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The Farris BigY DNA Case Study

A Scottish Case Study

www.scottishorigenes.com

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This BigY DNA study was performed on behalf of John Adam FARRIS, Administrator of the FTDNA FARRIS Surname Group Project

Introduction

A previous report by Scottish Origenes performed in 2015, using Y-DNA *STR* match mapping identified the test subject's paternal ancestral origin within Dumfriesshire in Southern Scotland approximately 1,000 years ago; which was when surnames first appeared with Scotland, see **Figure 1**. However, as more and more people participate in commercial ancestral Y-DNA testing, more genetic matches are revealed, and many of these share more genetic markers to the test subject and hence reflect *more recent* shared paternal ancestry. These new genetic matches may in turn reveal more recent locations associated with one's paternal ancestry. Hence one's Y-DNA (STR and SNP) matches are in essence a chronological record of the relations that were formed in various locations along one's paternal ancestral journey.

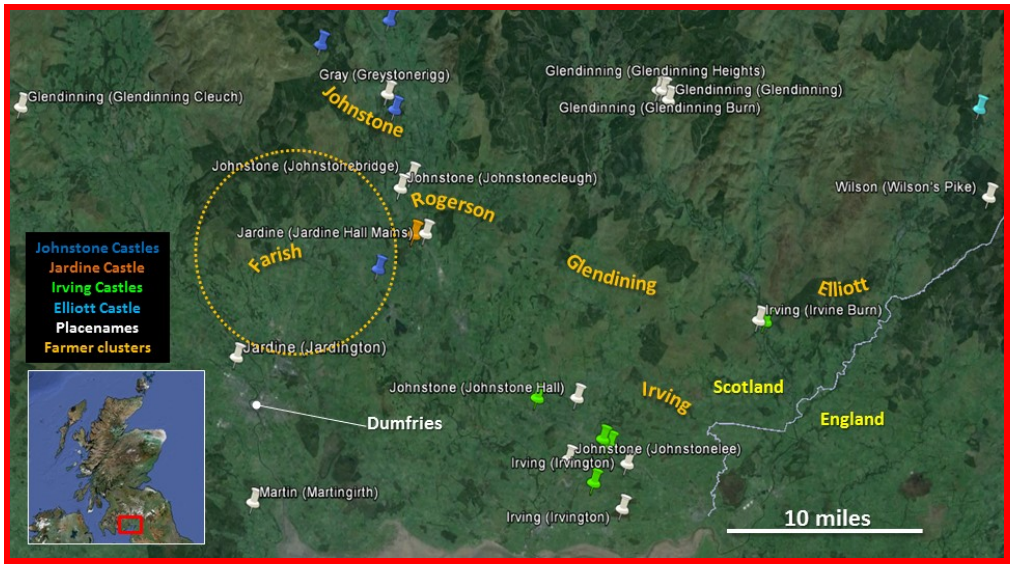


Figure 1: *Mr Farris's Paternal Ancestral Genetic Homeland as determined by Y-DNA STR match mapping in 2015. Farish farmers in early census data cluster north of Dumfries town in the parish of Kirkmichael where the test subject's paternal ancestral genetic homeland is to be found (orange broken circle). It was in this area that the test subject's paternal ancestor lived when he first inherited the Farish surname. He lived surrounded by male relatives who inherited surnames like Elliott, Glendining, Irving, Jardine (Jordan), Johnstone, Martin, Rogerson and Vance. Although no Farish placenames can be found in Dumfriesshire one does find castles and placenames associated with the test subjects Elliott, Glendining, Gray, Irving, Johnstone, Jordan (Jardine), Martin, and Wilson genetic relatives.*

BigY Analysis

The Y-DNA111 marker test explores STR mutations, which as repetitive sequences of DNA are far more susceptible to variation. In contrast, the BigY test explores far more permanent mutations known as SNPs. As a result, the differences between the genetic matches in both tests can sometimes be quite striking. However, as with every commercial ancestral DNA test result, the matches are *NOT RANDOM*, and as a rule, the more DNA that two people share the more recent their shared ancestor once lived.

As of 13 March 2017, John Adam FARRIS had 1,621 BigY DNA matches in the FTDNA database (a number which increases weekly). His closest genetic matches were dominated by a mix of Scottish and Irish-associated surnames, see **Figure 2**. This

'mix' is not uncommon given the shared ancestry among the Scots and Irish; the result of many population movements, back and forth, over many millennia, see **Figure 2**. A closer examination reveals that the test subject's closest BigY matches are dominated by the exclusively Scottish surnames; Renfroe (a variant of 'Renfrew'), Stewart and Crawford; which indicates a most recent paternal ancestral link with Scotland, see **Figure 2**. The test subject's BigY matches are ***NOT RANDOM***, a search of the test subject's BigY matches reveals that approximately 50% of his BigY genetic relatives have surname like 'Stewart' and 'Crawford' which recur among his results, see **Figure 3**.

