leads directly to County Wexford, Ireland. This paper trail includes such Celtic surnames as: Murphy, O'Connor, O'Farrell, McMahon, Doran, Nowlan, and Walsh.

Other than County Wexford, a great deal of our Celtic paper trail comes from locations within the Ancient Kingdom of Dal Riada. This region encompasses the northeastern coast line of County Antrim, Northern Ireland and the Western Isles of Scotland mainly involving County Argyll. It should be noted that the word "Argyll" derives from Old Gaelic which roughly translated means "coastal region of the Gaels." As this part of present day Scotland is the first place where the Celtic people of Ireland began to inhabit Scotland, their Celtic roots in the region go way back. Our father's Celtic ancestors came from County Sligo, Ireland and our mother's ancestors came from the western isles of Mull, Colonsay, Islay, and Tiree in Scotland. Our paper trail includes such Celtic surnames as: McLean, McDonald, McKinnon, Currie, Lamont, McNeill, Clarke, and Gillespie. There are three families of McLeans, three families of McDonalds, and three families of Mckinnons. We not only descend from Clan MacLean (on our mother's side) but also from Clan MacDonald whose chiefs were once known as the "Lords of the Isles" who were the original rulers of the Kingdom of Dal Riada. For centuries the Celtic DNA of these people remained isolated in the Highlands and the Isles. However, inter-marriage with some of the noble families from the Lowlands brought into their ethnicity the DNA of the English and Anglo-Normans.

My Y - DNA

A Y-DNA analysis only includes a persons male (paternal) line of ascent. One of my biggest challenges in following the paper trail of my father's ancestors was trying to find out where his Great Grandfather James McLean was from. Most of the records I found for him in Quebec merely identified his birth place as Ireland. So I decided to have my Y-DNA tested by the Family Tree DNA Company. When I received my results I was confused and intimidated by my lack of knowledge in using the data. One question that vexed me was how and why did my Scotland based surname get to Ireland? Over the years I had theorized two things about James McLean: (1) that maybe his ancestry stretched back to Clan McLean in Scotland; or (2) that he might have been a "gallowglass" or mercenarie who affiliated with Clan McLean to serve a feudal lord in Ireland.

But my results was confusing. First I found it very odd that out of all the persons that were on my "matches" list, none had the surname McLean or any of its spelling variations. Further, there was a distinct lack of surnames that would have been recognized as Celtic in origin. Then the most frequently identified country of origin for all the matches was England. I joined a McLean DNA Project on Family Tree DNA since both my father's and mother's surnames made me eligible. But I didn't find much there to help me understand my results. Then a person named Chris McLain started a "Gallowglass Project." So I immediately e-mailed him to join his project. He offered to analyze my kit number and give me his opinion.

Chris told me that my results showed that I was clearly not a descendant of Clan McLean from a Y-DNA standpoint. Further, the absence of a lot of known gallowglass surnames indicated that I had no gallowglass heritage. He noted that my paternal line was most likely

English and the surnames that closely matched me were Biglane and Vincent. Chris further told me that my James McLean ancestor most likely descends from a non-paternal event (NPE). Examples of an NPE are such things as an illegitimate birth where the mother may have concealed the identity of the biological father, or it could be an adoption, or a case where a man gives his step-child his last name. It could also merely be a situation where a man chooses a different surname to use. Chris suggested that I should get the "Big Y DNA" analysis to further refine my results.

My first Y-DNA analysis stopped only at my major haplogroup level. I am haplogroup R-M269, which is also expressed as R1b1a1a2. This haplogroup is primarily found in Western Europe and it is the most common European haplogroup. This haplogroup is believed to have emerged roughly 4,000 to 10,000 years ago and was associated with the Neolithic expansion into Europe.

My Big Y-DNA test takes it "downstream" further to certain subclades. My most downstream subclade that has been described is U106. U106 is the subclade for Netherlands, England, Norway, and Germanic Europe. This subclade has been classified as the Proto-Germanic branch of the Indo-European family tree. It is found at high concentrations in the Netherlands and north-west Germany. It is likely that its lineages expanded in this region through a founder effect during the Unetice period, then penetrated into Scandinavia around 1700 B.C. Its presence in other parts of Europe can be attributed almost exclusively to the Germanic migrations that took place between the 3rd and the 10th century. The Frisians and Anglo-Saxons disseminated this subclade to England and the Scottish Lowlands.

