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Pinpointing the GRAHAM Scottish Paternal Ancestral Genetic Homeland

A Scottish Case Study

www.scottishorigenes.com

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Introduction

A simple painless commercial ancestral Y chromosome DNA test will potentially provide one with the names of many hundreds of individuals with whom one shares a common male ancestor, but what often perplexes people is how one can match individuals with many different surnames? The answer is quite simple. Roughly 1,000 years ago one's direct medieval male ancestor, the first for example to call himself 'Graham' was living in close proximity to others with whom he was related but who inherited other surnames like MacDougall, Livingston and Jackson. Given that 1,000 years have passed since paternally inherited surnames became common, there will be many descendants of those individuals some of whom will today undergo commercial ancestral Y-DNA testing. Hence the surnames of one's medieval ancestor's neighbours will be revealed in today's Y-DNA test results.

Early 19th century census data demonstrates that Scottish surnames could still be found concentrated in the areas from which they originated. One can therefore use census data to determine the origin of the surnames that appear in one's Y-DNA results, identifying an area common to all, and reveal ones '**Paternal Ancestral Genetic Homeland**.' The genetic homeland is the small area (usually within a 5 mile radius) where one's ancestors lived for hundreds if not thousands of years. It is the area where one's ancestor first inherited his surname surrounded by relatives who inherited others. It is the area where ones ancestors left their mark in its placenames, its history, and in the DNA of its current inhabitants. Since modern science can pinpoint a paternal ancestral genetic homeland it can also be used to confirm it by DNA testing individuals from the pinpointed area.

Notes of caution!

1. In Ireland each of the estimated 1,500 distinct surnames had a single founding ancestor, that's an estimated 1,500 Adams from whom anyone with Irish ancestry can trace direct descent. But science has demonstrated that only 50% of individuals with a particular Irish surname will be related to the surnames founding ancestor, the other 50% of people will have an association that has arisen as a result of what are called 'non-paternal events' usually a result of adoptions or maternal transfer of the surname. Since Scotland adopted a similar Clan based society these scientific findings can be applied to Scotland and people with Scottish ancestry.
2. Often people are looking for their DNA results to trace back to a specific area. One must remember that the results typically reflect one's ancestor's neighbours from around 1,000 years ago. As a result, if one's Scottish ancestor was descended from an Anglo-Saxon settler, Viking raider, or 12th Century Norman one's DNA results will reflect earlier English, Welsh, French, and possibly Scandinavian origin. One must approach this process with an open mind!

Interpreting the Y-DNA test results

To pinpoint a paternal ancestral genetic homeland one must first identify the surnames that appear as one's genetic matches, see **Figure 1**. Those surnames, particularly one's that recur throughout one's Y-DNA results will typically reflect the surnames of one's medieval ancestor's neighbours. Genetically recurring surname matches for test subject 'Graham' are shown in **Figure 2**.