Big Y Matches						
Match Name	Shared Novel Variants	Known SNP Difference	Non Matching Known SNPs	Matching SNPs	Match Date	sequence
Renfroe	16	0		25424	2/15/2017	1
Alexander Jackson Stewart	16	0		26331	2/15/2017	2
AntÃ³nio Heleno (c/o R. Martins)	16	0		26297	2/15/2017	3
B Crawford	16	0		26060	2/15/2017	4
Charles Brent Cole	16	0		26106	2/15/2017	5
Charles F. Lowe	16	0		26262	2/15/2017	6
David Randall Teague	16	0		26162	2/15/2017	7
Donald LaFleur	16	0		25516	2/15/2017	8
Dr. Herve Riwal Sebille Kernaudour	16	0		25988	2/15/2017	9
Dr. Richard James Loncharich	16	0		26072	2/15/2017	10
Edgar McDonald	16	0		26174	2/15/2017	11
Eric Jack Shepherd	16	0		25887	2/15/2017	12
Ian Christian Brennan	16	0		26265	2/15/2017	13
Jake Hodge	16	0		26281	2/15/2017	14
Jakob Wiegand	16	0		26304	2/15/2017	15
James Allen Reddoch R-A6197	16	0		26178	2/15/2017	16
John Timothy Fitzpatrick	16	0		26338	2/15/2017	17
Joseph F Sams	16	0		26150	2/15/2017	18
K Bunnage	16	0		25249	2/15/2017	19
Kenneth Archer Jr	16	0		26293	2/15/2017	20
Kenneth Day	16	0		26317	2/15/2017	21
KEVIN D SHEEHY	16	0		26286	2/15/2017	22
Kornelis H F Sneyders de Vogel	16	0		26122	2/15/2017	23
Lawrence Millar Scott	16	0		26241	2/15/2017	24
Mark Pitts	16	0		26238	2/15/2017	25
Matthew Brian Holt	16	0		26253	2/15/2017	26

Figure 2: *Snapshot of Mr Farris's closest BigY genetic matches. The test subject's closest BigY genetic matches are NOT RANDOM, they are dominated by Scottish or Irish surnames, highlighted in* ***blue*** *and* ***green*** *respectively. This shared ancestry among the Scots and Irish is the result of many population movements back and forth over many millennia. The predominance of Scottish surnames among the test subject's closest genetic matches indicates a most recent paternal ancestral link with Scotland.*

Match Name	Shared Novel Variants	Known SNP Difference	Non Matching Known SNPs	Matching SNPs	sequence	Frequency
Renfroe	16	0		25424	1	1
Stewart	16	0		26331	2	46
Heleno	16	0		26297	3	1
Crawford	16	0		26060	4	8
Cole	16	0		26106	5	1
Lowe	16	0		26262	6	1
Teague	16	0		26162	7	1
LaFleur	16	0		25516	8	1
Kernaudour	16	0		25988	9	1
Loncharich	16	0		26072	10	1
McDonald	16	0		26174	11	14
Shepherd	16	0		25887	12	1
Brennan	16	0		26265	13	1
Hodge	16	0		26281	14	1
Wiegand	16	0		26304	15	1
Reddoch	16	0		26178	16	1
Fitzpatrick	16	0		26338	17	9
Sams	16	0		26150	18	1
Bunnage	16	0		25249	19	1
Archer	16	0		26293	20	1
Day	16	0		26317	21	1
SHEEHY	16	0		26286	22	1
Vogel	16	0		26122	23	1
Scott	16	0		26241	24	5

Figure 3: *Genetically recurring BigY surname matches. Approximately 50% of the individuals that appear among the test subject's BigY matches have surnames which recur among his genetic relatives. The frequency panel (far right) details the number of individuals with each surname who appear among the test subject's BigY matches, for example there were 46 Stewarts and 8 Crawfords who appear among the test subject's BigY matches. The 'sequence number' details the position at which the closest individual with each surname appears as a genetic matches to the test subject as determined by FTDNA.*

Pinpointing an Ancestral Origin using BigY Matches

The method of using genetic surname matches as revealed by commercial ancestral Y-DNA testing to identify a geographical origin 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 as one's closest BigY genetic matches concentrate, and identify an area common to all. An examination of Mr Farris's Y-DNA results reveals that the surnames Renfrew, Crawford and Stewart appear as his '***closest'*** Scottish surname matches, see **Figure 2**. Distribution mapping of farmers named Renfrew, Crawford and Stewart reveals that they occur together, and in closest proximity to one another within Southwest Central Scotland, see **Figure 4**. Although the test subject had few non-Farris genetic relatives in the Y-DNA67 *STR* database there were two close matches to individuals with the Scottish surnames 'Vance' (a variant of the more common 'Vass') and Hamilton at the 67 marker level, see **Figure 5**. Overlay mapping of the test subject's closest BigY and Y-DNA *STR* 67 marker genetic matches confirms a most recent ancestral link with Southwest Central Scotland, see **Figure 6**. The Scottish Origenes Surnames and DNA Map of Scotland details where farmers with each surname concentrated in early census data, and an examination of the Renfrewshire and bordering areas as it appears on that map reveals the (BigY matching) Crawfords, Renfrews and Stewarts just south of Glasgow, while further south one finds the (Y-DNA STR) Hamilton and Vass surnames, see **Figure 7**.

