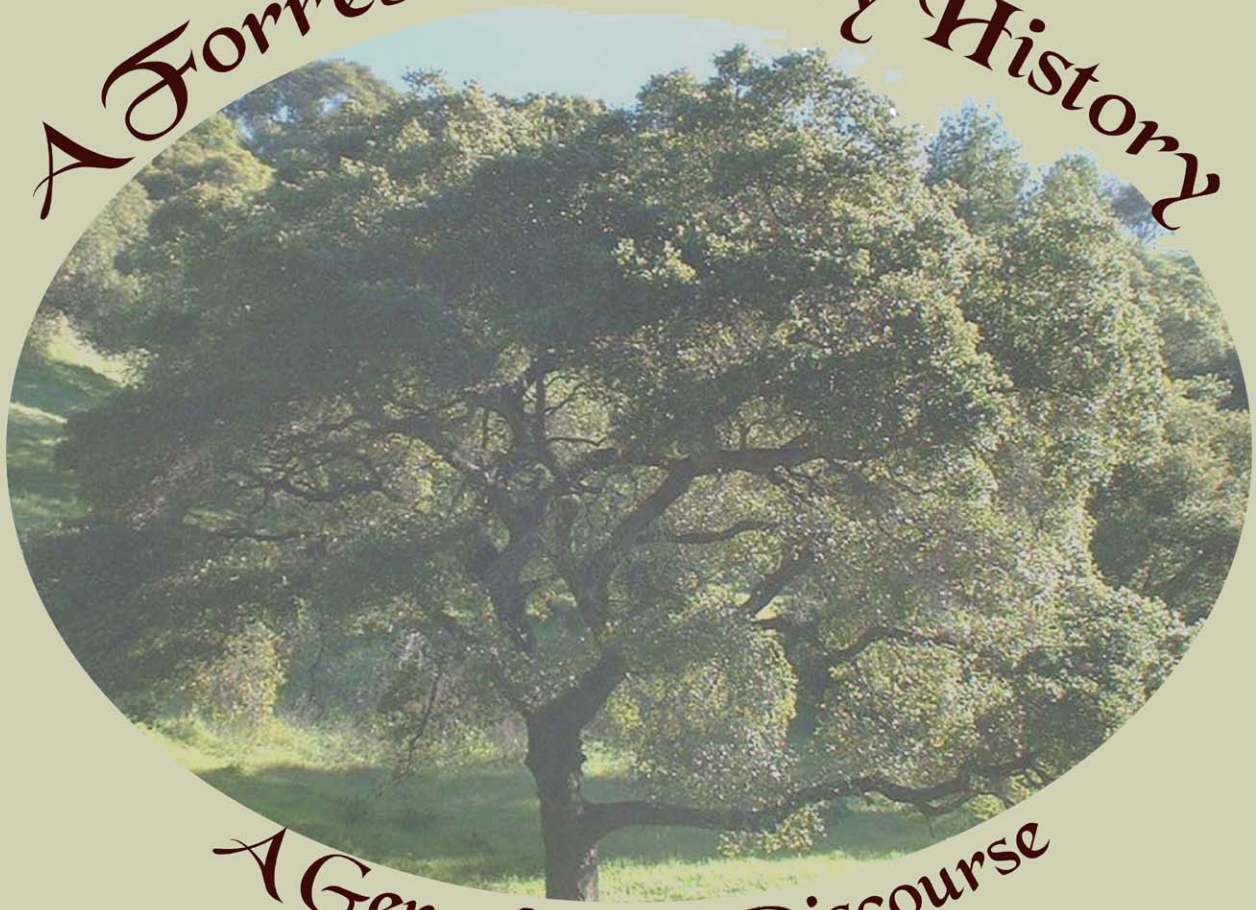
An Extract from

A Forrester Family History



A Genealogical Discourse

Chapter Four

Ancestors of James Forrester of Tollpark Combining Gentics and Genealogy Research

by

Roy Forrester

This Forrester Family History Series

The history is composed of a series of historical notes, covering ten Books, relating to James Forrester of Tollpark Farm, Cumbernauld, Dunbartonshire, his ancestors and descendants, related families and other relevant information. The central subject in each individual book is one of James' & Ann's ten children, their ancestors & descendants:

Book 1 William Forrester 1814-1887 & Janet Gentles
Book 2 John Forrester 1816-1881 & Janet Kirkwood
Book 3 Joseph Forrester 1821-1900 & Janet Stark
Book 4 George Forrester 1824-bef 1857 & Ann Mills
Book 5 James Forrester 1826-1914 & Elizabeth Steel
Book 6 Elizabeth Forrester 1828-1890 & George Hill Scobbie
Book 7 Ann Forrester 1830-1863 & James Gray
Book 8 Alexander Forrester 1832-1919 & Mary Marshall
Book 9 David Forrester 1835-1901 & Jean Hay
Book 10 Hugh Forrester 1837-1868 & Helen Malloch

Overview

This research has been gathered primarily for living descendants of this Forrester family with future family historians in mind. Thus, each book comprises 80-85% factual data, i.e. transcribed records, location maps, published readings etc. The remaining 15-20% consists of narrative and anecdotal evidence collected by the author from the contributions of many family members across the globe.

This is a story of a farming family living in what would become the industrial belt in central Scotland during the 19th century where the Forresters were said to have settled a few centuries earlier. Family lore suggests that this family originated in Loch Broom, Ross-shire in the North West of Scotland and migrated to Cumbernauld, Dunbartonshire c 1745. Genealogical and Genetic research indicate that they are more likely to be descended from the 14th century Forresters of Torwood and Garden, Stirlingshire, Scotland.

At the root of this research are a couple, James Forrester and Ann Scott, born in the last decade of the 18th century, their ten children and their ancestors and descendants. In the early 19th century James and Ann leased Tollpark farm located on the Cumbernauld Estate, Cumbernauld, Scotland which at that time was owned by the family of the Lords Elphinstone. There are ten books in the series, each revolving around one of their children and his or her descendants.

One of their sons and his children, continued to work this same farm until the middle of the 20th century while other children took up farming in central Scotland. Some of their grandchildren and great-grandchildren spread out across the globe with many owning and working successful farms today, while others entered industrial and academic fields at home and abroad.

Chapter four in each book attempts to bridge the gap between the descendants of James Forrester of Tollpark and his possible ancestors using standard genealogical research aided by DNA testing, enabling us to look closer into distant family history and hopefully find this family's ancestral connections. This chapter is open ended as genealogical genetic research, a relatively new research, continues to expand and improve.

Chapter 4 Acknowledgements

Many family friends and 'cousins' helped me considerably with this series and many are acknowledged in Chapter One 'Preface' of each book. Particular mention must be made for two of my cousins and Nathan Forrister who have helped with the creation of this chapter:
Writing this Chapter would have been impossible without the help and assistance of:

- **Susan Jean Schrade nee Gruenhagen, a 4th G-Granddaughter of James Forrester of Tollpark and Ann Scott. She is a family historian writing the histories, not only of her UK ancestors but those of Germany, Scandinavia, Poland and the USA. Susan has, in addition to her list of photographs recorded in Chapter 7 Book 1, helped me considerably with research into the Forrester family and her family in particular. She is currently helping with research into James Forrester of Tollpark's ancestors, essentially co-writing Chapter 4. Susan's Forrester descent is via Jean Moffat nee Forrester 1838-1878, a granddaughter of James Forrester of Tollpark. Susan resides in Texas USA.**

- **Douglas John Soutar, a 3rd G-Grandson of James Forrester of Tollpark. He is a family historian and a past president of the Tay Valley Family History Society. He has also constructed his own Family History webpage which may be viewed at www.soutar.net. Douglas has provided much material used in this series. (see chapter 4 and Book 3 chapter 18 of this series) His descent is via James Forrester of Tollpark's son Joseph 1821-1900. Douglas is a retired Schoolmaster and currently lives in Broughty Ferry, Dundee, Scotland.**

- **Nathan Forrister our DNA consultant and Vice President of the Clan Forrester Society of America who helped us make sense of our DNA test results in what is an a relatively new and unfamiliar territory. What Nathan accomplished for us is to positively link via DNA to our paternal ancestors, the ancient 15th century Forresters of Torwood, Stirlingshire; many of whom held high offices in government circles from the 13th through 17th centuries. I have included some of Nathan's tutorial and other articles as appendices in chapter 4 part 2 of this series.**

Table 1: Table of Contents

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Part I Genealogy: Introduction

In this chapter, a cousin, Susan Schrade and I attempt to uncover James Forrester of Tollpark's ancestors. As noted in previous chapters we learned that he and one of his sons, James Forrester, and his children, farmed Tollpark Farm on the Cumbernauld Estate, Scotland which at that time was in the county of Dunbarton(East) now Lanarkshire (North), bordering the county of Stirling, Scotland from 1815 to 1950 when the Cumbernauld Estate was purchased by the State for the Cumbernauld New Town development scheme to accommodate the Glasgow post-war population overspill. James Forrester, his wife Ann Scott and children are discussed in more detail in Chapter six of this series.

We also learned that James was the natural son of William Forrester a farmer in Parkhead, also located on the Cumbernauld Estate. Various records indicate that William was a son of Alexander Forrester born 1744 in Denny Stirlingshire and Helen Crawford; Alexander was born 1712, a son of James Forrester and Marion Ure of Dunipace, Stirlingshire.

The Forrester history in Scotland can be generally divided into four main groups:-

1. The Forresters of Stirlingshire particularly of Torwood and Garden.
2. The Forresters of Corstorpine, Edinburgh and later Torwood.
3. The Forresters of Fife.
4. The Forresters of the Borders

It should be noted that there are many who go by the name Forrester whose ancestors were associated with forests and adopted the For(r)ster name in the first few centuries of the 2nd millennium CE when surnames came into general use in Scotland. (see Chapter 3) They may not necessary be associated with or descended from any of the Forrester groups above.

Many historical books and internet articles have been written on the subject. See the Bibliography, Part 1 Appendix 14.

James Forrester and Marion Ure are discussed in a book named "The Forresters a Lowland Clan and its Lands" by Colin D.I.G. Forrester (hereafter referred to as Colin Forrester's book) as one of two couples recorded in the Dunipace Register entitled James Forrester 3rd of Braes. The Braes being a small estate on the outskirts of Dunipace, Stirlingshire, adjacent to Torwood.

Records subsequently indicate that the other couple, James Forrester and Susan Cummings, were the actual titleholders of this estate, leaving us to ponder just who is the James Forrester, who married Marion Ure?

Susan suggested that good candidate might be James Forrester, born 1687 in the town of Stirling, to James Forrester and Anna Forrester, a couple also mentioned in Colin's book. James Snr. was the son of Alexander Forrester, Minister of Edinburgh and great-grandson of Sir Alexander Forrester 5th of Garden. His wife Anna, was the daughter of James Forrester 6th of Logie; their common ancestor being Sir Walter Forrester 2nd of Garden.

Another scenario is that the Forrester Estates in Dunipace (Torwood) were owned at that time by Lord William Forrester 4th of Corstorphine and this James may well be the son of descendants of the Corstorphine Forresters who purchased the Torwood Estate in 1636. A strong relationship existed between the Forresters of Stirlinshire and the Forresters of Corstorphine at least through marriage if not directly.

DNA and the paper trails of my Forrester DNA matches link this Forrester family with the Forresters of Kippen, the Forresters of Dunipace, and the Forresters of Garden and Torwood. (see appendices 16 and 22)
DNA indicates that this particular Forrester Family comprises of less than 4% of the population of Scotland.
We do not have enough evidence to date to determine our ancestors back beyond the15th century Forresters of Torwood.

Seventeenth century Scotland was a turbulent time; a period of conflict between the Presbyterian Church of Scotland and the sitting Monarchs, giving rise to a group of clergy and laymen called 'Covenanters' who opposed to the Monarch's attempts to turn the Presbyterian Church of Scotland into an Episcopalian Church of Scotland, thus depriving the church of its independence from the monarchy. Alexander Forrester 1611-1686 my 7th Great Grandfather, a minister in the Church of Scotland and also a Covenanter was jailed on the Bass Rock for a period for

his covenanting practices. This strife affected genealogy research primarily because the covenanter clergy continued to preach, albeit illegally. (disobeying an absolute monarch was a treasonable offence) which meant that the clergy's Parish birth, marriage and death and other records had to be kept out of sight of the state or were destroyed to avoid them falling into the hands of state officials. This conflict finally ended in 1689 when William of Orange and his wife Mary Stuart together ascended the throne of England and Scotland as William III (William II of Scotland) and Mary II resulting in Presbyterianism being restored to the Church of Scotland. (see Part 1 appendix 3, "Who were the Covenanters" for more detail)

Prior to the 17th century, firm historical records are rare, necessitating a greater reliance on written books and other works which by their very nature can be somewhat vague. In order to clarify the details we created some hypotheses and as an aid to solving the hypotheses, we resorted to Genealogy DNA tests. The DNA results in themselves do not necessarily directly identify a relative or a particular ancestor but point to a general area, also they help in eliminating possible mis-matches. While DNA tests are a useful genealogy tool they have not entirely replaced the old fashioned paper trail. Our hypothesis developed for the search for James Forrester and Marion Ure is concentrated mainly within central Scotland.

Map 1: Central Scotland

Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Map 2: 19th Century Outline Map of Scotland

19th Century Scotland
showing the old counties of Scotland and the location of Cumbernauld Estate
Reproduced and Annotated by Roy Forrester for "A Forrester Family History"

James Forrester c1794-1881. We know that James Forrester of Tollpark is descended from Forresters in Stirlingshire, (chapter 6) however, by the 17th century, there were two main Forrester branches in Stirlingshire:-

1) Descendants of the original Forresters of Torwood (Dunipace) and Garden (Kippen) Stirlingshire and
2) Descendants of the Forresters (Baileys) of Corstorphine, Edinburgh from the mid 1600s.

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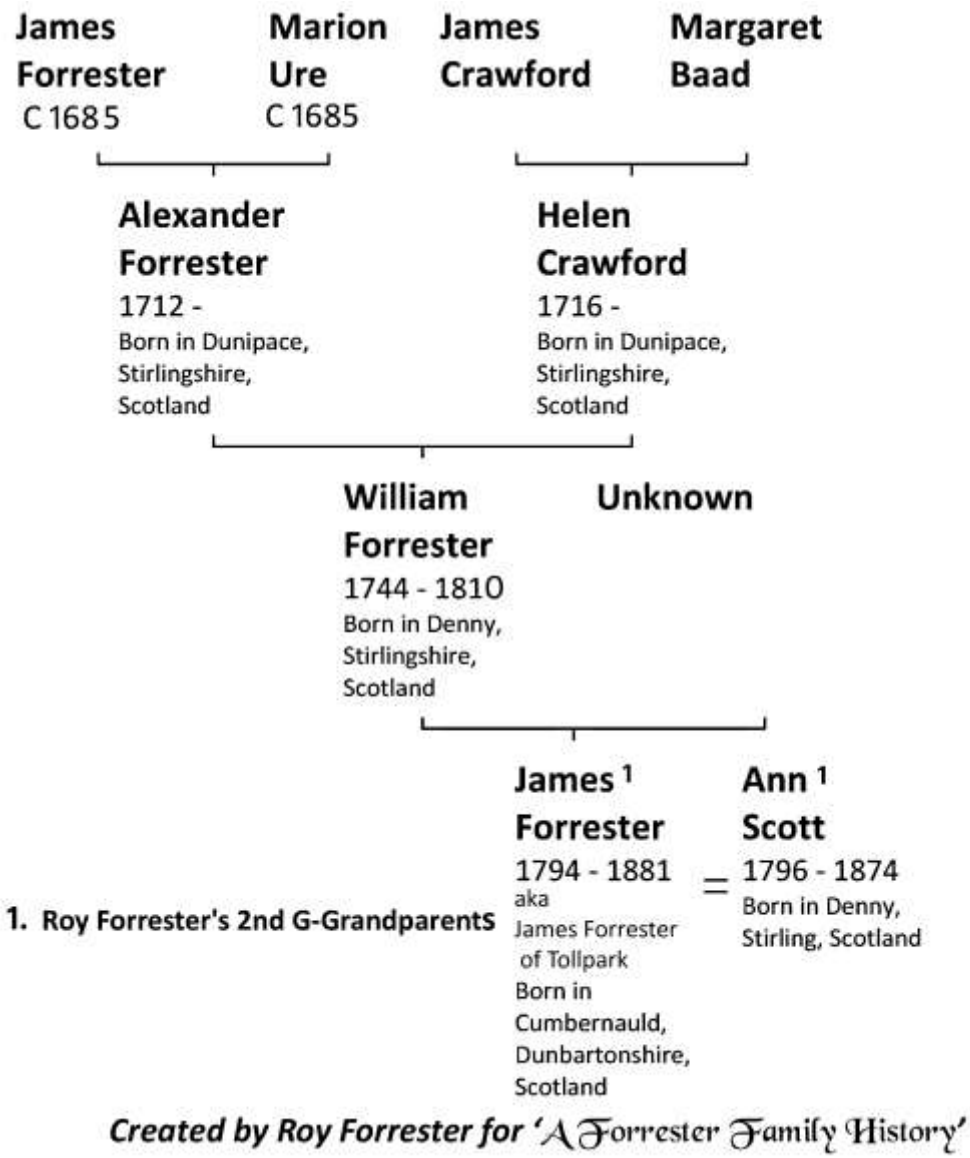
Both branches maintained a close relationship over the early years through marriage etc., until eventually the estate of Torwood was sold through indebtedness. Soon after, in 1636, Lord George Forrester of Corstorphine re purchased the estate of Torwood. Colin's book lists many landed Forrester families clustered around the parishes of Kippen, (including the Forrester's of Garden) Gargunnock, Stirling, and Dunipace: with Kippen and Gargunnock being located some 10 and 6 miles west of the town of Stirling and Dunipace (Torwood) lying about 6 miles south of Stirling. There are some indications from DNA evidence that this Forrester family may have originated in Flanders.

The aim of this chapter is to try and determine from which of these Forrester families if any, James Forrester of Tollpark is descended and the origins of this Forrester family.

Records indicate that James and Marion were married in Dunipace in 1709 and their 8 children were born in Dunipace. Records also suggest but do not confirm that James and Marion were born in 1687 and 1688 respectively James in Stirling and Marion in Dunipace.

Their son, Alexander Forrester born 1712 and his wife Helen Crawford born 1716, both in Dunipace, who we determined were my 4th G-Grandparents. Alexander's and Helen's 13 children were born in the neighbouring village of Denny. The following chart shows a partial Forrester ancestral family tree beginning with my 2nd G-Grandparents extending to my 5th G-Grandparents.

FT Chart 1: Roy Forrester's Ancestors



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William Forrester born c1750

James' father as noted in his death record and a Sasine record was William Forrester, a leasehold farmer in Parkhead, Cumbernauld in the county of Dunbartonshire East, located within the Cumbernauld Estate, then owned by (Admiral) Charles Elphinstone-Fleming, a son of Lord Elphinstone.

Record Transcript 1: Death record for James Forrester of Tollpark						
NAME	**DATE**	**SEX**	**AGE**	**PARENTS**	**CAUSE OF DEATH**	**INFORMANT**
James Forrester Portioner[1] *Widower of Ann Scott*	*1881 January Ninth* *4h 0m AM* *at Cumbernauld*	*m*	*86 yrs*	*William Forrester* *Farmer* *(Deceased)* *___Forrester MS___* *(Deceased*	*Senile Decay*	*Joseph Forrester son*
SOURCE:	GENERAL REGISTER OFFICE FOR SCOTLAND, - GROS DATA: 495/00 0004					

1. Scots law: the owner of a portion of a decedent's estate. The proprietor of a small feu or portion of land.
2. James Forrester retired from Tollpark Farm in 1858; when his son James and later his grandsons Joseph & David took over the lease of Tollpark Farm until about 1950. See Chapter 6

Record Transcript 2: Sasine Record RS59/240/3 dated 1810 & 1846

Sasine Record[1] for William Forrester of Parkhead, Cumbernauld.

A Sasine record[1] first dated 1810 and executed in 1846, indicated that James Forrester, farmer of Tollpark, was the natural or illegitimate son of William Forrester of Parkhead, Cumbernauld in East Dunbartonshire, Scotland. His mother's name remains unknown. We also know from this Sasine record that William's wife was Margaret Henderson, and his brother was Adam Forrester who in turn had a son also named William who immigrated into America sometime before1846.

1. An instrument of Sasine (pronounced 'say-zin') is a legal document that records the transfer of ownership (usually a sale or an inheritance of property).

Douglas John Soutar, a 4th G-Grandson of William Forrester, transcribed the following Sasine record and abridgements:

Sasine Abridgement: June 4 1810

6435

William Forrester tenant Parkhead & Margaret Henderson his spouse seized in fee and liferent respectively Apr 5 1810 - 20 falls of the lands of LONG CROFT and dwelling house thereon on the south side of the Turnpike road leading to Glasgow by Cumbernauld par. Denny on disp. By Andrew Adam late carter Parkfoot of Falkirk then in Larbert and Janet Adam with consent of Janet Hair …. Late in Haggs of Bankier, her husband, May 11, 12 1808

PR 51.20 "

Sasine record dated 17 July 1846

RS59/240/3

"At Stirling the seventeenth day of July in the year eighteen hundred and forty six the sasine underwritten being presented……is registered as follows vist: At Falkirk and written within my writing Chambers there was by or on behalf of James Forrester farmer Toll Park near Cumbernauld natural son of the deceased William Forrester tenant in Parkhead in the Parish of Cumbernauld presented to me Notary Public subscribing a Trust Disposition and Settlement granted by the said deceased William Forrester to and in favour of Margaret Henderson his spouse, John Henderson Garanhar, Alexander Kirkwood[1] farmer Haggs, Matthew Allan Wright Cumbernauld and William Stevenson Innkeeper there and the acceptors or acceptor and survivors or survivor of them as trustees and trustee for the ends use and purposes therin mentioned bearing date as in the precept of sasine and testing clawse hereinafter inserted by which trust disposition and settlement, the said William Forrester assigned, disposed conveyed and made over to and in favour of the said Margaret Henderson, John Henderson, Alexander Kirkwood Matthew Allan and William Stevenson and the acceptors or acceptor and survivors or survivor of them as trustees forsaid ……"

"……All and whole that piece of ground part of the lands of Longcroft situated upon the south side of the turnpike road leading to Glasgow by Cumbernauld consisting of twenty falls of ground and extending in front along the south side of the said turnpike road to forty feet bounded as follows vis[t]. on the east side and west by the lands of James Russell of Longcroft and on the north by the said turnpike road conform to pit stones meiths and marches infixed with the dwelling house lately built thereon possessed by James Hair and Janet Adam spouses all lying within the Parish of Denny and Shire of Stirling. ……"

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Margaret Henderson has lifetime rent use allenarly during all the days and years of her life as particularly expressed in the conveyance granted in her favour by Andrew Adam late Carter at Parkfoot of Falkirk then in Larbert dated 11th and 12th May 1808 and recorded in the Particular Register of Sasines of Stirling and Clackmannan on fourth June eighteen hundred and ten years

In the Trust Disposition and Settlement he (William Forrester) willed and declared that it was his intention that William Forrester lawful son of his brother Adam Forrester should succeed to the forsaid heritable subjects before described and directed that upon the said William Forrester attaining the age of twenty five years the property should be made over to him, subject to the liferent of his spouse before mentioned.

If she dies before he reaches the age of twenty five he gets the rents and produce of the said subjects until he is twenty five. If he dies before twenty five and has no heirs of his body or in the event of his leaving the country to go to and arriving in America even although with the intention to return[2] he forfeits all rights and title to the forsaid heritable subjects and the same should fall and belong to James Forrester the son of William Forrester. Upon the said William Forrester attaining the age of twenty five years the property should be made over to him, subject to the liferent of his spouse before mentioned. If she dies before he reaches the age of twenty five he gets the rents and produce of the said subjects until he is twenty five.

William had gone to America[2], James had attained twenty-five years so the land was made over to him "All and whole the forsaid piece of ground and house thereon."

There follows a declaration that "Alexander Kirkwood" farmer Faulds though named in the before written deed is notwithstanding thereof to have no rights whatever to act in the capacity of one of my trustees or to interfere in any manner with the application or management of the subjects before conveyed and that his name was deleted before subscription by William Forrester at Parkhead the fourteenth March eighteen hundred and twelve years."

The whole document was:

"Witnessed by Malcolm Brown road contractor at Muirhead near Cumbernauld Angus Malcolm groom to Lord Elphinstone at Cumbernauld House and by the said Margaret Henderson at Cumbernauld Inn sixteenth March year forsaid." Margaret Henderson did not sign - "she declares she cannot write from her never having learned to do so and she having as token of the authority given to us touched each of our pens." (Before this the deed had been read over to Margaret).

1. Alexander Kirkwood, one of William's Estate Executors is thought to be the son of James Kirkwood who married William's sister, Elizabeth Forrester. John Henderson, also one of William's Executors, is probably Margaret Henderson's younger brother
2. It would appear from records that nephew William may have returned from America. I have located what appears to be an 1861 census for him and his wife in Clackmannan; and according to his wife Mary's death record, He was still alive when she died in 1866. (Some records indicate that I have the wrong William Forrester and James Forrester of Tollpark's diaries indicate that he may still be in America in 1855)

Note by Douglas John Soutar:

The full 1810 Sasine (RS59/51/20) contains no further information. The description of the plot and house are exactly the same as in 1846. The 1846 phrase "lately built thereon" is even copied from this sasine.

At the moment I am assuming that A.R.F. stands for Acres Roods and Falls and A.R.P. for Acres Roods and Poles but I haven't checked up on this yet. Neither have I checked on meiths marches and pitstanes although they are obviously boundary markers. I wonder if they are still visible. Actually that is one difference between the 1810 and 1846 sasines - they were pit stones in 1846 and pitstanes (all one word) in 1810. DJS

From Wikipedia, the free encyclopedia

A **Scottish rood** (*ruid* in Lowland Scots, *ròd* in Scottish Gaelic) was a land measurement of Anglo-Saxon origin. It was in greatest use in the South East of Scotland, and along the border, whereas in the north various other systems were used, based on the land's productivity, rather than actual area. Four Scottish roods made up a Scottish acre.

A **fall** or **fa'** is a Scottish measurement of length. Other variants of the name include "faw", "faa" and "fa", the spelling with an apologetic apostrophe is not favoured now. The measurement was mostly out of use by the 19th century, and English measurements were imposed in 1824 by an act of parliament.
There were 320 falls in a Scots mile.

From the Scots Language Dictionary
Meith, n., v. Also meath(e), meeth(e); maith(e) (Ork. 1929 Marw.); mith; myth; meid, mied (Sh. 1948 New Shetlander No. 11 12), mead, meed; mid; ¶myid; ¶meedge (Fif. 1899 Colville); mees(e)(Cai.).[Sc. mi:ð, Sh. mi:d, Cai. mi:z]
I. *n*. 1. A distinguishing feature by which the boundary of a piece of land is determined, a boundary mark or line (Sc. 1721 Ramsay *Poems* (S.T.S.) I. Gl.; Sh., Rxb. 1962). Also used *fig*. of any guiding or limiting mark. Freq. in phr. *meiths and marches*, boundary lines, limits. Now *arch*.

From Rootschat
Sometimes pits had stones set into them, so you hear of "pit-stanes" as well. In fact pit can sometimes be used loosely to mean a marker-stone.

The following Sasine Abridgement confirms that James Forrester of Tollpark inherited the Longcroft property in 1846:

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Record Transcript 3: Sasine Abridgement James Forrester of Tollpark's acquisition of his late father's Longcroft property

180 July 17 1846

James Forrester, farmer, Toll Park near Cumbernauld, Seised [1]- in 20 falls of ground with dwelling house thereon part of the lands of Longcroft par. of Denny; on disp & Settl by William Forrester tenant, Parkhead, with consent of Margaret Henderson, his spouse to trustees, Mar 14. 16. 1812 & disp. & Assig. By them, Sept 14. 27 1818.

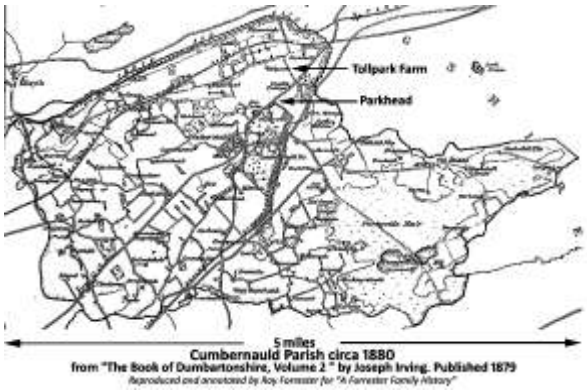
Transcribed by Douglas Soutar

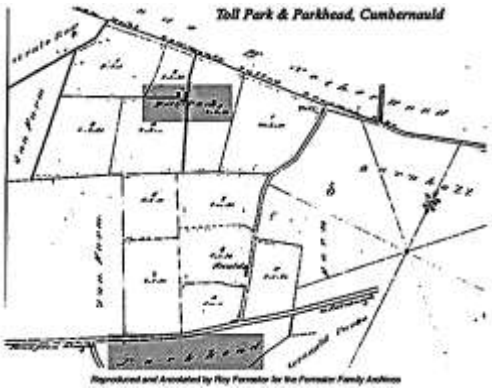
1. Seised in this sense simply means "Took legal possession of"

The foregoing Sasine record transcripts confirm the following:-

1. William had a natural son named James Forrester a farmer of Tollpark Farm Cumbernauld. In 1846 James inherited the property at Loncroft from his father.
2. William had lived at Parkhead, Cumbernauld with his wife and natural son James.
3. William's wife was Margaret Henderson (daughter of John Henderson and Margaret Scot. See record below).
4. William had a brother named Adam Forrester.
5. William had a nephew named William Forrester (Adam's son); who was ultimately disinherited.

Map 3: Parish of Cumbernauld indicating the relative positions of Tollpark Farm & Parkhead





Record Transcript 4: Birth/Baptism Record for Margaret Henderson and her twin, Agnes Old Parish Register, Denny, Stirlingshire			
DATE	**PARENTS**	**CHILDREN**	**WITNESSES**
16th January 1756	*John Henderson Marg Scot*	*Agnes & Margaret*	*John Neal Wm Neal*
SOURCES: GENERAL REGISTER OFFICE FOR SCOTLAND. REF: 476/ 0010 0244 & INTERNATIONAL GENEALOGY INDEX*			

Record Transcript 5: Marriage record for William Forrester and Margaret Henderson		
DATE	**PARISH OF CUMBERNAULD**	**COUNTY OF DUNBARTON**
13th August 1784	*Forrester_ Henderson*	*August 13th Forrester Wm & Margaret Henderson both of this parish were married*
SOURCE	GENERAL REGISTER OFFICE FOR SCOTLAND. REF: : 495/ 0020 0167; & INTERNATIONAL GENEALOGY INDEX	

Record Transcript 6: William Forrester-Farm Horse Tax 1797-1798, Volume 08						
A Survey of HORSE TAX, per 37 Geo. III. Cap. 108. in Dumbartonshire[1]. by Alexander Connell, Surveyer.						
DATE	**NAME**	**NUMBER OF HORSES**	**HORSES LIABLE IN DUTY**	**HORSES NOT LIABLE**	**DUTY**	**20%**
23 October 1797	*William Forrester Parkhead Cumbernauld Parish*	*2*	*2*		*£0.4s.6d*	*£0.0.10.8.d*
Source	Scotland Places. http://www.scotlandsplaces.gov.uk/					

1. The county of Dunbarton was originally known as Dumbartonshire.

Other than the above records, I could find no other 18th century Forrester records in the Parish of Cumbernauld dealing with William Forrester. A professional genealogist researcher, searching in Cumbernauld archives on my behalf could not find even those records! From the perspective of this family history, William Forrester of Parkhead born circa 1750 is currently the most distant confirmed paternal ancestor and records indicate that he is a son of Alexander Forrester b 1712 and Helen Crawford b 1716 and grandson of James Forrester and Marion Ure:-

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Alexander Forrester and Helen Crawford

No specific records indicating William's place and date of birth have been located to date, however the Sasine record above confirms that William had a brother named Adam Forrester; the only Forrester OPR records found to date with two brothers, one named Adam the other William, are seen in the records for the children of Alexander Forrester and Helen Crawford.

1. One other OPR record was located with two sons named William and Adam, Sons of Adam Forrest and Elizabeth Wilson of Edinburgh; however I could not find any connection between their family and this Forrester Family.