So the answer once again is, were English! Specifically we are the part of the English DNA ethnicity that comes from the Anglo-Saxons. My autosomal DNA indicates that I am 4% English. However, evidence found in my autosomnal analysis indicated that James P. McLean's father most likely had the surname McLean and his mother had the surname Laverty. The DNA match was to a person who had Laverty ancestors who lived in the early 1800s in County Antrim, Ireland. The match showed an ethnicity of 100% Celtic. So it follows that our supposed English ancestor most likely married into (or commingled with) Celtic families in Ireland.

My Y-DNA analysis revealed three close matches. My Y-DNA "tip report" indicates that there was a 95% chance that a match named Floyd Biglane and I share a common ancestor at eight generations. This would mean that we share a 6th great grandfather. This generation would have lived around 1700 to 1750. So the NPE most likely occurred somewhere in the 3 generations between 1700 and 1800. Further my next closest match was to a person named Sheridan Eugene Vincent (there are two other Vincent matches as well) where there is a 95% chance of he and I having a shared ancestor at 12 generations which would be around 1600 to 1620. There are some posted family trees that trace this Vincent family to an Adrian Vincent who was born in Belgium in 1610. Then there is another close match to a Robert Begley where there is a 98% of us having a shared ancestor at 16 generations or around 1500 to 1520.

The "House of Names" website provides the following about these surnames:

- In ancient Anglo-Saxon England, the ancestors of the Biglane surname lived in an estate called Bigland, in the parish of Cartmell, North Lancashire. The surname Biglane was first found in Lancashire, where they were a very ancient family seated at Bigland Hall from the time of the Norman Conquest.
- Vincent is a name of ancient Norman origin. It arrived in England with the Norman Conquest of 1066. The Vincent family lived in Leicestershire. Their name, however, is a reference to St. Vincent-de-Cramenil, Normandy, the family's place of residence prior to the Norman Conquest of England in 1066. The surname Vincent was first found in Leicestershire where they held a family seat from early times at Swinford. Today, Swinford is a village and civil parish in the Harborough district.
- All Irish surnames have a unique and often romantic meaning. The name Begley is considered Irish and originally appeared in Gaelic as O Beaglaoich. It was first Anglicized as O'Begley, it now appears mostly as Begley, and occasionally Bagley. The surname Begley was first found in the counties of Cork and Donegal, northwest Ireland in the province of Ulster, sometimes referred to as County Tyrconnel, where they held considerable territories as an important Irish sept directly descended from the line of the Heber Irish Kings.

So these surnames seem to somewhat corroborate the English ethnicity. It is interesting to note the Biglane surname arises in Lancashire which is directly across the Irish Sea from the Province of Ulster. Then during the Plantation of Ulster, English settlers, came mainly from the English counties closest to Ulster, such as Lancashire. The Vincent surname arises in Leicester which is in central England. Then Begley surname also points back to an Ulster location.

Ron McLean's Y-DNA

My mother's brother Ron McLean was kind enough to volunteer to get the Y-DNA test for himself. This is important because it reveals the ancient Y-DNA of our mother's McLean line. His results was just as surprising as mine. There was an absence of any matches in his results with the surname McLean probably means there may be a NPE in his male line also.

The source of Ron's ancient DNA is Haplogroup I-M253. Generally this is not a haplogroup associated with Celtic (Scottish/Irish) lines of descent. Haplogroup I-M253, also known as I1, is a Y chromosome haplogroup. Haplogroup I1 is believed to have been present among Upper Paleolithic European hunter-gatherers as a minor lineage but due to its near-total absence in pre-Neolithic DNA samples it can't have been very widespread. Neolithic I1 samples are very sparse as well, suggesting a rapid dispersion connected to a founder effect in the Nordic Bronze Age.

Haplogroup I is the oldest major haplogroup in Europe. It is estimated that the I1 branch bifurcated from the rest of haplogroup I some 27,000 years ago. It has been speculated that I1 evolved in isolation in Scandinavia during the late Upper Paleolithic and Mesolithic periods.

Haplogroup II is the most common type of haplogroup I in northern Europe. It is found mostly in Scandinavia and Finland, where it typically represent over 35% of the Y chromosomes. Today it reaches its peak frequencies in Sweden. Associated with the Norse ethnicity, II is found in all places invaded by ancient Germanic tribes and the Vikings. After the core of ancient Germanic civilization in Scandinavia, the highest frequencies of II are observed in other Germanic-speaking regions, such as Germany, Austria, the Low Countries, England and the Scottish Lowlands, which all have between 10% and 20% of II lineages. It is therefore reasonably presumed that members who trace their ancestry to Britain, Ireland, and Scotland, are further descended from the Viking migrations in most cases.