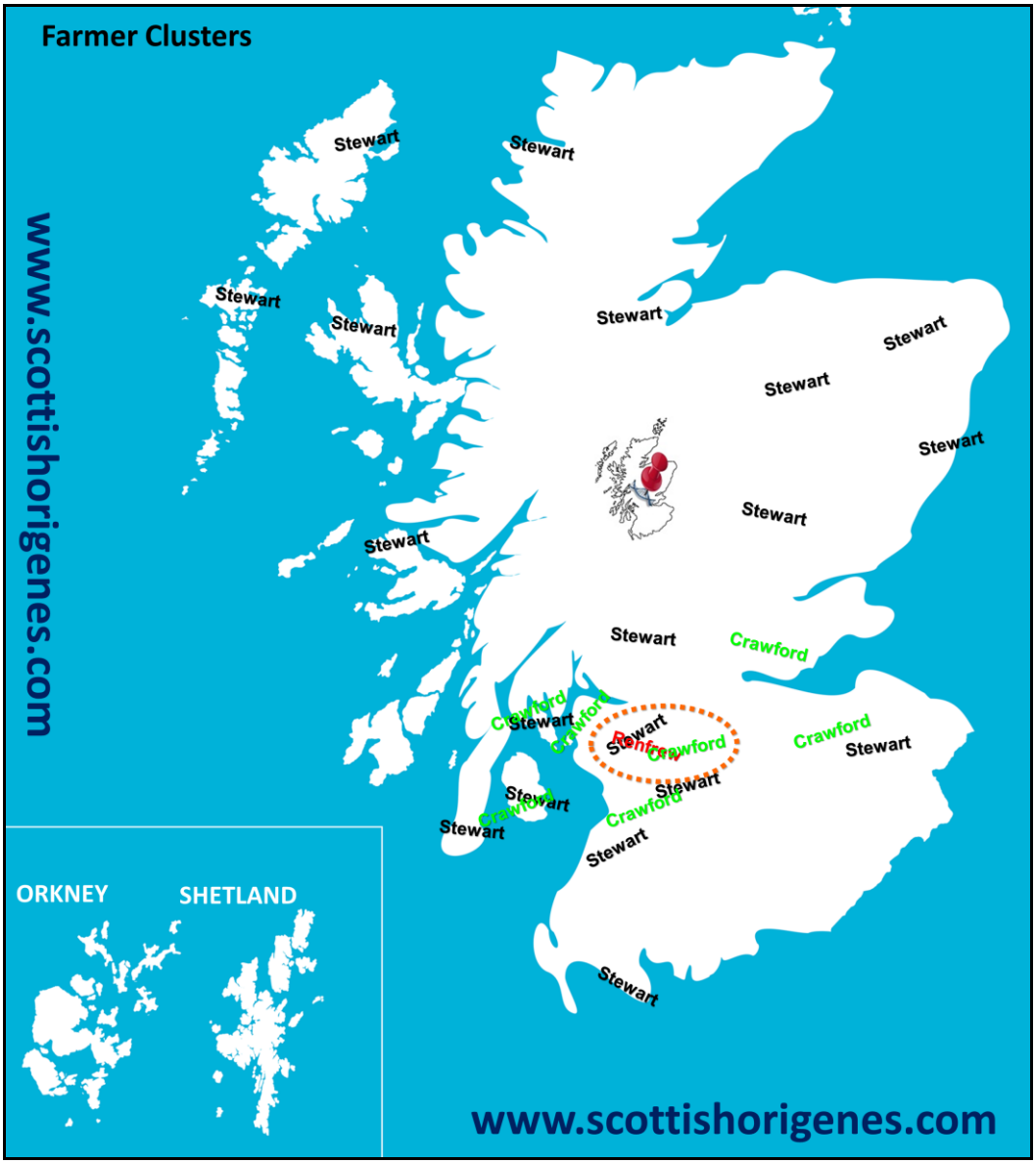


Figure 4: *The test subject's closest BigY genetic surname matches reveal a paternal ancestral link with Southwest Central Scotland. The Renfrew, Stewart and Crawford surnames appear as the test subject's closest BigY genetic matches and an examination of their associated farming communities in early census data reveals that they crucially occur together and in closest proximity to one another in Southwest Central Scotland (**red broken circle**). Each surname has been placed on the map where farmers with that surname concentrated in 1841.*