Record Transcript 7: IGI Birth record for Alexander Forrester	
NAME	*Alexander Forrester*
BIRTH	*20 July 1712 at Dunipace, Stirling, Scotland*
FATHER	*James Forrester*
MOTHER	*Marion Ure*
SPOUSE	*Helen Crawford*
SOURCE[1] The Church of Jesus Christ of Latter-day Saints IGI Individual Record, Film Number: 457650	

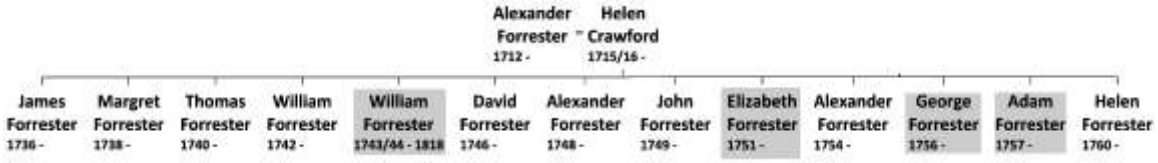
1. The above may now be seen at IGI's Family Search website https://familysearch.org/ark:/61903/2:1:M665-KF5
2. Separate OPR and Family Search records are available for Alexander's birth and James Forrester's and Marion Ure's marriage

Alexander and Helen were born in Dunipace, Stirlingshire and all their children were born in Denny, Stirlingshire.. In the next table are some of their 13 children for whom we have located living descendants.

Record Transcript 8: Children of Alexander Forrester & Helen Crawford (OPR Birth/Baptism Records)								
NO[1]	DATE	SURNAME	FORENAME	PARENTS	SEX	PARISH	COUNTY	GROS DATA
5	*04/03/1744*	*Forrester*	*William*[2]	*Alexander Forrester/Helen Crawford Fr189 (Fr189)*	*M*	*Denny*	*/Stirling*	*476/00 0010 0205*
9	*30/11/1751*	*Forrester*	*Elisabeth*[3]	*Alexander Forrester/Helen Crawford Fr202 (Fr202)*	*F*	*Denny*	*/Stirling*	*476/00 0010 0229*
11	*04/04/1756*	*Forrester*	*George*[4]	*Alexander Forrester/Helen Crawford Fr210 (Fr210)*	*M*	*Denny*	*/Stirling*	*476/00 0010 0245*
12	*20/11/1757*	*Forrester*	*Adam*[5]	*Alexander Forrester/Helen Crawford Fr214 (Fr214)*	*M*	*Denny*	*/Stirling*	*476/00 0010 0252*
Source: General Register Office for Scotland (GROS)								

1. No. = Order of birth in a family of 13
2. Father of James Forrester of Tollpark and both Susan's and my ancestor.
3. Elizabeth Forrester who married James Kirkwood, the common ancestors for Lyn Frier's husband's G-Grandfather, James Kirkwood my g-grandmother Janet Kirkwood and g-grandfather John Forrester (Book 2).
4. Ancestor of Neil Forrester and presumed ancestor of Gerry Innes
5. Presumed ancestor of Richard Brian Somerville and Anita West.

FT Chart 2 : **All 13 Children born to Alexander Forrester and Helen Crawford**



I was recently in touch with Lyn Frier or Kirkwood from Australia who gave me access to her Kirkwood family tree posted on ancestry.com. In her family tree, her husband's G-Grandfather, James Kirkwood, b1836 is shown to be descended from Alexander Forrester and Helen Crawford via their daughter Elizabeth b1751 and her husband James Kirkwood b1742. My 3rd G-Grandfather William Forrester is Elizabeth Forrester's brother; Lyn's husband's G-Grandfather would then be both my G-Grandmother's, and my G-Grandfather's 2nd cousin: their common ancestors being Alexander Forrester and Helen Crawford.

One of my DNA matches, Neil Forrester is also a descendant of Alexander Forrester and Helen Crawford via their son George (see Part 1 appendix 7 of this chapter)

Since Alexander and Helen had 13 children of which 11 survived (8 boys and 3 girls) there is a strong probability that there are many more living descendants. To date in addition to the above, other possible contenders who have links to this couple's children were uncovered by Susan:

1. Richard Brian Somerville. Richard has posted his family tree on ancestry.com showing links to Adam Forrester (b1757).

2. Gerald Innes. Gerald has also posted his family tree on ancestry.com with links to George Forrester (b1756).
3. Neil Forrester, whose family tree is posted on ancestry.com with links to George Forrester (b1756).
4. Anita West has links to Adam Forrester (b1757)
5. Graham Kirkwood has links to Elizabeth Forrester (b 1751) and her husband James Kirkwood and to my G-Grandmother Janet Kirkwood b 1820 and G-Grandfather John Forrester.

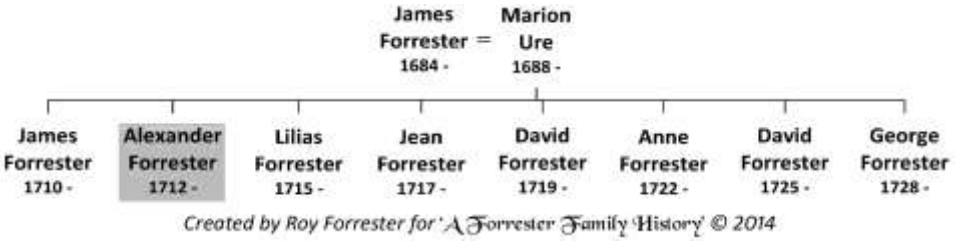
So far our research indicates that the common ancestors for Roy Forrester, Susan Schrade, Richard Somerville, Anna West, Gerald Innes, Neil Forrester, and Graeme Kirkwood are Alexander Forrester and Helen Crawford.

We now have reasonable evidence supporting our hypothesis that James Forrester and Marion Ure, the parents of Alexander Forrester, are my 5th g-grandparents and Susan's 7th G Grandparents.

James Forrester and Marion Ure.

We believe that this is one of two couples mentioned in Colin's book as James III of Braes: See the section "James Forrester 3rd of Braes" later in this chapter.

FT Chart 3: Children of James Forrester and Marion Ure



Record Transcript 9: OPR Marriage Record for James Forrester and Marion Ure Old Parish Register for Dunipace Stirlingshire, Scotland	
Date	**Comments**
July 9th 1709	*James Forrester and Marrion Ure both in this parish, gave up their names for proclamation in order to Marriage, who being legally proclaimed were married August 2nd 1709.*
Source:	General Register Office for Scotland. Ref: 478/ 0020 0006

Record Transcript 10: IGI Marriage record for James Forrester & Marion Ure	
Names	*James Forrester & Marion Ure*
Birth: James	*About 1684 at Dunipace, Stirling, Scotland*[1, 2]
Birth: Marion	*About 1688 at Dunipace, Stirling, Scotland*[1]
Marriage Date	*Marion Ure 2nd August 1709*
Source: The official Web site of The Church of Jesus Christ of Latter-day Saints IGI Record, Film Numbers: 446192 & 457650 website https://familysearch.org/ark:/61903/2:1:M665-PKL	

1. Actual OPR records have not been located for the birth of this couple.
2. As noted elsewhere, this James Forrester is probably James Forrester born 1687 in Stirling, Stirlingshire.

So far our research indicates that this Forrester family was descended from James Forrester and Marion Ure. In the next hypothesis we try to determine just who this James Forrester is and who were his ancestors. In Colin Forrester's book there are two possible contenders for the title James Forrester 3rd of Braes one being the husband of Marion Ure, the other James Forrester, husband of Susana Cummings who is actually the James Forrester 3rd of Braes, leaving open the question who is the James Forrester, Marion Ure's husband?
Given the preponderance of Forresters living in central Scotland, particularly Stirlingshire; it would be reasonable to assume that this James Forrester may also have hailed from that area.

There are least twenty four OPR and/or IGI birth records for James Forrester born in the whole of Scotland between 1675 and 1692, four born in Alyth, Perthshire and some 60 miles NE of Stirling and the remainder born further afield. Only two were born in Stirlingshire.

Table 2: List of OPR Birth/Baptism Index for a James Forrester Born Scotland						
Surname	Forename	Parents/ Other Details	Date	Parish Number	Ref	Parish
FORRESTER	JAMES	JOHN FORRESTER/	31/03/1678	328/	10 214	Alyth
FORRESTER	JAMES	DAVID FORRESTER/MARGARET GALLESPIE FR961 (FR961)	02/07/1685	692/2	30 434	Leith South
FORRESTER	JAMES	JOHN FORRESTER/MARJORIE GRAHAME	29/04/1683	312/	20 90	Montrose
FORRESTER	JAMES	GEORGE FORRESTER/ELIZABETH ANDERSON FR795 (FR795)	16/11/1686	709/	30 20	Haddington
FORRESTER	JAMES	GEORG(E) FORRESTER/	14/12/1688	301/	10 164	Liff, Benvie and Invergowrie
FORRESTER	JAMES	JAMES FORRESTER/ELSPETH DICK FR2549 (FR2549)	04/09/1677	718/	100 122	Prestonpans
FORRESTER	JAMES	JOHN FORRESTER/JONET SMYTH FR392 (FR392)	05/03/1678	488/	10 396	St Ninians
FORRESTER	JAMES	WILLIAM FORRESTER/BARBARA GRAY FR2018 (FR2018)	25/05/1689	692/1	10 310	Leith North
FORRESTER	JAMES	ROBERT FORRESTER/MARGARET WALKER FR3173 (FR3173)	23/07/1688	685/1	110 43	Edinburgh
FORRESTER	JAMES	JAMES FORRESTER/ANNA FORRESTER FR320 (FR320)	12/09/1687	490/	20 163	Stirling
FORRESTER	JAMES	DAVID FORRESTER/	27/09/1684	328/	10 237	Alyth
FORRESTER	JAMES	JOHN FORRESTER/EUPHAM WALWOOD FR914 (FR914)	13/04/1690	424/	30 425	Dunfermline
FORRESTER	JAMES	JAMES FORRESTER/ELSPETH DICK FRCH2V5P114	07/09/1677	718/	100 0	Prestonpans
FORRESTER	JAMES	WILLIAM FORRESTER/JEAN PROVEN FR1991 (FR1991)	29/11/1686	692/1	10 284	Leith North
FORRESTER	JAMES	THOMAS FORRESTER/	20/02/1681	328/	10 226	Alyth
FORRESTER	JAMES	JAMES FORRESTER/	18/10/1684	328/	10 237	Alyth
FORRESTER	JAMES	ROBERT FORRESTER/MARGARET ROBERTSONE FR353 (FR353)	13/06/1686	415/	10 344	Ceres
FORRESTER	JAMES	ANDREW FORRESTER/MARGARET ALEXANDER FR3129 (FR3129)	20/11/1687	685/1	100 260	Edinburgh
FORRESTER	JAMES	DAVID FORRESTER/MARY FORRESTER FR30 (FR30)	28/09/1683	507/	11 48	Campbeltown
Source: *General Register Office for Scotland*						

1. James Forrester, born 1678 at St Ninians[a)] to John Forrester and Jonet or Janet Smyth or Smith.
2. James Forrester, born 1687 in Stirling, Stirlingshire to James Forrester of Garden and Anna Forrester of Logie[b)].
   a) From an OPR record above. St Nininians is a suburb of Stirling town.
   b) From an OPR record above and the book "The Forresters A Lowland Clan and its Lands".

Plus those for whom OPR birth records cannot be traced of which are two from Dunipace

1. James Forrester aka James Forrester 3rd of Braes, husband of Susan Cumming(s) born circa 1685 in Dunnipace, Stirlingshire[a)]
2. James Forrester not of Braes born circa 1684 in Dunipace, husband of Marion Ure[b)]
   a) The book "The Forresters–A Lowland Clan and its Lands". No OPR record for the birth of James has been located to date!
   b) From IGI records and the book "The Forresters – A Lowland Clan and its Lands". No OPR birth record has been located to date!

Many OPR records in Scotland of the 17th century appear to be missing, in part because this period in Scottish history was one of the more violent periods in the conflict between the Government (effectively the absolute Monarch) of Scotland and the Presbyterian Church of Scotland as noted in the Introduction to this chapter. In the meantime many

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Covenanter ministers practised their Presbyterian religion; illegally holding Church Services; Baptisms and Marriages with the result that many written records were either never made or destroyed for security reasons.

There were a number of Forrester Covenanters who were classed as fugitives, subject to imprisonment and/or deportation to the American Colonies. The period, particularly 1684-1685, were known as "The Killing Times" when dissenters were subject to instant execution, about which much has been written. (e.g. Carslaw in The Life and Letters of James Renwick etc.)

It also appears that one of Marion Ure's ancestors may be James Ure a leading Coventer from Kippen, Stirlingshire. (See Part 1 Appendix 3) There were also a number of Forresters classed as covenanter fugitives living in Kippen at that time (circa 1680) e.g David Forrester, James Forrester plus a few others, such as Rev Alexander Forrester, (1611-1686) the grandfather of James Forrester(1687). (See Part Appendix 3)

The Forrester of Braes. The above IGI birth record for Alexander Forrester (b1712) indicates that his parents were James Forrester and Marion Ure. James and Marion were married in Dunipace, Stirlingshire in 1709:

Doc Transcript 1: from the book "The Forresters a Lowland Clan and its Lands" Page 84.
The Forresters of Braes and Craigannet

Craigannet is an estate in the parish of St Ninians, Stirlingshire.

The lands: The house of Braes is on a hillside, a mile north-west of Dunipace. It is a large white farmhouse, built probably in the later part of the 18th century.

The Braes was in use in the 17th century, the above date may refer to the date that a new farmhouse was built on the original site? Or Colin actually meant the 17th century not the 18th. RF

In the back wall of the house, above the door, is set a heraldic panel bearing an impaled shield "Dexter, three hunting horns stringed, and sinister, a charge (probably a buckle) between three mullets". The initials IF and AC stand at the top of the shield, with the date 1643, and they are presumably the arms of the first Laird and his wife. Their house is said to have been that part of the modem building traditionally called "the Chapel".

1. James 1st of Braes:
   Obtained a charter1630, married Agnes Crauford and had issue, at least one son.
2. John 2nd of Braes:
   The son of the first Laird received the lands in 1684. His testament is recorded in June 1701.
   James' father, John II of Braes inherited the property and lands of Braes in 1684 the year the IGI record above suggests that James was born.
3. ***James (II) 3rd of Braes:***
   "The second Laird's son made alterations to the house, reconstructing the south front in the Georgian fashion, and installing Adam-style fireplaces. He appears to have married Mary or ***Marion Ure****, and to have had at least seven children, including his heir James. However the register of Dunipace also records a James Forrester of Braes having children by* ***Susannah Cumming****".*
4. *Ja*
   mes[1] *(III) 4th of Braes:*

1. It should be **John** (II) 4th of Braes. It was John who inherited The Braes and who married Helen Napier of Craigannet see f*ollowing.*

He lived in Stirling, after selling the estate. He had a romantic runaway match with Helen, daughter of Gabriel Napier[2] *of Craigannet, a descendent of John Napier of Merchiston, the inventor of Natural Logarithms. Helen succeeded to Craigannet, on the death of her brother John without issue, in 1789. The fourth Laird*[1] *died some time before his testament was recorded in 1798.*

Extract 1: from the book "The Forresters A Lowland Clan and its Lands" Page 141

3. JAMES 3RD OF BRAES, of whom there are two accounts according to th
Dunipace Parish Register:
(A) that he married Mary (or Marion) Ure, and had issue,
(1a) JOHN, who succeeded (not in Register).[1]
(2a) JAMES, baptised 1711.[2]
(3a) ALEXANDER, baptised 1712.
(4a) DAVID (I), baptised 1719, presumably died young
etc. and:

Adapted and reproduced by Roy Forrester for "A Forrester Family History"
The Forresters A Lowland Clan and its lands by Colin D.I.G. Forrester © 1988

1. No records for John are available or have been located. It appears that James (see next) was their son and heir.

2. The quote above indicates that James Forrester and Marion Ure's son James was baptised in 1711 whereas the OPR record below indicates that he was born in Dunipace in July 1710 and baptised in Denny, Aug 1710. Since James and Marion were married in August 1709, if John was their eldest son then he was either illegitimate or born shortly after their marriage. This suggests that this couple did not have a son named John therefore James who was born 1710 was their eldest and heir.

The following OPR and IGI records for the Birth/Baptism of James Forrester, son of James and Marion suggest that he was born in Dunipace and baptised in Denny The actual OPR record does not indicate which, however the Family Search Genealogy site (The Church of Jesus Christ of Latter-day Saints) interpret the same records as a Christening in both cases.

Record Transcript11: OPR Birth/Baptism[2] record for James Forrester b 1710 Old Parish Register for Dunipace, Stirlingshire, Scotland			
DATE	**PARENTS**	**CHILD**	**WITNESS**
30th July 1710	***James Forrester Marion Ure***	***James***	***William Ure[1] John Forrester[1]***
SOURCE:	GENERAL REGISTER OFFICE FOR SCOTLAND. REF: GROS Data: 478/ 0010 0006 Denny		
Record Transcript 12: OPR Birth/Baptism[2] record for James Forrester 1710 Old Parish Register for Denny, Stirlingshire, Scotland			
DATE	**PARENTS**	**CHILD**	**WITNESS**
30th Aug 1710	***James Forrester Ure***	***James***	***William Ure[1] John Forrester[1]***
SOURCE:	*GENERAL REGISTER OFFICE FOR SCOTLAND. REF: GROS Data: 474 00 0010 0088 Denny*		

Record Transcript 13: Family Search OPR Birth/Baptism Record for James Forrester 1710					
Name:	**Gender:**	**Christening Date[2]**	**Christening Place:**	**Father's Name:**	**Mother's Name**
James Forrester	**Male**	**30 Jul 1710**	**Dunipace, Stirling, Scotland**	**James Forrester**	**Marion Ure**
Source:	*Family Search-Indexing Project (Batch) Number: C11478-2 GS Film number: 1041941 System Origin: Scotland-VR Reference ID: 2:17BH3XW*				
James Forrester	**Male**	**30 Aug 1710**	**Denny, Stirling, Scotland**	**James Forrester**	**Ure**
Source:	*Family Search-Indexing Project (Batch) Number: C11476-2 System Origin: GS Film number: 1041975, 0102105*				

NOTES:

1. **We can only speculate what James Forrester's and Marion Ure's relationship to the witnesses are. Almost certainly close relations?**
2. **The 2 OPR records do not distinguish between a birth and baptism however the Family Search records indicate a Christening in each record? Given the dates it appears that he might have been born in Dunipace by Christened in Denny.**
3. **Colin, in his book indicates that James Forrester and Marion Ure had an elder son named John but noted that his birth/baptism is not recorded in the Dunipace register, their next son James was, according to his OPR records, born on 30th July 1710 in Dunipace and Baptized on 30th of August in Denny, but Colin's book indicates that he was baptised in 1711, No records have been located for a birth or baptism of a James Forrester in 1711 although after examining a copy of the original record, it is easy to see how the confusion may have arisen with both years listed at the top of the folio. Also listed on this same folio is the birth/baptism record for Elizabeth Forrester daughter of James Forrester and Susanna Cummings.**
4. **His parents were married on 2nd August 1709.**

Next a reproduction of the 30th July 1710 birth record:

Extract 2: OPRS Birth Record for James Forrester born 1710

30/07/1710 FORRESTER, JAMES (O.P.R. Births 478/00 0010 0006 DUNIPACE)

06/07/1710 FORRESTER, ELISABETH (O.P.R. Births 478/00 0010 0006 DUNIPACE)

Created by Roy Forrester for 'A Forrester Family History' © 2017

Note: The same folio contains the birth record for Elizabeth Forrester daughter to James Forrester and Susanna Cumming

The above record for the Birth/Baptism of James Forrester suggests that he was born in Dunipace and baptised in Denny The actual OPR record does not indicate which, however the Family Search Genealogy site (The Church of Jesus Christ of Latter-day Saints) interprets the same records as a Christening.

The Braes, by Information from current the owner, via Scottish Georgian Society, 1975

From: https://canmore.org.uk/event/775514

"The Charter of Braes as a separate estate was granted in 1640, the present main house was built three years later to replace the former house which, I understand, was the present service wing which I am now proposing to turn into a house. The craved stone referred to in the Inventory is not an inset, but is part of the lintel of the original principal door, which was on the north side. In 1752, in accordance with the then current fashion, the south front of the house was remodelled by the erection of a portico and the insertion of balanced windows, of which there were five on the first floor, and four in addition to two slit windows and the main door on the ground floor. All this was revealed when the old harling was removed about eight years ago.

"I was greatly tempted to restore this fenestration, but ultimately refrained from doing so because of the effect which it would have had on the rather fine paneling inside. I did, however, open up the two slit windows which did not cause any internal damage.

At the same time, the removal of the old harling revealed three 17th Century windows in the gables. I had these opened up to replace the dormer windows (of 1904) which I removed. The most interesting discovery was the original fireplace arch in the kitchen, which appears to have been quite unsuspected by the compilers of the inventory."

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James Forrester and Susanna Cummings:

Extract 3: from the book "The Forresters a Lowland Clan and its Lands" page 142

(B) that he married Susanna Cuming, and had issue,
(1a) JOHN, baptised 1709.[2]
(2a) ROBERT, baptised 1715.
(1a) ELIZABETH, baptised 1711.
(2a) JEAN, baptised 1712.
(3a) SUSANNA, baptised 1713.

Adapted and reproduced by Roy Forrester for "A Forrester Family History" from the book "The Forresters A Lowland Clan and its Lands by Colin D.I.G. Forrester ©1988

"Whoever was the true Laird of Braes he was succeeded by: John 4th of Braes who married Helen Napier"
There is evidence to suggest that one of my Y dna matches, James Stuart Forrester, is descended from James and Susannah via their son Robert. (see Part 1 8)

While a marriage record for James Forrester and Susanna Cumming(s) has not been located, a birth/baptism record for John, their firstborn has:

Record Transcript 14: OPR Birth/Baptism record for John Forrester 1709
Old Parish Register for Dunipace, Stirlingshire, Scotland

DATE	PARENTS	CHILD	WITNESS
3rd Feb 1709	*James Forrester* *Susanna Cuming*	*John*	*John Forrester*[1] *James Wilson*
SOURCE:	GENERAL REGISTER OFFICE FOR SCOTLAND. REF: 478/00 0010 0004		

1. James 3rd of Braes father was John Forrester 2nd of Braes and his son John was John 4th of Braes

A Last Will and Testament dated 1798 for John Forrester clearly identifies this John Forrester as "John, late of Braes (*John Forrester 4th of Braes*) and last residing in the Parish of Stirling, the late husband of Helen Napier daughter of Gabriel Napier".

A snippet from the internet:

"The other family was that of Captain John Napier Forrester the 2nd Laird of Craigannet, near Carronbridge and, since 1936, drowned under the Carron Valley reservoir. The Forrester family owned Wester Cragannet from 1770 to 1875. John Napier Forrester (b1784--d1860) was a contemporary of Bowie's and a family member by virtue of having married Christian (Christina) Hill (b 1785 d 1869) a sister of Margaret Hill, Bowie's wife. Capt. John's father was Lieutenant Gabriel Forrester 1st Laird of Craigannet and his pedigree can clearly be seen from the obituary in the Stirling Journal of Friday 6th July 1860 when we read ;

"It may not be generally known that Captain Forrester was lineally descended from Baron John Napier, the inventor of logarithms--through which line he inherited the property of Craigannet. Captain Forrester's Grandfather, also named John, the 4th Laird of Braes another house in the Carronbridge area, married Helen Napier heiress to the Napier estate and who inherited Wester Craigannet on the death of her brother John Napier."

From the above, James Forrester and Susanna Cummings are the strongest contenders for the title of James 3rd of Braes since it appears that it was their son and heir John who later became John 4th of Braes and according to OPR records James Forrester and Marion Ure do not appear to have had a son named John.

Apart from this, a strong indication that John IV of Braes is the son of James Forrester and Susanna Cummings, another is that the youngest daughter of John IV of Braes was also christened 'Susanna', a name which does not appear in any of James Forrester and Marion Ure's descendants.

This begs the question: Who exactly is the James Forrester who married Marion Ure in 1709, James Forrester of the Braes or some other?

Colin indicates in his book that in the Dunipace Parish records there were two James Forrester's entitled James of Braes, however I cannot find any record mentioning "The Braes". It is possible that there were two 'Braes' in the area and both James Forresters used that style. There is still a property called "The Braes" listed in Dunipace today.

Note: in the OPR records for the birth of both couple's oldest sons, one of the witnesses was a John Forrester.

As will be shown later in this chapter, James Forrester of Braes and Susanna Cumming are ancestors of James Stuart Forrester, of my 'Y'DNA matches.

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2. James Forrester, born 1687 in Stirling.

If we assume that my 5th G-Grandfather is not James of Braes, we have to shift our focus from the Forresters of the Braes, elsewhere. It seemed reasonable to hypothesize that our branch of the Forresters hailed from Stirlingshire where many interrelated Forrester families lived during that period. As a result, Susan suggested the 1687 OPR birth record of a James Forrester in Stirling to parents James Forrester and Anna Forrester.

The couple James Forrester and Anna Forrester are also mentioned in Colin's book: Mr. James the son of Alexander Forrester a Covenanter Minister and Anna the daughter of James Forrester 6th of Logie. Alexander is a grandson of Sir Alexander Forrester 5th of Garden, their common ancestors being Sir Walter Forrester 2nd of Garden. Accordingly that would make James and Anna 6th cousins.

Note: There is some confusion in Colin's book regarding Anna Forrester's antecedents; in one part he describes the couple *"Mr, James, married Anna Forrester, only daughter of the first marriage Mr James 6th of Logie and had no issue".*

In another part under the heading James 4th of Logie he describes the couple thus: "*Anne (probably his daughter), who married James Forrester, W.S., son of Mr. Alexander Forrester, Minister at Edinburgh"*

On closer examination we determined that if Anna was the daughter of James 4th of Logie she would be in her middle fifties when her son James was born but in her twenties if she was the daughter of James 6th of Logie.

The birth/baptism record next does not clarify which James Forrester of Logie the witness was.

Record Transcript 15: **Birth/Baptism Record for James Forrester 1687. Old Parish Register (OPR) for Stirling, Scotland**			
DATE	**PARENTS**	**CHILD**	**WITNESSES**
12th September 1687	***James Forrester, Younger of Logie*[1] Advocate *Anna Forrester***	***James***	***Mr. Ja Forrester of Logie*[2] *Hugh Kennedy Provost and four others.***
SOURCES:	GENERAL REGISTER OFFICE FOR SCOTLAND. REF: 478/00 0010 0004		

We believe that in the above record:

1. James Forrester, father, was the g-grandson of Sir Alexander Forrester 5th of Garden and who after his marriage apparently styles himself "James Forrester, Younger of Logie" and:
2. Mr Ja Forrester, witness, was presumed to be James Forrester 6th of Logie and father of Anna Forrester. See article next:

One of the witnesses to James birth was Hugh Kennedy Provost who was in a dispute in Stirling in 1687

The Stirling antiquary: Reprinted from "The Stirling Sentinel," 1888-[1906].

Discharge of the "Common Post."

For some years before the Revolution, the Town Council were kept continually in hot water by a feud between two ex-Provosts, Robert Russell and Hugh Kennedy, and in 1687, when the Kennedy party got the upper hand, they made a point of overturning everything that had been done by their opponents. On the plea that the extravagance of

Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Both James' and Anna's families merge at Sir Walter Forrester 2nd of Garden which makes them 6th cousins. Walter's ancestors lead back to the Forrester's of Torwood and beyond. The Forresters of Torwood and the Forresters of Corstorphine, according to legend, had common ancestors in the 13th century. The Torwood estate was eventually sold due to indebtedness and later in 1636; Lord George Forrester 1st of Corstorphine repurchased the estate to keep it within the Forrester family. (As will be shown later in this chapter one of my 'Y' DNA matches is descended from the Forresters of Torwood via the Forrester of Culmore.

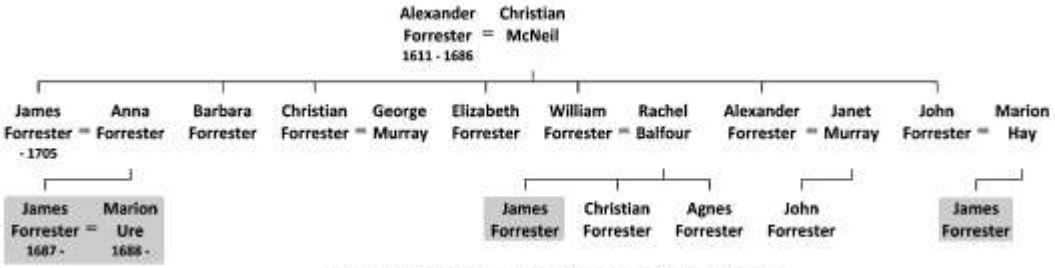
The Family tree charts for James Forrester 3rd of Braes and James Forrester son of James Forrester and Anna Forrester show Sir Walter Forrester 2nd of Garden as their common ancestor.

Many if not most, 17th century Forrester families in Stirlingshire and neighbouring counties are interrelated either directly or through marriage.

Determining which James Forrester is the husband of Marion Ure has been hampered somewhat due to the lack of birth records for a James Forrester born within a reasonable time frame, e.g. although we could find only three OPR birth records for a James Forrester born in Stirlingshire, **The Rev Alexander Forrester** and Christian McNeil had at least three grandsons named James (see chart below) for whom only one OPR birth/baptism record has been located,

that of James Forrester b1687 in Stirling. Since the father's of each of the James in question were professional people such as lawyers or religious ministers etc; it would be reasonable to assume that they would have been baptised and recorded in a church and/or the parish register.

FT Chart 4: Children and grandchildren of The Rev Alexander Forrester



Created by Roy Forrester for 'A Forrester Family History'

There are so few 17th century OPR records for this family that I was surprised when Susan found the OPR birth-baptism record for James Forrester's and Anna Forrester's son James.

So far we have established a link between this Forrester family and the Forresters of Torwood, Garden We have not so far established a link between the Forresters of Torwood and the first Corstorphine Forresters, although The Forresters of Torwood and the Forresters of Corstorphine were definitely linked by marriage. The Forresters of Corstorphine repurchased the Torwood Estates in 1636 after the Forresters of Garden and Torwood sold the lands of Torwood due to indebtedness in 1635, and the title Forresters of Garden and Torwood was later transferred to the Forresters of Deovan via John the 2nd son of Sir Alexander 5th of Garden.

James Forrester's and Marion Ure's daughter Anne was born in Dunipace in 1722. Jean, the daughter of Lady Lilias Forrester of Corstorphine, was born three weeks earlier, also in Dunipace, both registered on the same OPR birth/baptism folio:-

Record Transcript 16: Birth Record for Anne Forrester 1722.

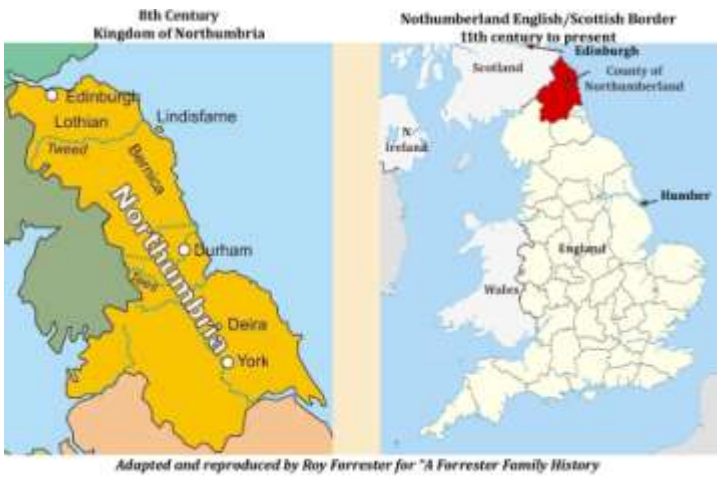
Surname	Forename	Parents	Date	Parish No.	Ref	Parish
Stirling	Jean	William Stirling/Lilias Forrester[1] Fr37 (Fr37)	20/03/1722	478/	10 31	Dunipace
Forrester	Anne	James Forrester/Marion Ure Fr37 (Fr37)	15/04/1722	478/	10 31	Dunipace

Source:- General Register Office for Scotland

1. Lady Lilias Forrester was the youngest daughter of Lord William Forrester (Bailey) 4th of Corstorphine and Baron of Torwood, Dunipace. She married William Stirling of Dunipace. (see Part 1 appendix 13 for details)

Map 4:- Northumbria 8th century and Northumberland today

The paper trails of my Forrester matches lead to the Forresters of Torwood, Stirlingshire whose first Laird was Robert Forrester, who obtained the estate of Torwood probably in the first half of the 15th century. Nathan Forrister confirmed our paper trails using our Y DNA test results. (see Part 1 and Part 2 Appendix 20 & Appendix 11) The link between the Forresters of Stirlingshire and the Forresters of Corstorphine, Edinburgh although probable, has not been confirmed to date.