67 MARKERS - 23 MATCHES

Genetic Distance	Name		Most Distant Ancestor	Y-DNA Haplogroup	Terminal SNP	Match Date
5	[redacted] McDougal	Y-DNA111 FF	William McDougal, b.c. 1750, Lorn Argyle, Scotland	R-L21	L21	11/26/2013
5	[redacted] Cannon Jr.	Y-DNA67 FF	James Cannon, b. 1827, d. 1897	R-M269		11/26/2013
6	[redacted] Jackson	Y-DNA111 FF	John B. Jackson b. 1767 GA or NC d. aft 1850 GA	R-M269		11/26/2013
6	[redacted] Livingston	Y-DNA67 FF	Samuel Livingston	R-M269		11/26/2013
6	[redacted] Livingston	Y-DNA67 FF	Robert Livingston, b. early 1700s, N. Ireland	R-L21	L21	11/26/2013
6	[redacted] Casey	Y-DNA111	Christopher Casey, Madison County, Georgia,1844	R-SRY2627	SRY2627	11/26/2013
6	[redacted] McDowell	Y-DNA111 FF		R-M269		11/26/2013
7	[redacted] MacDowell	Y-DNA111 FF		R-BY2868	BY2868	12/13/2015
7	[redacted] William McDowell	Y-DNA111 FF	William McDowell b. 1805 Antrim, N. Ireland	R-M269		2/25/2015
7	[redacted] McDowell	Y-DNA111 FF		R-BY2868	BY2868	1/30/2015
7	[redacted] Robinson	Y-DNA67	Raymond Robinson b abt 1903 Texas	R-M269		11/26/2013
7	[redacted] Livingston	Y-DNA111	James T. Livingston b.1744 Isle of Islay d.1834 NC	R-M269		11/26/2013
7	[redacted] Miller	Y-DNA111 FF	William Miller, c1838 - 1897	R-M269		11/26/2013
7	[redacted] McDowell	Y-DNA111 FF		R-M269		11/26/2013
7	[redacted] McDowell	Y-DNA111 FF		R-M269		11/26/2013
7	[redacted] Blankenship	Y-DNA67 FF	Henry Blankenship, b. 1776, Hopkinsville, KY	R-SRY2627	SRY2627	11/26/2013
7	[redacted] Hooks	Y-DNA111 FF	Charles Hooks, 1728-1800	R-L48	L48	11/26/2013
7	[redacted] McDowell	Y-DNA111 FF	McDowell 1790-1849	R-BY2868	BY2868	11/26/2013
7	[redacted] Graham	Y-DNA67	William Dugal Graham, b. c. 1760; d. c. 1821	R-M269		11/26/2013
7	[redacted] Livingstone	Y-DNA111 FF		R-L21	L21	11/26/2013
7	[redacted] Grimes	Y-DNA67 FF	William Bond,b.1689 and d.1742	R-M269		11/26/2013

Figure 1: *Snapshot of test subject Graham's genetic surname matches as revealed in the FTDNA database. The more YDNA markers two people share the more recent their shared paternal ancestor once lived. At the 67 marker level the test subject matched many different individuals. Some of these genetic matches share his Graham surname (**red arrow**). However many also have non-Graham surnames and some of those surnames like Livingston (**orange arrows**) and MacDougall/MacDowell (**blue arrows**) appear as recurring genetic matches. The shared paternal ancestor with these MacDougall/MacDowells and Livingstons lived prior to the appearance of surnames. These surnames arose among a tribal group of related males living in a specific location.*

Test Subject	Haplogroup	Y-DNA Test Results		
		67 Marker Matches		
		-5	-6	-7
Graham	R-M269	McDowell[1]/McDougall (x9)	Livingston (x8)	Graham (x2)

Figure 2: *Genetically recurring surname matches for test subject Graham as revealed in the FTDNA database reveal a paternal ancestral link with Scotland. Surnames appear at the point at which they first occur as a genetic match e.g. the first match to an individual called MacDowell occurs at 62/67 markers, although not all McDowells or McDougalls may match at that level. Figures in brackets represent the number of individuals with a particular surname who appear as a genetic match. Coloured font denotes the ethnicity associated with each surname; Scottish. [1]McDowell is the Irish form of Scottish MacDougall. Both MacDowell and MacDougall are exclusively Scottish in origin.*