67 Marker Matches				
Genetic Distance	**Name**	**Most Distant Ancestor**	**Y-DNA Haplogroup**	**Terminal SNP**
1	Marshall Elmer Farris Jr.		R-M269	
3	Mr. Zachery Lee Feris		R-M269	
3	Jacob David Farris	Farris		
3	David Godfrey Farris	William Farris, ~1760		
3	Mr. Hugh Albert Farris Sr.			
4	Robert Cecil Dearduff	Willard Dearduff b.1936	R-M269	
4	William Sydney Ferridge	George Farridge, b.ca 1680, buried 5 Mar 1764	R-M269	
4	Stephen Farrell	David, John or William Farrell c.1640 Donegal IRL	R-M269	
4	James Glenn Ferrell	William H. Ferrell, b. approximately 1740, d. June	R-M269	
4	Mr. John Stuart Jones			
4	Mr. Paral V. Faris	James Faris,		
4	Mr. Parker		R-L21	L21
5	Mr. ERIC THOMPSON FARRELL	John F 1601-1658 or William 1587-1658 Donegal IRL	R-M269	
5	Mr. Ronald J. Faris	William Farris b 1770-1775		
5	Alan Thomas Ferriss		R-M269	
6	Jackie Farrell	John F 1601-1658 or William 1587-1658 Donegal IRL	R-M269	
6	Meredith Hamilton		R-M269	
6	Terry Joseph Vance	Richard Vance, 1822	R-M269	
6	John Lee Ferrell	William Ferrell, b.c. 1740; d.1778 Russell Co., VA	R-M269	

Figure 5: *The test subject's closest Y-DNA STR genetic matches at the 67 marker level. An examination of the test subject's closest genetic matches at the 67 marker level revealed multiple individuals with the Farris surname (or with spelling variations thereof) together with two individuals with the 'Vance' and 'Hamilton' surnames which are of Scottish origin (highlighted in blue). Given the close genetic match, the Dearduff and Parker genetic relatives are most likely 'Farris' in disguise.*

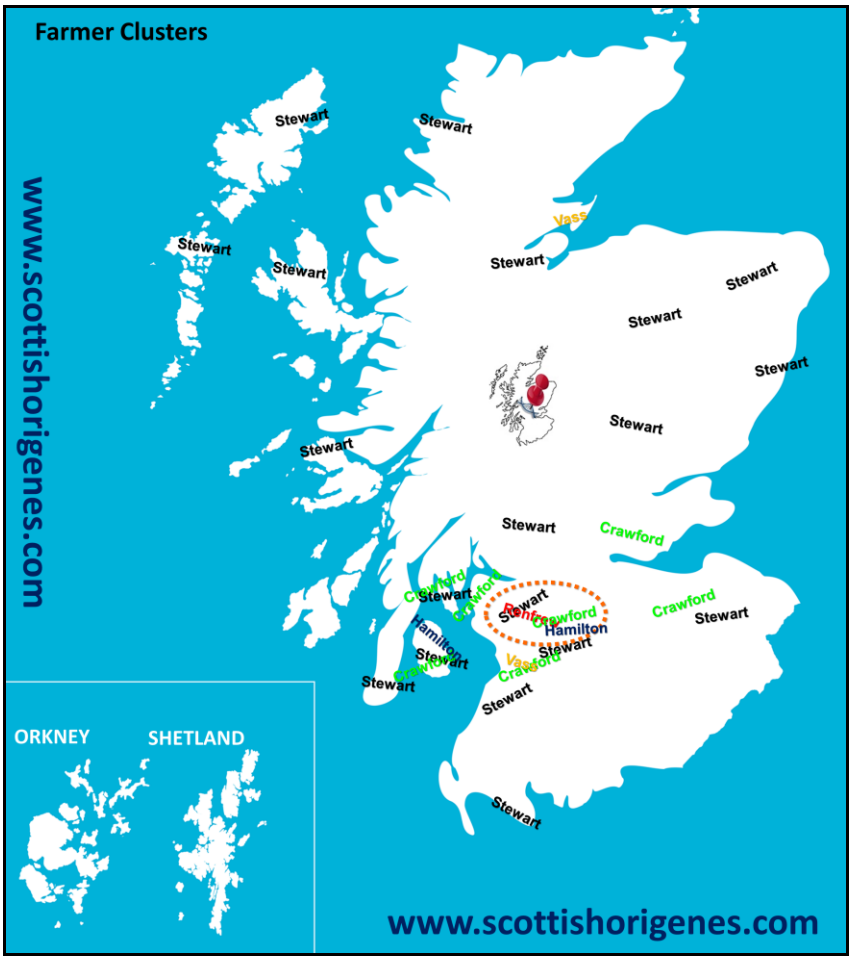


Figure 6: *The test subject's closest Scottish BigY and STR matches are associated with Southwest Central Scotland. The Renfrew, Crawford, Stewart, Hamilton and Vass (Vance) surnames appear as the test subject's closest genetic surname matches and an examination of their associated farming communities in early census data reveals that they crucially occur together and in closest proximity to one another in Southwest Central Scotland (**orange broken circle**). Each surname has been placed on the map where farmers with that surname concentrated in early census data.*