Adapted and reproduced by Roy Forrester for 'A Forrester Family History'

Forester, later Sir Richard Forester, the probable ancestor of the Fosters/Forsters of Bamburgh, Northumberland and who is claimed by some sources to be a descendant of Anarcher the Forester of Flanders. (See Part 2 appendix 12, Reginald Foster) He is said to have been an officer in William the Conquerors 1066 Army and was knighted and granted lands and properties in the Scottish/English border counties of Berwick and Northumberland[1]. Other migrants to Britain from the continent of Europe of similar ilk who adopted

the family name of Forester as surnames, were being established in Britain, making it difficult to differentiate one Forester family from another.

In Part 1 appendix 20 & Part 2 appendix 11 of this chapter we learn that Nathan Forrister, a DNA expert, confirmed this Forrester Family's (and name variants) relationship to the Forresters and name variants of Torwood, Stirlingshire.

Map 5: **Stirlingshire, Scotland**

Probably the earliest record of a Forrester in Scotland is a 12th century record of Archibald Forrester in the church records of Lesmahagow, Lanarkshire followed by Marnus Forestarius (Marnin the Forester) in 13th century records from Canbukenneth Abbey close to Stirling. The next is a William Forrester of Linlithgow in 1311 and was followed by Adam Forrester acquiring the Barony of Corstorphine in the 1370s, beginning the Forrester Corstorphine line.

Marnin the Forester held lands in and around Dunipace adjacent to Torwood in the early 13th century about a century or so prior to early records for the Forresters of Stirlingshire including those of Torwood.

I was helped by a cousin, Susan Schrade, in the research of this chapter. Various public records are usually available and most helpful, tracing family back at least to the mid 1600s after which such records are either rarely available or were never made in the first place or lost. At this juncture one has to rely on various written works, reports and news clips. A classic example is my 7th Great Grandfather, The Rev. Alexander Forrester (born 1611 and died 1686) who was a Minister in the Presbyterian Church of Scotland and a Covenanter. His details were initially found in an article "**Fasti Ecclesiae Scoticanae, H Scott (1915) vol 2 p 221 St Mungos 1631"**[1]. He was according to other sources, a grandson of Sir Alexander Forrester 5th of Garden and Torwood. There are I am sure many more such documents yet to be uncovered or never existed in the first place (see appendix 2 Alexander Forrester by Doug Soutar for clarification) so at the suggestion of Susan I undertook some DNA tests to see how it can help further this research as far back in time as possible.

Record Transcript 17: ALEXANDER FORRESTER

Fasti Ecclesiae Scoticanae, H Scott (1915) vol 2 p 221 St Mungos 1631

Born 1611, son of Duncan F. and Margaret Ramsay; MA (St Andrews 1631); he had been "ane conformist in Ireland, preached three quarters of a year in Edinburgh, and been two years with the armie"; was proposed for the parish of Livingston in 1646; was settled in this charge in 1650. Refusing to conform to Episcopacy in 1662, he was confined to the parish. He was apprehended for holding a conventicle. He acted as clerk to a General Meeting of Presbyterian mins. in Edinburgh, 24th May1676; was examined by the Privy Council 8th Feb. 1677; sent to the Bass 3rd Aug. 1677. Having been liberated, he died at Edinburgh, 28th May 1686. He marr. Christian, daugh. of Torquil Macneil, and had issue Alexander, John, min. of Stirling; James, advocate, died 1705; William, W.S., died 1st Oct. 1701; Elizabeth; Barbara, died aged 18; Christian (marr. 12th Jan. 1693, George Murray of Murraythwaite.

Throughout part 1 of this chapter, we indicate from records and hypothesis that this Forrester family is descended from the Forresters of Torwood. In part 2 based upon a combination of Genealogy research and Genetic testing we have confirmed that we are descended from the original Forresters of Torwood in particular Robert Forrester, 1st of Torwood born circa 1446. Nathan Forrester, our DNA consultant was able to prove the conection through a process called DNA Triangulation; Comparing the DNA of a known descendant with that of unknown sescendants, in this case, with Timothy Hamilton Forrester with James Stuart Forrester, Neil Forrester and me.

Chapter Four
Ancestors of James Forrester of Tollpark

Appendix 1

FT Report 1: Rev Alexander Forresters and the Covenanters

Whilst Susan Schrade and I were attempting to define the ancestors of James Forrester of Tollpark, we came across another aspect of Scottish history, particularly relating to James's 2nd G-Grandfather, The Rev Alexander Forrester (1611-1686), a covenanter, who died or was executed and buried in 1686 in Greyfriars church cemetery Edinburgh. Alexander was also a grandson of Sir Alexander Forrester 5th of Garden.

Most avenues explored so far, lead us back to the Forresters of Stirlingshire. There have been many books and articles written about the Forresters of Stirling, some of which are included in the selection shown in the Bibliography listing in Part 1 appendix 13.

Much of the following information I show here in reference to The Rev. Alexander, Forrester was obtained from research by my cousin Douglas John Forrester. His article is reproduced in full in Part 1 appendix 2.

The Rev Alexander Forrester was a Presbyterian Minister. He was one of the signatories of the 'National Covenant' in 1638, proclaiming their opposition to King Charles I of Scotland and England's attempt to turn the Presbyterian Church of Scotland into an Episcopalian Church of Scotland, initially through the introduction of the Episcopalian Prayer Book. When Charles I was executed by Cromwell in1649, his son and heir was immediately crowned King Charles II of Scotland, however, he continued in his father's footsteps by introducing Bishops into the Church of Scotland, thus aggravating the Covenanters even more. The persecution of the Covenanters continued right up to 1689 when William and Mary of Orange and Stuart houses were united and crowned King William III (2nd of Scotland) and Queen Mary II of Scotland and England, and Presbyterianism was restored to the church. In the meantime many Covenanters were imprisoned, and/or executed or banished during this period of brutal repression. One such person was The Rev. Alexander Forrester who was imprisoned on the Bass Rock in 1677 and died in 1686 in Edinburgh apparently after his release. His grave in Greyfriars Church graveyard is located near the grave of the infamous covenanter persecutor, Sir George McKenzie who died in 1691.

Record Transcript 18: Brief Biography of The Rev. Alexander Forrester 1611-1686

(Rev.)ALEXANDER FORRESTER's (1611-1686) Profile
Fasti Ecclesiae Scoticanae, H Scott (1915) vol 2 p 221 St Mungos 1631

"Born 1611, son of Duncan F. and Margaret Ramsay; MA (St Andrews 1631); he had been "ane conformist in Ireland, preached three quarters of a year in Edinburgh, and been two years with the armie"; was proposed for the parish of Livingston in 1646; was settled in this charge in 1650. Refusing to conform to Episcopacy in 1662, he was confined to the parish. He was apprehended for holding a conventicle. He acted as clerk to a General Meeting of Presbyterian mins. in Edinburgh, 24th May1676; was examined by the Privy Council 8th Feb. 1677; sent to the Bass 3rd Aug. 1677. Having been liberated, he died at Edinburgh, 28th May 1686. He marr. Christian, daugh. of Torquil Macneil, and had issue Alexander John, min. of Stirling; James, advocate, died 1705; William, W.S., died 1st Oct. 1701; Elizabeth; Barbara, died aged 18; Christian (marr. 12th Jan. 1693, George Murray of Murraythwaite"

The above profile may be seen at: http://www.thereformation.info/alexander_forrester.htm

My cousin Douglas Soutar in his research on Alexander has concluded that he was a minister of St Mungos, Dunfries-shire not Edinburgh. He was convicted in Edinburgh for holding or attending conventiclers in Edinburgh and other place.

There were a number of other Forresters who were connected to the Presbyterian Church of Scotland who became Covenanters and classed as fugitives. One such, a James Ure of Shirgarten, Kippen Stirlingshire and a possible relation of Marion Ure, grandmother of James Forrester of Tollpark. James Ure was tried in his absence along with others and sentenced accordingly:

"to be executed to the death as traitors, when they shall be apprehended; their names, memory, and honours to be extinct - that their posterity may never have place nor be able to bruik or joyse any honour, office, etc, and to have forfaulted all and sundry their lands, etc."

James was never apprehended and died peacefully in his sleep at his home in 1716. His tale is told in full later in this appendix.

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Our cousin Douglas John Soutar a retired schoolmaster has spent many hours researching 'The Rev Alexander Forrester' including travelling to Edinburgh to take the photographs etc seen on the following pages: Doug's full research transcript can be seen in Part 1 appendix 2.

Table 3: Scottish Register of Deeds for Alexander Forrester, Minister at St Mungo[1]

Year	Grantor, Granter or principal Party	Nature of Deed	Date	Office	Vol	Page
1663	Alexander Forrester, minister at St Mungo	General Bond	3rd Oct	Dal	10	203
1670	Alexander Forrester, minister at St Mungo	Ge Bond	9th June	Dal	28	50
1675	Alexander Forrester, minister at St Mungo	Ge Bond	26th Feb	Dal	38	801
1678	Alexander Forrester, minister at St Mungo	Ge Bond (Heritable Bond)	2nd Jan	Mack	42	6
1689	Alexander Forrester, minister at St Mungo			Dur	LVIII	85
Source: Douglas John Soutar						

This St Mungo is believed to be a Parish in Dumfriesshire, Scotland

Types of deed

Bonds

There are many types of bonds recorded, but in essence a bond is an undertaking by the granter to pay a certain sum to the grantee (usually in repayment of a debt), or to perform a certain action for him. The grantee could transmit his right to a third party, which was done by means of an assignation. Assignations (or 'deeds of assignment') are also commonly found in registers of deeds. The parties to the assignation were the original grantee and the third party. Once the sum had been paid or the action performed, the original granter required evidence that this was so. This was provided by means of a discharge (or 'acquittance') given by the person in whom the right last resided. This could be the original grantee or an assignee. Discharges could also be used to release individuals from their duties as trustees.

Doc Transcript 2: Register of the Council 1676. Page 21

Charles II

Acta June 1673-August 1678. P.366.

Images provided by Douglas John Soutar

Privy Council, Register of Council, Pages 10677/21

"The Lords of the Committie for publick affaires did make report that they had ordered Mr Alexander Forrester, who wes taken in Fyff for being at feild conventicles and imprisoned in St. Andrewes, to be transported to the Basse; as also they had ordered Mr William Erskein and Jon Cunyngham, somtym of Bedland, prisoners in the tolbuith of Edinburgh to be transported to the Castle of Stirling. The Lords of his Majesties Privy Councill doe approve of their procedour."

Act anent the imprisonment of Mr. Alexander Forrester, and others, guilty of attending conventicles.

Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Doc Transcript 3: **Privy Council, Register of Council, Pages 1677/106-107**

Privy Council Register of Council Pages 1677/106-107

Act anent Mr. Alexander Forrester, a keeper of conventicles, and charged with acting as secretary to a society of outed ministers.

Acta, June 1673–August 1678. P. 366.

"Mr Alexander Forrester, who wes formerly prisoner in the Basse, being taken in Fyff for keiping feild conventicles, who wes therafter sett at liberty upon caution to appear before the committy, he being called and examined therupon and concerning some papers which were taken upon him when he wes apprehended, which were produced before the committy, by which papers it appeares that, upon the 24 of May, 1676, there did conveen within Edinburgh betuixt fiftie and thriescore outed ministers who did constitut themselves in form of a commission of the P. 414. kirk listed and voted their moderatour, appointed a committy of ten of their number at their first meiting to prepare overtures, who accordingly, after the dissolving of the meiting, did conveen that same night and did condescend upon, prepare and aggrie to the draught of a petition and overtures of a most seditious nature to be offered to their meiting, in which they condescend upon wayes for setleing and keiping correspondence in the severall societies and synodes established by them and for entering into and sending out young men into the ministery in their severall societies and boundes and for one synodes corresponding with another and for provyding for against any offer from the State in order to church affaires without advertisment given to and consent of the severall societies and for correspondence with gentlemen and judicious elders, whilk overtures being upon the said 25 of May presented to the great meiting, the same were voted and approven, which paper containing the said petition and overtures, with another paper bearing the leiting and voteing of the moderatour and what votes every particular minister had and the minutes of what past at these meitinges, being found upon the said Mr Alexander Forrester when he was apprehended and being presented to him at his examination, he confest that the saides minutes were his oune hand wryte, and that he wes present at these meitinges and that he wes elected and did officiat as clerk and confest they did chuse a preses, and being interrogat who wes the person that wes chosen preses or in what house or place in Edinburgh the saides meitinges were keeped and who were present at the same, and other circumstances relateing to a discovery therof, the said Mr Alexander refused to declare any thing theranent, wherupon the committy thought fitt to order him to be close prisoner in the tolbuith of Edinburgh untill the Councill should consider further of the said matter. Haveing revised the Declarations from severall burghes at their last election, they find that the greatest part have made no returne and that many of these who have made returnes are not sufficient conform to the act of Parliament, the committy hes appointed letters to be direct against the magistratts, councill and clerks of severall burghes. The Lords of his Majesties Privy Councill, haveing heard and considered the report of the forsaid committy, doe approve of their proceidinges and ordaines that the said Mr Alexander Forrester be keeped prisoner in a chalmer by himself and that no person have accesse to him except with meat or drink, and that he be not allowed the use of pen, ink or paper; and ane order to be delyvered to the keeper of the tolbuith to that effect."

Image provided by Douglas John Soutar

Adapted and reproduced by Roy Forrester for "A Forrester Family History

Doc Transcript 4: **Privy Council Petitions Page1677/615**

1st March 1677 Notes of business in Council.

Privy Council Petitions Page 1677/615

stipends of Borrowstounnes."

"Petition—Mr Alexander Forrester, prisoner."

Doc Transcript 5: The Covenanters- A Solem League and Covenant

The Covenanters Solemn League and Covenant

Vergo 2. Come let us joyn ourselves to the Lord

1 6 a Solemn 4 3

LEAGVE AND COVENANT,

for Reformation, and defence of Religion the Honour and happinesse of the king, and the Peace and Safety of the three kingdoms of

ENGLAND, SCOTLAND, and IRELAND.

in a perpetuall Covenant that shall not be forgotten.

We Noblemen, Barons, Knights, Gentlemen, Citizens, Burgesses, Ministers of the Gospel, and Commons of all sorts in the Kingdoms of England, Scotland, and Ireland, by the Providence of God living under one King, and being of one reformed Religion, having before our eyes the Glory of God, and the advancement of the kingdome of our Lord and Saviour Iesus Christ, the Honour and happinesse of the kings Majesty and his posterity, and the true publique Liberty, Safety, and Peace of the Kingdoms, wherein every ones private Condition is included, and calling to minde the treacherous and bloudy Plots, Conspiracies, Attempts, and Practices of the Enemies of God, against the true Religion, and professors thereof in all places, especially in these three kingdoms ever since the Reformation of Religion, and how much their rage, power and presumption, are of late, and at this time increased and exercised, whereof the deplorable state of the Church and kingdom of Ireland, the distressed estate of the Church and kingdom of England, and the dangerous estate of the Church and kingdom of Scotland, are present and publique Testimonies; We have now at last, (after other meanes of Supplication, Remonstrance, Protestations, and Sufferings) for the preservation of our selves and our Religion, from utter Ruine and Destruction; according to the commendable practice of these kingdoms in former times, and the Example of Gods people in other Nations; After mature deliberation, resolved and determined to enter into a mutuall and solemn League and Covenant, Wherein we all subscribe, and each one of us for himself, with our hands lifted up to the most high God, do sweare;

https://en.wikipedia.org/wiki/Covenanter#/media/File:The_Solemn_League_And_Covenant.jpg

Adapted and reproduced by Roy Forrester for "A Forrester Family History

Doc Transcript 6: Epitaphs for Rev. Alexander Forrester and his son William Forrester

The collection of Monumental Inscriptions was originally published in 1869 before the inscription became partially eroded as indicated next.

The following is a separate translation of the inscription by Douglas Soutar

Record Transcript 19: **Epitaph from the Tomb of Rev. Alexander Forrester**

VENERABLI VIRO

[To a]Reverend man

ALEXANDRO FORRESTER AD ANNUM SANCTI QUINTIIERNI

Alexander Forrester in the 50th year of his ministry.

PASTORI EVANGELICO PATRI SUO

An evangelical pastor [for] his father (God).

EX VETUSTA DOMO FORRESTERORUM GARDENNENSIUM (H)ORTO

He was descended from the ancient house of Forrester of Garden

CHRISTINIE MACNEIL EJUS PER ANNOS QUINQUAGINTA

[Also to] Christine Macneil his wife of fifty years

CONIUGI MATRI SUÆ,

and mother of his

FILYSQUE SUIS OCTO FILIABUS TRIBUS EX CO.

eight sons and three daughters (EX CO..)?

SUA RACHAELE BALFOUR SUSCEPTIS ET ..TC SH..

His daughter-in-law Rachaele Balfour erected this stone for him and his family (ET ..TC SH..)?

ATQUE SIBI SUISQUE SACRUM CONSTITUIT

***having been undertaken**

GULIELMUS FORRESTER AD SIGNETUM REGIUM SCRI.....

William Forrester writer to the king's signet

ANNO DOM MDCCI

year of our Lord 1701

*I have asked many people for a translation without getting a clear meaning for this line but I think it must be saying that this was undertaken on the instructions of her (late) husband, William.

Figure 1: **Tomb of the Rev Alexander Forrester 1611-1686**

The Tomb of The Rev Alexander Forrester 1611-1686
Greyfriers Kirkyard, Edinburgh, Scotland

Photographs by Douglas Soutar ©2016
Adapted and reproduced by Roy Forrester for "A Forrester Family History"

http://www.thereformation.info/martyrs_monument.htm

Monument, Greyfriars Kirk, Edinburgh.

Within the Greyfriars Kirk yard stands the "Martyrs Memorial" which commemorates some 18,000 Covenanters who died for their faith . It also marks the area where the remains of some hundred Covenanters executed in the nearby Grassmarket are buried. As was the custom and practice most were beheaded and their heads placed on spikes above the gates into Edinburgh - the Netherbow Gate which once stood at the top of Canongate, was a populars one. Also several martyrs had their heads and hands and arms hacked off and sent to their home locality as a gruesome message to any one else minded to resist the King`s will. The last line of the inscription is literally true -*The most part of them lies here.*

The inscription reads:

Halt passenger take heed what thou dost see
This tomb doth shew for what some men did die
Here lies interr'd the dust of these who stood
Gainst perjury resisting unto blood
Adhering to the Covenants and Laws
Establishing the same which was the Cause
Then their lives were sacrificed unto the Lust
Or Prelatist's abjur'd though here their dust
Lies mixt with murders and other crew
Whom justice did justly to death pursue
But as for this in them no cause was found
Worthy of death but only they were found
Constant and steadfast zealous witnessing
For the prerogatives of CHRIST their king

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Which truths were feared by famous Guthrie's head
And all along to Mr Ranwick's blood
They did endure the wrath of enemies
Reproaches torments deaths and injuries
But yet they're these who from such troubles came
And now triumph in glory with the LAMB

From May 27th 1661 that the noble Marquess of Argyle suffered to the 17th of Febr 1688 that Mr James Ranwick suffr'd were executed at Edinburgh about an hundred of Noblemen Gentlemen Ministers & others noble martyrs for JESUS CHRIST. ***The most part of them lies here****.*

This Tomb was erected anno 1706.

Thanks to the efforts of the Scottish Covenanters Memorials Association and the Greyfriars Kirkyard Trust (www.greyfriars.org) work has been put in hand to save the monument that is itself suffering the effects of age. Special silicone solution is being injected into the stone to hold it together. It was hoped to re cut the bible that is at the bottom of the monument but instead a brass plate has been inscribed and inserted below.

Ironically, nearby the infamous "Greyfriars Prison" stands the mausoleum of Sir George MacKenzie of Rosehaugh who, as Kings Advocate, was responsible for the zealous prosecution of the Covenanters Smellie in *Men of the Covenant,* amongst others, relates the pranks of schoolboys from the nearby Heriots School. They would play in the kirk yard and cry out at the impressive MacKenzie mausoleum :

Bluidy MacKenzie, come out if ye daur;
Lift the sneck, and draw the bar:

Doc Transcript 7: Forrester Entries in the Register of Internments, Greyfriers Burying Ground, Edinburgh

From the Register of internments

Greyfriars Burying-Ground, Edinburgh. 229

Forrester (Foirster, Fooster, Forastar, Forester, Forestr, Forrastir, Forrister, Forrster, Forstar, Foster), of Queenshaugh, David, who lay in the Old Provost Close	6 Sept.	1661
„ of Owenbach, Robert, his widow, Janet Mushet	13 Oct.	1694
„ Mr. Alexander, minister; warrant; Adwcat tomb	30 May	1686
„ Mr. Alexander, minister, his widow, Mistress Forrester	3 Jan.	1694
„ Alexander, merchant, a child; road foot	25 Apr.	1690
„ Alexander, merchant, a child; Mackenzie tomb	4 Dec.	1696
„ Alexander, merchant, a child; Mackenzie tomb	20 Mar.	1698
Forrester, Allan, merchant, a child	15 May	1671
„ Allan, his widow, Alison Mudie	29 Sept.	1684
„ Andrew, bower (brewer), his child	15 Nov.	1666
„ Andrew, bower, his wife, Janet Ronaldson	18 June	1686
„ Andrew, bower, west laigh; Fowlis tomb; a truf	7 Dec.	1692
„ Andrew, clubmaker, a child; west laigh	24 Oct.	1689
„ **(Foster),** Andrew, his child	16 Aug.	1664
„ Anna, widow of John Clelland; south alow	2 Feb.	1695
„ Anna, wife of Mr. James Foster, advocate; Mackenzie tomb; a truf	12 Mar.	1695
„ Anthony, writer, his wife, Janet Stevenson	17 Dec.	1688
„ Anthony, writer, a child; east end kirk	4 Aug.	1698
„ Anthony, writer, his wife, Bessie Gray	9 Aug.	1698
„ Anthony, writer; east end kirk; a decay	17 May	1699
„ Catherine, wife of John Lockhart, skinner; Tod tomb	23 Apr.	1687
„ Catherine, widow of Mr. Thomas Kinninmonth, minister; west south door; a truf	24 Sept.	16,6
„ Elizabeth, widow of William Seton, at St. Michael's Wall	24 Feb.	1675
„ Elizabeth, poor; warrant; Liberton's tomb; a decay	27 May	1699
„ James, glazier, a child; west laigh	4 July	1688
„ James, surgeon, a child; south door	21 Nov.	1697
„ James, poor; road head	3 Jan.	1691
„ Jane, servant to Sir John Sinclair; brae head	19 Mar.	1691
„ John, flesher, his widow, Bessie Robison	5 Jan.	1689
„ John, merchant, a child; Hal stone	27 Dec.	1696
„ John, surgeon, his wife, Helen Balsillie	17 Mar.	1687
„ John, tailor, a child; west laigh	4 Oct.	1688
„ John, workman	4 Nov.	1674
„ John, writer, a child; Balenton tomb	1 Jan.	1692
„ John, poor	3 Feb.	1665
„ Margaret, wife of James Meill, tailor in Borthwick's Close	28 Aug.	1673
„ Margaret, poor; warrant; east end kirk	19 Feb.	1689
„ Robert, shergen, his wife, Helen Fogo	17 Jan.	1692
„ Robert, soldier, a child; west steps head	13 Apr.	1698
„ Susanna, wife of Walter Ewing, writer	6 Feb.	1662
„ Thomas, glazier, a child; west laigh	12 Aug.	1698
„ William, writer, a child; M'Kenzie tomb	28 Mar.	1688
„ William, writer, a child; Mackenzie tomb	20 Apr.	1692
„ William, writer, a child; M'Kenzie tomb; coch	15 Jan.	1694
„ William, writer, a child; east M'Kenzie tomb	30 Jan.	1697
„ William, writer, a child; east Mackenzie tomb; coch	17 Dec.	1697
„ William, writer, a child; east Mackenzie tomb; coch	12 Jan.	1698
„ Mistress, widow of Mr. Alexander Foster, minister; M'Kenzie tomb; a truf	3 Jan.	1694

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Appendix 2

The Rev. Alexander Forrester 1611-1686
by Douglas John Soutar

This is the full text of Dougs article based on his research into the documented history of Rev Alexander Forrester

Alexander was the son of Duncan Forrester and Margaret Ramsay. The date of Alexander's birth is unknown but in "The Alphabetical Register of the Students, Graduates and Officials of the University of St Andrews 1579-1747" there is the following entry:

Forrester, Alexander

Matriculated from St Salvator's College

1627/28

B.A. 1630, 'potens'.

M.A. [ ].7.1631,'minus potens'. (thesis)

Divinity student1631/32 – 1632/33

'princerna'.

Since the average age at first matriculation was 15 this would indicate a birth about 1612. No record of Alexander's marriage taking place now exist but based on information on his tomb, this must have been about 1636. His wife, Christine McNeil, was the daughter of Torquil McNeil. According to John C Gibson in his 1908 book "Lands and Lairds of Larbert and Dunipace Parishes" they had issue: Alexander, Mr John M.D., William W.S., Mr James, Elizabeth, Barbara, Christian.

What happened to Alexander over the five years of his life following university is not clear. Fasti Ecclesiae Scoticanae says he was "ane conformist in Ireland, preached three quarters of a year in Edinburgh, and been two years with the armie". A conformist at that time was someone adhering to episcopacy. This would have been true of Alexander since, by the Five Articles of Perth in 1618

James VI forced Episcopacy on Scotland and that remained the case until 1638. Nothing has so far been found to substantiate other parts of this quotation from Fasti. In 1638 The National Covenant of 1580 in which the Protestant leaders pledged themselves tosupport the Reformed doctrine and discipline was renewed in Edinburgh.

The King (Charles I) was compelled to allow a free General Assembly to meet. The independence of the Church was reasserted. Alexander Forrester signed the Covenant but it is not known if he signed the original at Greyfriars in Edinburgh or one of the many copies sent throughout Scotland and Ireland. Civil War commenced in England in 1642. The Scottish Covenanters sent an army to Ulster to protect the Scottish settlers there so this may have been the time when Fasti says Alexander went to Ireland with the army but since there was no regular army at that time there are no records which might have mentioned Alexander.

Fasti says that in 1646 Alexander was "Proposed for parish of Livingston." but it also says that John Lothian MA was inducted in Livingston on 24th November 1646. The Kirk Session records for Livingstone for this year have been searched and an Alexander Forrest (not Forrester) had a child baptized on May 21st. John Lothian first preached on 22nd July and again on July 25th before he was inducted on 24th November. It seems that Fasti is mistaken about Alexander Forrester being proposed for Livingston but it is correct in saying that in 1650 he was inducted to St Mungo's in Dumfries & Galloway, Presbytery of Lochmaben. As the 2017 photo (above) of the ruins of St Mungo's shows it was a very small church. The link below is to an 1862 map of this district. The ruins of St. Mungo's are near the top left corner.

http://maps.nls.uk/view/74426688

Figure 2: **Ruins of St. Mungos's Church Dumfriesh-shire**

The minutes of the General Assembly of the Church of Scotland held in Dundee in 1651 show that Alexander was among the 147 commissioners. (This was held just a month before General Monk sacked Dundee and records are scarce.)

The photo shows the tower of St Mary's church, where the Assembly would have been held. Everything except the tower has been re-built several times following fires.

In the years after Alexander arrived at St Mungo there are a number of relevant letters and bonds preserved in The National Records of Scotland. A summary of them is given below at the appropriate times and transcriptions of the complete documents (where transcription has been possible are in the Appendix)

Figure 3: St Mary's Church, Dundee, Scotland

Bond RD2_10 This document is almost impossible to read because of 'bleed through' from the reverse side of the document.
John Maxwell of Castlemilk borrows £222:04:00 Scots money from Alexander Forrester. To be repaid by "Martinmass next to come" [Martinmass is 11th November] £20 penalty
if not repaid on time.

Signed at Dumfries 23 January 1653 J Maxwell. Witnesses: Johne Carsiane, Alexander Maxwell, Herbert Maxwell.

RD2_10 continues and John Maxwell of Castlemilk borrows 400 merks money of Scotland from Alexander Forrester. To be repaid by Martinmass 1655. £40 penalty if not repaid on time.
Signed 14 February 1655 by Johne Maxwell, David Mur, notary.
Witnesses Herbert Maxwell, William Maxwell.
Crysper Tropher Halliday Cautioner. (Cautioner is pronounced kayshuner and means guarantor.)

GD219-157 10 August 1658 – a bond of relief by George Murray [George Murray was Alexander Forrester's son-in-law.] in Brocklerigg to William Forrester for his cautionary for Hercules Sinclair in a bond to Alexander Forrester, minister of St Mungo.

Bond RD2_38.
James Fredeing in Echellfechan borrows 200 merks Scots money from Alexander Forrester Ordinar annual rent for the said prinll somme conforme to the act of parliat.
Repayable by Martimass 1659.
Penalty 20 merks if not repaid on time.
Signed at Echellfechan on 18 December 1658 James Fredeing, Witnesses Christopher Johnston,
William Fredering and Harbert Fredeing (sons to Adam Fredeing in Echellfechan.)
Adam Fredeing & Cristopher Johnson Cautioners. Cautioner Robert Colt.

By this time the king, now Charles II had reneged on the promises of 1638 and was intent on introducing Episcopacy to Scotland with himself as spiritual head of the church, something the Scots could not countenance. Having refused to conform to Episcopacy, Alexander was confined to the parish in 1662. At this time many ejected ministers began preaching in houses, barns or in the open air at "field meetings" or conventicles and in view of future events Alexander appears to have been no exception.

Bond RD2_28.
Robert Ramsay preacher of the gospel at Tranent borrows three hundred and forty merks Scots money from Alexander Forrester
Annual rent (illegible)
Repayable by the "feist and tyme of Whitsonday" next to come.
Signed 1 December 1663.

Cautioner Robert Colt.

April 25 1665. A letter from Johne Greirsonne to William Murray of Murraythwaite forwarded to Alexander Forrester by his son-in-law with William's notes.

In 1670 Field-meetings were made treasonable and preaching at such a meeting became a treasonable offence. Despite this these meetings increased rapidly and about this time arms began to be carried for self defence and "field-meetings" began to develop into "armed conventicles."

The next recorded bond was RD3_58.
Mr John Maxwell of Castlemilk had borrowed £222:04:00 Scots from Alexander Forrester. The agreement was signed 23 June 1653 and the money was repayable by 16 October 1663.
The loan was secured on a piece of land.

This is now 1678 and Mr Alexander Forrester is content to"superseid and containe" the payment of the said principal sum upon the granting of a tack for five years, the details of which follow and include Alexander having the income from this tack.
Signed at Spenmoor 13 September 1678 by John Maxwell. Witnesses Sir Alexander Jarden of Applegreth and William Charters, wryter.

There follows a ratification that John Maxwell is now major and of full age and past the age of 21. This fact is witnessed by the writer of the document, George Peaterson, lawfull son to Mr John Peaterson late minister at St. Mungo on 21 April 1679 before witnesses John Maxwell, Alexander Forrester in Whythill and Thomas Portes," my servitor". [This John Maxwell appears, from other information, to be the grandson of the John Maxwell who took the original loan in 1653.]

Two points about the above document. First there is no mention in Fasti of John Peaterson ever being minister at St. Mungo and second Alexander Forrester in Whytehill witnessed the document in 1679 if this is Rev. Alexander Forrester late of St Mungo it is possibly the last record of him prior to his death in 1686 and would prove that he was released from prison before his death.

Heritable Bond RD4_42.
Mr Robert Bell of Hardriyes? borrows £109 Scots money from Alexander Forrester Annual rent (Interest) of £6:13:4 to be uplifted at Martinmass
Penalty of £12 if interest not paid.
Written and subscribed by Thomas Veitch procurator. Witnessed by Mr Johne and William Forrester sons to Mr Alexander Forrester,
Signed16 December 1673 at Kirkconnel.
Secured on a piece of land.

In 1676 under Charles II the Register of the Privy Council records: (*August 3rd**)
"The Lords of the Committie for publick affaires did make report that they had ordered that Mr Alexander Forrester who was taken in Fyff for being at field conventicles and imprisoned in St Andrewes to be transported to the Basse."