Ysearch.org Matches					
Last Name	User ID	Origin	Haplogroup	Markers Compared	Genetic Distance
Graham	MH79J	Scotland	Unknown	36	2
Graham	8KTRU	Unknown	R1b1a2 (tested)	36	2
McDougal	4QYNA	Argyllshire, Scotland	R1b1a2a1a1b4 (tested)	36	3
Cannon	9XXAQ	Unknown	R1b1a2 (tested)	36	4
Jackson	**MY7AB**	**Unknown**	**Unknown**	**36**	**4**
Vickers	GXNMX	Montgomery Co. Va., Virginia, USA	Unknown	36	4
Grimes	2KE7W	Pennsylvania, USA	R1b1a2 (tested)	36	5
Jackson	**4K6QR**	**Northern Ireland**	**Unknown**	**36**	**5**
Livingston	TRTD5	Unknown	Unknown	36	5
Livingston	ZAD4X	Ireland	R1b1a2a1a1b4 (tested)	36	5
McDowell	Y8GDG	Antrim, Northern Ireland	Unknown	36	5
McDowell	7WHRH	Ireland	R1b1a2a1a1b4 (tested)	36	5
McDowell	6X4VN	Ireland	Unknown	36	5
McMullin	MM96X	Unknown	Unknown	36	5
Miller	**P4T82**	**Armagh, Northern Ireland**	**R1b1a2 (tested)**	**36**	**5**
Miller	**9F9F7**	**Canada**	**Unknown**	**36**	**5**
Cox	QYV5T	Wilkes, North Carolina, USA	Unknown	36	6
Gillis	**9WCHJ**	**Western Isles, Scotland**	**Unknown**	**36**	**6**
Graham	NHE6Q	Unknown	Unknown	36	6
Graham	UQHBX	Scotland	Unknown	36	6
Hooks	EQEY3	England	R1b1a2a1a1a4 (tested)	36	6
Livingstone	8B9FP	Scotland	Unknown	36	6
Livingston	WFFH8	3w24, Scotland	Unknown	33	5

Figure 3: *The Ysearch.org database reveals additional Scottish-associated genetic surname matches. By dropping the match criteria in the ysearch.org database it revealed addition Scottish associated genetic surname matches including Jacksons, Millers and Gillis (highlighted in blue).*

Upon commercial ancestral Y-DNA testing Mr Graham matched other individuals called Graham who tested independently, see **Figure 1**. This would indicate that the test subject is most likely directly descended from an Graham-Adam; literally the first male ('Adam') to take that surname who lived approximately 1000 years ago when paternally inherited surnames became common. Although Graham is a common surname associated with Scotland and England, a Scottish paternal ancestral link is supported by the test subject's closest recurring genetic matches which include the exclusively Scottish surnames MacDougall/MacDowell and Livingston, in addition to Scottish-associated surnames Jackson, Miller and Gillis which were revealed in the ysearch.org database, see **Figure 2** and **3**.

Since farmers in early census data concentrated in the area where a surname first appeared, one can examine the distribution of Farmers called Graham and determine how many Scottish Graham Clans (or Families) existed. Early census data reveals at least 10 distinct clusters of Graham farmers; indicating the existence of potentially 10 unrelated Graham Clans, see **Figure 4** and **5**. Each Graham Clan was potentially founded by an unrelated Graham-Adam; one of whom the test subject may be genetically related to. It is Mr Graham's genetic surname matches revealed by his Y-DNA test results as a snapshot of his Scottish medieval male ancestors relatives/neighbours which can be used to pinpoint where his Graham ancestors once lived, or rather which of the 10 Graham Clans he is related to. This is because those surnames will have arisen among a group of related males living in a very specific location, plot where those surnames occur in early census data and one should reveal an area within Scotland that is common to all.