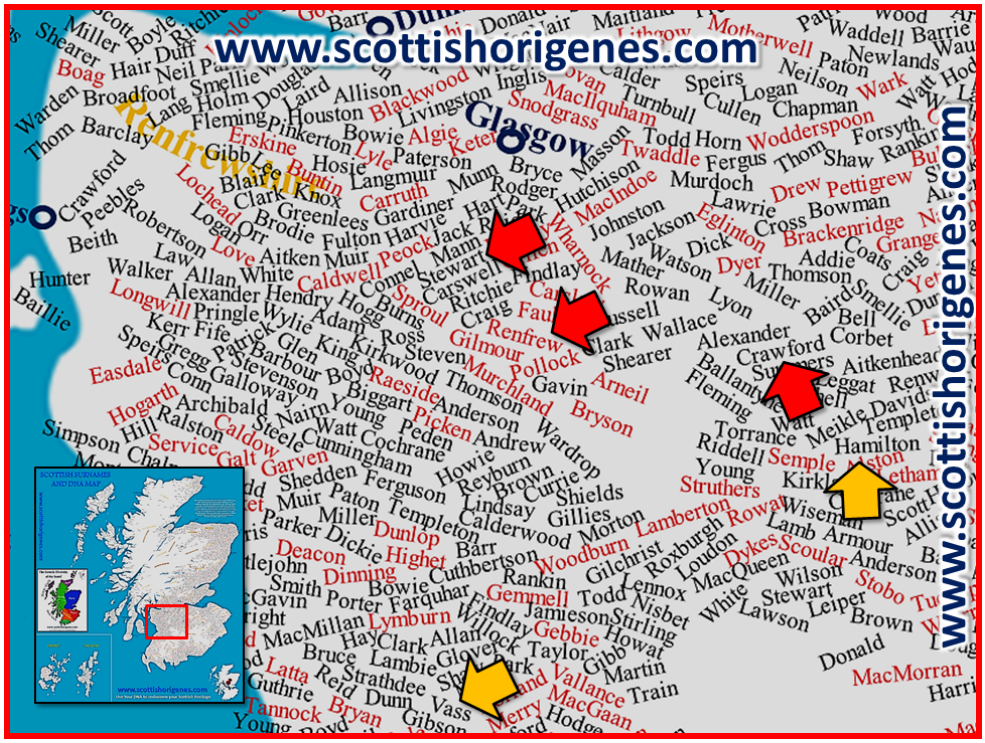
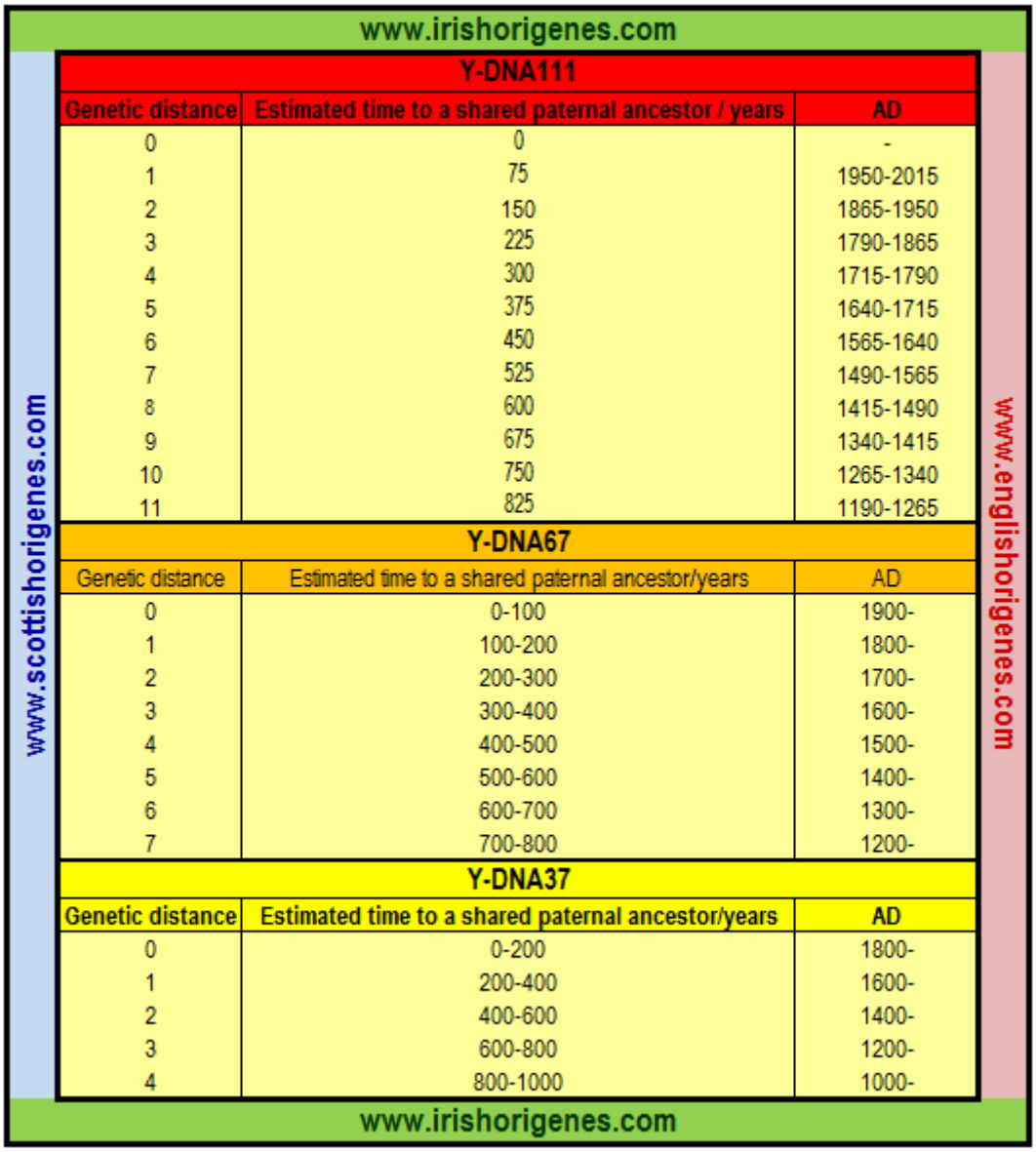