Link to information about St Andrews tolbooth where Alexander is likely to have been imprisonedhttps://openvirtualworlds.org/omeka/exhibits/show/a-virtual-exhibition-of-mediev/tolbooth

Then in 1677 *(February 8th)* "Mr Alexander Forrester who was formerly prisoner in the Basse, being taken in Fyff for keiping feild conventicles who wes thereafter sett at liberty upon caution to appear before the Committe, he being called and examined thereupon and concerning some papers which were taken upon him when he wes apprehended, which were produced before the committee by which papers it appears that upon the 24th of May, *(20th May)* 1676, there did conveen within Edinburgh betwixt fiftie and thriescore outed ministers who did constitut themselves in form of the kirk listed and voted their moderator, appointed a committy of ten of their number at their first meiting to prepare overtures, who accordingly, after the dissolving of the meiting, did conveen that same night and condescend upon, prepare and aggrie to the draught of and petition and overtures of a most seditious nature to be offered to their meiting in which they condescended upon wayes of setleing and keiping correspondence in the several societies and synodes established by them for and for entering into and sending out young men into the ministry in their severall societies and boundes and for one synodes corresponding with another and for and provyding for against any offer from the State in order to church affaires without advertisement given to and consent of the severall societies and for correspondence with gentlemen and judicious elders whilk overtures being upon the said 25th of May presented to the

great meiting, the same were voted and approven, which paper containing the said petition and overtures, with another paper bearing the leiting and voeting of the moderator and what votes every minister had and the minutes of what past at these meitings, being found upon the said Mr Alexander Forrester when he was apprehended and being presented to him at his examination, he confet that the saids minutes were his oune hand wryte, and that he wes present at these meitings and that he was elected and did officiat as clerk and confest that they did chuse a preses, and being interrogat who wes the person that wes chosen preses or in what house or place in Edinburgh the saides meitings were keeped and who were present at the same, and other circumstances relating to a discovery thereof, the said Mr Alexander Forrester refused to declare anything thereanent, whereupon the committee thought fit to order him to be close prisoner in the tolbuith of Edinburgh until the Council should consider further of the same matter. Haveing revised the Declarations from severall burghes at their last election, they find that the greatest part have made no returne and that many of these who have made returnes are not sufficient conform to the act of Parliament, the committy has appointed letters to be directed against the magistratts council and clerk of several burghes. The Lords of His Majesties Privy Council having heard and considered the report of the forsaid committy, doe approve of their proceidinges and ordaines that the said Mr Alexander Forrester be keeped in a chalmer by himself and that no person have access to him, except with meat or drink, and that he be not allowed the use of pen, ink or paper; and that ane order be delyvered to the keeper of the tolbuith to that effect.

It may be that the meeting described above and others like it are why Alexander is referred to inFasti as ‘Minister in Edinburgh’. This and the strong probability that he was preaching at house conventicles there.

National Records of Scotland catalogue lists the Warding and Liberation books for the Edinburgh Tolbooth from 1657 to 1816 unfortunately it took two visits to find that the records for 1676 and 1677 are in fact missing so no further information can be gleaned there. On 1st March 1677 the Register of the Privy Council recorded:

“Petition-- Mr Alexander Forrester, prisoner”.

Presumably this was a petition requesting Alexander’s release but there is no further information. The Warding and Liberation books for Edinburgh Tolbooth have been searched without success up to the date of his death in case he passed through there but without success. The only possible record found of Alexander between this date and his death is that in the bond RD3_58 above. His death is recorded on May 28th in 1686. He was buried in Greyfriars Churchyard, Edinburgh on 30th May. His widow, Christine MacNeil, lived until 1694 and was buried in Greyfriars Churchyard, Edinburgh on 3rd January. The tomb is shown below followed by the inscription and a transcription of the inscription.


VENERABILI VIRO
PASTORI EVANGELICO PATRI SUO
EX VETUSTA DOMO FORRESTERORUM
ORTO,
CONIUGI MATRI SUAE

VENERABLI VIRO

[To a]Reverend man

ALEXANDRO FORRESTER AD ANNUM SANCTI QUINTIIERNI

Alexander Forrester in the 50th year of his ministry.

PASTORI EVANGELICO PATRI SUO

An evangelical pastor [for] his father (God).

EX VETUSTA DOMO FORRESTERORUM GARDENNENSIUM (H)ORTO

He was descended from the ancient house of Forrester of Garden

CHRISTINIE MACNEIL EJUS PER ANNOS QUINQUAGINTA

[Also to] Christine Macneil his wife of fifty years

CONIUGI MATRI SUÆ,

and mother of his

FILYSQUE SUIS OCTO FILIABUS TRIBUS EX CO.

eight sons and three daughters (EX CO..)?

SUA RACHAELE BALFOUR SUSCEPTIS ET ..TC SH..

His daughter-in-law Rachaele Balfour erected this stone for him and his family (ET ..TC SH..)?

ATQUE SIBI SUISQUE SACRUM CONSTITUIT

***having been undertaken**

GULIELMUS FORRESTER AD SIGNETUM REGIUM SCRI.....

William Forrester writer to the king's signet

ANNO DOM MDCCI

year of our Lord 1701

I have asked many people for a translation without getting a clear meaning for this line but I think it must be saying that this was undertaken on the instructions of her (late) husband, William.

Appendix.

Fasti Ecclesiae Scoticanae by H Scott is the record of the ministers of the church of Scotland. The relevant entry here is in vol 2 p 221 St Mungos.

Synods of Merse & Teviotdale, Dumfries & Galloway.

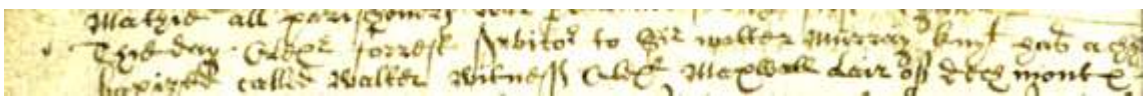
Presbytery of Lochmaben.

St. Mungo. formerly Abermelk or Castlemilk. (Abermelk was a mensal kirk of the Archbishop of Glasgow.) The parish name was changed in the seventeenth century to that of its patron saint. There was a Well of Our Lady

1650 ALEXANDER FORRESTER

"Born 1611, son of Duncan F. and Margaret Ramsay; M.A. (St Andrews 1631); he had been "ane conformist in Ireland, preached three quarters of a year in Edinburgh, and been two years with the armie"; was proposed for the parish of Livingston in 1646; was settled in this charge in 1650. Refusing to conform to Episcopacy in 1662, he was confined to the parish. He was apprehended for holding a conventicle. He acted as clerk to a General Meeting of Presbyterian mins. in Edinburgh, 24th May1676; was examined by the Privy Council 8th Feb. 1677; sent to the Bass 3rd Aug. 1677. Having been liberated, he died at Edinburgh, 28th May 1686. He marr. Christian, daugh. of Torquil Macneil, and had issue Alexander; John, min. of Stirling; James, advocate, died 1705; William, W.S., died 1st Oct. 1701; Elizabeth; Barbara, died aged 18; Christian (marr. 12th Jan. 1693, George Murray of Murraythwaite)- [Dumfries and Linlith.Presb. Regs.; Dumfries Tests.; Edin.Reg. (Bur); Wodrow's Hist., ii 355 [where he is called Andrew]; Monteith's Theatre of Mortality, i; Bass Rock.].

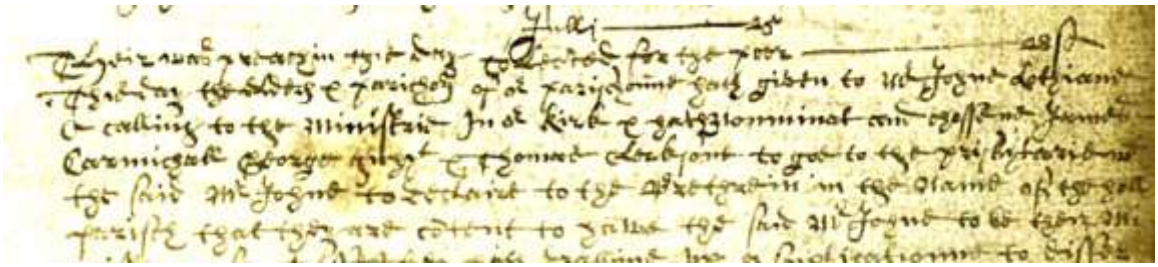
Livingstone Parish Minutes May 17 1646.



Which reads:

This day Alexander Forrest servitor to Sir Walter Murray knight had a son baptized called Walter. Witness Alexander Maxwell laird of lochmont and … (Note **Forrest** not Forrester)

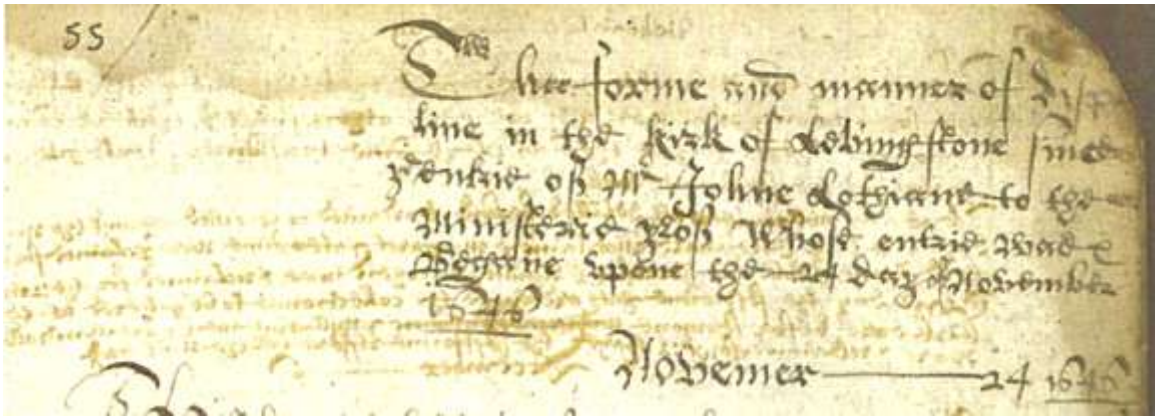
July 25th



There was preaching this day: collected for the poor----------28

This day the elders & parishoners of our parish have given to said Mr John Lothian a calling to the ministrie in our kirk…

November 24th



The forme and manner of disposition in the kirk of Livingstone since the entrie of Mr Johne Lothian to the ministrie therof whose entrie made and begane upone the 24 Day of November 1646.

RD2/10

1 In pn. of the Lords of counsel and
2 Session compered Mr Johne Rollo advocate
3 procr for Jon Maxwell ---- ------ ----
4 and gave in the band under---- theroff the
5 tenor ffollows I Johne Maxwell
6 of castlemilk be the tenor heiroff
7 grant me to have borrowed and received
8 from Mr Alexander Forester minister at
9 Sainte mungo the somme of 2 no. Hundred &
10 twentie two punds four shillings scots
11 money ----somme of 2 no. hudred twentie
12 two punds four shillings of money forsaid
13 I bind & obleis me my aires & exers and
14 assignayes ----- with my ----- rents
15 guids and geir and their --- ---- ----- ----- thank
16 ------ -to reseive ----- ---- pay and
17 Delyver againe to the said Mr Alexander
18 fforester his aires & exers or assignayes
19 betwxt the dait heroff and the fiest
20 and terme of mertimes next to come
21in this my hand year of God 16 fyftie
22 thrie yeires but ---- or delay ------
23 or ---- ----- together with the somme of
24 twentie punds money forsaid as penaltie
25 and ----------of failyie
26 and ----------
27together? ----- that doe- and ordinar anuel
28 rent for the said prinll somme --- the

29 day and dait of thir pnts. To the somme
30 above ----------and – and --- the payment of
31 the said prinll somme conforme to the
32 act of parliament --------- not infeft
33 as infeft ----------thyrto at
34 the pleasur and option --------- of the
35 said Mr Alexander and his forsaids ---- ---- ---
36 ----- -------- and --------- the same
37 consenting thir pnts. be insert and regrat in the
38 court books of ----------threff or commiser-
39 towne books of Dumfries or anie other-------
40 ----------and ----------
41 to follow heirupon and ----------Mr
42 Johne Rollo advocate my procurator in witness
43 thereof ---- be Herbert Maxwell notar and
44 I have subc. thir pnts. With my hand at
45 Dumfries the twentie third day of -----
46 16 syxtie thrie yeires befor thir
47 witness Jone Carsirne of meikl ----------
48 Allexr Maxwell laull sone to -------
49 Jon Maxwell and the said Hebert
50 maxwell notar writer hieriof sic subr
51 J Maxwell Johne Carsirne witness
52 Alexr Maxwell witness Hebert
53 Maxwell witness
54 In pents of the lords of counsel and
55 session compeered Mr Johne Rollo ad-
56 -vocat pror for Jon Maxwell as
57 prinll and Cr. Tropher haliday as
58 caur ------ assigned and gave in
59 the band underwritn theref the
60 tenor follows I John Maxwell
61of Castellmilk grant me be the
62 tenour heiroff to have borrowed
63 and received -------- and –th-
64 -------- numerat and ---- -----
65 money from Mr Alexander Forrester
66 minister at Saint mungo the somme
67 of four hundred marks money of
68 Scotland throff I grant the
69 reseit and discharges the said
70 Mr Alexander Forrester of the same
71 be thir pnts ---------- the
72 exceptoin? of not numerat money
73 ---- of ------ and all uther
74 exceptoin? of the ---- ----proponit?
75 the ------- ----- somme of four hundred
76 marks money forsaid – the said Johne
77 Maxwell as prinll and with Mr Cryspher
78 fullerday -- -------- as c---- ------ and
79 ---- ----- for and with me binds and
80 obleis as----- prinll and -- --- --- aires exers
81 and assigneys and intromettors with our
82 guids and geir whatsomever ---- ------
83 --- -------- -- ------ and to pay
84 to the said Mr Alexanr Forester his aires
85 excers. or asignyes betwixt the dait
86 heiroff and the fiest and terme of
87 mertinemes next to come this ------ year
88 of God 16 fyftie? five years but

89 longer delay togeter with the ordinar
90 -------- of the said prinll somme from
92 ---- the said terme of payment
93 ------- -------- -------- the somme off
94 fow---- punds ordney forsaid of
95 prnell – and ------ presents --- --
96 ds-ed and aggreed upon ---- the
97 said prinll and ------ ----- and our forsaids
98 in caic throw not thankfull payment
99 of the said prinll somme in ---- ------
100 tyir pnts ---- ------ and ----- ------
101 heirupon in maner underwrn and --
102 ---- ---- ----- the said Mr allexr
103 Forrester and his forsaids to --------
104 and ------- the payment of the
105 said pr ------somme and longer -----
106 ------ forsaids ---- and ----
107 ---- ---- prinll and ---- binds and
108 obleis us and our forsaids conjunctly
109 and severallie and our forsaids as
110 said as ------- and pay to -------
111 Mr alexr fforester and his ------
112 ----------
113 ----------for...said
114 prnill somme during the not payment throf
115 and tjhe said terme and --------- John
116 maxwell prinll bind and obleis me and
117 my forsaids to ----------
118 and ---------- the said ---------
119 ------- -- ------- and ----------
120 of ----------
121 of all ----------

122
123
124
125 --- ----- the said Johne Maxwell
126 binds and obleis him and his forsaids
127 ---- ------ hapines ---- ---- -----
128 for payment of the sommes ---------
129
130
131
132
133
134
135
136
137
138 thrby and for the mair securitie
139 we ar contente and consents thir
140 pnts be insert and regret in the
141 books of counsel and session ---
142 court books of ------- --------
143 commisser books of Dumfries---
144 ---- and ----------
145 to be ------ heirupon – and
146 simple ------ of ----------
147 and fr that effect -- -----
148 Johne Rolls advocate our C.....
149 prors -------- throff ------

150 ---- ---- pnts with our hands as
151 followes ---- be David
152 Mur------notar------ four of castell
153 milk the fourtene day of feberuarie
154 1655 yeirs before thir
155 witnes Herbert and William Maxwell
156 sones to me the said Johne Maxwell
157 ----------Johne Maxwell said David Mur
158 ----------far does---- -----off ---
159 pnts. ----------thir
160
161
162
163 and sub – ------ Herbert Maxwel
164 witnes William Maxwell witnes.

GD219/157 (Assignation by William Murray of Murraythwaite to Margaret Murray, Parish of Middleby)

01 Be it kend till all men be this present te-s me William Murray of Murraythwaite
02 that for saemeikle as I am justlie adebted to Margrett Murray my sister the
03 somme of three hundred and aught punds Scotts money and therefore I being
04 most willing that she be satisfied of the said sum will -- me to have
05 made create and constitute and ordained and by thir pnts. makes creates and constitutes
06 and ordaines the said Margaret Murray my ----- lawfull cessioner and
07 assignes cum libera disposition in and to the nobilie mailes and duties of
08 my forty shilling land of stockbridges land within the parishine of midleby
09 which land pays yearly the somme of forty pounds Scotes money and that att
10 Martinemes yeirlie the somme of forty pounds and tht. for all the days years and termes of seven years
11 that is to say seven years rent and ane half of the said lands which makes up the
12 somme forsaid of three hundred (pounds) excepted the aught pound and
13 surrogates and substitutes the said Margaret Murray her aires and assigneys
14 and exectores in my full place therof during the space forsaid with power to her
15 or her forsaids or ane uther in her name to call follow and persew for the saids
16 yeirle rents before ane ----- competent in this nation decreis and souton
17 ces to recover thereof discharges and ---------- to give and subscribe in hail
18 or in pairt I affirm also good valid and effectualle of the law as ---
19 I had doen the saimmine myself before the making heirof and generallie
20 all other ------- to doe thereanent as becometh anent the hail promises
21 obleisses me never to come in the contrarie heirof and I the said Wm Murray
22 of Murraythwaite binds and obleisses me my aires and excetores to warrand
23 and defent this present assignatione and towarrand the yeirlie rents of the said
24 lands induring the space above written to the said Margaret Murray and her forsaids
25 against all having entres or pretending entres against all de-----e as lawfull
26 and that I never have done nor shall doe ane thing in the contrair heirof and
27 the said Margrett Murray is to begine to uplift the said yeirlir duties att Martine-
28 –mes next to come in this instant year of God 16 and fiftie aught years and
29 Sure to continue from that tyme till the forsaid seven years and ane half be expired
30 and for the mair securitie consents thir pnts. be -------- in ane judges bench
31 competent within this nation and thrto remain ad futuram --- memoriame and
32 ffor that effect constitutes
33 My lawfull procurators in witness therof I have written
34 and subscribed thir pnts. in my hand att the Murraythwaite the (blank) day of May the
35 yeir of God 16 and fiftie aughtn years before thir witnesses

GD219/157 (On the back of the above. Bond of relief by George Murray in Brocklerigg to the said William for hiscautionary for Hercules Sinclair in a bond to Alexander Forrester, minister of St. Mungo

01 Be it kent til all men Mr George Murray in Brockelrig for as
02 mikel that William Murray of Morigahat (Murraythwaite) is cautioner to me
03Patrick Murray in Brockelrig in ane band of ane hundreds
04 for Mr Hercules Sinclair to Mr Alexr. Forester minister
05 at St Mungo and because at said soume of land grant
06 my proper reason affaire with me the said George Murray to be bound

07 and obliged by is I be content hereof binds and oblidgese my aires copy to be kept the
08 said Mr Murray of Murraythwaite free of
09 all cost staithe and expenses that his aires or successors may incur
10 range the said contents and for the maire security I am content
11 this presents be incert regrat in ye comisher .. .. court books
12 of Dumfries and that ..... and .....may pas heirupon
13 on a single charge of six days only and for that effect.
14 .....my laul. Procutor in witness heirof I
15 Have written an subscribet the presents in my hand at ye Murraythwaite
16 ye 10 Aug 1658

Geo: Murray

RD2_/38.

1In the presence of the Lords of Councell and session Compeired William
2 Heman advocate as procurator for James Fredeing prinll Adam freeing
3 Cristopher Johnston Caurs as ----- in desyne and ---- in the band ----
4 ------- therof the tenor follows I James Fredeing son of Adam freeing
5 in Echellfechan Grants me be the tenor heireoft to have borrowed and
6 received from Mr Alexander fforester minister at St Mongoe the somme of
7 two hundred merks scots money wheroff I Grant the recept and re---cound
8 the ----ption of not numerat money and all esceptions of ----
9 that can be alledged or plwponned in the contrair for ---- whlk
10 somme of two hundred merks forsaid I bind and obleis me my aires -----
11 and assigney and --- mr Adam fredeing my father Ja. Echell
12 forgan and Cristopher Johnston my brother in law in Banklanes
13 and full ------- ---- ------ ---- doe bind and obleis -- ---
14 aires ----- or assigneys -------- ------ goods and geir whtsomever
15 thankfulle to content pay and delyver again to the said Mr Alexr.
16 fforester his aires or assigneyes betwixt the dait and day theirof
17 the feist and terme of Mertinmes next to come in the year of
18 God 16 ffiftie nyne years but longer delay fraud or guile
19 ------- -- -------- of twentie merks oney forsaid as -------
20 expenss incaise of failyie and for the said prinll somme Conform
21 also the ordinar annual rent for the said prinll somme conform
22 to the act of parliat yearly ------ quarterly and proportionally
23 foras long as the prinill somme shall ------- payed after pro
24 the terme forsaid apoynted for payment throff and that at also will not
25 infest as infest the may but --------- all days of ----------
26 to follow thrupon and—but any premonition or ---------
27 made for that effert and I the said James Fredeing binds and
28 obleys me my aires ---- or assyneyes ------ at my ----- and
29 thir -------- to ------- and ---- my forsaids caurs of all
30 ------ of the prinll somme and ------- --------- and
31 for the mair security---- my foresaid caurs are content and
32 consents that thir presents be insert and regrat in the Cou'el
33 books of Sessione ----- or Court books of Demm-
34 –fries or any other books competent ----- this nation
35 to have the strength of our decreit of any of the ------ therof the -----
36 ----- p---il therto the ---- and ---- ------ --------- upon ane
37 simple charge of sex days only piynding and ---- now full may pass
38 heirupon in --- as ------- and for -------- heiroff constituts

39 Jone Yeman advocate my lawll pror
in witwitnes theirof written
40 and subst. Be Christopher Johnston at Echellfechan the --
41eighteenth day of December 16 fiftie eight years beffor
42 witness William and Harbert Fredeing sons to
43 Adam Fredeing in Echellfechan Sic Subt. James Fredeing
44 [his mark] Christopher Johnstoun William Fredeing witness
45 Harbert Fredeing witnes.

Wear on folds at the left edge and down the centre make the following letters more difficult than usual to transcribe.

RE78/102

1 ---ye may understand by the letter on the back heirof
2 the reasone of my wryting to you I am confidend that
3 ane -------- the extract of that article is soe much de4
-syred is to gett a supplie for Mr Johne his --------
5 and for no other thing and therfore – I shall
6 desyre (if possible it may be) that it might -------
7 such will ---h put a con----- upon the gentleman ---
8 --s so pressing for it ther nd me tht has
9 a relatione tht --- and -----(I conceive) ane act
10 act of charitie to thes ---- ch—reon tht as in great ---
11 -------- of charitie att this tyme for expecting
12 your answer – the bearer ---- my best wishes to your
13 self and familie remembrid ------ remain
14 Sir yours to have and serve you
15 William Murray
16 Moriquhat [Murraythwaite] Apryle 25 1665.

Letter on the back of the above

Cappinoch the

2 Affectionat brother 13 Apryle 1665
3 I must employ you with a little business worth while
4 you have occasion to gett better done than I can, In
5 respect the gentleman leive neirer to you than
6 to me, the thing that I desyre you would be
7 assistant to me in is this, either to wryht or speak your
8 sellfe to Mr Alexander Foster sometyme minister

9 at St. Mungo, and clerk to the synod heldne at
10 Dumfreis the tyme of the deposition of our
11 Johne Nimo and try give you can gett the
12 extract under his hand of Mr Johne Nimo sometime
13 minister at Hollwood [Holywood] his deposition which was at
14 that tyme searved malignant ---- therfour
15 I intreat you will be carefull either to speak
16 to him or wrytt to him anent the same and ----
17 him that he will presentlie gett a summons of
18 exhib-- of ye doe not delyver it by and
19 if ye desyre a dollar or such a thing (--- I would
20 not give ---es it were for the necessitie of it) pay
21 it out to him and you shall be payed back againe
22 so expecting your return att the first occasion.
23 I shall add no more at present but my love

24 to my sister and your children -----.
25 Your affectionate brother
26 and servant
27 Johne Greirsonne.

RD3/58

In the presence of the Lords of Councell & Session Compeared Mr Robert Deans advocat ------- -------- -------- -------- for John Maxwell and gave in the tack so undirwritin subscrived with his hand therof the tenor fall- -ows Be it kend to all men be thir present letters Mr John Maxwell of Castlemilk for so mikle as the decest John Maxwell of Castlemilk my Grandfather the father ---- be his obligatione subc. with his hand off the date the twe- -ntie third day of June 16fyftie thrie years for the ---- --- herin ----- bind and obliedge him his aires & successors to have payed to Mr Alexander Forrester minister of the gospel at Saint Mungo his aires ass[ignees] the somme of two hundre & twentie two pounds four shillings scotts money betwixt of the said band & the terme of Martimes next to come. but longer delay together with the somme of twentie pound scots money of liquidat expen--ses in case of failyie together also with the ordinar annual rent of the prinll

somme fra the said bond to the terme of payment above writ threfter to the not payment of the --------- also the said obligation of the daite foresaid insert ---- in the books of Counsell & sessioine and decreed of the Lords interponed therto upon the third day of October 16 thriescore thrie years att mair lenth --------- ------ upon the whlk ------- ------- the said Mr Alexander Forrester mayset be of horning as in thr samyne at mair length is Containde and now seing the said Mr Al[exander] Forrester and William Forrester his third laull sone factor for his intrest is Content to superseid & containe the payt. of the forsaid prinll. somme & liquidat expenses above mentioned upon my granting the securitie & tack ----- ----- the... for wit ye --- to be bind & oblieged lykas I the said John Maxwell be the tenor heirof in Corrobor--ione & for ----- Catione of the forsaid band decreital -------- ---------- therto & b---- of horning raysit therupon & but ----- or done therin any furtheror in any novatione of the samen sed ----------primo peribus bind & obleidge me my aires & executors in--tromitors with my goods & geir & successors in myLands and heritages whtsomever to Thankfullie ---out & pay to the said Mr Alexr. Forrester or Willi--am forrester his factor for his witnese ther.. ----- ------ the forsaid prinll somme & liquid[at] expenses in case of failzie above -----And hail annual rents that happine to be ---- and --- and for the tyme & tht at the Terme of mertinmes In the year of God 16 & eightie thri years butlonger delay together with the ordinar annual rent of the said prinll somme efter the said terme during the not payment of the samen And ffarder to the effect that the said Mr Alexr & William fforesters his said factor may be ------ anent the payt of the hail bygone grants & in tyme coming with the-- to have sett & in tack & assidatione sett in lykeas of the said John Maxwell be the tenor heirof sett & in tack & assidatione letts to the said Mr Alexander forrester & William fforester his said factor for his in- -trest all and hail the [<----------blank----------->] lands off Essellridge pertaining heritable ----- & presently possessed be Ronald Gibsone tenent the by and within the pareeshin of st Mungo near adjacent to the towne of kastlemilk together with all privileges infeofs and pertinent lands middens marshes moss privis & all & sundrie ---- priviledges & pertinents of the Samyne lands as the samyne is presently possest be The said Robert Gibsone & his cottares & subtennents or be John Smith or Thomas Bell sometime & possest as of the samen And that for the hail space & tyme of five years nixt & immediat hireof together entrie to the samen which is heirby ordained to be & begane at the terme of Candlemas nixt to come in the year of God 16 & thriescoir and niyntanne years with fullpower to the said Alexr. & William fforreste-ers & their forsaids to enter to the possesione of the said land & houses at the said terme of Candlemas and the samyn To be peaceably belike possessed manured laboured & occupyed during the years and space forsaid be the said Mr Alexr. & his above ------ the said Mr Alexr. and his forsaids being always astricted be the bond and obliest to ffurnish and servant to my work conforms to use & wont & to ….the saids lands and houses in as good Condit- -ione at the expyring of his tack as they shall be in at his Entrie I the said John Maxwell always allowing & being Obliedged to furnish timber for keeping up the said ------ which timber is to be cutted with consent & at first of the ---- or my wood ffoster whilk obligat ---- & tack above p..... I the said John Maxwell bind & obliedge me & my forsaids to warrand a ------ & defend be good would affect withall & sufficient in all & to be all things as is above written to the said Mr Alexr. & William fforesters & their forsaids at all grounds and against all deed by under the paine of fourtie pounds scots money forsaid of liquidat penaltie for ilk failzie And – obleidge me to wreat & remove thir presente ----- above I shall be required keeping always the effect & sub- -stance above mentioned providing all wayes Lykas it is heirby expressly provided & agried upon & th.. in case it shall happine the said Mr Alexr. Will--iam fforesters to intromit with more money or goods be ------ of this present tack nor payes the hail by your annual rents & in tyme comeing that

shall happine to be rest and awand at the expyr- -ing of this tack then & in that case the super.. more than payes the annual rent as said it shall be allow--ed in pairt of payment of the said prinll somme Pro tanto (ie for more) and that the said Mr Alexr. & William fforesters shall improve this present tack to h..- best advantage & be countable to me for the hail intromissions & allow the samen in for paym- ent of the forsaid annual rent and prinll somme in sua--forn as the samen shall extend unto and for the m[air] securitie I am content & consents their presents be insert & registrat in the books of counsel [&] sessioine or any other register competent to have the strenth of ane decreit that letters of horning ane six days pinding and ---- ---- ma[y] pas heir upon & for that effect coust it into maist[er] Robert Deans advocat my procurator

In witness therof I have subc. thir presents --- br... John Glass servitor to sir Alexr Jarden Of Aplegirth – with my hand at Spewmoor[e] The thirteen day of September 16 seventie eight years Befor these witneses Sir Alexr. Jarden of Applegreth & William Charters wryter [illegible] visitor of the date & witneses also of the penaltie above expressed sicsubscribatur John Maxwell Sir Alexander Jardin witness William Charters witness ffolows the ratifications I John Maxwell of kastl- -milk within specified Being now major & past the age of twentie one years compleat doe heir by rati- -fie approve and declair the within writtien tack & obligations within specified to be also with effect- -uall & sufficient in all presents as if I had beine at the granting throf Major & of full age -- witn- -ess throf this presents is written be George peater- -sone Lawll sone to the deceist Mr John Peatersone laite minr. at st mungo & subc. with my hand at Kast- -lemilk the twentie ane day of Appriell 16 thrie scoir & nyntiene years before these witneses Thomas portes my servitor Alexr. fforester in Whythill and the said George peatersone wryter heirof John Maxwell George peatersone witness Alexr. Fforester Thomas Portes witness

St. Andrew's Tollbooth

Appendix 3

Doc Transcript 8: Who were the Covenanters?