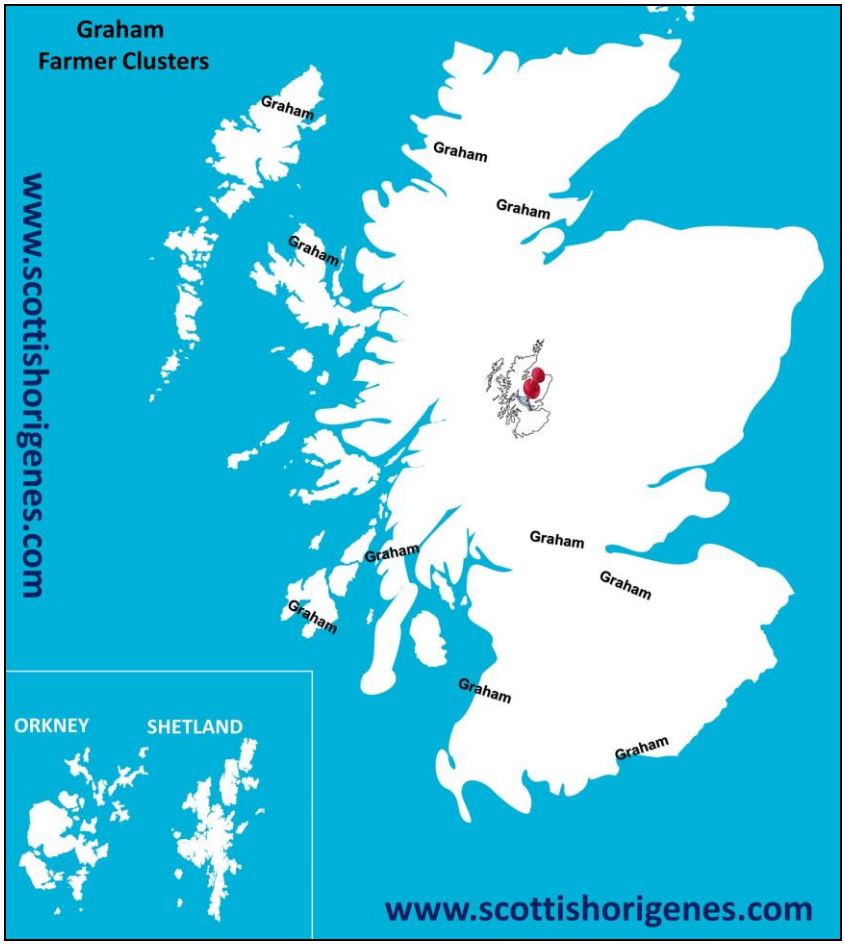

Figure 4: *Scottish Grahams. By examining the distribution of farmers called Graham in early census data it reveals 10 clusters within Scotland. Since the test subject is most likely descended from a Scottish Graham-Adam his paternal ancestry is connected to one of these 10 groups of Grahams. Each surname has been placed on the map in the area where farmers with that surname concentrate in early census data.*

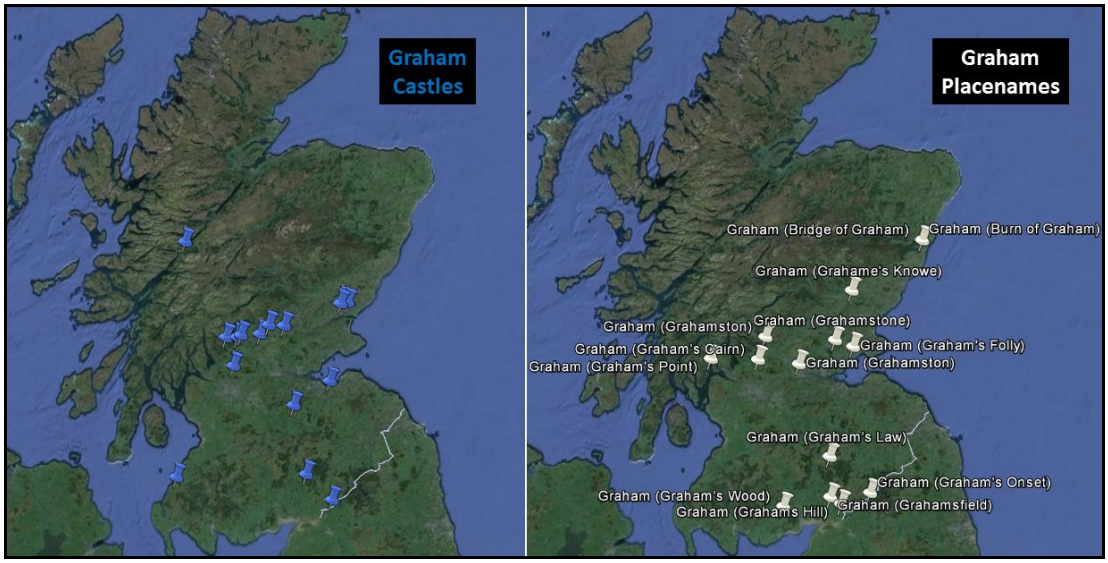

Figure 5: *Scottish Graham castles and placenames. An examination of the Scottish Origenes databases reveals at least 15 castles or towerhouses (**left panel**) that are associated with the Graham surname. In addition there are many Graham placenames (**right panel**).*