Figure 7: *The Surnames of Renfrewshire. An examination of Renfrewshire as it appears on the Scottish Origenes Surnames and DNA map does not reveal any Ferris/Farris farming communities. However, one finds the Renfrew, Crawford and Stewart farming communities (**red arrows**). Further south one finds the Vass and Hamilton communities (**yellow arrows**). Each surname is positioned in the location where farmers with each surname concentrate in early census data. Surnames in **red font** (like **Renfrew**) are associated exclusively with a single location within Scotland. Detail taken from the Scottish Origenes Surnames map, available at www.scottishorigenes.com.*

Putting a Timeframe to the Ancestral link with Southwest Central Scotland

Putting a timepoint to the appearance of each SNPs is problematic. In contrast, research at Scottish Origenes has constructed a timeframe to a shared paternal ancestor based on the shared number of markers at the 111, 67 and 37 Y-DNA *STR* levels, see **Figure 8**. Since the test subject's 'Vass' and 'Hamilton' genetic relatives both have a genetic distance of 6 at the 67 marker level (Figure 4) this would date the test subject's paternal ancestral connection with Southwest Central Scotland to 1300AD; which indicates that his Farris paternal ancestor migrated from Dumfriesshire approximately 300 hundred years *after* surnames first appeared within Scotland, see **Figure 8**.



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Y-DNA111		
Genetic distance	Estimated time to a shared paternal ancestor / years	AD
0	0	-
1	75	1950-2015
2	150	1865-1950
3	225	1790-1865
4	300	1715-1790
5	375	1640-1715
6	450	1565-1640
7	525	1490-1565
8	600	1415-1490
9	675	1340-1415
10	750	1265-1340
11	825	1190-1265

Y-DNA67		
Genetic distance	Estimated time to a shared paternal ancestor/years	AD
0	0-100	1900-
1	100-200	1800-
2	200-300	1700-
3	300-400	1600-
4	400-500	1500-
5	500-600	1400-
6	600-700	1300-
7	700-800	1200-

Y-DNA37		
Genetic distance	Estimated time to a shared paternal ancestor/years	AD
0	0-200	1800-
1	200-400	1600-
2	400-600	1400-
3	600-800	1200-
4	800-1000	1000-