Robert I of Scotland, commonly known as Robert the Bruce, belonged to haplogroup I1. Descendant testing of Robert, 6th Lord of Annandale de Brus, assigned the men of Clan Bruce to I1 subclade Y17395.

Geneticist Bryan Sykes, in his book, *Saxons, Vikings, and Celts, The Generic Roots of Britain and Ireland*, rather that using the number and letter scheme to identify haplogroups, he has named them as "clans." He refers to the notional founding patriarch of I1 by the name "Wodan" or "Wodan clan." He did an extensive sampling and survey of the residents of the British Isles. Wodan has its highest frequency in the Hebrides (western isles) where 17.8% of the males living in the Hebrides are clan Wodan. That pretty much proves that the history of the presence of Vikings in the western isles is true!

Sykes has another theory about the presence of clan Wodan DNA in Scotland. Understanding that history often teaches us that the roots of the Scottish people are in two parts. Part 1 is the migration of the Gaelic people from Northern Ireland into Argyllshire and the Western Isles. Part II is the indigenous people of Scotland that were known as the Picts. Like the Irish Gaels, the Picts were of Celtic ethnicity. In Sykes survey he discovered that many who descend from the ancient Picts were of the clan Wodan. So while it may be easy to generally refer to haplogroup I-M253 as "nordic" it is also very present in persons who trace their origins to Scotland.

The surname McLean may have also entered into Ron's male line simply by a male ancestor taking the name for himself. This may have been because: (1) he supported the political and cultural causes of Clan McLean; (2) he might have served as a "fighting man" in a Clan McLean military campaign; and (3) he may have been a tenant farmer on estate lands in which the landowner was a member of Clan McLean. Also in Scottish tradition if a wife was of noble birth or an inheritor of estate lands and title and her husband was of lowly birth, the children were often given the wife's surname.

A General Description of the English Ethnicity

Again for brevity, I will call the England, Wales and Northwestern Europe ethnicity just "English."

The history of Britain, the heart of our England and Wales region, is often presented as

one group of invaders after another displacing the native population. The Romans, Anglo-Saxons, Vikings, and Normans all left their mark on Britain both politically and culturally. However, the story of Britain is far more complex. In fact, modern studies suggest the earliest populations weren't wiped out, but adapted and absorbed the new arrivals.

As glacial ice receded 12,000 years ago, sea levels were still low enough for Stone Age hunter-gatherers to cross from mainland Europe to Britain on foot. Farming spread to the islands by about 4000 B.C., and the inhabitants built their remarkable and puzzling stone monuments, including the famed Stonehenge.

Beginning in about 2500 B.C., successive waves of tribes settled in the region. These tribes are often called Celts. The Celts were not a nation in any sense, but a widespread group of tribes that shared a common cultural and linguistic background. Originating in central Europe, they spread through most of western Europe, the British Isles, and the Iberian Peninsula. Their dominance could not withstand the rise of the Roman Empire, however.

After defeating the Celts of Gaul (modern-day France and surrounding areas), the Romans invaded the British Isles in 43 A.D. Most of southern Britain was conquered and occupied over the course of a few decades and became the Roman province of Britannia. Hadrian's Wall, in the north of England, marked the approximate extent of Roman control. The Roman presence largely wiped out most traces of earlier cultures in England—even replacing the language with Latin.

With the decline of its Western Empire, Rome largely withdrew from Britannia in 410 A.D. As the Romans left, tribes from northern Germany and Denmark stepped in. The Germanic Angles and Saxons soon controlled much of the territory that had been under Roman rule, while the Jutes from Denmark occupied some smaller areas in the south. The new settlers imposed their language and customs on the local inhabitants in much the same way that the Romans had. The Germanic language spoken by the Angles would eventually develop into English.

The region was divided into several kingdoms, with the more powerful kings sometimes exerting influence or control over smaller bordering kingdoms. There was nothing like a single, unified English kingdom, however, until the early 10th century and the rise of the House of Wessex.

During the 8th century, seafaring Scandinavians began raiding coastal areas in Europe. Known as the Vikings, they were not just warriors and pillagers. They also established numerous trade ports and settlements throughout the Western world, including the British Isles, Russia, Iceland, and the Iberian Peninsula. A group of Vikings that settled in northern France became known as the Normans and, by the early 11th century, ruled a great and powerful region, sanctioned by the French crown.