Scottish Covenanter Memorials Association

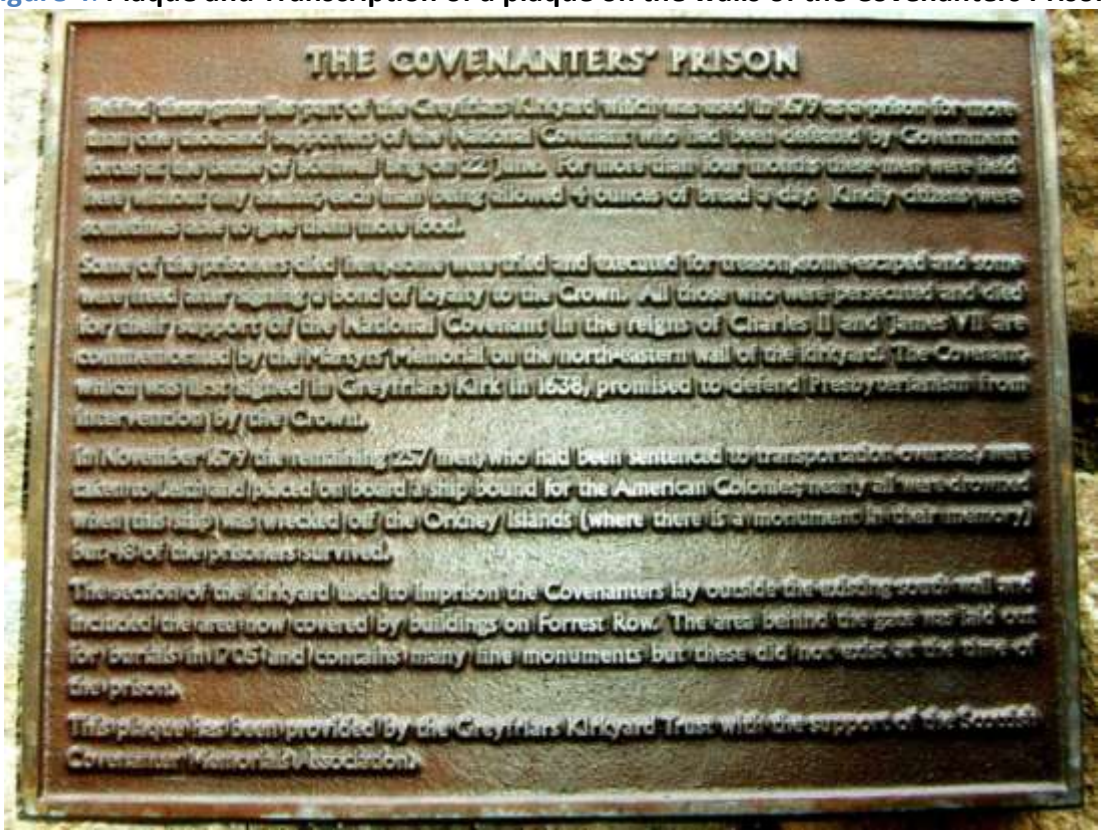
Simply stated, the Covenanters were those people in Scotland who signed the National Covenant in 1638. They signed this Covenant to confirm their opposition to interference by the Stuart kings in the affairs of Presbyterian Church of Scotland. The Stuart kings harboured the belief of the Divine Right the Monarch. Not only did they believe that God wished them to be the infallible rulers of their kingdom they believed that they were the spiritual heads of the Church of Scotland. This latter belief could not be accepted by Scots. No man, not even a king, could be spiritual head their church. Only Jesus Christ could be spiritual head Christian church. This was the nub of the entire Covenanting struggle.

Scots were, and would have been, loyal to the Stuart dynasty but for that one sticking point, and from 1638, when the Covenant was signed, until the Glorious Revolution - when Prince William of Orange made bloodless invasion of Great Britain in 1688 - a great deal suffering, torture, imprisonment, transportation executions would ensue.

King Charles I had introduced the Book of Common Prayer to Scotland in 1637 to the fury and resentment the populace. He declared that opposition to the liturgy would be treason, and thus came about Covenant. There followed a period of very severe repression. Ministers with Covenanting sympathies were "outed" from their churches by the authorities, and had to leave their parishes. Many continued to preach at "conventicles" the open air or in barns and houses. This became offence punishable by death. Citizens who did not attend their local churches (which were now in the charge of Episcopalian "curates") could be heavily fined, and such offenders were regarded as rebels, who could be questioned, even under torture. They could be asked take various oaths, which not only declared loyalty to king, but also to accept his as head of the church. Failure to take such an oath could result in summary execution the muskets of the dragoons, who were scouring districts looking for rebels.

The persecutions became more frequent and cruel on Restoration of Charles II in 1660. As time went on more and more ordinary folk became involved, and skirmishes and battles took place against Government troops. In 1678 the Government raised an army of 6,000 Highlanders, who had no love for the Presbyterian lowlanders. This army swept through the west and south of Scotland, looting plundering. They remained for many years, quartering themselves on the already impoverished Covenanters.

Figure 4: Plaque and Transcription of a plaque on the walls of the Covenanters Prison



a plaque erected at Greyfriars' Churchyard, Edinburgh, and unveiled on 30 November 2007 by John Campbell, Treasurer of the Scottish Covenanter Memorials Association:

THE COVENANTERS' PRISON
Behind these gates lies part of the southern section of Greyfriars Kirkyard which was used in 1679 as a prison for over one thousand supporters of the National Covenant who had been defeated by Government forces at the battle of Bothwell Brig on 22 June. For over four months these men were held here without any shelter, each man being allowed 4 ounces of bread a day. Kindly citizens were sometimes able to give them more food.

Some of the prisoners died here, some were tried and executed for treason, some escaped, and some were freed after signing a bond of loyalty to the Crown. All those who were persecuted and died for their support of the National Covenant in the reigns of Charles II and James VII are commemorated by the Martyrs' Memorial on the north-eastern wall of the kirkyard. The Covenant, which was first signed in Greyfriars Kirk in 1638, promised to defend Presbyterianism from intervention by the Crown.

In November 1679 the remaining 257 men, who had been sentenced to transportation overseas, were taken to Leith and placed on board a ship bound for the American colonies; nearly all were drowned when this ship was wrecked in the Orkney islands (where there is a monument in their memory), but 48 of the prisoners survived.
The section of the kirkyard used to imprison the Covenanters lay outside the existing south wall, and included the area now covered by buildings on Forrest Row. The area behind the gate was laid out for burials in 1705 and contains many fine monuments, but these did not exist at the time of the prison.
This plaque has been provided by the Greyfriars Kirkyard Trust with the support of the Scottish Covenanter Memorials Association.

Next

Doc Transcript 9 : A story about Sir George MacKenzie the Kings Prosecutor of the Covenanters

A somewhat unusual story about the Covenanter's persecutor and prosecutor Sir George MacKenzie

From http://www.historicmysteries.com/mackenzie-poltergeist-greyfriars/

Greyfriars Kirkyard is the site of one of the most bloody religious persecutions carried out in the 17th century by King appointed Lord Advocate Sir George Mackenzie against the rebel Presbyterian Covenanters for their failure to

accept state approved religion and swear loyalty to the King. It is also the location of the most well documented poltergeist activity in the world – the Mackenzie Poltergeist in Greyfriars.

Is George Mackenzie's angry spirit responsible for all the reported poltergeist activity at Greyfriars?

It all began fifty years after the "National Covenant" was signed, pledging to keep Scotland a Presbyterian country, when King Charles II ascended the throne and quickly disavowed the Covenanters right to freely practice their religion and demanded that all accept the new official state religion. On June 22, 1679, the king's forces swept the last of the Presbyterian Covenanters away in a bloody yet decisive battle known as the Bothwell Brig.

Refusing to swear allegiance to the King, several thousand Presbyterian Covenanter rebels were rounded up and imprisoned in a section of the Greyfriars Kirkyard (the graveyard of the small Greyfriars Kirk parish, owned by The Church of Scotland), known as the Covenanters' prison.

Over the coming winter months, the Covenanter prisoners of war were branded dissidents and subjected to deportation, inhumane torture, starvation, exposure and beheadings at the hands of Lord Advocate Sir George Mackenzie. Nicknamed "Bluidy MacKenzie", by his victims, this vile brute was in charge of the Presbyterian Covenanter persecution on behalf of Charles II. And, though his everyday life facade was that of loving husband and father, legal scholar, published author (it's said he wrote the first Scottish novel) and well read man, the private business of persecution that he conducted on behalf of the king, was so well hidden that even his wife never saw this vicious and sadistic side. The persecution was relentless and in the end, most if not all of the prisoners died and were buried in the Greyfriars Kirkyard cemetery where they had been held captive.

In all, Mackenzie was responsible for the deaths of 18,000 of his countrymen in pursuit of a unified religion, during a period that was labeled, 'The Killing Time'. His bloody reign of terror came to an end in 1691 when he died and was ironically buried in a casket contained in the Black Mausoleum tomb, a building located on the GreyFriars Kirkyard a short distance from the scene of his gruesome war crimes and where his victims were laid to rest.

For 300 years, both victims and tormentor rested in an uneasy peace, just feet from each other. And, then one dark and stormy night in 1998, a homeless man, possibly wanting shelter from the rain or looking for something valuable to steal, broke into the 'Black Mausoleum', a vaulted and well fortified tomb, the final resting place of the infamous 'Bluidy MacKensie'.

The vagrant ransacked the tomb, smashing caskets on every level until he came to one which held the body of Bluidy MacKensie himself.

While trying to pry open the casket, a large hole opened up in the floor under his feet, dropping the man into a chamber below. The pit was filled with the remains of plague victims, unceremoniously dumped into the hole and covered over during plague days as a quick way to dispose of bodies. Confronted by the putrefied remains and stench of still rotting flesh, the homeless man ran screaming hysterically from the mausoleum into the night, never to be heard from again.

The next day, another passerby looking through the iron gates of MacKenzie's tomb was (in her own words) "blasted back off it's steps by a cold force." Sometime later, another woman was found near the tomb's entrance lying unconscious and her neck covered with bruises as if someone had tried to choke the life from her.

The black mausoleum of George Mackenzie

Had this homeless man awakened an angry spirit, to be let loose on a sleepy and unsuspecting burgh?

Once these stories of the macabre hit the internet, the legend of the Mackenzie Poltergeist in Greyfriars was born and lit up the area like wildfire attracting ghost hunters and macabre seekers from every corner of the earth.

Since 1998, when Mackenzie's casket was first defiled, over 500 ghostly attacks have been reported by those visiting the tomb, many of these injuries documented with photographs.

So far, documented injuries perpetrated by the MacKenzie ghost include burns, skin gouges (around the neck and abdomen); unexplained bruises; broken fingers; feeling as if one's hair is being pulled. Some visitors have said they were punched or kicked by an invisible attacker while in the MacKenzie tomb. Others talk of feeling nausea or numbness, strange smells or auditory hallucinations such as wall and floor knocks, all having occurred with multiple witnesses present. Some even claimed the ghost had followed them back home or to a hotel.

In 2000, Colin Grant, an exorcist and minister of a spiritualist church performed an exorcism ceremony on the graveyard. Standing in the cemetery, it's said he was overcome by the sensation of being surrounded by hundreds of tormented souls and evil spirits trying to break through to the mortal realm. Fearing for his own life, he left quickly, saying the evil was too powerful for him to overcome. A few weeks later, Colin Grant was found dead of a sudden and unexpected heart attack.

Today, many people believe this graveyard is haunted by the Mackenzie Poltergeist, a malevolent spirit who's hatred lives on from beyond the grave. And, far from a restless or benevolent spirit, he exacts punishment on any who dare disturb his final resting place.

Resource links:

http://theoverworld.tumblr.com/post/29603001850/the-black-mausoleum-tomb-of-bluidy-mackenzie

http://www.unexplained-mysteries.com/column.php?id=220743

http://www.cityofthedeadtours.com/the-mackenzie-poltergeist/

http://en.wikipedia.org/wiki/George_Mackenzie_(lawyer)

A Story of another well known Covenanter:-

James Ure of Shirgarten

A grandson of The Rev. Alexander Forrester, James Forrester b1687, my 5th G-Grandfather married Marion Ure in 1709. Marion's Father or possible Uncle. James Ure of Shirgarten was a well known Covenanter who was never captured and outlived his persecutors, dying at home in Shirgarten in 1716.

Chapter Four
Ancestors of James Forrester of Tollpark

Doc Transcript 10: The Covenanters of Kippen

James Ure Covenanter

From the Kingdom of Kippen by William Chrystal

The Solemn League and Covenant

The parishioners of Kippen were singularly loyal to the National Covenant, that Covenant which consisted in an oath to establish and preserve civil and religious liberty.

In 1660, Charles II was restored to the throne, and nowhere was there greater rejoicing than in his ancient Kingdom of Scotland. Soon, however, the King and his counsellors showed their determination to sweep away all that had been gained by the Church of Scotland in the second Reformation from 1638 onward. The Solemn League and National Covenant were condemned as unlawful oaths, copies of these being torn by the common hangman at the Cross of Edinburgh on May 29, 1661, and the King issued a mandate that the Church of Scotland be restored to its rightful government by bishops.

The Presbyterian Church, by the King's fiat, thus became an Episcopal Church, and the ministers were ordered to attend punctually the Bishops' Diocesan Courts, under pain of being punished as contemners of the King's authority. Most of them, however, especially in the west and south, ignored the summons, and rather devoted themselves to their pastoral work with all the more earnest diligence, not knowing how soon they might be separated from their flocks.

That time soon came, and on the first day of November, 1662, four hundred churches in Scotland were shut. The churches were now empty, the bishops having had no suitable men to fill them; as, however, filled they must be, such men as could be found were pressed into the service. Burnet, an Episcopalian bishop himself, and a man who had the best opportunities of estimating their character, says of the successors of the ejected ministers in the new Episcopalian clergy,

"They were the worst preachers I ever heard; they were ignorant to a reproach, and many of them were openly vicious. They were a disgrace to their orders and their sacred function."

The 'Curate' and the Crying Children

The ejected ministers were in many cases men eminent alike for their gifts, their attainments, and their godliness; so it may be understood that the congregations could ill bear with those who supplanted pastors whom they loved and revered. They generally gave the new clergy the name of "curates." On their part many complaints were made that the people would not come to hear them.

Some humorous stories are told in this connection, and McCrie, in his "Story of the Scottish Church," relates the following incident:-

"The 'curate,' annoyed at seeing so many empty seats in his church, sent a threatening message to the women of the parish, that if they did not come to church he would inform against them. Next Sabbath a number did put in an appearance, each with a child in her arms. The clergyman had not preceded far with the service when one child began to cry, then another, and another, till the whole joined in chorus, and the voice of the preacher was drowned in the universal squall. He stormed and cursed, but was told it was his own fault, for they could not leave the children at home."

Love for a former Minister

If, however, the people were unwilling to hear the "curates," or receive their ministrations, they were quite as eager, if they had the opportunity, to listen to any of the old ministers, there being still a few who were unmolested in their work, those in particular who had been ordained before 1649. A large number of the ejected ministers, too, continued to exercise the functions of their ministry as best they could, preaching and baptising in private houses at first, and later at field meetings, which came to be called "Conventicles."

The Preaching Howe

When these conventicles first began to be held, they were attended by great multitudes, coming peaceably and unarmed to hear in some lonely glen the Word of God preached by one of those men whom they loved for their fidelity. The parishioners of Kippen had by this time become conspicuous in their attachment to the Solemn League and Covenant, and, in 1675, the sacrament of the Lord's Supper was dispensed in the night time to a very numerous meeting. Dr. Campbell, in his *"Statistical Account,"* gives Arnbeg as the place of meeting, and according to others, it was at a place called "The Preaching Howe," a secluded dell within the Barony of Arnmanuel, but at no great distance from Arnbeg. Local tradition, however, selects that glen on the opposite side of the road, a short distance west from the mill dam of Broich, as "The Preaching Howe." One can fancy the scene in this secluded spot, where a great number could be so placed as easily to hear the speakers. It is a green and pleasant howe, or hollow, with a rippling

brook meandering through its centre; on either side is a spacious brae covered with delightful pastures, and rising with a gentle slope to a goodly height. It is related that meetings were held frequently at this place, and that soon after 1670, when Curate Young was settled in the parish,

"troubles first began to be experienced in Kippen, Port of Menteith, and Gargunnock, connected with the preaching of the Gospel. Mr. John Law, Mr. Thomas Forrester, who had left the Episcopal Communion, and others, were in the habit of preaching to the people, and went so far as to ordain clandestinely Mr. John King, who afterwards suffered martyrdom, at Port of Menteith; Mr. Archibald Riddell, third son of Sir Walter Biddell of that ilk, at Kippen; and Mr. George Barclay at Gargunnock."

The late Rev. Patrick T. Muirhead, minister of the Free Church, Kippen, in a published lecture on "The Covenanters," mentions one John Knox, who zealously helped forward the work of the Lord at these meetings, and explains that this John Knox was said to have been of the same family as his great namesake. The Reformer was always spoken of as a descendant of the family of Knox of Ranfurly, in Renfrewshire, who acquired the lands of Arnmanuel and Ladylands, in this parish, about the middle of the century, where they remained for some time, ultimately disposing of their Kippen property to Graham of Gartmore.

Ure of Shirgarton

From what follows we can have no doubt that one of Knox's principal coadjutors in those conventicles would be the proprietor of the almost adjoining estate of Shirgarton, James Ure. To the parishioners of Kippen all that concerns his sufferings and contendings has a special interest, inasmuch as he was a native of their parish, and a resident proprietor in it up to the day of his death, and the name of "Ure of Shirgarton" is still fragrant in local traditions.

For several years before the stirring events of 1679, field meetings were apparently not uncommon in Kippen and neighbouring parishes, and many persons were apprehended and sent to Stirling, Glasgow, and other places. One Donald Connell, Buchlyvie, is referred to in particular, his crime being that he had been at a preaching by Mr. Riddell at Loch Leggan. Then James Ure of Shirgarton is recorded to have left the Episcopal communion, joined the persecuted ministers, had his children baptised by them, and as having so exposed himself to the rage of the Government and hatred of Mr. Robert Young, the curate, *"who was much blamed as an intelligencer against him and others."*

A Skirmish with Soldiers

An incident is worthy of mention here. Some soldiers in disguise were sent from Stirling in search of Mr. John King, and succeeded in apprehending him at Cardross-in-Menteith. The alarm was quickly spread through Menteith and Kippen, and the people rose to the rescue. The soldiers thought it was the safest way *"to take him east of the mosses."* However, his friends were beforehand, and encountered the party in *"the moss beneath Boquhapple,"* below the village of Thornhill, and rescued their prisoner. We are told one Norrie was killed in the action by the soldiers.

Indulged Ministers

This little encounter may be taken as foreshadowing what was to come, but the ruling powers thought fit to try the effect of a small concession, so a certain number of ministers were, to use their term, "indulged," i.e., they were allowed, on certain conditions, to exercise the functions of the ministry in limited districts, and these numbered, according to Woodrow, forty-two ministers in all. The "indulgence" was clogged with conditions with which the more decided Presbyterians could not comply; in particular, those who accepted it acknowledged the King's authority in matters of religion, and this, instead of being a boon, was rather hurtful to the Covenanters, and became the occasion of disastrous dissension and division. The "indulgence" of a few did not put a stop to the field meetings, and while the authorities were bent on suppressing them, those who attended began to take measures for their defence by going armed to the meetings. The authorities could not well suffer such a state of things to continue, especially when it is said that accounts were reaching the Council of conventicles attended by as many as five hundred armed men.

Archbishop Sharpe, on 1st May, 1679, submitted an edict exceeding in severity anything that had hitherto been thought of, making it lawful for any officer, down to a sergeant, to kill, without trial, any man he should meet having arms if he supposed he was going to or from a conventicle.

Open Defiance

Shortly afterwards, while travelling to St. Andrews, Sharpe was overtaken by a party of six Covenanters, and killed. Those immediately concerned in the deed made their escape to the west. It is said their leader, John Balfour of Kinloch - commonly known as "Burley" - came to Shirgarton, and passed a night with Ure. In Fifeshire there were few Covenanters, and Burton, in his "History," remarks that Balfour, when he and his friends *"got as far west as Kippen, in Stirlingshire, found themselves amongst the honest folk."*

There can be little doubt that the murder of Sharpe hastened on a struggle which was sooner or later inevitable. The assassination took place on May 3, 1679, and on the 29th, a party of eighty armed men, headed by Robert Hamilton,

younger son of Sir Thomas Hamilton, of Preston, marched to Rutherglen, where, as usual on the anniversary of the Restoration, bonfires were burning in honour of the day. These they speedily extinguished, and a declaration was affixed to the Cross, condemning all the proceedings of Government since the restoration of Charles. This was followed up by burning the obnoxious Acts at the Cross - *"as our enemies,"* they said, *"have perfidiously and blasphemously burned our holy covenants, through several cities of these covenanted kingdoms."*

Drumclog

When the Rutherglen declaration was reported in Edinburgh, Claverhouse was forthwith despatched to the west with a body of dragoons, armed with unlimited powers to kill and destroy all whom he should find with arms. Coming quickly to Hamilton, he seized Mr. John King, previously rescued at Boquhapple, and about fourteen others. Next day, Sabbath, June 1, a large conventicle had assembled at the foot of Loudon Hill. Claverhouse heard of it, and set out with his troops, carrying his prisoners along with him. When the watchmen on the outlook reported that the dragoons were coming, the armed men, to ensure the safety of the rest, resolved to advance to meet the foe. This they did, forming up at a place called Drumclog, with a swamp in front. Claverhouse urged his men across the morass, but "Burley" and Cleland, a young man of eighteen, were before them, and splashing through the bog, they were presently in a hand to hand conflict with the troops, who were thrown into confusion, two of their officers and about forty men being killed. Claverhouse had his horse killed under him by a thrust from a pitchfork, and with difficulty escaped with his life. He and his scattered forces, leaving their prisoners behind them, were fain to save themselves by a speedy flight. The Covenanters had only one man killed on the field, but five died of their wounds.

A victory had been won, but now came the question: Should they, as formerly, disperse, ready to meet again at conventicles, or keep together? Blood had been spilled, and well they knew Claverhouse would be eager for revenge. They thought it best to keep together, and defend themselves as best they could. The tidings spread far and wide that the west country men were up in arms, and soon the news came to Kippen.

Ure Joins the West Men

The Laird of Shirgarton buckled on his armour, mounted on his white horse, and took the road to Glasgow. We have it on evidence that, when he was tried in absence in 1682, William Millar, boatman at the Ford of Frew, deponed that, *"about a fortnight before the defeat of Bothwell Bridge, he saw James Ure of Shirgarton, whom he knew very well, riding to Glasgow on a white horse, armed with sword and pistols, and a party of the rebels, consisting of twenty or thereby, at his back on foot; some of them had swords and guns, and some not."*

Gathering thus the men of the district around him, he was not forgetful of what would be needed for the fray. In Ure's narrative, printed at length in McCrie's "Memoirs of Veitch, Bryson," etc., he tells us, *"I brought upwards of two stone of powder from home with me, and I did take the lead, and melted same, and cast the balls, when we lay in the Monk-lands; so we were best provided of them all. There were few in the army that had powder and shot to shoot twice."* In addition to those who came with him, Ure's company was soon joined by many more of their countrymen, who all acknowledged him as their captain. They now numbered about two hundred, *"most of them well armed, two parts with guns, a third part with pikes."*

An army of between four and five thousand assembled, but instead of preparing for battle, valuable time was wasted in endless controversies and disputations, the principal matters in dispute relating to the "indulgence" and the "indulged," and to the owning or disowning of King Charles, and one cannot but sympathise with Ure when he said to them - *"They were more taken up with other men's sins than their own, and it was our duty to begin with ourselves."* Ure says, *"we entreated them to go against the enemy, and let all debates alone till a free Parliament and a General Assembly;"* and Hamilton having made an intemperate rejoinder, Ure, in his narrative, says - *"I arose and told Robert Hamilton that I had a wife and five children, and that I had a little bit of an estate, and that I came to hazard all and my life to get the yoke of Prelacy and supremacy removed; but for aught that I saw, they intended to tyrannise over our consciences, and lead us to a worse snare nor we were into, and for my part I would fight till the last drop of my blood before I went one step-length with them."*

Bothwell Brig

His counsel seemed to prevail at the time, but subsequent events showed there was no real agreement. Passing over those fruitless disputations on which so much precious time was wasted, we come to the 22nd of June - a Sabbath morning. By this time the King's army, under the command of the Duke of Monmouth and Buccleuch, had reached the banks of the Clyde, near Bothwell. The Covenanters held the opposite bank, the river being crossed by a narrow bridge with a gateway in the centre, called Bothwell Bridge. Some attempts were made to negotiate, but the only terms the Duke could offer were - to lay down their arms and trust in his mercy, and they should be favourably dealt with.

"Hamilton," says Ure, *"laughed, and said, 'And hang next.' "* Then the fight began. The bridge was the key of the position. The Royal army brought five cannon into action, while the Covenanters had only one. But a company of

resolute men, under Hackston of Rathillet, were there to defend the passage, and they were at once joined by Ure and his company. The enemy's fire was returned, and a volley of musketry must have done great execution, for Ure says, *"they fled, both horse and foot. If we had had any person to have commanded us, we might have gained their cannon; but if I should have gone without command, and if they turned on me, none would have relieved me."*

So finding they were not pursued, the Royalists came back and manned their guns, firing them, *"but did no damage."* Ure tells us, *"I was necessitated to retire, so I turned back over the bell of the brae; and as I saw none coming to assist, I was forced to retire."*

The Covananters Routed

The Duke's army numbered fifteen thousand; that of the Covenanters, according to Ure's estimate, never exceeded four thousand foot and two thousand horse, but he adds that *"if we had agreed we would have been triple that number. The left wing fled at once; the right stood a little, but not so long as to put on a pair of gloves; so they all fled, and I turned with all my speed; indeed I was beholden to my horse."* It appears that a faithful servant had been careful to have his horse in readiness.

From the time the fight began at the bridge to the flight was about eight hours. The loss of the Covenanters at the bridge was very trifling; Ure gives it as not ten men. At the final assault a number must have fallen; and Claverhouse and his dragoons, eager to revenge their defeat at Drumclog, killed many in the pursuit.

Four hundred Covenanters are said to have been killed in the battle, and twelve hundred surrendered as prisoners. To speak of the hardships endured by these prisoners, among whom were some Kippen men, confined for five months, day and night, in Greyfriars Churchyard in Edinburgh, is too gruesome a tale. As to how it fared with Ure immediately after the battle - how he escaped the pursuers, what course he took, or how he got back to Kippen, we have been unable to trace.

Ure's Possessions Forfeited

It would appear that shortly after the suppression of the rising, Ure was summoned by a lion-herald sent to his house; and on his non-appearance, witnesses were called to prove that he had been with the rebels, and then sentence of forfeiture of all his goods was passed. After his forfeiture, his rents and movables were seized; upwards of thirty times parties of soldiers came in quest of him, and remained for weeks in his house, and among his tenants. A reward of £100 was ultimately offered to any one *"who will bring in the said James Ure, dead or alive."*

On the 9th of January, 1682, Ure, along with a number of others - several from Kippen parish - was formally tried (in absence). The indictment charged him and the rest with the murder of two soldiers, names not given, drags in the murder of Archbishop Sharpe, the Sanquhar Declaration, and the affair at Aird's Moss, with which Ure had no connection whatever. Millar, the boatman at Ford of Frew, was the only witness cited against him, and we have already referred to his evidence. The Lords on 17th January following found the libel fully proved, and adjudged him with the others:

"to be executed to the death as traitors, when they shall be apprehended; their names, memory, and honours to be extinct - that their posterity may never have place nor be able to bruik or joyse any honour, office, etc, and to have forfaulted all and sundry their lands, etc."

The Privy Council had received from Curate Young a list of heritors in Western Stirlingshire who had been at Bothwell Bridge. Here we find James Ure, of Shirgarton; David Forrester, of Kilmore (Culmore is in Gargunnock parish); Alexander Buchanan, Fiar of Buchlyvie; Donald Connel, portioner of Buchlyvie; Walter Leckie, of May (Mye is in the parish of Drymen); Thomas Miller there; Arthur Dugald, Arnmanuel; John Dugald, his son; and John McKenzie there. The diligent search made for Ure led him for a time to seek concealment and safety in Ireland. During his absence his wife and family were exposed to much suffering. His corn and other goods, and sometimes those of his tenants, were wasted by the soldiery. The tenants durst not pay the rents, chiefly grain, but they kept them up, sending the lady secret information. She, again, employed some trusty persons to receive and remove them, as if for themselves. Ultimately they were conveyed to her for the support of the family. Ure's friends, however, while he was in Ireland, bought up his forfeiture in order that his family could remain in the house.

Conventicles Still Held

Even at this time conventicles were not quite put down in the parish of Kippen. On June 9, 1682, we find Mr. Archibald Riddell, already mentioned, who had been allowed out of prison for a short period to see his dying mother, accused of breaking his confinement by going to the parish of Kippen, keeping conventicles, and baptising children, for which offences he was sent to the Bass Rock.

A service was also held at Gribloch, where many were apprehended, among them the old lady of Shirgarton, James Ure's mother, then above seventy years of age, and a son of hers, Mr. Peter Rollo; also, Margaret Macklinn, wife to Arthur Dougall, miller at Newmiln, a very godly man. They were carried to Glasgow Tolbooth, and crowded together

in the prison. Ure's mother fainted in the throng, and petitions for liberty, or leave at least to be allowed to the door for air, were stubbornly refused, and she died amongst the crowd. The rest of the prisoners were carried to Dunnottar Castle, where they were confined some time, and afterwards several of them were shipped to be sent abroad, among these being Margaret Philip, wife of Donald Connel, but who was landed at Leith by the skipper, he having been previously bribed for this purpose.

Ure Returns from Ireland

After Ure had been six months in Ireland, the longing to see his wife and family was too much for him, and he returned to Scotland, and made his way home by night. His wife contrived to keep him so closely concealed that months passed before anyone suspected he was in the countiy. When it leaked out that Ure had returned to Shirgarton, the most strenuous efforts were made to apprehend him. He found concealment for a considerable time in that thickly wooded dell in the upper part of Boquhan Glen, which is locally known as "the Kippen Trossachs," where it would not be difficult for one acquainted with the place to find tolerably secure shelter. His wife frequently kept him company in his hiding place, and many nights they passed there during the severe winter of 1685.

Before daybreak he used to retire to the house of a friendly tenant of his own, one Duncan Chrystal, of Muirend, and hid during the day in a place made in the "corn mow" in the barn. Muirend is quite close to the upper part of Boquhan Glen, a solitary place enough, now included in the estate of Wright Park, but at that time forming part of Ure's estate, in the barony of Shirgarton. The old farmhouse of Muirend was inhabited within the last fifty years, and, as it was one of the most old-fashioned "biggin's" in the district, in all probability it was the identical house occupied by Duncan Chrystal almost two hundred and twenty years ago.

Mrs. Ure Arrested

Mrs. Ure, whose affections led her to share the sufferings of her husband, returned occasionally to her home to visit her family; and as the authorities could not lay hands on the laird, a party of soldiers was sent to apprehend the lady *"for going to conventicles and conversing with her husband, now intercommuned."* She was carried, with a child on her breast, to Stirling. After having been kept there fourteen days, she was taken to Edinburgh, and lodged in the Canongate Tolbooth, remaining in that prison for other fourteen days. There after she was summoned to appear at the Council, but happily met with a friend who interested himself in her behalf - Blairdrummond, chancellor to the Earl of Perth - and she was allowed to go without appearing before the Council.

A Narrow Escape

During these years, Ure made many hairbreadth escapes, and numerous stories regarding them lived long in local tradition. Rev. P. T. Muirhead relates the following:

A party of dragoons had been sent from Glasgow to apprehend Ure. Coming over the moor by Campsie and Fintry, they had halted for refreshments at the little wayside inn at Lernock Toll. It so happened that the girl in waiting had been a servant at Shirgarton. Something said by the soldiers led her to conclude that they were in pursuit of her old master, and while they were carousing she managed quietly to steal out, and made all the speed she could over the four miles or so to Shirgarton House, where she burst into the house with the cry, *"The soldiers are coming."* Fortunately, the attractions of the little hostelry had detained them at Lernock, but she was none too soon, for, as the story goes, just as she spoke they heard the sound of horses galloping along the road above the village of Kippen.

It was late in summer or early in autumn - at any rate, the tall corn was standing. Ure had just time to rush from the house and lie down among "the vittal" (i.e., the long corn), when the troopers arrived, but missed their prey.

Another story is that he was one day in a field near the house, with one or two of his servants, some horses also being in the field. Looking up, he espied a party of troopers making directly for them. *"I am catcht this time,"* exclaimed Ure. One of the servants said, *"Maybe we can do something for ye yet,"* and forthwith flung himself on the back of one of the horses, and set off as hard as he could make it gallop. The soldiers fell into the snare, and gave chase with all speed to the man who so generously acted as a decoy to save his master. Thus they were drawn off, and Ure had time to find a place of concealment.

Sometimes he found shelter in a friendly house. It is said he frequently used to dream that the soldiers were coming; that, awaking, he got up and fled with all haste. Usually it did happen that they actually came, and sometimes found the bedclothes still warm, when they would rage exceedingly, and even carry off the master of the house a prisoner with them.