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Figure 8: *Estimated time to a shared paternal ancestor based on Y-DNA STR results. This timeframe is based on the results of a 'closet-MacGregor;' someone with the surname 'Valentine' but whose Y-DNA results revealed that his ancestor was originally called MacGregor. Mr Valentine's ancestors can be traced back to Montrose in Northeast Scotland in the early 1700's while his DNA reveals that he is a close genetic match to the current McGregor Chief (hence his ancestor was related to the Chiefly line of the MacGregors). Given his detailed family history, his ancestor had to have changed his surname to Valentine soon after the MacGregors were outlawed in 1604AD and hence using that time point and the genetic distance between him and the current Chief of the MacGregors one can estimate a time to a shared paternal ancestor based on the numbers of shared markers at the 111, 67 and 37 marker level. This research reveals that the test subject paternal ancestral link with Southwest Central Scotland dates from around 1300AD, 300 years after surnames had first appeared in Scotland.*

The Clan Territories of Southwest Central Scotland

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 the most notable Clans and Families. An examination of the castles and towerhouses of Renfrewshire and bordering counties reveals a diverse mix of Clans and families of Ancient Britain, Anglo-Saxon, Viking,

Gaelic and Norman origin, see **Figure 9**. The Crawfords, Stewarts and Hamiltons who appear among the test subject's closest Y-DNA matches dominated Renfrewshire, see **Figure 9**.

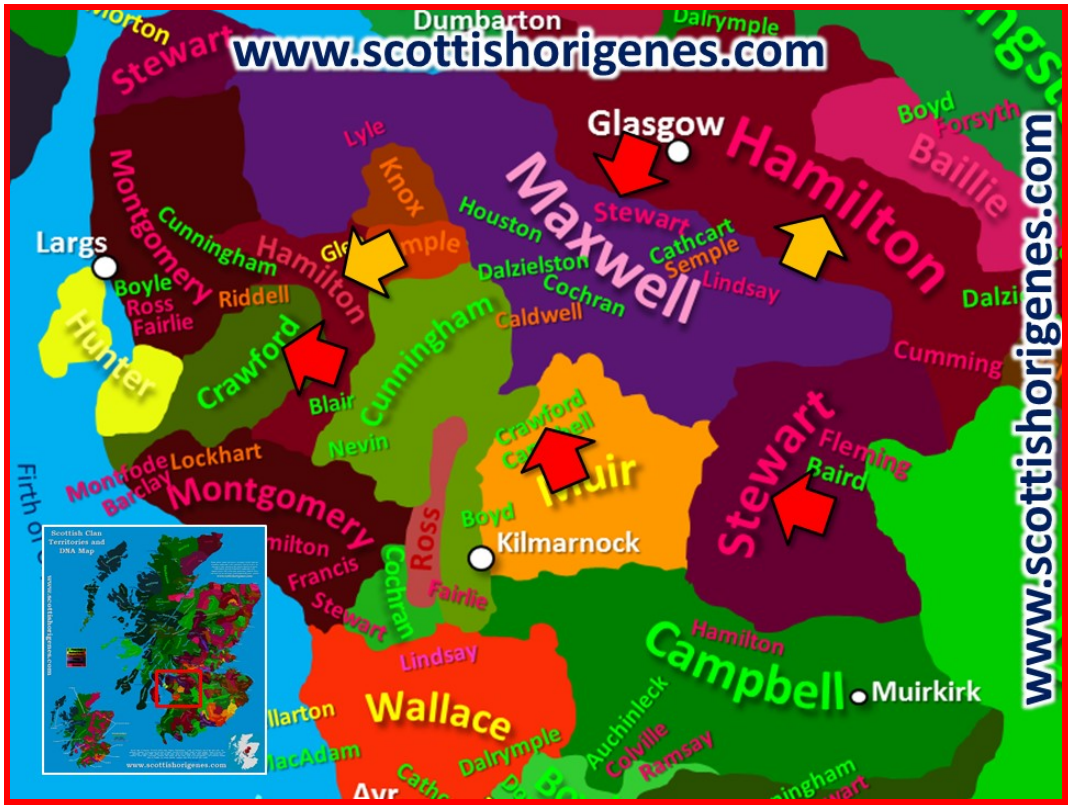

Figure 9: *The principal Medieval Clans and Families of Renfrewshire. An examination of the castles and towerhouses of Renfrewshire reveals an area dominated by Clans and Families that appear among the test subject's closest BigY (**red arrows**) and Y-DNA STR (**yellow arrows**) genetic matches. Detail taken from the Scottish Origenes Clan Territories and DNA map, available at www.scottishorigenes.com.*

Mr Farris's Paternal Ancestral Link with Renfrewshire

An examination of early census data reveals that Renfrew, Stewart and Crawford farmers concentrate in the neighbouring parishes of Paisley and Newton Mearns in Renfrewshire, and it is there that the test subject's paternal ancestors lived approximately 700 years ago, see **Figure 10**. However, Renfrewshire is not an area associated with the Farris surname. This raises the possibility that the Farris/Ferris surname has disappeared from Renfrewshire, possibly due to the Plantation of Ulster when many Scots left the Lowlands of Scotland for Northern Ireland. This was not uncommon, a number of Scottish surnames have become extinct in their native Scotland, but survive within Northern Ireland and the Americas.