Pinpointing the Genetic Homeland

The method of using genetic surname matches as revealed by commercial ancestral Y-DNA testing to pinpoint a paternal ancestral genetic homeland works by exploiting the link between the Y chromosome, surname and land; which are typically passed from father to son through the generations. In the absence of a link to the land the process becomes more challenging. The link with the land is greatest amongst the farming community and since farmers in Scotland can still be found farming the land where their ancestor lived when he first inherited his surname, or where one's ancestor first settled within Scotland, one can plot where farmers with the surnames that appear in one's Y-DNA results cluster and identify an area common to all. This means for example that upon Y-DNA testing Grahams from Ross and Cromarty will be a genetic match to people with surnames like Aird, Monro, Kemp and MacKay; surnames associated with the far North of Scotland. While the Grahams from the Isle of Skye will have genetic matches to people called MacPhee, MacCowan and MacDonalds; surnames associated with the Western Isles of Scotland. Hence, it is Mr Graham's genetic matches which will reveal where his paternal Graham ancestors once lived. An examination of Mr Graham's Y-DNA results reveals that the surnames Graham, MacDougall, Livingston, Jackson, Miller and Gillies appear as his closest Scottish-associated genetic surname matches, see **Figure 2** and **3**. Distribution mapping of farmers called Graham, MacDougall, Livingston, Jackson, Miller and Gillies reveals that these surnames are all associated with Argyllshire in West Central Scotland, see **Figure 6**.