More Settled Times

At last the final indulgence, or toleration, came in 1687, the last year of the reign of King James. This indulgence was meant, as it was well understood, mainly for behoof of the Roman Catholics, but as it was no longer burdened with the old conditions, all Presbyterians had the benefit for a time. Ure's troubles were now well nigh over. The Presbyterian people of Kippen built for themselves a church on the eastern boundary of the parish, near to the old mansion house of Glentirran, which stood about 200 yards south-west from the old bridge of Boquhan. Ure was active, along with Boquhan and Glentirran, in this work. Mr. George Barclay, for whom a good manse was also

provided, was settled as their minister; nearly the whole population attached themselves to his ministry, *"none staying with the curate but a few Jacobite lairds and their adherents."*

At the time of the Revolution we find Ure again in arms, and several of his old associates with him, guarding the Convention of Estates in Edinburgh. In due course his forfeiture was declared to be null, and his name stands in the records among others who had been unjustly forfeited, *"yet he behoved in gratitude to pay to his friends the sum they advanced in kindness to his family in buying his forfeiture before."*

We next find him holding a commission in Argyle's regiment, and continuing with it till the troubles were over. During his absence, Cannon and Buchan, with a party of King James' adherents, paid Kippen a visit, and some of Ure's goods, and those of his tenants, were carried off. They also attacked his house, which, *"according to one account,"* his lady did manfully keep out against them.

The Death of Ure

After these events Ure lived for many years in peace. He survived the rebellion in 1715, and saw the providence of God in making some drops of the cup his persecutors had meted out to him pass over to themselves. He continued faithful to his principles against the Jacobite lairds and the curates to the last, and with them he had many encounters. He was kind to the sick. After all his troubles he died in peace in his own house at Shirgarton in 1716, and was buried in the churchyard of Kippen.

A Good Man and True

While the graveyard was under repair in 1874, the Rev. Mr. Wilson caused to be inserted into the wall, immediately opposite the old, massive, moss-grown table tombstone, a simple slab bearing the following words:- *"The burial place of James Ure, the Covenanter."* Ure was much lamented by all the good people who had been acquainted with him, and although holding a position subordinate to the leading Reformers in the stirring times in which he lived, yet he was a good man and true, under many trials faithful to the principles which he held to be sacred, and to the confession of his faith, for which he was ready to suffer the loss of all, counting not his life dear to him. The old mansion house of Shirgarton, where Ure lived, was taken down in 1845 by Mr. Leckie Ewing of Arngomery, and occupied the site of the present farm steading of Shirgarton. The estate continued in possession of the family of Ure till some time after the middle of the eighteenth century.

The Galbraiths of Blackhouse and Littlekerse

It may be interesting to mention that, though Ure has now no representative in the lands of Shirgarton, one of the heritors of the parish, proprietor of a neighbouring estate, is a descendant of the family, viz., William Galbraith, Esq., of Blackhouse, and some interesting heirlooms of the family are in his possession. Mary Ure, granddaughter of the Covenanter, married Dr. Duncan Glasford. Christian, their second daughter, married Thomas Littlejohn, Provost of Stirling, and left a family. One of their daughters, Christian, married William Galbraith, Esq., of Blackhouse and Littlekerse, town clerk of Stirling, whose grandson, William, is thus the great-great-grandson of Mary Ure. A younger daughter, Helen, married Captain Hugh Pearson, R.N. son of Mr. Pearson of Kippenross; Katherine, a third daughter, married Ebenezer Connal, son of Provost Connal, of Stirling.

Shirgarton Mansion House

The present house of Shirgarton was built and occupied by Dr. and Mrs. Glasford, probably not before 1750. It is now the property of J. A. Harvie Brown, of Dunipace and Shirgarton. The Rev. P. T. Muirhead gives the following abbreviated translation of a charter in the possession of Robert Leckie Ewing, Esq.:-

"Charter by John Earl of Mar, as superior of the lands, granting, confirming, and of new giving, to James Ure and Christina Wryt, his spouse, all and whole the lands of Sheirgartan, with the houses, etc., lying within the stewartry of Monteith and County of Perth: which lands formerly belonged to William Leckye, vassal or feuar of Poldar, to be holden in feu by all the righteous and old measures and boundaries, for payment yearly of (tredecem merearm et octodecem denarium usualis monete regni Scotiae) thirteen merks and eighteen pennies Scots (equal to 14s. 6¾d. sterling) at the accustomed terms (viz., Pentecostes et Sancti Martini) by equal portions."

"Signed and the Earl's ain proper seal appended at Holyrood House 22 Nov., 1619, before these witnesses: Sir John Murray of Touchadame, Bart.; Alexander Leckye de ibid; Adam Shields, writer's clerk; Alexander Stirling, servant to the said Sir John Murray of Touchadame; James Williamson, writer in Stirling."

The Beddal's Half-acre

A curious and somewhat interesting incident associated with Ure is as follows:-

Curate Young had a piece of Ure's ground, called *"the beddal's half-acre,"* annexed to his glebe, while he had no access to appear to defend his right. One morning in harvest he gathers his tenants, shears the ground, and leads home the grain to his own house; but the Government made him pay well for it.

The office of *"beddal,"* both in pre-Reformation times and during the periods of Episcopal supremacy subsequent to the Reformation, was very different in point of importance from the office that goes by that name now. Mr. Wilson

gives an interesting account of the beddal-ship of Kippen, as found in the register of the Diocesan Synod of Dunblane, which reads:-

"At Dunblane, the 12th October, 1680, it being represented to the Bishope and Synod that James Ure, called of Shirgarton, who pretends right to the beddal-ship of the Kirk of Kippen, has not only been a notorious separatist himself, these many years bygone, but also ane intolerable instigator of others to the same, and a constant fomenter of the present schism in the Church, a disowner of the ordinances and minister in his paroche, and a person active in the late rebellion, declared rebel therefore, who lykwise will not be ruled himself, nor his substitutes by the minister and kirk-session in what concerns his office as beddal. Upon these and other considerations the Bishop and Synod doe declare the said beddalship vacant, and doe depose and discharge the said James Ure and any of his substitutes whatsomever, deriving right from him, from exercising the said office in all time coming or uplifting the dues thereof, with certification of being proceeded against, conform to church order, hereby giving full power to the minister and kirk-session to choose, instale, and direct their own beddal, from this time forth, at their pleasure, and invest him in the dues belonging thereof."

It will be observed from the foregoing that the notice implies that the duties had been in whole or in part performed by substitutes. We also find it mentioned in connection with what is said about the "half-acre," that the dispute was renewed after the Revolution. There was a process against Ure by the Rev. Michael Potter, minister of Kippen. The Presbytery of Dunblane had designed as part of the glebe half-an-acre of Shirgarton's lands. Ure pled that his ground was not kirk-lands, but held feu of the Forresters of Kilmore. The Presbytery forthwith dispatches sheriff-officers, accompanied by soldiers, to deforce him from possession. It is related that the guid-wives of the tenants of Shirgarton turned out en masse, and with stones and other missiles drove off the officers and the soldiers.

James Ure of Shirgarton, Kippen

James Ure came from Shirgarton, or Shar-garton as some books spell it, in Stirlingshire. He was an Episcopalian minister, but left that faith to follow Presbyterianism. From 1670 he led the life of a dissenter, and had his children baptised by outed ministers. He had to spend some time incognito in Ireland for a time, but returned to Scotland.
At the Battle of Bothwell Bridge Ure brought a troop of 200 volunteers south from Stirlingshire to help the Covenanting cause. In his memoirs he explained why the Covenanters failed in the affray: *We were not concerned with an enemy, as if there had not been one within a thousand miles of us. There were none went through the army, to see if we wanted powder and ball. 1 do really think there were few or none that has both powder and ball, to shoot twice.... The Lord took both courage and wisdom from us.*Alexander Smellie relates that Ure did his best in the battle, but to no avail. He and Hackston held the bridge for some time, but were defeated by the better-organized troops. James Ure managed to make an escape from the battlefield. He returned to the Campsie Hills where he remained in concealment for nine years. One of his favourite hideaways was the wood of Balquhan (perhaps Boquhan, near Kippen) where he often woke in the morning to find his clothes frozen to the ground. It is recorded that Ure spent only three nights in his house over a period of nine years.
On the 9th January 1682 Ure was put on trial for his political crimes, as well as "throwing off the fear of God." He was forfeited of his estate, which the soldiers robbed. Ure's seventy-year old mother was arrested at a conventicle held at Gribloch, on Kippen Muir, and transported south to Glasgow's Tolbooth. She died of her sufferings there.
A reward of £100 was made in the hope that some folk would reveal the hiding place of Ure, but none came forward. Ure's wife, who had a young child, was taken forcibly to Stirling and thence to the Canongate Tolbooth. She was released after four weeks imprisonment, however. At the Revolution Ure came out from hiding. He was able to get a commission in Argyl's regiment. His forfeiture was later rescinded by Parliament. Ure survived for many years thereafter, living until at least 1746. When he died he was buried in the old kirkyard of Kippen, Stirlingshire. His grave (against the north-east wall) is inscribed:

The burial place of
James Ure of Shirgarton
the Covenanter.

In 1825 Ure's *Narrative of the Rising at Bothwell Bridge* was published by Dr MacCrie in a volume of other memoirs
Source: Wkipedia

There were a number of Stirlingshire Forresters and some Edinburgh Forresters who were listed as Covenanter fugitives

The following pages contain the known 6 generations of descendants and ancestors of The Rev Alexander Forrester:

Doc Transcript 11: Descendants of The Rev. Alexander Forrester 1611-1686

Generation 1

1. **ALEXANDER[1] FORRESTER** was born in 1611. He died on 30 May 1686 in Edinburgh, Scotland (Buried Greyfriars Church, Edinbirgh, Scotland). He married **CHRISTIAN MCNEIL**. She died in 1694.
Alexander Forrester and Christian McNeil had the following children:

2. i. **JAMES[2] FORRESTER**. He died on 24 Jul 1705 in Edinburgh, Scotland. He married ANNA FORRESTER.
ii. **BARBARE FORRESTER**.
iii. **CHRISTIAN FORRESTER**. She married GEORGE MURRAY.
iv. **ELIZABETH FORRESTER**.
3. v. **WILLIAM FORRESTER**. He married RACHEL BALFOUR.
4. vi. **ALEXANDER FORRESTER**. He married JANET MURRAY.
5. vii. **JOHN FORRESTER**. He died on 05 Jun 1702. He married Marion Hay, daughter of James Hay, on 01 May 1701 in Kilsyth, Stirlingshire, Scotland.

Generation 2

2. **JAMES[2] FORRESTER** (Alexander[1]). He died on 24 Jul 1705 in Edinburgh, Scotland. He married **ANNA FORRESTER**.
James Forrester and Anna Forrester had the following child:

6. i. **JAMES[3] FORRESTER** was born on 12 Sep 1687 in Stirling, Stirlingshire, Scotland. He married Marion Ure on 02 Aug 1709 in Dunipace, Stirling, Scotland. She was born about 1688.

3. **WILLIAM[2] FORRESTER** (Alexander[1]). He married **RACHEL BALFOUR**.
William Forrester and Rachel Balfour had the following children:
i. **CHRISTIAN[2] FORRESTER**. She married GEORGE MURRAY.
ii. **JAMES FORRESTER**.
iii. **AGNES FORRESTER**.

4. **ALEXANDER[2] FORRESTER** (Alexander[1]). He married **JANET MURRAY**.
Alexander Forrester and Janet Murray had the following child:
i. **JOHN[3] FORRESTER**.

5. **JOHN[2] FORRESTER** (Alexander[1]). He died on 05 Jun 1702. He married Marion Hay, daughter of James Hay, on 01 May 1701 in Kilsyth, Stirlingshire, Scotland.
John Forrester and Marion Hay had the following child:
i. **JAMES[3] FORRESTER**.

Generation 3

6. **JAMES[3] FORRESTER** (James[2], Alexander[1]) was born on 12 Sep 1687 in Stirling, Stirlingshire, Scotland. He married Marion Ure on 02 Aug 1709 in Dunipace, Stirling, Scotland. She was born about 1688.
James Forrester and Marion Ure had the following children:
i. **JAMES[4] FORRESTER** was born on 30 Jul 1710 in Dunipace, Stirlingshire, Scotland.
7. ii. **ALEXANDER FORRESTER** was born on 20 Jul 1712 in Dunipace, Stirlingshire, Scotland. He married Helen Crawford, daughter of James Crawford and Margaret Baad, about 1736 in Dunipace, Stirlingshire, Scotland. She was born on 19 Feb 1716 in Dunipace, Stirlingshire, Scotland.
iii. **LILIAS FORRESTER** was born on 02 Jan 1715 in Dunipace, Stirlingshire, Scotland. She married William Thomson on 22 Jul 1735 in Denny Stirlingshire, Scotland.
iv. **JEAN FORRESTER** was born on 31 Mar 1717 in Dunipace, Stirlingshire, Scotland.

Generation 3 (con't)

v. **DAVID FORRESTER** was born on 06 Aug 1719 in Dunipace, Stirlingshire, Scotland.
vi. **ANNE FORRESTER** was born on 15 Apr 1722 in Dunipace, Stirlingshire, Scotland.
vii. **DAVID FORRESTER** was born on 14 Mar 1725 in Dunipace, Stirlingshire, Scotland.
viii. **GEORGE FORRESTER** was born on 25 Aug 1728 in Dunipace, Stirlingshire, Scotland.

Generation 4

7. **ALEXANDER[4] FORRESTER** (James[3], James[2], Alexander[1]) was born on 20 Jul 1712 in Dunipace, Stirlingshire, Scotland. He married Helen Crawford, daughter of James Crawford and Margaret Baad, about 1736 in Dunipace, Stirlingshire, Scotland. She was born on 19 Feb 1716 in Dunipace, Stirlingshire, Scotland.

Alexander Forrester and Helen Crawford had the following children:

i. **JAMES[5] FORRESTER** was born on 21 Nov 1736 in Denny, Stirlingshire, Scotland.

ii. **MARGRET FORRESTER** was born on 08 Jul 1738 in Denny, Stirlingshire, Scotland.

iii. **THOMAS FORRESTER** was born on 07 Sep 1740 in Denny, Stirlingshire, Scotland.

iv. **WILLIAM FORRESTER** was born on 22 Nov 1742 in Denny, Stirlingshire, Scotland.

8. v. **WILLIAM FORRESTER** was born on 04 Mar 1744 in Denny, Stirlingshire, Scotland. He died about 1818 in Parkhead, Cumbernauld, Dunbartonshire, Scotland. He met (1) UNKNOWN. He married (2) MARGARET HENDERSON, daughter of John Henderson and Margaret Scot, on 13 Aug 1784 in Cumbernauld, Dunbartonshire, Scotland. She was born on 16 Jan 1756 in Denny, Stirlingshire, Scotland. She died before 1846 in Cumbernauld Dunbartonshire Scotland.

vi. **DAVID FORRESTER** was born on 06 Apr 1746 in Denny, Stirlingshire, Scotland.

vii. **ALEXANDER FORRESTER** was born on 18 Sep 1748 in Denny, Stirlingshire, Scotland.

viii. **JOHN FORRESTER** was born on 03 Dec 1749 in Denny, Stirlingshire, Scotland. He married Ann Morrison on 21 Sep 1781 in Denny Stirlingshire, Scotland. She was born on 09 Feb 1755 in Dunipace, Stirling, Scotland.

9. ix. **ELIZABETH FORRESTER** was born on 30 Nov 1751 in Denny, Stirlingshire, Scotland. She married James Kirkwood, son of John Kirkwood and Lillias Thomson, before 1770 in Cumbernauld, Dunbartonshire, Scotland. He was born on 07 Nov 1742 in Dunipace, Stirling, Scotland.

x. **ALEXANDER FORRESTER** was born on 24 Mar 1754 in Denny, Stirlingshire, Scotland.

10. xi. **GEORGE FORRESTER** was born on 04 Apr 1756 in Denny, Stirlingshire, Scotland. He married Mary Gilchrist, daughter of William Gilchrist and Janet Scot, on 12 May 1791 in Cumbernauld, Dunbartonshire, Scotland. She was born on 23 May 1762 in Cumbernauld, Dunbartonshire, Scotland.

11. xii. **ADAM FORRESTER** was born on 20 Nov 1757 in Denny, Stirlingshire, Scotland. He married Jean Hardy, daughter of Andrew Hardy and Ann Harley, on 11 Jan 1782 in Airth, Stirlingshire. She was born on 22 May 1763 in Airth, Stirlingshire, Scotland.

xiii. **HELEN FORRESTER** was born on 27 Apr 1760 in Denny, Stirlingshire, Scotland.

Generation 5

8. **WILLIAM[5] FORRESTER** (Alexander[4], James[3], James[2], Alexander[1]) was born on 04 Mar 1744 in Denny, Stirlingshire, Scotland. He died about 1818 in Parkhead, Cumbernauld, Dunbartonshire, Scotland. He met (1) **UNKNOWN**. He married (2) **MARGARET HENDERSON**, daughter of John Henderson and Margaret Scot, on 13 Aug 1784 in Cumbernauld, Dunbartonshire, Scotland. She was born on 16 Jan 1756 in Denny, Stirlingshire, Scotland. She died before 1846 in Cumbernauld Dunbartonshire Scotland.

William Forrester and Unknown had the following child:

12. i. **JAMES[6] FORRESTER** was born about 1794 in Cumbernauld, Dunbartonshire, Scotland. He died on 09 Jan 1881 in Cumbernauld, Dunbartonshire, Scotland. He married Ann Scott, daughter of John Scott and Elizabeth Hay, on 10 Feb 1815 in Cumbernauld, Dunbartonshire, Scotland. She was born about 1796 in Denny, Stirling, Scotland. She died on 09 Aug 1874 in Cumbernauld, Dunbartonshire, Scotland.

9. **ELIZABETH[5] FORRESTER** (Alexander[4], James[3], James[2], Alexander[1]) was born on 30 Nov 1751 in Denny, Stirlingshire, Scotland. She married James Kirkwood, son of John Kirkwood and Lillias Thomson, before 1770 in Cumbernauld, Dunbartonshire, Scotland. He was born on 07 Nov 1742 in Dunipace, Stirling, Scotland.

James Kirkwood and Elizabeth Forrester had the following children:

i. **JOHN[6] KIRKWOOD** was born before 1770. He died on 16 Feb 1799 in Cumbernauld, Dunbartonshire, Scotland.

13. ii. **ALEXANDER KIRKWOOD** was born on 09 Feb 1770 in Cumbernauld, Dunbartonshire, Scotland. He died on 16 Apr 1837 in Falkirk, Stirlingshire, Scotland. He married Martha Russell, daughter of Robert Russell and Agnes Hill, on 08 May 1789 in Cumbernauld, Dunbartonshire, Scotland. She was born on 24 Feb 1766 in Cumbernauld, Dunbartonshire, Scotland.

iii. **MARION KIRKWOOD** was born about 1772 in Cumbernauld, Dunbartonshire. She died on 17 Aug 1859 in Falkirk, Stirlingshire, Scotland. She married John Robertson on 23 Jun 1820 in Cumbernauld, Dunbartonshire, Scotland.

14. iv. **JAMES KIRKWOOD** was born on 10 Mar 1780 in Cumbernauld, Dunbartonshire Scotland. He died on 28 Apr 1866 in Falkirk, Stirlingshire, Scotland. He married (1) HELEN STIRLING, daughter of Alexander Stirling and Margaret Jamieson, on 26 Jul 1805 in Cumbernauld, Dunbartonshire, Scotland. She was born on 23 Jan 1785 in Cumbernauld, Dunbartonshire, Scotland. She died before 1848. He married (2) CHARLOTTE HALLEY on 27 Aug 1848 in Falkirk, Stirlingshire, Scotland.

vi. **CHARLES KIRKWOOD** was born on 16 Jan 1785 in Cumbernauld, Dunbartonshire Scotland.

vii. **HELEN KIRKWOOD** was born on 02 May 1790 in Cumbernauld, Dunbartonshire Scotland.

10. **GEORGE[5] FORRESTER** (Alexander[4], James[3], James[2], Alexander[1]) was born on 04 Apr 1756 in Denny, Stirlingshire, Scotland. He married Mary Gilchrist, daughter of William Gilchrist and Janet Scot, on 12 May 1791 in

Cumbernauld, Dunbartonshire, Scotland. She was born on 23 May 1762 in Cumbernauld, Dunbartonshire, Scotland.

George Forrester and Mary Gilchrist had the following children:

16. i. **JAMES[6] FORRESTER** was born on 01 Mar 1796 in Denny, Stirlingshire, Scotland. He died on 21 Oct 1860 in Edinburgh Royal Infirmary. He married Janet Hamilton, daughter of William Spence Hamilton and Mary Stark, on 04 Dec 1836 in Falkirk, Stirlingshire. She was born about 1813 in Falkirk, Stirlingshire. She died about 1850.

17. ii. **WILLIAM FORRESTER** was born on 27 Mar 1797 in Denny, Stirlingshire, Scotland. He died on 11 Jan 1876 in Bonny Bridge, Stirlingshire. He married ANNE WILSON.

18. iii. **GEORGE FORRESTER** was born on 17 Jan 1799 in Bonnybridge, Denny, Stirlingshire, Scotland. He married Mary Thomson on 22 Nov 1818 in Larbert, Storlingshire, Scotland. She died on 21 Oct 1840 in Shotts, Lanarkshire, Scotland.

19. iv. **MARGARET FORRESTER** was born about 1800 in Falkirk, Stirlingshire, Scotland. She died on 22 Jan 1885 in Grangemouth, Stirlingshire, Scotland. She married John Scott, son of John Scott and Elizabeth Hay, on 19 Jul 1822 in Falkirk, Stirlingshire, Scotland. He was born in Sep 1798 in Denny, Stirlingshire. He died on 28 Sep 1866 in Falkirk, Stirlingshire, Scotland.

11. **ADAM[5] FORRESTER** (Alexander[4], James[3], James[2], Alexander[1]) was born on 20 Nov 1757 in Denny, Stirlingshire, Scotland. He married Jean Hardy, daughter of Andrew Hardy and Ann Harley, on 11 Jan 1782 in Airth, Stirlingshire. She was born on 22 May 1763 in Airth, Stirlingshire, Scotland.

Adam Forrester and Jean Hardy had the following children:

i **ADAM[6] FORRESTER** was born on 08 Dec 1785 in Larbert, Stirlingshire, Scotland.

1 ii. **WILLIAM FORRESTER** was born on 31 Jan 1789 in Larbert, Stirlingshire, Scotland. He married Mary Copland, daughter of Mathew Copeland and Agnes Davie, on 24 Jan 1808 in Falkirk, Stirling, Scotland. She was born on 26 May 1784 in Falkirk, Stirlingshire, Scotland. She died on 12 Jan 1866 in Muiravonside, Stirlingshire, Scotland.

i. **ANDREW FORRESTER** was born on 22 Sep 1793 in Old Monkland, Lanarkshire, Scotland.

2 iv. **JEAN FORRESTER** was born between 1805-1806 in Larbert, Stirlingshire, Scotland. She died on 07 Apr 1878 in Airdrie, Lanark, Scotland. She married David Provan on 19 Sep 1824 in Larbert, Stirlingshire, Scotland. He was born on 07 May 1805 in Kilsyth, Dunbartonshire, Scotland.

Generation 6

20. **JAMES[6] FORRESTER** (William[5], Alexander[4], James[3], James[2], Alexander[1]) was born about 1794 in Cumbernauld, Dunbartonshire, Scotland. He died on 09 Jan 1881 in Cumbernauld, Dunbartonshire, Scotland. He married Ann Scott, daughter of John Scott and Elizabeth Hay, on 10 Feb 1815 in Cumbernauld, Dunbartonshire, Scotland. She was born about 1796 in Denny, Stirling, Scotland. She died on 09 Aug 1874 in Cumbernauld, Dunbartonshire, Scotland.

James Forrester and Ann Scott had the following children:

iii. **WILLIAM[7] FORRESTER** was born on 11 Jan 1814 in Tollpark, Cumbernauld Dunbartonshire, Scotland. He died on 08 May 1887 in Dennistoun, Glasgow Lanarkshire, Scotland. He married Janet Gentles, daughter of Adam Gentles and Jean Graham, on 15 Dec 1837 in Cumbernauld, Dunbartonshire, Scotland. She was born about 1817 in Cumbernauld, Dunbartonshire, Scotland. She died on 19 Dec 1877 in Cowlairs Road, Glasgow.

iv. **JOHN FORRESTER** was born on 15 Aug 1816 in Tollpark, Cumbernauld, Dunbartonshire, Scotland. He died on 02 Jun 1881 in Hall Cottage, Bathgate, Scotland. He married Janet Kirkwood, daughter of Thomas Kirkwood, on 21 Jun 1844 in Cumbernauld, Dunbartonshire, Scotland. She was born about 1820 in Garnhall Farm, Falkirk, Stirlingshire, Scotland. She died on 12 Jul 1902 in Hall Cottage, Bathgate, West Lothian, Scotland.

v. **JOSEPH FORRESTER** was born on 01 Apr 1821 in Tollpark, Cumbernauld Dunbartonshire, Scotland. He died on 29 Mar 1900 in Cumbernauld Dunbartonshire Scotland. He married (1) JANET STARK, daughter of Ebenezer Stark and Jean Hill, on 02 Jun 1848 in Cumbernauld Dunbartonshire. She was born about 1820 in Falkirk, Stirling, Scotland. She died on 16 Feb 1898 in Cumbernauld, Dunbartonshire, Scotland. He married (2) JANET STARK on 02 Jun 1848 in Cumbernauld Dunbartonshire. She was born about 1820 in Falkirk, Stirling, Scotland. She died on 16 Feb 1898 in Cumbernauld, Dunbartonshire, Scotland.

vi. **GEORGE FORRESTER** was born about 1824 in Dunbartonshire, Scotland. He died before 1858 in see notes for Geo Forrester. He met (1) ANN MILLS. He met (2) ANN MILLS OR MILNE. She was born on 31 Mar 1831 in Erskine, Renfrew, Scotland.

vii. **JAMES FORRESTER** was born on 16 Aug 1826 in Tollpark, Cumbernauld, Dunbartonshire, Scotland. He died on 15 Nov 1914 in Toll Park, Cumbernauld, Scotland. He married Elisabeth Steel, daughter of James Steel and Marion Marshall, on 23 Jun 1857 in East Mariesbank, Airdrie Scotland. She was born on 27 Mar 1836 in New Monkland, Lanark, Scotland. She died on 15 Feb 1925 in Tollpark Farm, Castlecary, Cumbernauld, Scotland.

viii. **ELIZABETH FORRESTER** was born on 24 Sep 1828 in Tollpark, Cumbernauld, Dunbartonshire, Scotland. She died on 11 Jul 1890 in Newarthill, Bothwell, Lanarkshire, Scotland. She married George Hill Scobbie, son of John Scobie and Janet Robert, on 04 Jan 1848 in Cumbernauld, Dumbarton, Scotland. He was born on 04 Jan 1819 in Newarthill, Bothwell, Lanarkshire, Scotland. He died on 05 Jan 1875 in Newarthill, Bothwell, Lanarkshire, Scotland.

ix. **ANN FORRESTER** was born on 28 Oct 1830 in Tollpark, Cumbernauld, Dunbartonshire, Scotland. She died on 28 Dec 1863 in West Forest, Cumbernauld,

Dunbartonshire, Scotland. She married James Gray, son of Peter Gray and Jean Fleming, on 19 Jan 1855 in Tollpark farm, Cumbernauld, Dunbartonshire, Scotland. He was born on 15 Dec 1825 in Muiravonside, Stirlingshire, Scotland. He died between Jan-Mar 1896 in Rugby, Warwickshire, England.

i. **ALEXANDER FORRESTER** was born on 01 Jan 1832 in Tollpark, Cumbernauld, Dunbartonshire, Scotland. He died on 03 Aug 1919 in Roadside, Cumbernauld Dunbartonshire Scotland. He married Mary Marshall, daughter of William Marshall and Isabella Stirling, on 10 Dec 1854 in Cumbernauld, Dunbartonshire, Scotland. She was born in 1831 in Muirhead, Cumbernauld Dunbartonshire Scotland. She died on 14 Nov 1921 in Roadside, Cumbernauld Dunbartonshire Scotland.

ii. **DAVID FORRESTER** was born on 28 Oct 1835 in Cumbernauld, Dunbartonshire, Scotland. He died on 05 Jun 1901 in Edinburgh Royal Infirmary. He married Jean Hay, daughter of James Hay and Agnes Erskine, on 20 Jun 1862 in Falkirk, Stirling, Scotland. She was born on 21 Dec 1837 in Kilt Farm, Cumbernauld, Dunbartonshire, Scotland. She died on 03 Oct 1914 in Mosscastle, Slamannan, Stirlingshire.

iii. **HUGH FORRESTER** was born on 02 Nov 1837 in Cumbernauld, Dunbartonshire, Scotland. He died on 10 Jul 1868 in Cumbernauld Dunbartonshire Scotland. He married Helen Malloch, daughter of Daniel Malloch and Helen McEwan, on 12 Jun 1863 in Falkirk, Stirlingshire. She was born on 28 Feb 1838 in (Blairuroar) Muthill, Perthshire. She died on 21 Aug 1909 in Cowlairs Rd, Glasgow, Scotland.

1 **ALEXANDER**[6] **KIRKWOOD** (Elizabeth[5] Forrester, Alexander[4] Forrester, James[3] Forrester, James[2] Forrester, Alexander[1] Forrester) was born on 09 Feb 1770 in Cumbernauld, Dunbartonshire, Scotland. He died on 16 Apr 1837 in Falkirk, Stirlingshire, Scotland. He married Martha Russell, daughter of Robert Russell and Agnes Hill, on 08 May 1789 in Cumbernauld, Dunbartonshire, Scotland. She was born on 24 Feb 1766 in Cumbernauld, Dunbartonshire, Scotland.

Alexander Kirkwood and Martha Russell had the following children:

vii. **THOMAS**[7] **KIRKWOOD** was born about 1792 in Cumbernauld, Dunbartonshire, Scotland. He died on 19 Jul 1867 in Garnhall, Cumbernauld Dunbartonshire, Scotland. He married (2) ELIZABETH RITCHIE FERGUSON, daughter of Robert Ferguson and Marion Black, on 25 Feb 1823 in Cumbernauld, Dunbarton, Scotland. She was born about 1805 in Castlecarry, Falkirk, Stirlingshire, Scotland. She died on 16 Jul 1882 in Falkirk, Stirlingshire, Scotland. He met (4) UNKNOWN.

viii. **ROBERT KIRKWOOD** was born about 1798 in Cumbernauld, Dunbartonshire, Scotland. He died on 05 Dec 1869 in Garnhall, Cumbernauld, Dumbartonshire, Scotland.

ix. **JAMES KIRKWOOD** was born about 1801 in Cumbernauld, Dunbartonshire, Scotland. He died between 1841-1851 in Garnhall, Cumbernauld, Dumbartonshire, Scotland.

x. **ALEXANDER KIRKWOOD** was born about 1805 in Cumbernauld, Dunbartonshire, Scotland. He died on 14 Oct 1876 in Garnhall, Cumbernauld, Dunbartonshire, Scotland.

xi. **MARGARET KIRKWOOD** was born about 1805 in Cumbernauld, Dunbartonshire, Scotland. She died on 17 Mar 1878 in Kinning Park, Glasgow, Lanarkshire, Scotland. She married Alexander Kay on 31 Jul 1829 in Cumbernauld, Dunbartonshire, Scotland. He was born about 1802 in Muthill, Perthshire. He died on 16 Nov 1872 in Woodneuck, Falkirk, Stirlingshire, Scotland.

2 **JAMES**[6] **KIRKWOOD** (Elizabeth[5] Forrester, Alexander[4] Forrester, James[3] Forrester, James[2] Forrester, Alexander[1] Forrester) was born on 10 Mar 1780 in Cumbernauld, Dunbartonshire Scotland. He died on 28 Apr 1866 in Falkirk, Stirlingshire, Scotland. He married (1) **HELEN STIRLING**, daughter of Alexander Stirling and Margaret Jamieson, on 26 Jul 1805 in Cumbernauld, Dunbartonshire, Scotland. She was born on 23 Jan 1785 in Cumbernauld, Dunbartonshire, Scotland. She died before 1848. He married (2) **CHARLOTTE HALLEY** on 27 Aug 1848 in Falkirk, Stirlingshire, Scotland.