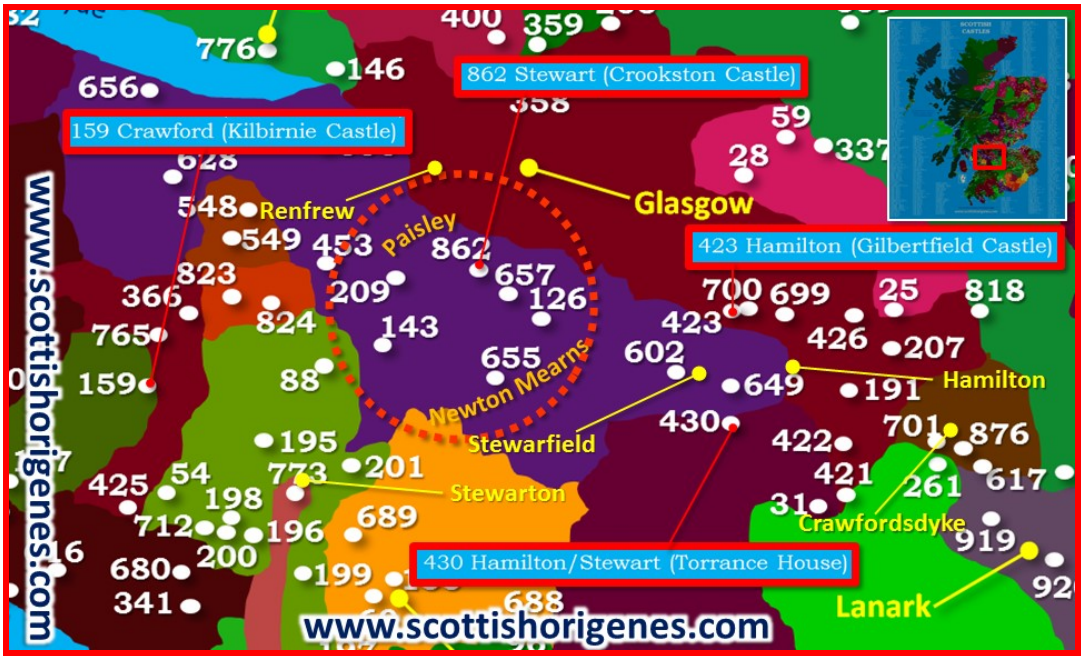

Figure 10: *A most recent Paternal Ancestral link with Renfrewshire. The 1841 census reveals Renfrew, Stewart and Crawford farmers in the neighbouring parishes of Paisley and Newton Mearns and it is there that the test subject's Farris ancestors lived approximately 700 years ago (**orange broken circle**). The Ferris/Farris surname is not associated with the 1841 census of Renfrew which indicates that the surname may have disappeared from Lowland Scotland during the Plantation of Ulster that began in 1610AD. Each number represents a castle with a known historically associated Clan or Family. Detail taken from the Scottish Origenes Castles map, available at www.scottishorigenes.com.*

Conclusion

An earlier report at Scottish Origenes (using Y-DNA STR match mapping) identified an origin for the test subject's paternal line within Dumfriesshire approximately 1,000 years ago. This report, based on an analysis of the test subject's closest BigY matches indicates a more recent paternal ancestral connection with Renfrewshire in West Central Scotland. These results indicate that the test subject's Farris paternal ancestors migrated to Renfrewshire from Dumfriesshire in approximately 1300AD.

In addition to these two reports on the FARRIS surname, Scottish Origenes has completed two other reports for John Adam Farris as follows:

1. *The FERRIS Surname in Britain & Ireland (2014). And the Possible Parent or Derivative Surnames: FAIRES, FAIRS, FARIES, FARIS, FARISH, FARRAS, FARRES, FARRIE, FARRIES, FARRIGH, FARRIS, FARRISH, FARRISS, FARRISSEY, FARRY, FEARIS, FERGUS, FERGUSON, FERIS, FERRES, FERRIE, FERRIES & FERRISS. This report identifies about seventeen specific locations where the surnames within this surname group could have originated. This is based on old census records as well as placenames. It is likely that each one is an independent source location. This report was also sponsored by the Co-Administrator of the FTDNA FARRIS Surname Group Project, Elvin Everett Farris Jr. The Report is Available to download at: www.irishorigenes.com*

2. *Pinpointing the Gore English Paternal Ancestral Genetic Homeland (2016) report. GORE is the maiden name of the wife of John Adam FARRIS. The Case Study was Sponsored by several GORE kin. The Report is Available to download at: www.englishorigenes.com*

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