Danish Vikings began to invade northern and eastern England in 876 and eventually came to control a third of the country, defeating several smaller Anglo-Saxon kingdoms. The rulers of the Danelaw, as the Viking area became known, struggled for nearly 80 years with the remaining English kings over the region. The balance of power swung back and forth, with an English king, Edward the Elder, gaining the upper hand in the early 900s and a Danish king, Cnut the Great,

ruling England, Norway and Denmark from 1016 to 1035. After the deaths of Cnut's sons, the throne returned to Anglo-Saxon control, but their rule was short-lived. The Normans of France, led by William the Conqueror, sailed across the English Channel and claimed the throne of England, defeating Harold Godwinson at the Battle of Hastings in 1066.

The Norman kings, ruling primarily from France, gave rise to the House of Plantagenet, a line of kings that began to consolidate and modernize the kingdom of England. Beginning in 1277, Edward I put down a revolt in Wales and led a full-scale invasion, bringing Wales under control of the English crown. He then seized political control of Scotland during a succession dispute, leading to a rebellion there. Edward's campaign against the Scots wasn't entirely successful and remained unresolved at his death. By decisively defeating Edward's son at Bannockburn in 1314, the Scots assured their independence. The House of Plantagenet continued to reign until the 15th century. Towards the latter half of the 15th century the houses of York and Lancaster, the most powerful Plantagenet branches, fought a series of wars for control of the throne. Those wars ended with the Battle of Bosworth Field on August 22, 1486. At Bosworth Field, Henry Tudor defeated Richard III. Henry took the throne as Henry VII and ushered in the reign of the House of Tudor. The reign of the Tudors lasted from Henry VII through Elizabeth I in 1603.

The DNA of Ireland, Scotland and England

In his book *Saxons, Vikings, and Celts, the Genetic Roots of Britain and Ireland*, Bryan Sykes has some interesting things to say about the English ethnicity. Sykes is a professor of human genetics at Oxford University. I will present an abridged version of his findings here.

I first read Professor Sykes book some time before I had my DNA tested. I found his book to be remarkable. He was able to very simply explain some of the complex DNA subjects and blended the explanation with outlining historical events. Then after I had my DNA tests, his book made even more sense to me.

I had learned from other readings that the story of the English ethnicity starts with the indigenous people of the British Isles. The Romans had named the people they found there as the Britons (the root word for Britain), the Welsh, the Picts, the Irish and the Scots. Despite the Roman belief that these were somehow separate and distinct groups, in reality that were all Gaelic or Celtic people. The Anglo-Saxons would make there first attempt to invade England in the 4th Century, but the Romans were still there and they were repelled. They would be successful in the 5th century after the Romans left. Then the Norman Conquest occurred in 1066. So these events left the Anglo-Saxons and the Anglo-Normans as the ruling class in England.

Sykes first examined what he termed as the great Teutonic Myth. The word Teutonic refers to the Germanic branch of the Indo-Europeans. The myth began to emerge in England in the mid 15th century. This myth is best described by John Hare, who during the English Civil War, wrote:

Our progenitors that transplanted themselves from Germany hither did not commixe themselves with the ancient inhabitants of the country of the Britain's, but totally expelled them, they took the sole possession of the land to themselves, thereby preserving their blood, laws and language uncorrupted ...

Sykes says this myth is "simple racism" that collapses all three (other inhabitants of the Isles, the Welsh and the Scots) into the same denomination, "the Celts", and pours scorn on them.

Without science to correct it, the myth perpetuated for over four centuries. It became an attitude of Anglo-Saxon superiority. Wars and battles would be fought because of it. Then with the event of the Protestant Reformation it would be further enhanced when Protestants saw that their Christian practices and forms of worship were superior to that of the "papists."

The superiority attitude raised its ugly head in such atrocities as the Irish Potato Famine and the Scotland Highland Clearances.

In 1850, Author Robert Knox wrote a book titled *The Races of Men* in which he said, "The Celtic Race must be forced from this soil." He also wrote:

The Orange Club (Orange Order) of Ireland (an extreme Protestant group) is a Saxon confederation for the clearing of the land of all papists and jacobites; this means Celts. If left to themselves they would clear them out, as Cromwell proposed, by the sword; it would not require six weeks to accomplish the work.