James Kirkwood and Helen Stirling had the following children:

vii. **MARGARET KIRKWOOD** was born on 18 Jan 1807 in Cumbernauld, Dunbartonshire,
Scotland. She died on 17 Mar 1878 in Kinning Park, Glasgow, Lanarkshire, Scotland. She married Alexander Kay on 31 Jul 1829 in Cumbernauld, Dunbartonshire, Scotland. He was born about 1802 in Muthill, Perthshire. He died on 16 Nov 1872 in Woodneuck, Falkirk, Stirlingshire, Scotland.

i. **JAMES KIRKWOOD** was born on 01 May 1809 in Cumbernauld, Dunbartonshire, Scotland.

ii. **ALEXANDER KIRKWOOD** was born on 21 Apr 1811 in Cumbernauld, Dunbartonshire, Scotland.

iii. **JOHN KIRKWOOD** was born on 07 Apr 1813 in Cumbernauld, Dunbartonshire, Scotland. He met (1) MARGARET EADIE. He married Jean Aurthur on 27 Oct 1837 in Cumbernauld, Dunbartonshire, Scotland. She was born in 1816.

iv. **ELIZABETH KIRKWOOD** was born on 01 Aug 1815 in Cumbernauld, Dunbartonshire, Scotland. She married John Howison on 26 Mar 1855 in Falkirk, Stirlingshire, Scotland.

v. **HELEN KIRKWOOD** was born on 18 Jul 1818 in Cumbernauld, Dunbartonshire, Scotland.

vi. **GEORGE KIRKWOOD** was born on 03 Sep 1820 in Cumbernauld, Dunbartonshire, Scotland.

vii. **JANET KIRKWOOD** was born on 16 Mar 1823 in Cumbernauld, Dunbartonshire, Scotland.

viii. **WILLIAM KIRKWOOD** was born on 05 Jun 1825.

1 **JAMES**[6] **FORRESTER** (George[5], Alexander[4], James[3], James[2], Alexander[1]) was born on 01 Mar 1796 in Denny, Stirlingshire, Scotland. He died on 21 Oct 1860 in Edinburgh Royal Infirmary. He married Janet Hamilton, daughter of William Spence Hamilton and Mary Stark, on 04 Dec 1836 in Falkirk, Stirlingshire. She was born about 1813 in Falkirk, Stirlingshire. She died about 1850.

James Forrester and Janet Hamilton had the following children:

i. **GEORGE[7] FORRESTER** was born about 1838 in Falkirk, Stirlingshire. He died on 18 Oct 1867 in Airdrie, Lanarkshire. He married Mary Bryce, daughter of Adndrew Byice and Janet Adamson, on 25 Jun 1861 in Ardrie, Lanarkshire. She was born about 1836. She died on 17 Oct 1872 in Airdrie, Lanarkshire.

ii. **WILLIAM FORRESTER** was born about 1840 in Falkkirk, Stirlinshire. He died on 29 Dec 1906 in Salsburgh, Shotts, Lanarkshire. He married (1) MARGARET FARMER, daughter of James Farmer and Margaret Meath, on 19 Nov 1861 in Leslie, Fife, Scotland. She was born about 1835. She died on 23 Oct 1865 in Hutchesontown Glasgow. He married (2) MARGARET IMRIE BAILIE, daughter of William Bailie and Elizabeth Melville, on 27 Nov 1866 in Denny Stirlingshire, Scotland. She was born on 22 Mar 1844 in Cumbernauld, Dunbartonshire. She died on 02 Oct 1927 in Shotts, Lanarkshire.

2 **WILLIAM[6] FORRESTER** (George[5], Alexander[4], James[3], James[2], Alexander[1]) was born on 27 Mar 1797 in Denny, Stirlingshire, Scotland. He died on 11 Jan 1876 in Bonny Bridge, Stirlingshire. He married **ANNE WILSON**.

William Forrester and Anne Wilson had the following children:

i. **WILLIAM[7] FORRESTER** was born on 04 Jan 1818 in Cumbernauld, Dunbartonshire, Scotland.

ii. **GEORGE FORRESTER** was born on 10 Nov 1822 in Falkirk, Stirlingshire, Scotland. He married an unknown spouse in 1891 in New Jersey, USA.

iii. **JAMES FORRESTER** was born on 08 Apr 1827 in Falkirk, Stirlingshire, Scotland.

iv. **JAMES FORRESTER** was born on 19 Oct 1828 in Falkirk, Stirlingshire, Scotland.

v. **JOHN FORRESTER** was born on 10 Aug 1834 in Loanhead, Denny, Stirlingshire, Scotland. He married Margaret Trotter on 24 Jun 1859 in Haggs, Denny, Stirlingshire, Scotland. She was born in St Ninians, Stirlingshire, Scotland. She died on 25 May 1891 in Bonnybridge, Stirlingshire, Scotland.

i. **ALEXANDER FORRESTER** was born on 13 Nov 1836 in Falkirk, Stirlingshire, Scotland.

1 **GEORGE[6] FORRESTER** (George[5], Alexander[4], James[3], James[2], Alexander[1]) was born on 17 Jan 1799 in Bonnybridge, Denny, Stirlingshire, Scotland. He married Mary Thomson on 22 Nov 1818 in Larbert, Storlingshire, Scotland. She died on 21 Oct 1840 in Shotts, Lanarkshire, Scotland.

George Forrester and Mary Thomson had the following children:

viii. **ADAM[7] FORRESTER** was born about 1826. He died on 04 Nov 1906 in Blackburn, Lancashire, England. He married CATHERINE DOCHERTY. She was born on 01 Dec 1822 in Dublin Ireland.

ix. **HENRY FORRESTER** was born about 1826.

x. **JEAN HARDIE FORRESTER** was born on 20 May 1827 in Larbert, Stirlingshire, Scotland.

xi. **ISABELLA GLOVER FORRESTER** was born on 23 Aug 1829 in Larbert, Stirlingshire, Scotland. She married UNKNOWN.

xii. **ALEXANDER FORRESTER** was born on 23 Sep 1832 in Larbert, Stirlingshire, Scotland.

2 **MARGARET[6] FORRESTER** (George[5], Alexander[4], James[3], James[2], Alexander[1]) was born about 1800 in Falkirk, Stirlingshire, Scotland. She died on 22 Jan 1885 in Grangemouth, Stirlingshire, Scotland. She married John Scott, son of John Scott and Elizabeth Hay, on 19 Jul 1822 in Falkirk, Stirlingshire, Scotland. He was born in Sep 1798 in Denny, Stirlingshire. He died on 28 Sep 1866 in Falkirk, Stirlingshire, Scotland.

John Scott and Margaret Forrester had the following children:

viii. **JOHN[7] SCOTT** was born on 04 May 1823 in Denny, Stirlingshire.

ix. **JAMES SCOTT** was born on 03 Dec 1826 in Denny, Stirlingshire. He married Margaret White on 24 Nov 1841 in St. Ninians, Stirling, Scotland.

x. **ALEXANDER SCOTT** was born about 1837 in Falkirk, Stirlingshire, Scotland.

xi. **MARY SCOTT** was born about 1840 in Falkirk, Stirlingshire, Scotland.

xii. **JOSEPH SCOTT** was born about 1843 in Falkirk, Stirlingshire, Scotland.

xiii. **MARION SCOTT** was born on 08 Feb 1843 in Stirling, Stirlingshire, Scotland.

xiv. **ELIZABETH SCOTT** was born about 1848 in Falkirk, Stirlingshire, Scotland.

3 **WILLIAM[6] FORRESTER** (Adam[5], Alexander[4], James[3], James[2], Alexander[1]) was born on 31 Jan 1789 in Larbert, Stirlingshire, Scotland. He married Mary Copland, daughter of Mathew Copeland and Agnes Davie, on 24 Jan 1808 in Falkirk, Stirling, Scotland. She was born on 26 May 1784 in Falkirk, Stirlingshire, Scotland. She died on 12 Jan 1866 in Muiravonside, Stirlingshire, Scotland.

William Forrester and Mary Copland had the following children:

viii. **AGNES[7] FORRESTER** was born in 1809 in Falkirk, Stirlingshire, Scotland.

ix. **ANN FORRESTER** was born in 1812 in Falkirk, Stirlingshire, Scotland.

x. **MARY FORRESTER** was born on 06 Jun 1816 in Falkirk, Stirlingshire, Scotland.

xi. **REBECKAH FORRESTER** was born on 30 May 1824 in Falkirk, Stirlingshire, Scotland.

xii. **REBECCA FORRESTER** was born on 26 Feb 1826 in Falkirk, Stirlingshire, Scotland. She married David Thomson on 03 Jul 1847 in Muiravonside, Stirlingshire, Scotland.

4 **JEAN[6] FORRESTER** (Adam[5], Alexander[4], James[3], James[2], Alexander[1]) was born between 1805-1806 in Larbert, Stirlingshire, Scotland. She died on 07 Apr 1878 in Airdrie, Lanark, Scotland. She married David Provan on 19 Sep 1824 in Larbert, Stirlingshire, Scotland. He was born on 07 May 1805 in Kilsyth, Dunbartonshire, Scotland.

David Provan and Jean Forrester had the following children:

viii. **JANET HARDIE[7] PROVAN** was born on 17 Dec 1826 in Kilsyth, Stirlingshire, Scotland.

ix. **MARGARET PROVAN** was born on 29 Dec 1828 in Kilsyth, Stirlingshire, Scotland.

x. **JEAN PROVAN** was born on 29 Dec 1828 in Kilsyth, Stirlingshire, Scotland.

16. **JOHN PROVAN** was born on 17 Oct 1830 in Kilsyth, Stirlingshire, Scotland.

17. **ELLISON GALLOWAY PROVAN** was born on 18 Mar 1833 in Kilsyth, Stirlingshire, Scotland.

18. **CHRISTIAN PROVAN** was born on 05 Apr 1835 in Kilsyth, Stirlingshire, Scotland.

19. **ADAM PROVAN** was born on 26 Mar 1837 in Kilsyth, Stirlingshire, Scotland. He died in 1908. He married ELIZABETH GRAY. She was born in 1843.

20. **DAVID PROVAN** was born on 02 Mar 1840 in New Monkland, Lanarkshire, Scotland. He died in 1917. He married Catherine Drysdale on 30 Dec 1864. She was born in 1845. She died in 1932.

i. AGNES PROVAN was born in 1846 in Free High Church, Airdrie, Lanark, Scotland.

The following genealogy ancestor report for Alexander Forrester 1611-1686 has been copied from the book entitled 'The Forresters a Lowland Clan and its Lands' by Colin D.I.G. Forrester, pages 135-139

Doc Transcript 12: Ancestors of The Rev Alexander Forrester 1611-1686

From the Book The Forresters a Lowland Clan and its Lands by Colin D.I.G Forrester

Generation 1

2. **Alexander Forrester**, son of Duncan Forrester and Margaret Ramsay, was born in 1611. He died on 30 May 1686 in Edinburgh, Scotland (Buried Greyfriars Church, Edinbirgh, Scotland). He married **Christian McNeil**. She died in 1694.

Alexander Forrester was also known as Rev Alexander Forrester Minister at Edinburgh\\.

Generation 2

2. **Duncan Forrester**. He married **Margaret Ramsay**.

3. **Margaret Ramsay**.

Margaret Ramsay and Duncan Forrester had the following children:

i. **David Forrester**. He married Anna Wylie in 1641. She was born in 1617 in Edinburgh, Midlothian, Scotland.

ii. **Robert Forrester**.

iii. **Mary Forrester**.

1. iv. **Alexander Forrester** was born in 1611. He died on 30 May 1686 in Edinburgh, Scotland (Buried Greyfriars Church, Edinburgh, Scotland). He married Christian McNeil. She died in 1694.

Generation 3

4. **Alexander Forrester**. He married **Jean Erskine**.

5. **Jean Erskine**.

Alexander Forrester was also known as Sir Alexander Forrester 5th of Garden.

Jean Erskine and Alexander Forrester had the following children:

2. i. **Duncan Forrester**. He married Margaret Ramsay.

ii. **James Forrester**.

iii. **John Forrester**. He married Elizabeth Forrester.
John Forrester was also known as John Forrester 1st of Denovan. Elizabeth Forrester was also known as Elizabeth of Arngibbon.

iv. **Alexander Forrester**. He married Helen Seton.
Alexander Forrester was also known as Alexander of Coigs.

Generation 4

8. **David Forrester**. He married **Elizabeth Sandilands**.

9. **Elizabeth Sandilands**.

David Forrester was also known as Sir David Forrester 4th of Garden.

Elizabeth Sandilands and David Forrester had the following child:

4. i. **Alexander Forrester**. He married Jean Erskine.

Generation 5

16. **James Forrester**. He married **Elizabeth Erskine**.

17. **Elizabeth Erskine**.

James Forrester was also known as Sir James Forrester 3rd of Garden.

Elizabeth Erskine and James Forrester had the following child:

8. i. **David Forrester**. He married Elizabeth Sandilands.

Generation 6

32. **Walter Forrester**. He married **Agnes Graham**.

33. **Agnes Graham**.

Walter Forrester was also known as Sir Walter Forrester 2nd of Garden.

Agnes Graham and Walter Forrester had the following child:

1. **James Forrester**. He married Elizabeth Erskin
2.

Appendix 4
The Torwood and Garden Forresters
some extracts from the book
The Forresters A Lowland Clan and its Lands
by Colin D.I.G. Forrester

Doc Transcript 13: The Forresters of Torwood

Robert 1st of Torwood ("The Royal Forrester"): *On his mother's sidr the first laird was the nephew of james Bruce, Bishop of Dunkeld and Chancellor of Scotland and the Bishop gave him some rights over church lands in little Dunkeld. The lands were ravaged by Robert Riach, The founder of theClan Donnachaidh (The Robertsons of Struan)*

Early references from 1457 onwards show Robert responsible for keeping the King's marts (cattle for slaughtering at Martimas for winter eating) These came from the Isle of Bute and were kept at Torwood.

Doc Transcript 14:The Forresters of Garden and Torwood

This most important family obtained the lands or Torwood, together with the office of Heritable Forester, in place of the early Forresters, if they were not indeed their heirs. However they were known as the Forresters of Garden, from their principle estate and barony. Garden (sometimes formally called Carden) is described in chapter 9.

The earliest proved ancestor of the line was Matherw of Gunnershaw, traditionally the illegitimate son of Robert 1st of Torwood (Gibson). However the numbering of the cheiftans begins with his son Duncan.

Mathew of Gunnershaw: *Mathew was a merchant and Burgess of Stirling and between 1457 and 1458 lent James II (Scotland) in Flemish money the sum of 24 pounds Scots. He progressed from being a Mercahnt Burgess to being a member of the Scots Parliament in 1464-65 and again in 1470-71. By the latter date he was a Custumar of Stirling burgh.*

He obtained several small lands, beginning in 1462 and eventually he was styled "Gunnewshaw" This land though small, seemed to be important, as it was still held by the family in the 17th century. Gunnershaw sometimes called the "Pentacle" has a mill and is on the nothern bank of the River Carron, southwest of Torwood

Sir Duncan 1st of Garden and 6th of Torwood ("The Topping Gentleman"):

Sir Duncan was a remarkable man, described in an old pedigree as "a very topping gentleman":"topping" means "fine, noble, gallant.

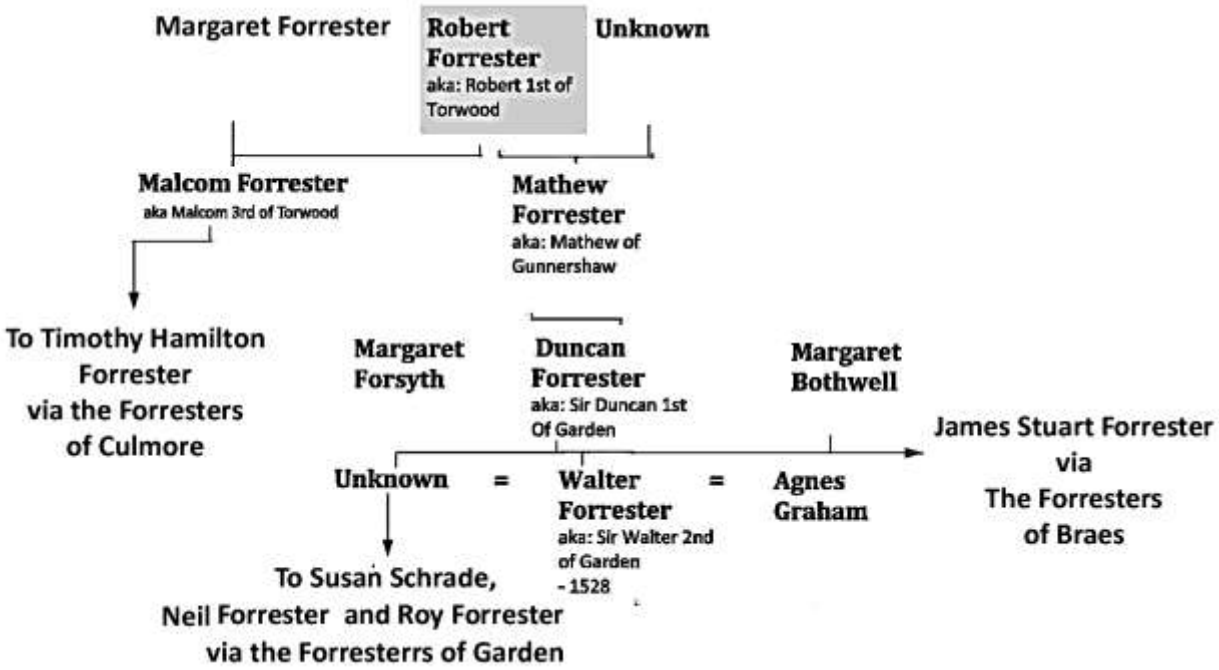
He succeeded his father Mathew as Laird of Gunnershaw, obtaining larger estates later, including Arngibbon (see chapter 39). His rise to the court was rapid. He followed his father as Provost of Stirling, almost continuously from 1477-1490. By 1480 he had been keeper of Stirling Castle, briefly for James III.

He survived the struggle between the King;s and Prince's parties and on 26 November 1488, after the battle of Sauchieburn and on the death of James III, King James IV gave him the lands of Torwood, and the office of Heritable Forrester, which the earlier Forresters resigned.

Cont on next page/ A Connection to The Forresters of Garden and Logie:

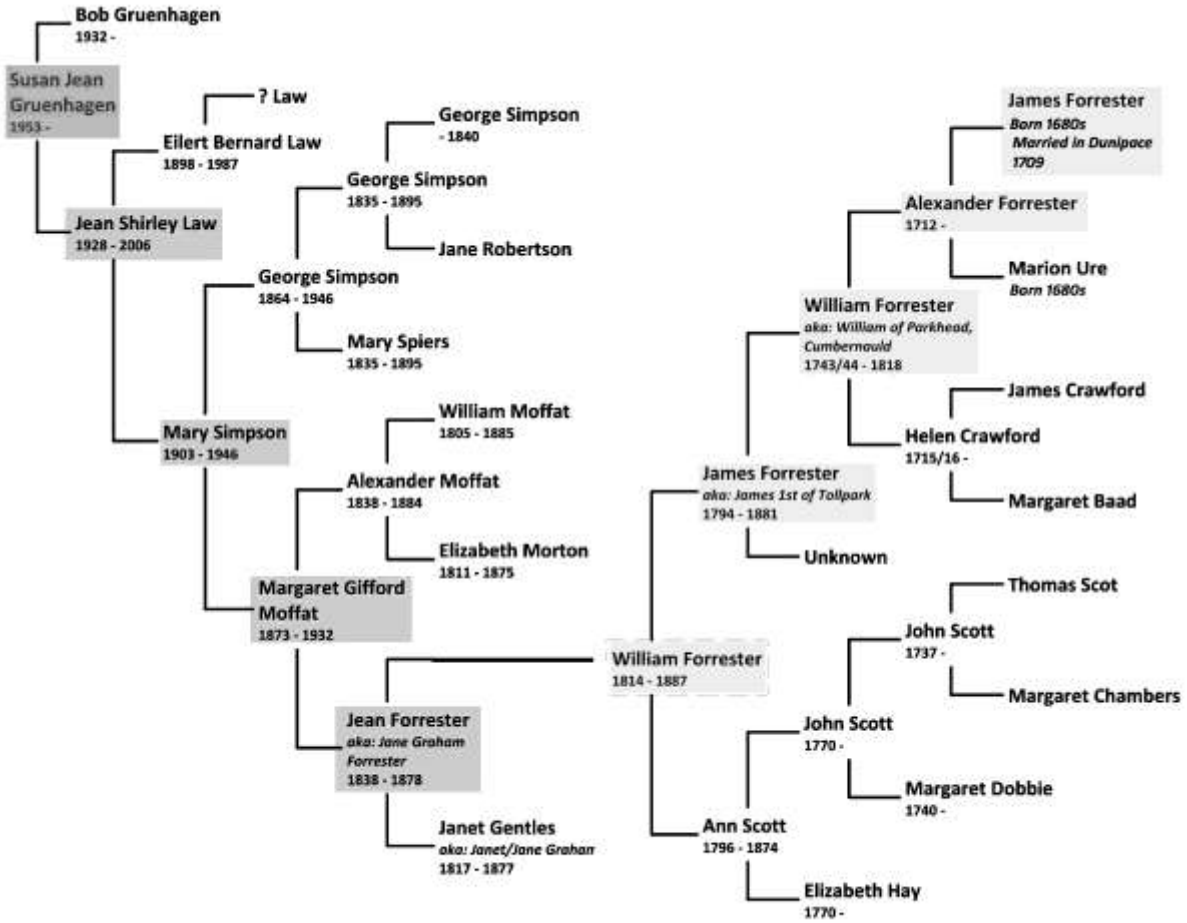
Chapter Four
Ancestors of James Forrester of Tollpark

FT Chart 5: **A Connection to The Forresters of Garden and Torwood**



Appendix 5

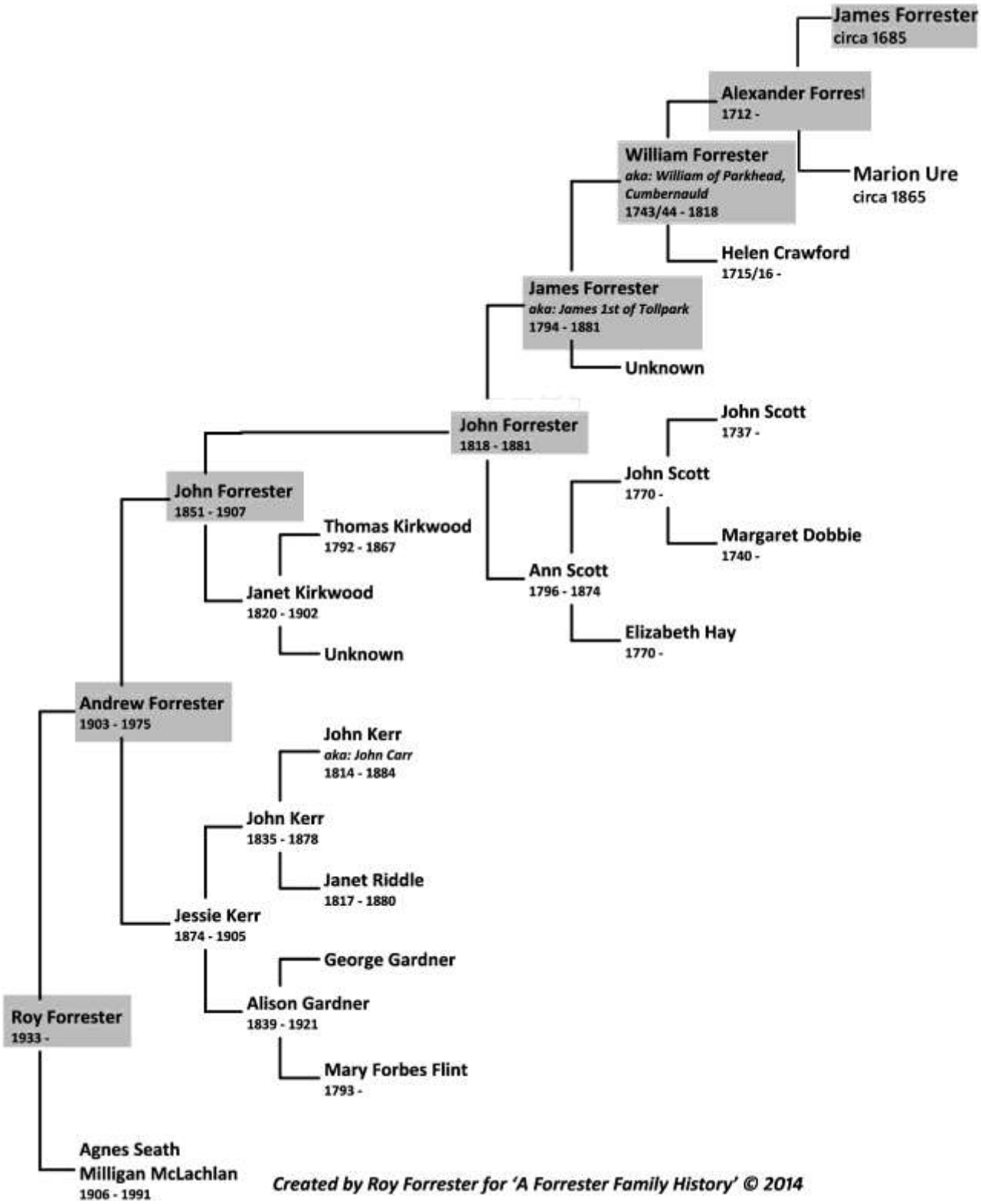
FT Chart 6: **Forrester Ancestors for Susan Schrade nee Gruenhagen**



Created by Susan Schrade & Roy Forrester for 'A Forrester Family History' © 2014

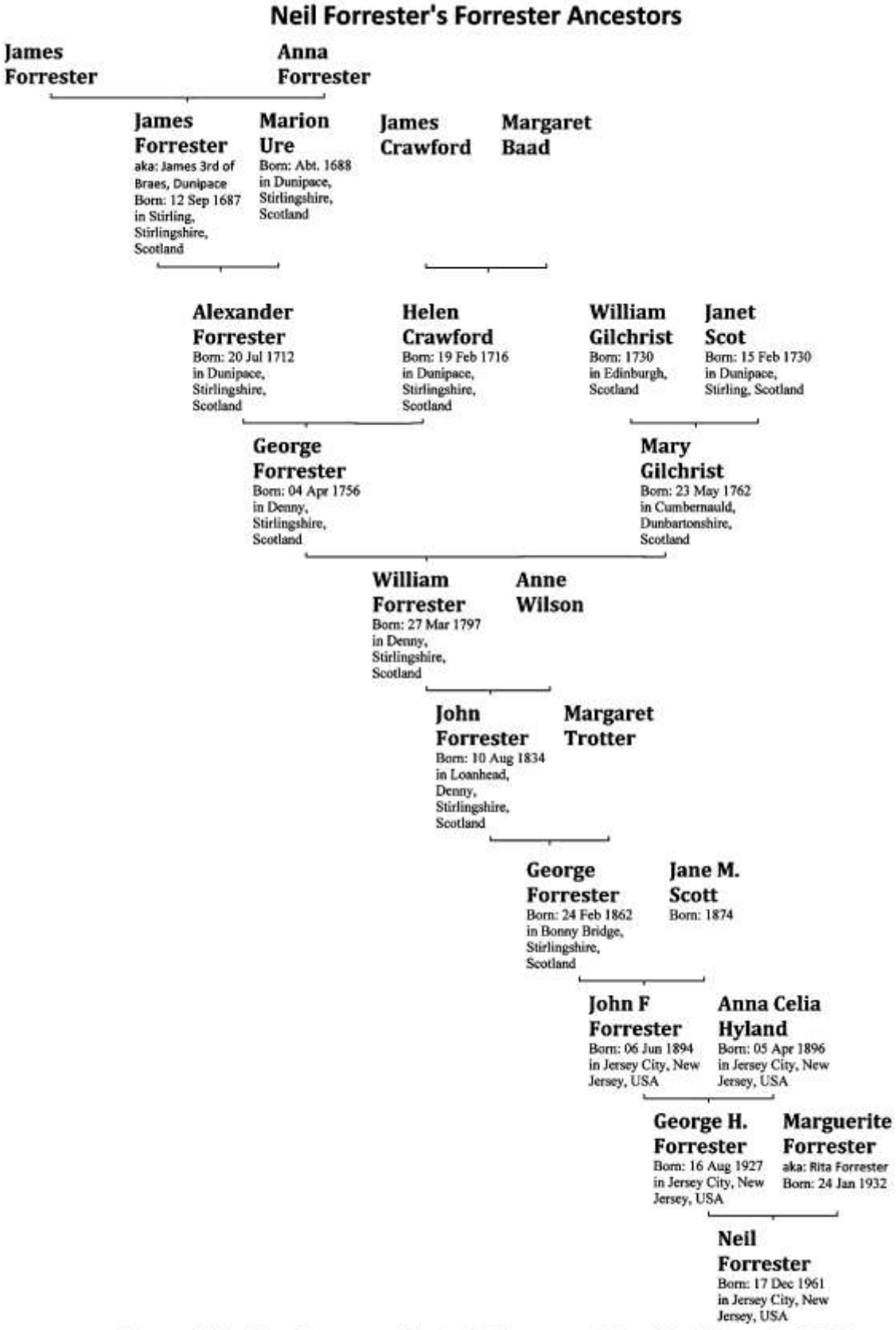
Appendix 6

FT Chart 7: Paternal Ancestors of Roy Forrester



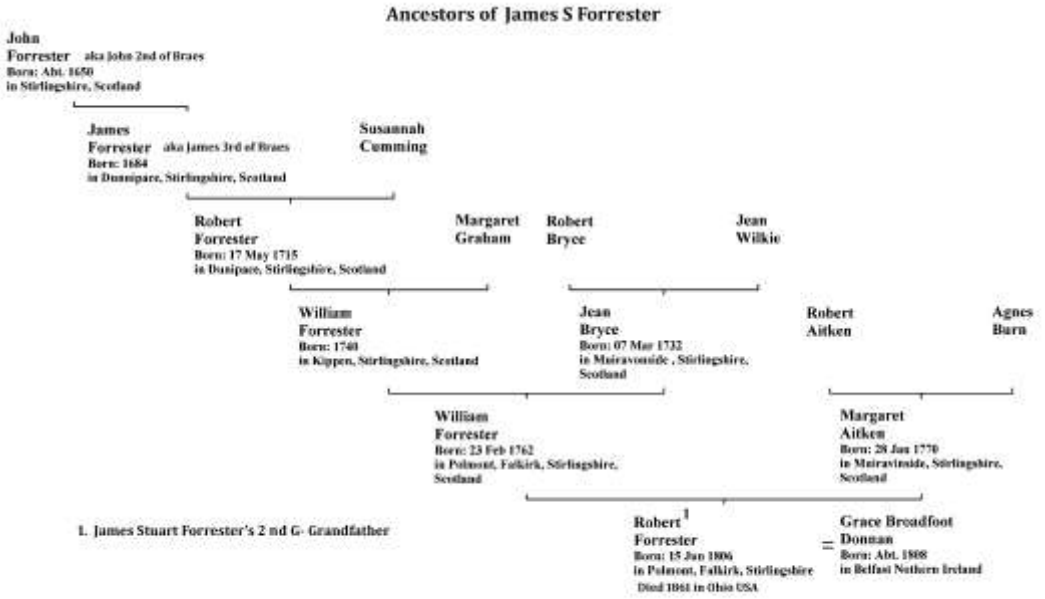
Appendix 7

FT Chart 8: Paternal Ancestors of Neil Forrester



Appendix 8

FT Chart 9: Scottish Ancestors of James Stuart Forrester



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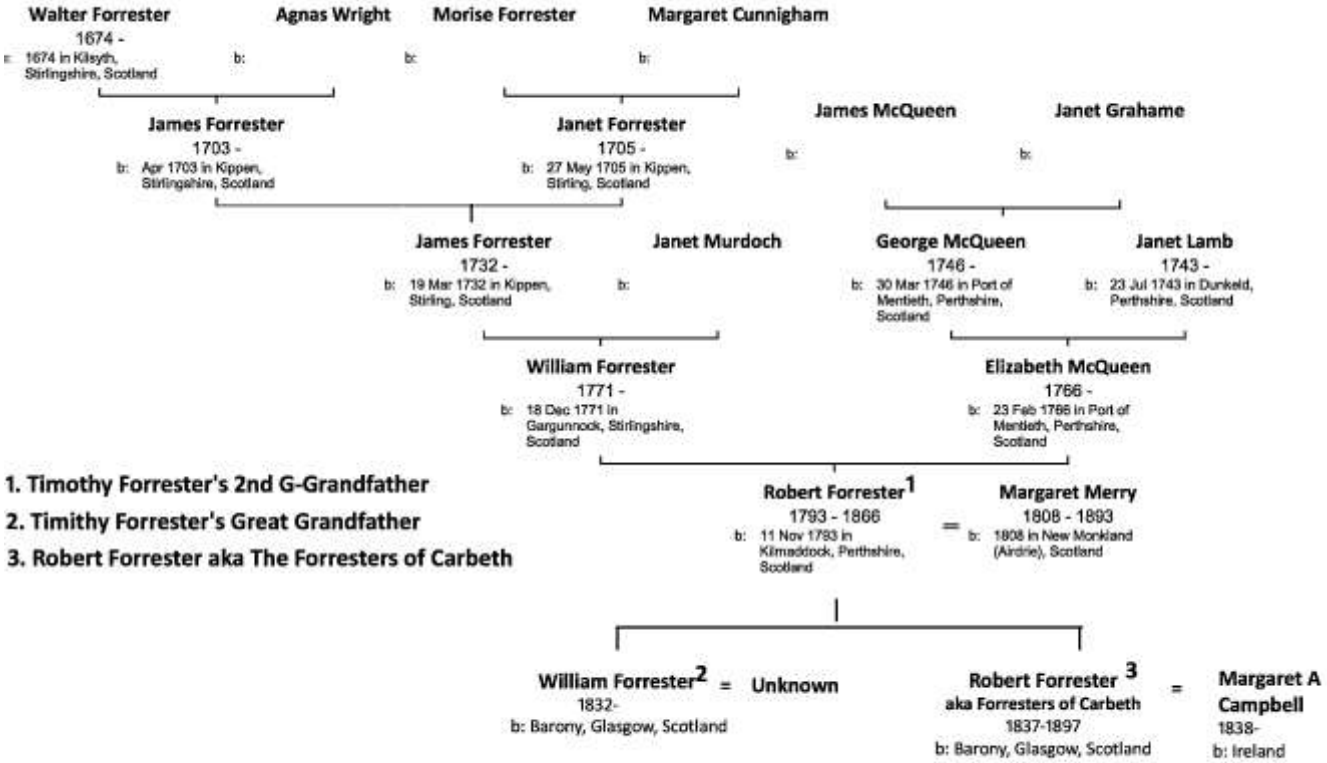
Appendix 9