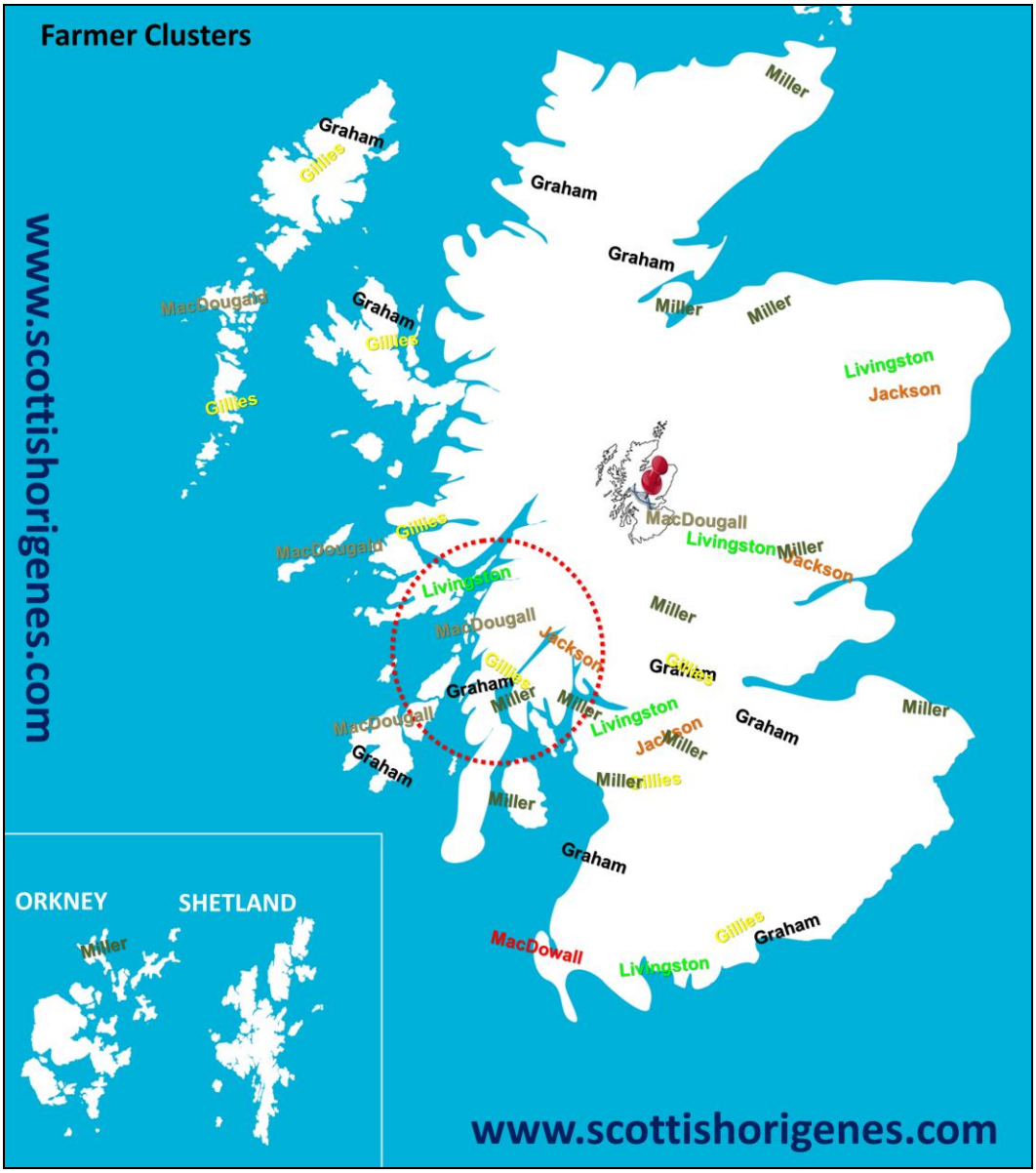

Figure 6: *The Scottish Graham, MacDougal/MacDowell, Livingstone, Jackson, Miller and Gillies farming communities are associated with Argyllshire. The Graham, MacDougall/MacDowell, Livingstone, Jackson, Miller and Gillies farming communities are associated with multiple locations within Scotland but crucially only occur together, or in closest proximity to one another within Argyllshire (**red broken circle**) in West Central Scotland. Each surname has been placed on the map where farmers with that surname concentrated in early census data.*

The Surnames of Argyllshire

The Scottish Origenes Surnames and DNA Map of Scotland details where farmers with each surname concentrated in early census data. An examination of Argyllshire as it appears on the Scottish Origenes Map reveals Grahams concentrated in the area that surrounds Loch Sween, see **Figure 7**. To the north lie concentrations of MacDougalls and Livingstones who appear amongst the test subject's closest recurring genetic surname matches, see **Figure 7**. While to the east one finds Gillies, Jacksons and Millers; surnames that appear as more distant singular and recurring genetic relatives in the ysearch.org database respectively, see **Figure 7**. The test subject's Y-DNA results reveal a paternal ancestral link with Argyllshire dating from

the time when paternally inherited surnames first appeared in this area an estimated 1000 years ago.

Figure 7: *The Surnames of Argyllshire. An examination of Argyllshire as it appears on the Scottish Origenes Surnames and DNA map reveals a concentration of Graham farmers (**red arrow**) on the shores of Loch Sween. To the north one finds Livingston and MacDougall farmers (**orange arrow**) who appear as the test subject's closest and most frequent genetic matches. To the east one finds concentrations of Gillies, Jackson and Millers (**yellow arrows**) who appear as close genetic matches in the ysearch.org database. Each surname has been placed on the map where farmers with that surname concentrated in early census data. Surnames in **red font** are associated with a single geographical area within Scotland.*

The Clan Territories of North Argyllshire

By examining the locations of the castles and towerhouses that are historically associated with a particular surname, it reveals that medieval Scotland was a patchwork of territories dominated by notable Clans and Families. Almost everyone with Scottish paternal ancestry will be genetically related to at least one of these prominent Clans or families that once ruled over one's paternal ancestral genetic homeland. An examination of the castles and towerhouses of Argyllshire reveals a mix of Clans of reportedly Picto-Scot and Hiberno-Norse origin, see **Figure 8**. Although the test subject's Graham ancestors lived in an area dominated by Clan Campbell, his MacDougall genetic relatives dominated much of the land that lay just north of Loch Sween, see **Figure 8**.