With the advent of his DNA research work, Professor Sykes found that Y-chromosomes could be separated into twenty-one paternal clans (haplogroups), eight of which occur in Europe. Of the eight clans, only five occur frequently in the British Isles. For simplicity, he gave the populations associated with Y-DNA Haplogroup R1b the name "Oisín" for a clan patriarch.

Oisin gives rise to the Celts, but unlike my Y-DNA analysis, the downstream subclade of the Celts is L21 rather than U106. L21 is considered the Celtic branch and U106 is considered the Germanic (Anglo-Saxon) branch of clan Oisin. L21 Includes Brittany, Ireland, Scotland, and Wales. In England, the difference between persons of these two subclades tends to recall the 12th century Anglo-Norman invasion. Of note is that men with Gaelic surnames are more likely to be descendants of Clan Oisin than men whose surnames can be traced to Anglo-Norman names.

Sykes found that the Picts are so genetically close to the Gaelic Irish that estimates for differentiation are difficult. He concluded that the Picts and the Celts have the same underlying genetic origins.

Sykes identified a rare Y-chromosome profile that was found exclusively among men with the surnames MacDonald, MacDougall and MacAlister. All three names according to the Ancient Scottish Pedigree descend from Somerled, the progenitor of the "Lords of the Isles" dynasty (of which our family descends on our mother's side). More about that later.

The Vikings invaded and became inhabitants of much of central England starting in the summer of 789. That would establish the "Dane Law" there and were present in England for 277 years (about 9 generations) until 1066. While Sykes suspects that it may have had some effect on the English ethnicity, it is thought to be minimal.

After the Norman Conquest in 1066, a feudal system was instigated all over England in which estates insisted that men adopt surnames. This was so that they could be told apart and so that inheritance of land tenancies from father to son could be properly controlled.

Through his research, Sykes reached the following conclusions:

- The English descend in part from Celtic/Pictish stock and for the large part this remains undiluted to this day. (On our maternal side, our Scottish ancestors are mostly Celts.)
- The Celts of Ireland and the Western Isles are not, as far as I can see from the genetic evidence, related to the Celts who spread south and east to Italy, Greece and Turkey from the heartlands of Hallstadt and LaTene during the first millennium B.C.
- The genetic evidence shows that a large proportion of Irish Celts, on both the male and female side, did arrive from Iberia at or about the same time as farming reached the isles (around 500 B.C.).
- There is no fundamental genetic difference between the Picts and Celts.
- It is very difficult to distinguish Saxon, Dane, and Norman on a genetic basis.
- The Celtic Scandinavian of clan Oisin has strong affinities to Iberia and therefore the Gaelic migration to the British Isles came from that direction.
- Overall, the genetic structure of the British Isles is stubbornly Celtic, if by that we mean descent from people who were here before the Romans and who spoke the Celtic language.
- However we (the English people) may feel about ourselves and about each other, we are genetically rooted in a Celtic past. The Irish, the Welsh, and the Scots know this, but the English sometimes think otherwise.

Mitochondrial DNA

Mitochondrial DNA (Mt-DNA) shows the ancestral line from the mother all the way up to her Mt-DNA eve. It follows the DNA trail from mother to mother. From the paper trail, we already know that from mother to mother leads up six generations to Ingibjorg Rafnsdottir who was born about 1727 in Hjaltastadar of Nourdur-Mulasysla, Iceland.

The DNA test for our mother's Mt-DNA comes back as haplogroup I 1a1a (I one-a, one a). It is believed to have arisen somewhere in west Asia between 21,000 years ago. during the Last Glacial Maximum. Haplogroup I is a West Eurasian haplogroup. It is relatively rare and one of the older Mt-DNA haplogroups in Europe. It is a branch of the older macro-haplogroup N, subclade N1a1b. Research indicates that, in ancient times, Haplogroup I occurred at higher-than-usual levels among certain populations of Vikings and Danes. The average frequency rate was 13% from the Iron Age to Medieval times. Ii is most common in Northwestern Europe in places like Norway. It is during the Late Cooper Age and Early Bronze Age that haplogroup I started showing up in the Corded Ware Culture. The Nordic Bronze Age emerged about 1700 B.C. through the fusion of the Battle Axe culture and the Corded Ware culture.

Settlement in Norway and Sweden in the Nordic Bronze Age period consisted mainly of single farmsteads, with no towns or substantial villages known - farmsteads usually consisted of a longhouse plus additional four-post built structures (helms) - longhouses were initially two aisled, and after about 1300 B.C. three aisled structure became normal. Settlements were geographically located on higher ground, and tended to be concentrated near the sea. This supported their seafaring culture that would someday lead to Viking domination of the seas and European waterways.

Our Mt-DNA is indeed rare in Iceland. Only about 35% of the Mt-DNA in Iceland is related to Norway and the rest of Scandinavia, while 65% of the Mt-DNA in Iceland relates to the British Isles. Our Mt-DNA relates more to Eastern Finland and Russia, which isn't even part of these statistics.

When I examined the family trees posted by some of my Mt-DNA matches, I found that none of the matches had Iceland in common. Most of the matches were in Finland with a few in Sweden. There was even some matches for Russia. What was also unusual is there were only two matches for Norway. My mother's Icelandic family tree traces back in Iceland to well before the year 1000 and most Icelander male settlers (75%) came from Norway and as pointed out above, most females came from the British Isles. Also, the common ancestor between me and my matches lived somewhere near Finland. It implies that the Mt-DNA of our mother's oldest known ancestor (Ingibjorg Rafnsdottir) in Iceland arrived in Iceland much much later than the settlement era.

Viking Ethnicity

My autosomnal DNA results shows that I inherited 23% Norway ethnicity from my mother. Specifically it includes the genetic community of Iceland. Since it is known that our mother's mother was born to Icelander parents, this is most appropriate. I also inherited 12% Sweden and Denmark ethnicity and 8% Norway ethnicity from my father. Since it is known that our father's mother was born to Danish parents, this also is most appropriate. For brevity I will refer to this Norway ethnicity and Sweden and Denmark ethnicity as Viking ethnicity, since the word "Viking" does not necessarily have any connotation towards a "nationality." So that means I have 43% Viking ethnicity. However, as Professor Sykes pointed out, "It is very difficult to distinguish Saxon, Dane, and Norman on a genetic basis." So some of our Dane DNA may also be included in the English ethnicity.

A General Description of Viking Ethnicity

The earliest inhabitants of our Norway region were strong, seafaring peoples. For centuries, hunter-gatherers slowly pushed north across the Baltic Sea (hence 1% Baltics on my father's side), probing coastal fjords and inland stretches for arable land as ice melted off the untamed region. While Norwegians, Swedes, and Danes all share a common Norse heritage, over

time, Norway's resilient coastal communities evolved into a nation known for its seamanship, technology, artistry, and mythology.

With its rocky coastline, wooded uplands, and subarctic, mountainous terrain, our Sweden region emerged from glacial ice as a rugged land of lakes and islands. The Swedish people share a common Norse heritage with Norway and, especially, Denmark that includes language, religion, and art, but they eventually developed a culture of their own. Situated north of the Baltic Sea, geographic isolation from conflicts raging on the European continent did not stop the Swedes from influencing the culture, trade, and politics of regions from the Volga River to Byzantium.

The common heritage of Norway, Sweden and Denmark extends back to the Stone Age (9,000-1,800 B.C.), when Eurasian hunter-gatherers spread northward from the continent. These earliest inhabitants stuck to the coast as the ice from earlier ice ages lingered. They fished, hunted in the sea, and did some primitive farming. By around 2500 B.C. the ice had receded enough to allow a steady trail of Germanic peoples to spread northward into Scandinavia. During the Bronze Age (1700-500 B.C.), they formed clans, improved their farming techniques and tools, and began raising animals.

Boat building skills among southern communities enabled contact with mainland Europe. Artifacts from burial mounds show that settlements like Skåne (historically part of Denmark) and Västergötland traded furs, metals, religious customs, technologies, and even people with Germanic and Roman populations down the Danube.

They were also united by language: Danish, Norwegian, Swedish, and Icelandic all come from Old Norse, which was called dönsk tunga ("Danish tongue") and evolved around the time of the Viking era. Swedish and Danish come from Old East Norse while Norwegian and Icelandic grew out of Old West Norse.

For the most part, early-Iron Age Scandinavians lived in independent clans, content with owning land, raising their families, and worshiping a pantheon of Norse gods. However, the Scandinavian Iron Age (500 B.C.-800 A.D.) paved the way for the Viking Age (793-1066 A.D.), an era when ships full of Norsemen ("men from the north") set out to raid, trade with, and settle new lands. Their longships were state of the art for the times: light, fast, and able to navigate both oceans and rivers.