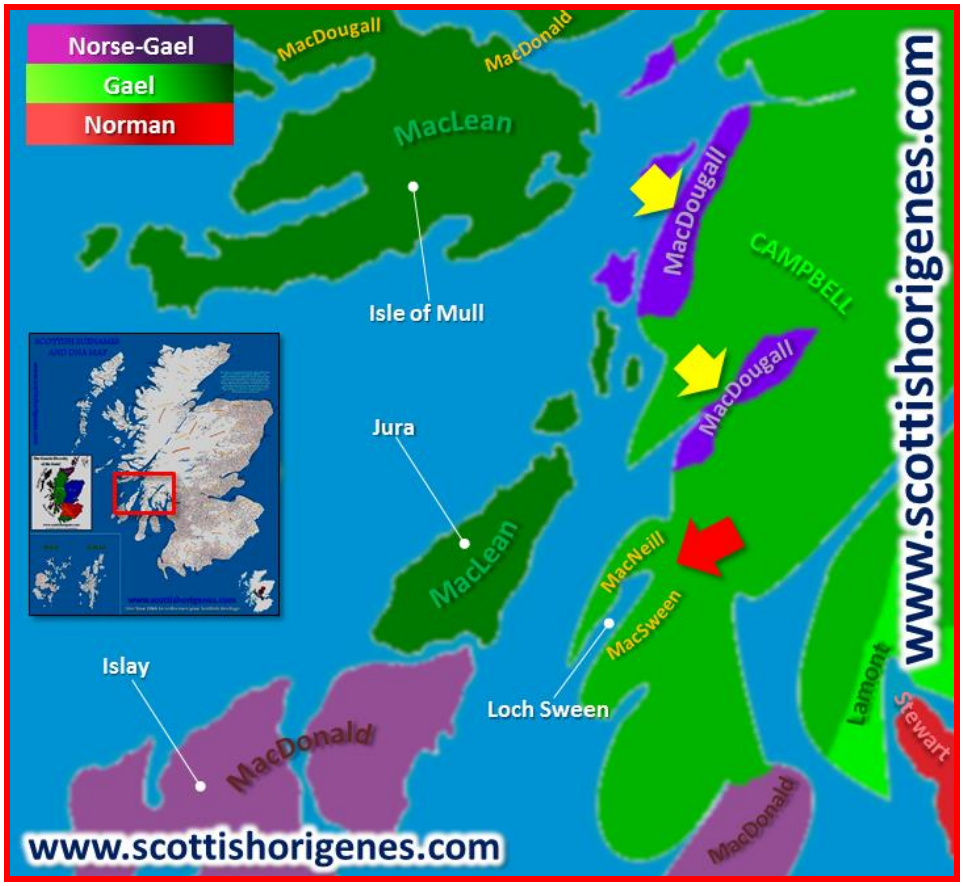

Figure 8: *The principal Medieval Clans of Argyllshire. Argyllshire was once dominated by a variety of Clans that claim Picto-Scot and Hiberno-Norse origins. The Grahams (**red arrow**) lived in an area that was dominated by both the Campbells and MacDougalls (**yellow arrows**), the latter of whom appear as the test subject's closest and most frequent genetic surname match.*