Also during the Scandinavian Iron Age, Norwegian culture changed as its people interacted with peoples from Gaul and the Roman Empire. Between 1 and 800 A.D. the Norse people of Scandinavia developed a runic alphabet, sailed to Europe, fought as mercenaries, and traded iron, fish, furs, and skins across the North Sea. They believed in many gods—including Thor, Odin, and Loki—and interpreted nature, their daily actions, and the behavior of those around them in mythological terms. During this period, many Germanic peoples joined Norse coastal villages.

Norse exploration and trade reached its peak between 793 and 1066 A.D. during the Viking Age. Vikings were known for their seamanship, and the Viking-era longship was an engineering marvel of its day. It was quick, narrow, and light, darting through shallow or deep

water, powered by oar or sail. From Scandinavia, Vikings sailed the rivers of Europe and the oceans east and west from the Baltic to Byzantium. They settled in Greenland, Iceland, Vinland in North America, and across Europe, leaving their mark on European history.

Danish Vikings invaded and settled northern and eastern England beginning in 876 and managed to control a third of Britain (the Danelaw) for nearly 80 years. The Danish prince Cnut the Great was king of England from 1016 to 1035. He also ruled Denmark and parts of Norway and Sweden.

Swedish Vikings became intimidating merchant explorers on the rivers and seas of eastern Europe. One group, known as Varangians, were traders and mercenaries who formed strongholds in what are modern-day Russia and Ukraine. In the 9th century, they formed one of the first Slavic states, Kievan Rus', and controlled trade routes along the Dnieper and Volga Rivers with their nimble longships.

In 851 Norwegian and Danish Vikings began settling on the coast of northern France. In 911 the French king granted them control of their own territory on the condition that they help protect France from additional Viking raids. The region became known as Normandy, named for the Viking "North Men" who lived there. Norwegian Vikings also colonized northern Scotland, the Orkneys, the Hebrides (Western Isles), the Isle of Man, the Faroe Islands, Iceland, and Greenland during the 9th and 10th centuries.

Vikings are typically remembered for raiding, pillaging, and plundering for slaves, goods, and sometimes revenge. However, Vikings tended to be farmers—not fighters—first. They owned land, tilled farms, employed servants and slaves. They played sports, paid attention to grooming, and ate what they grew. Over time, they converted to Christianity.

The Viking Era ended in 1066 as raids to Europe stopped, and the Middle Ages began with a Scandinavian golden era.

In 1349 a ship loaded with wool from England ran aground near Bergen, Norway. Every man aboard was dead. They had died of plague, which soon gained a foothold in Norway. Den Store Manndauen (the Great Death) swept through the country and left a third to half of Norway's population dead. Farmsteads were left empty, and it took centuries for the population, the economy, and the kingdom to recover.

Conditions in Iceland

Supposedly Iceland was discovered by a Viking name Naddodd (our 29th great grandfather in the Ancient Icelandic Pedigree) who was one of the first settlers in the Faroe Islands. Then Hrafna (Raven)-Flóki Vilgerðarson (our 26th great grandfather in the Ancient Icelandic Pedigree) went to Iceland and settled for one winter at Barðaströnd. He returned to Norway and told of his discovery. The first permanent settler in Iceland was a Norwegian chieftain named Ingólfur Arnarson (our 27th great grandfather in the Ancient Icelandic Pedigree) who settled with his family around 874, in a place he named Reykjavík. Some sources indicate that some early settlers reported that there was already a small population of Irish monks on the

island.

From 874 to 930, many settlers came to find land in Iceland. They were of Viking stock and while most came direct from Norway, others came from Sweden, Scotland, and Ireland. Professor Sykes reported that roughly two thirds of Icelandic Y-chromosomes were Scandinavian, while the remaining third were from Ireland and Scotland. The settlement era is well document in the book *Landnámabók*, of which copies survive today. Icelander descendants today can be traced back to these original settlers.

The early settlers struggled against diseases, volcanic eruptions, and a poor climate while eking out their existence. The harsh and volatile climate of Iceland made an environment for periodic disease and famines. Yet they would persist for a millennium and build a nation of their own. They founded the Althing as their method for achieving a representative form of government. Farms dotted the little arable land, producing enough hay to feed the livestock that provided milk and cheese. Fishermen ventured out in winter and spring to catch herring and cod.