Mr Graham's Paternal Ancestral Genetic Homeland

In early census data Graham farmers concentrate in the parish of North Knapdale which surrounds Loch Sween in Argyllshire; and it is there that the test subject's paternal ancestral genetic homeland is to be found, see **Figure 9** and **10**. It was in that area that the test subject's direct male ancestor first inherited the 'Graham' surname. His ancestor lived surrounded by male relatives who inherited other surnames like Livingston, MacDougall, Jackson, Gillies and Miller. Often when one's ancestors have been associated with an area for long enough they leave evidence of their ancestral links in the castles and placenames one finds there, and in the surrounding islands and highlands one does indeed find placenames associated with the Grahams, Livingstones and MacDougalls, see **Figure 9**. Surrounding Loch Sween, one also finds many castles that were historically associated (at some point in their history) with the test subject's MacDougall genetic relatives, see **Figure 9**. The Grahams of Loch Sween in Argyllshire will undoubtedly have left evidence of their long ancestral links with this area in the history of this location, but also in the DNA of the areas current inhabitants.

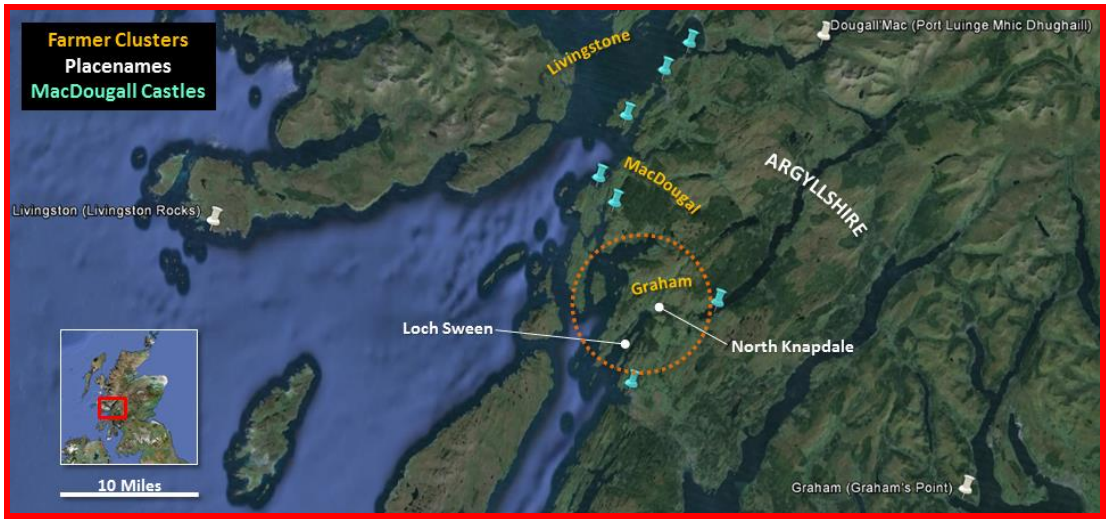

Figure 9: *Mr Graham's Paternal Ancestral Genetic Homeland. Graham farmers in early census data concentrate in the parish of North Knapdale in Argyllshire; and it is there that the test subject's Paternal Ancestral Genetic Homeland (**orange broken circle**) is to be found. It was there that his paternal ancestor first inherited the Graham surname. His Graham ancestors lived surrounded by relatives who inherited other surnames like MacDougall, Livingstone, Gillies, Miller and Jackson; some of whom have also left evidence of their long ancestral links with this area in the surrounding placenames and castles. The Grahams will also have left evidence of their long ancestral links with this area in its history, but also in the DNA of the areas current inhabitants.*

Figure 10: *Castle Sween and Loch Sween in North Knapdale parish Argyllshire.*

How to confirm the Graham Paternal Ancestral Genetic Homeland

Confirmation that Mr Graham's paternal ancestors originated from the parish of North Knapdale will require the recruitment from that area of Grahams for commercial ancestral Y-DNA testing.

Contact Scottish Origenes or email* tyronebowes@gmail.com *for a FREE CONSULTATION on your DNA results or to find out what commercial ancestral test is suitable for you!