In the 1700s, a smallpox epidemic spread rapidly among Icelanders who had little to no immunity. Icelanders lived in small, crowded homes with poor ventilation, which helped spread the disease. Smallpox victims first developed a fever, followed by a cough on the third day, and then eruptions of pustules filled with blood. It ultimately killed 12,000 Icelanders, nearly one-quarter of the population. Nearly a third of children died in infancy as well, a mortality rate much higher than many other places in Europe.

Iceland's hydrothermal and volcanic activity provides the island with a valuable natural resource, but also poses danger. In 1783, Mt. Laki erupted, spewing nearly three and a half cubic miles of basaltic lava. Eruptions continued for eight months. The volcanic clouds stretched from Iceland to Syria and decreased temperatures nearly nine degrees Fahrenheit in Iceland. The eruption poisoned Iceland's grass and vegetation, which killed most of the island's sheep and half of the cattle. In what became known as the "Mist Hardships," around 9,000 Icelanders died because of famine and poisoning.

With limited land and frequent famines, Iceland often had a large impoverished population. At times during the 1700s and 1800s, this group made up 14 percent of the people. Although many worked, each community had a fund providing poor relief. However, conditions on using the poor fund were strict and harsh. Poor who used the fund forfeited the right to marry and participate in local life until the debt was repaid. People also were stigmatized, and some communities even deported the poor back to their place of birth instead of assisting them. Despite such widespread poverty, Icelanders often fared better than their European counterparts because they had abundant meat and wore home-spun wool clothing from their sheep.

After years of stagnation, Iceland's population began to grow as better nutrition and the effects of mandatory vaccinations were felt. Restrictions on trade allowed more young people to make a living in industries like fishing. Imports of luxury products like coffee, sugar, tobacco, and spirits grew dramatically as economic conditions improved, becoming a part of everyday life. But as the population grew (reaching about 70,000 by 1870), young people began to settle on less fertile land on mountains and rocky plateaus where colder conditions froze the ground over the

summer and hay couldn't be grown to feed the livestock. Another volcanic eruption in 1875 caused these farmers to flee back to the lowlands and cities and eventually to contemplate leaving Iceland. The area around Winnipeg, Manitoba became a common destination of Icelander emigrants. Soon settlements of the displaced Icelanders spelled over into North Dakota and Saskatchewan.

Where Does Our Viking Paper Trail Lead

The paper trail to our Viking ethnicity is the longest and most comprehensive of all. The Icelanders take a great deal of pride in the history of their country and their individual genealogies. Unlike most of the other European countries, Iceland did not suffer through tremendous battles and wars during medieval times. So the castle with all the books and records didn't get burned down. Iceland has been more successfully in preserving the documents and books about their history than perhaps any other country. The Icelander fascination with genealogy has resulted in the publishing of family trees that go back many centuries. They have what I will call the "Ancient Icelandic Pedigree." It has proven to be tremendously accurate. I serendipitously received my copy of this pedigree in an effort I made to get a translation for the obituary of our Great Grandmother Katrin Asmundsdottir. Not only did my contact translate the obit from Icelandic to English, but when he saw in the obit who my ancestors were he forwarded two lengthy Word documents that were my Icelander ancestors going back to the year 630. Our Viking ancestors were everywhere, all over Europe and even to Greenland and North America. There are even places where the Ancient Icelandic Pedigree intersects with the Ancient Scottish Pedigree.

Conclusion:

It may come as a surprise to some, but there really was an Adam and Eve. All the people living today descend from these same two persons. But this wasn't Adam and Eve as described in the Bible. This Adam and Eve where not a couple, did not know each other, and were separated by time and space. How can this be? There were other human males and females in the ancient world, but all of their descending lines ultimately died out. So God not only created DNA in the beginning, but somehow the descendants of these two people were able to survive through hundreds of thousands of years in a hostile world that has resulted in the population of living humans today. These two persons are referred to a Y-Chromosome Adam and Mitochondrial Eve. This Adam lived about 135,000 years ago and this Eve lived about 200,000 years ago.

Our DNA has been modified by mutations over many millenniums and our ancestors migrated from the cradle of humanity in East Africa to the territory of the Caucasus region in the Paleolithic Era. Then across Europe to the area of the British Isles and Scandinavia.

From our DNA admixture we can see that our highest percentage in Celtic. Then the other two English and Viking seems to have a heavy dose of Celtic influence. So in the next

chapter we will explore the migrations of the Celtic or Gaelic people across Europe.

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