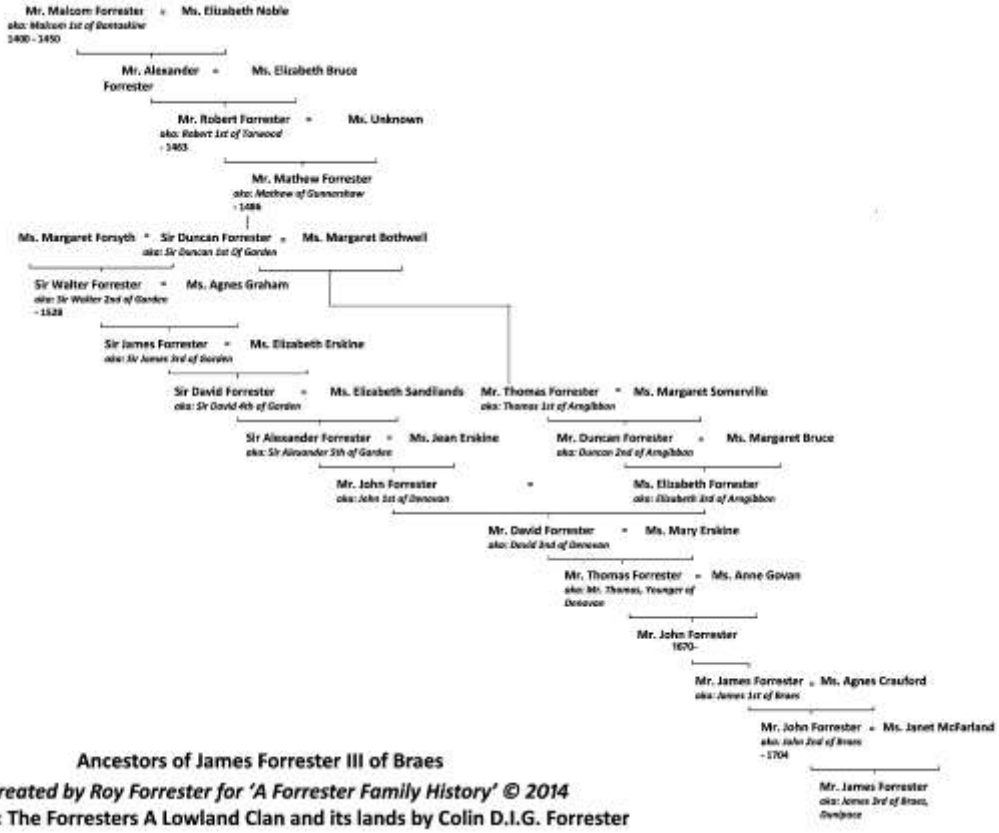
FT Chart 10: Timothy Hamilton Forrester's Ancestors



Created by Roy Forrester for 'A Forrester Family History' © 2014
from Information supplied by Tim Forrester

Appendix 10

FT Chart 11: Ancestral Chart for James Forrester 3rd of Braes



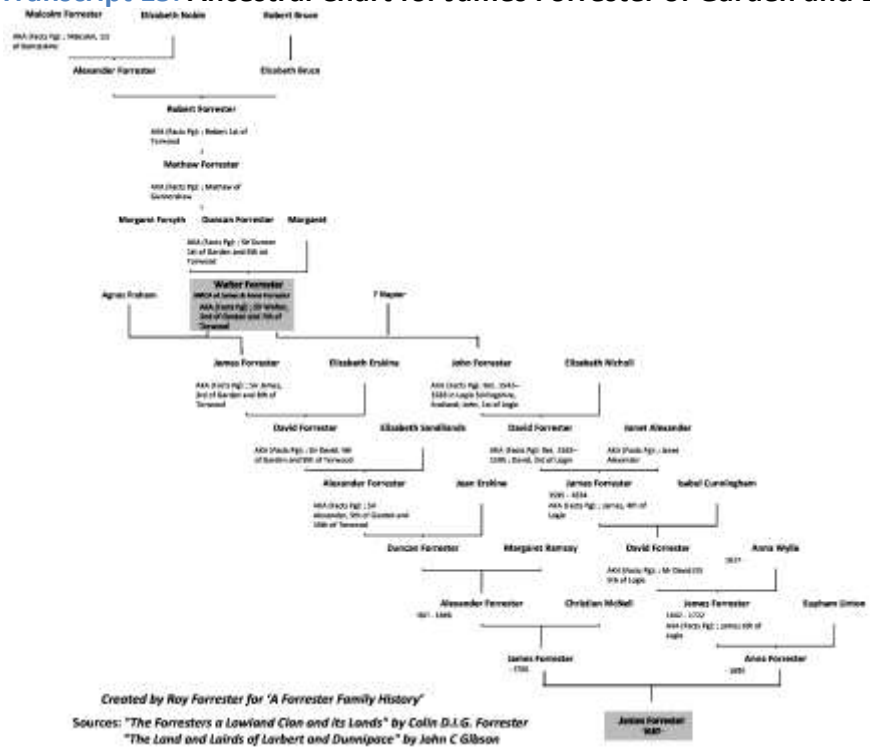
Ancestors of James Forrester III of Braes

Created by Roy Forrester for 'A Forrester Family History' © 2014

Sources: The Forresters A Lowland Clan and its lands by Colin D.I.G. Forrester

Appendix 11

Doc Transcript 15: Ancestral Chart for James Forrester of Garden and Logie



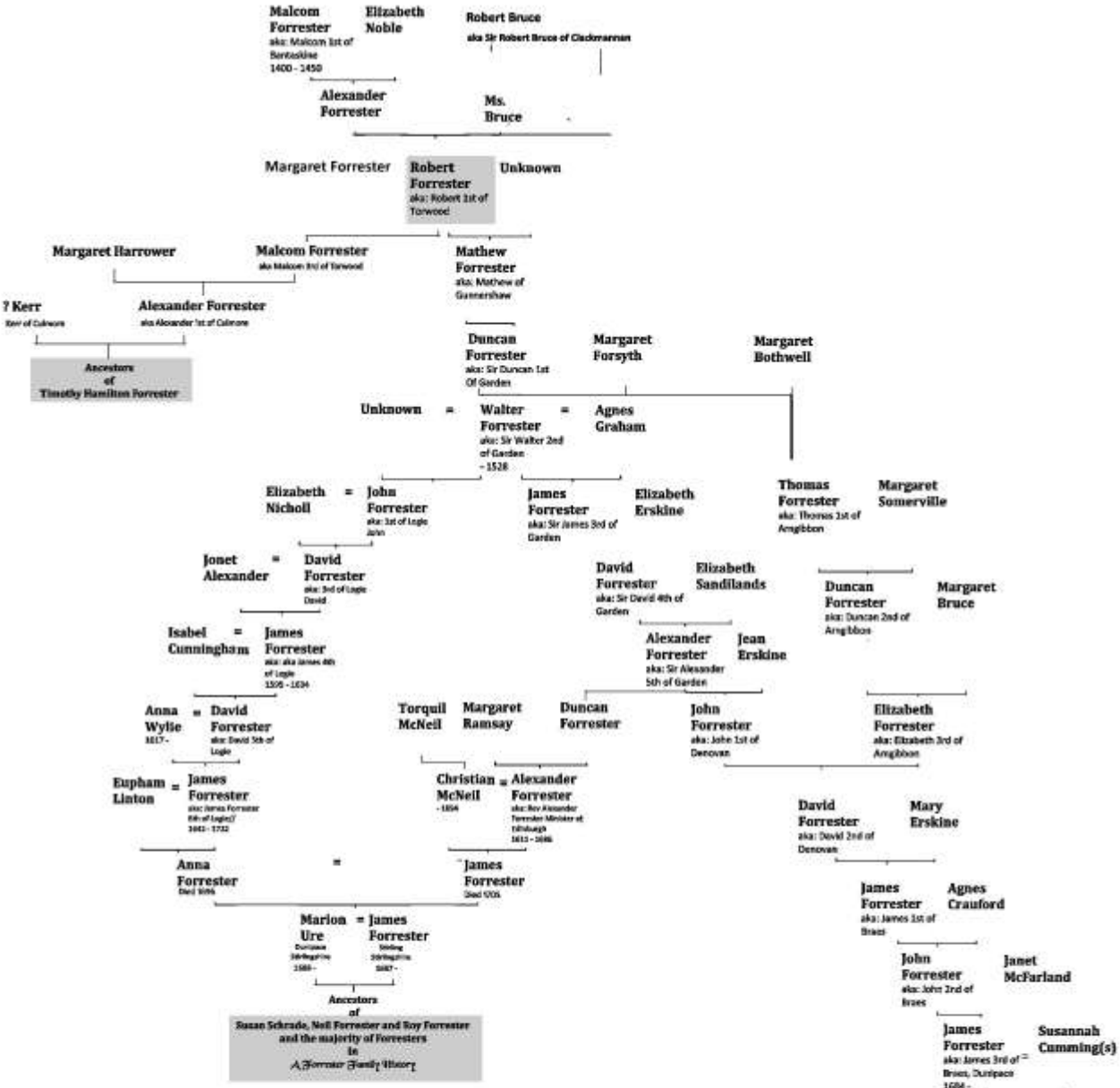
Created by Roy Forrester for 'A Forrester Family History'

Sources: *"The Forresters a Lowland Clan and its Lands" by Colin D.I.G. Forrester*
"The Land and Lairds of Lavbert and Dunnipace" by John C Gibson

Chapter Four
Ancestors of James Forrester of Tollpark

Appendix 12

FT Chart 12: The Torwood Forrester connection to this Forrester Family History



Probable Haplogroup I-BY14048/I-Y30539 Ancestors

Created by Roy Forrester for 'A Forrester Family History' 2017
from
a combination of genealogy and genetic research by
Susan Schrade, Neil Forrester,
James Stewart Forrester, Timothy Hamilton Forrester,
Nathan Forrister, myself and many others
and the books and articles

The Forresters A Lowland Clan and its Lands by Colin D.I.G. Forrester
and
The Lands and Lairds of Largs and Dunipace by John Gibson

Appendix 13

Doc Transcript 16: Extract from the Lands and Lairds of Larbert and Dunipace by John Charles Gibson`

"Baron Forrester of Corstorphine".

The estate of Torwood was sold to George, Lord Forrester, who had a charter, December, 1636, on the resignation of Sir William Ross of Murieston, to whom it had probably been mortgaged. Sir William Ross married Margaret, elder daughter of Sir James Forrester of Torwood. Lord Forrester appears to have sold the lands to Major-General William Baillie of Letham, Stirlingshire. When Major-General Baillie's son was put in fee of the lands, March, 1650, a life rent was retained for his father, the General. General Baillie was a natural son of Sir William Baillie of Lamington. He received his military training under the famous Gustavus Adolphus in Sweden, and on the outbreak of the Civil War he received a commission in the Covenanting Army, in the ratification of which, dated June, 1640, he is designed William Baillie of Letham, Stirlingshire, an estate which came into his possession through his marriage to Janet, daughter of Sir William Bruce of Stenhouse, and grand-daughter of John Baillie of Letham.' General Baillie distinguished himself under Leslie at the battle of Marston Moor (1644), at the siege of York and capture of Newcastle.

From this time, in spite of his undoubted skill and bravery, he seems always to have been thwarted by the incompetence of those he served. He was defeated by Montrose both at Alford and Kilsyth. When the Scots, after the "engagement" with Charles I., resolved on an expedition into England to deliver him from the power of sectaries, Baillie was appointed Lieut.-General of Foot in the army raised by the Duke of Hamilton. After the disaster at Preston, 19th August, 1648, although Baillie rallied his forces at Winwick, maintaining the pass, according to Cromwell, "with great resolution for many hours," he received an order to make as good conditions as he could, and with great reluctance he sent in a capitulation to Cromwell, which was accepted. After this he took no further prominent part in the events of his time.'

In the Edinburgh Commissariat his will is recorded, 13th July, 1653, but the date of his death is left blank. As previously stated, he married Janet, daughter of Sir William Bruce of Stenhouse. In Mrs. Cumming-Bruce's "History of the Bruces," and also in other Bruce pedigrees, her mother is stated to have been a daughter of General Middleton of Letham. This appears to be a mistake. " General William Baillie's children were: —

1) James, who married the Honourable Jean Forrester, daughter of George first Lord Forrester.
2) William, who married Lilias, also a daughter of George, first Lord Forrester.
3) Adam, born 29th December, 1645; and
4) Alexander.

George, Lord Forrester, had one son, John, Master of Corstorphine," who died in the lifetime of his father without issue.

Lord Forrester and General William Baillie made a settlement of their respective estates on James Baillie and the male issue of his marriage with Jean Forrester, which failing, on William Baillie and Lilias Forrester.' On the death of Lord Forrester in 1654, James Baillie of Torwood, born 29th October, 1629, succeeded as second Lord Forrester, his father-in-law having obtained a new patent extending the title to him. The misfortunes which latterly seemed to cloud the life of General Baillie continued to thicken around his son. This young man signalised himself by ardent loyalty.* He, however, became very dissipated, and was murdered in his garden at Corstorphine, 26th August, 1679, with his own sword, by a grand-daughter of the first Lord Forrester, with whom he is said to have had an intrigue. She was tried 28th August, found guilty, made her escape 29th September, was re-taken next day and beheaded at the Cross of Edinburgh, 12th November, 1679.

James Baillie's only son by his first marriage having died in infancy, he was succeeded by his brother William, who did not assume the title, and died in May, 1681, in his forty-ninth year. His only son, by his wife, Lilias Forrester, also named William, succeeded as fourth Lord Forrester. Through his mother he was descended from the Forresters of Torwood, her ancestor, Sir Alexander Forrester of Corstorphine, having married Margaret, daughter of Sir Duncan Forrester of Torwood. William, fourth Lord Forrester, married Margaret, daughter of Sir Andrew Birnie of Saline, Dean of the Faculty of Advocates, and one of the Senators of the College of Justice, who sat on the Bench under the title of Lord Saline. William, fourth Lord Forrester, had, besides other children, a son, George, who succeeded him

as fifth Lord Forrester; a daughter, Margaret, married to Patrick Haldane of Gleneagles; and a daughter, Lilias, who was married to William Stirling of Herbertshire." George, fifth Lord Forrester, was in the army, and served with distinction under Marlborough. He married Charlotte Rowe, daughter of Anthony Rowe of Oxfordshire. She was a lady of the bedchamber to the Princess of Orange, and died in Holland, February, 1743. They had a son, George, who succeeded as sixth Lord Forrester. He was an officer in the Royal Navy, and died unmarried. He was succeeded by William, seventh Lord Forrester, his cousin-german, who also died without issue. The succession devolved upon Caroline, Baroness Forrester, the elder daughter of George, fifth Lord Forrester. She was married to her cousin, George Cockburn of Ormiston, in whose favour there was a Crown charter of resignation of Torwood, I2th February, 1747. He, with consent of his wife and her sister, the Honourable Harriet Forrester, sold the estate of Torwood on 28th January, 1749, to Thomas Dundas, younger of Fingask, by which sale the estate passed away from the descendants of the ancient family of Forrester of Torwood.

Appendix 14

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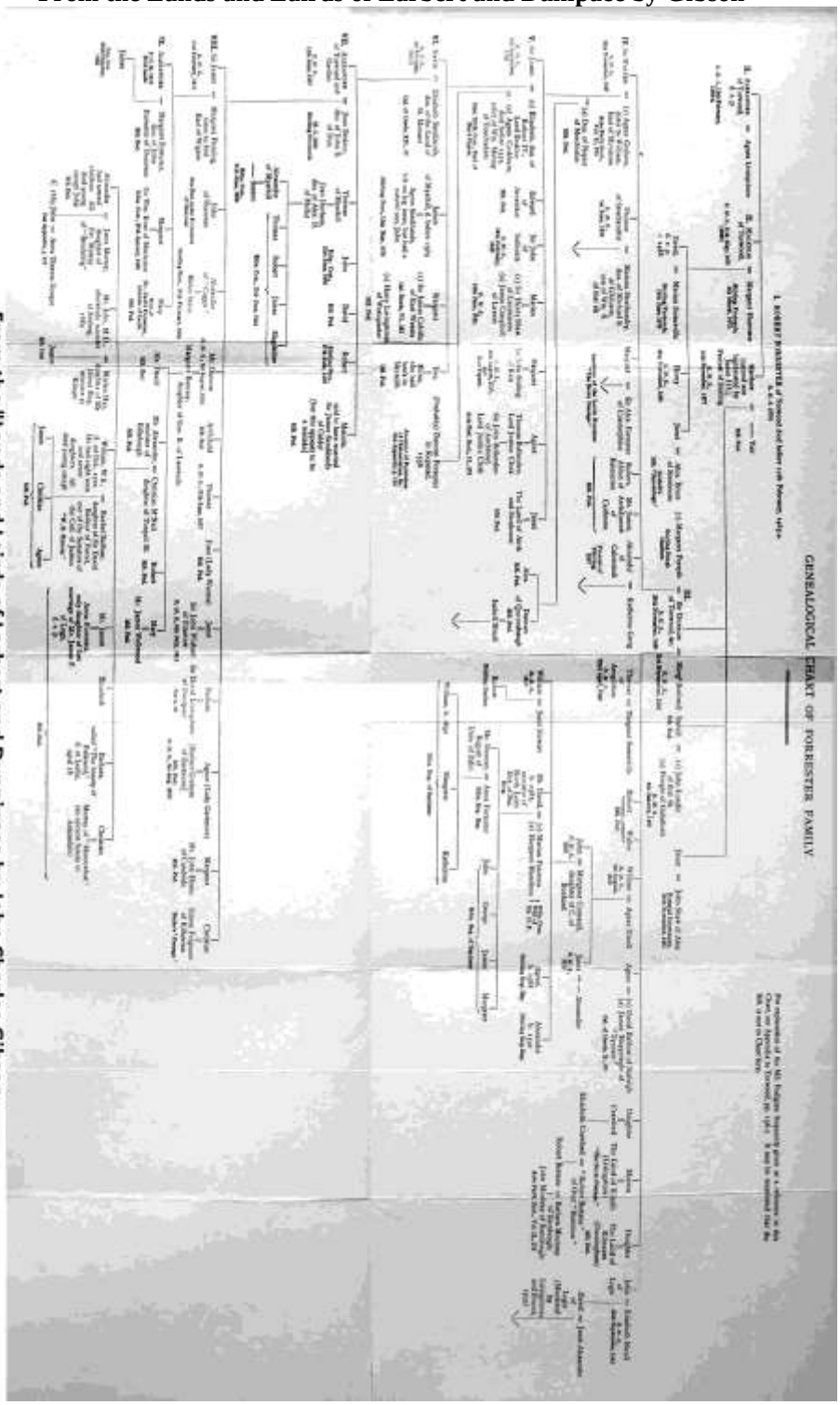
The Scots A Genetic Journey	Alistair Moffat & James F Wilson

Appendix 15

FT Chart 13:Genealoical Chart of the Forrester Family

From the Lands and Lairds of Larbert and Dunipace by Gibson



Appendix 16

Doc Transcript 17: The Forresters of Carbeth

From the book "The Forresters – A Lowland Clan and its Lands" Pedigree 16

This landed family from Stirlingshire have arms recorded in the Lyon Register. The heirs of William, elder brother of Robert (*Forrester b1832 & 1837 respectively*), grantee of arms, have silver plate with arms, "a hounds head erased between three hunting horns stringed", but these are not yet recorded in the Lyon Register. This family are probably descended from the Forrester's of Culmore[1]. The full pedigree is being is being collected for publication.

1. "The Lands of Culbeg and Culmore were owned by the Forresters of Torwood in 1509. (See following extract)

Doc Transcript 18: from 'The Lands and lairds of Larbert and Dunnipace (Gibson)

APPENDIX TO TORWOOD.

The Forresters of Torwood were sometimes designed as of Garden, Gunnershaw, and Skipinch.

List of Forresters owning lands in Stirlingshire, Perthshire, &c., made up from the Great Seal Charters, Retours, Protocol Books, Stirlingshire Sasines, &c. :—

Arngibbon, Forresters of	Queenshaugh, Forresters of
Boquhan, "	*Row, "
Calzemuk or Carmuck, Forresters of	Saltcoats, "
Denovan, Forresters of	*Southfield, "
*Logie, "	Strathendrie, "
Myathill, "	

These families are all descended from the Torwood Forresters. Those marked with an asterisk are illegitimate.

The Arngibbon family ended in heiresses about the end of the sixteenth century, but, according to a MS. pedigree in the possession of Andrew Forrester, Esq., W.S., Edinburgh, the lands were acquired by Andrew Forrester, sometime in Boquhan, and from him the present family is descended.

There were also the following families, owners and tacksmen, whose descent from the Torwood family, although most probable, cannot be traced exactly:—

Bad, Forresters of.

Braes, Forresters of, afterwards of Craigannet, said to be descended from Denovan.—"Stirling Antiquary."

Cambusbarron and Chalmerstone, Forresters of, at one time a Torwood property, descended from Forresters in Kepmad.

Carnock, or Crannock, Forresters of.

Culbeg and Culmore, Forresters of (Ch., 16th June, 1509, *R. M. S.*), lands belonged to Torwood family.[1]

Kepmad, Forresters in, most probably descended from the second marriage of Sir James Forrester of Torwood, *circa* 1530.

Kiddisdale, Forresters of, lands belonged to Torwood.

Pettintoskine, Forresters of, probably same origin, held their lands at as early a date as the Torwood family, if not before.

Puldoir, Forresters of, mentioned with Torwood in several documents.

Shiphaugh, Forresters in.

Wanlis, Forresters in, lands belonged to Torwood.

Created by Roy Forrester for 'A Forrester Family History'

Extract From "The Lands and Lairds of Larbert and Dunnipace by John Charles Gibson

Figure 5: Robert Forrester of Carbeth's coat of Arms
Excerpt of Letters Patient from the Lyon King of Arms in favour of Robert Forrester of Carbeth, Esquire
Dated 28th Day of May 1874

1874 ROBERT FORRESTER OF CARBETH
(Volume 9 PageNo 62)

Transcription

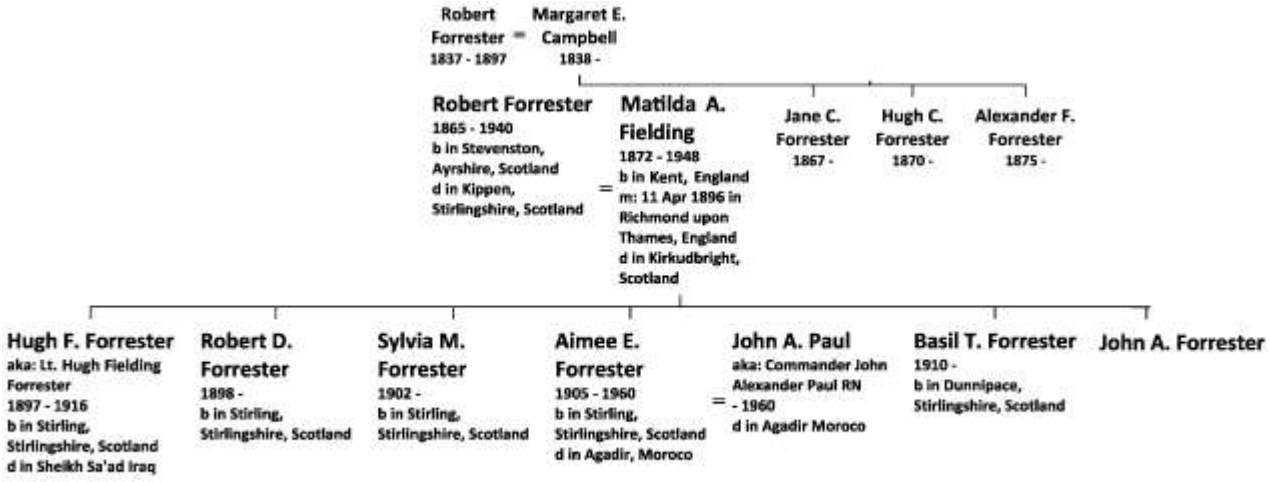
Whereas Robert Forrester of Carbeth in the county of Stirling, Esquire, son of the later Robert Forrester sometime residing at Number one hundred and three Bath Street, Glasgow, and Margaret his wife, sister of James Merry of Belladrum in the county of Inverness, a deputy lieutenant of that county and sometime Member of Parliament for the Falkirk District of Burghs, have by petition of date the 28th day of May current Prayed that we would Grant our License and Authority to him and to his descendants to bear and use such Ensigns Armorial as might be found suitable according to the Laws of Arms: Know ye therefore that we have devised and do by these presents do Assign, Ratify and Confirm to the said Robert Forrester Esquire, and to his descendants with such congruent differences as may hereafter be matriculated for them, the following Ensigns Armorial as depicted upon the margin hereof and Matriculated with even date with these present sin our Public Register of all Arms and Bearings in Scotland vizt Argent on a Fest Wavy Gules between three bunting horns Sables Garnished and Stringed Vert two Mullets of the First. Above the shield is placed a Helmet befitting his degree of Matling of Gules doubled Argent and on a Wreath of his Liveries is set for Crest a Hunting Horn as in the Arms and Escrol over the same this Motto, Hunter Blow the Horn Matriculated the 28th Day of May 1874

Headstone and Chart for a son of Robert Forrester of Carbeth and family

Figure 6: Headstone Memorial for Robert Forrester 1865-1940 & Family

Adapted and reproduced by Roy Forrester for "A Forrester Family History"

FT Chart 14: Robert Forrester 1865-1940 & Family



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Appendix 17

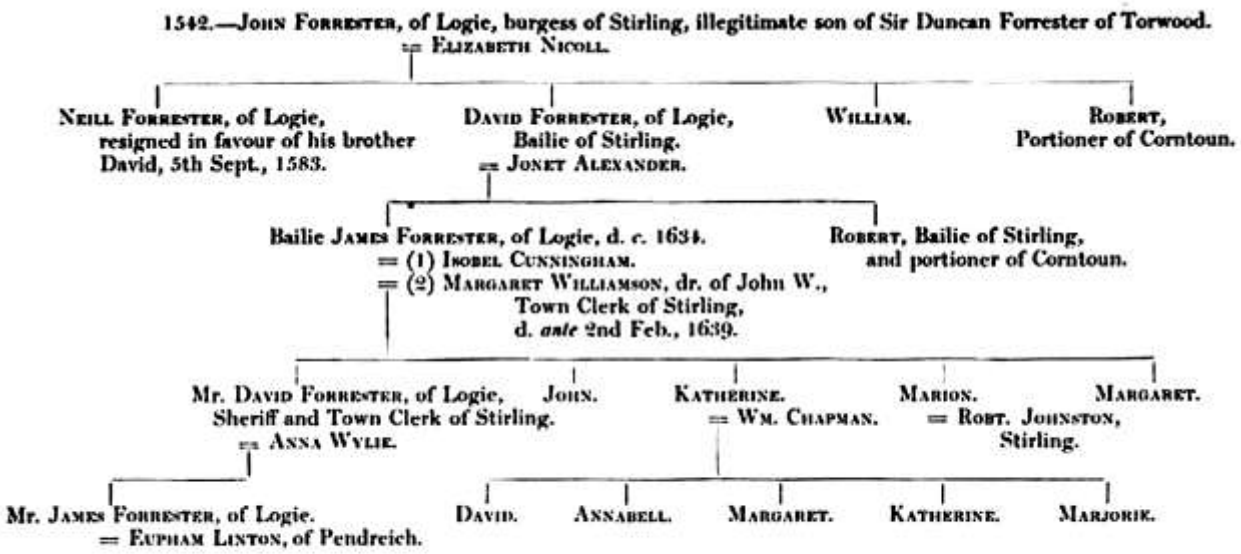
Doc Transcript 19: From an article entitled "The Forresters of Arngibbon"
http://www.electricscotland.com/history/perth/monteith/chapter17.htm

The estate of Arngibbon is pleasantly situated near the village of Arnprior, and adjoins the property of Garden. The mansion-house is built on a commanding eminence, having a sweeping view of the vale of Monteith, the eastern portion of the Lennox, with the whole range of the Grampian hills beyond. The present beautiful house was built and the grounds laid out by the esteemed proprietor, which reflects the highest credit on his taste and intelligence. The name of Forrester is of great antiquity, and the family is one of the very oldest, in a direct line, in the county of Stirling. The name is derived from the office of "forester" or "keeper" of the king's forests. The present Mr. Forrester of Arngibbon is descended, in a direct line, from the ancient proprietors of Garden of that name.

Previous to the year 1490, Garden appears to have been crown lands; for, in 1495, Sir Duncan Forrester, who would appear to have been the first laird of Garden of that name, had charters of the lands of Garden, Skipness, Torwood, Torwoodhead, &c.; and was also comptroller of the King's household, and had the office of keeper of the forest of Torwood. About the year 1613, Sir Andrew Forrester sold his estate of Garden to Stirling of Keir, but appears to have retained the estate of Arngibbon.

Appendix 18

FT Chart 15: The Forresters of Logie



Adapted and reproduced by Roy Forrester for "A Forrester Family History"
From Logie: A Parish history by Robert Menzies Fergusson

Appendix 19

Doc Transcript 20: Logie A Parish History. Vol II

by

R Menzies Ferguson, MA
Minister of Logie

CHAPTER VI.

Lands of Logie.

The Lands of Logie, which now form part of the beautiful estate of Airthrey, are situated beside the parish church. From an Instrument of Sasine, dated 31st May, 1634, we find that Maister David Forrester is confirmed by the King as heir of James Forrester of Logie, his father, in the lands and town of Logie, *Cum prato et domibus et horto ejusdem, ex orientali latere torrentis de currentis juxta ecclesiam de Logy, infra dominibus de Stirling*—"with the meadow and house and garden of the same, on the east bank of the running stream adjacent to the Church of Logie, in the lordship of Stirling." The site of this old country mansion of Logie is almost a hundred yards east of the ruined church, on the left hand of the path beside the wall of the Sheriff-muir Road, between the old and new churches.

These lands belonged to the Crown. Previous to 1354, James Lord of Douglas had a grant from the King of "half of the lands of Logieathray." That was in the give-and-take times.

1451, July 1.—The following lands in the lordship of Stirling were at this date granted by the King as part of the Queen's dowry:—"Villam de Logy, Blarlogy, de les Pullis, de Lubnach, Fossachy, Lessyntrule, et tertiam partem de Inveraloun."—*Reg. Mag. Sig.*

From the *Exchequer Rolls*[1] we learn that John Cristison was allowed 2 bolls flour for keeping the Meadow of Logy in the year 1498 in time of war. In 1513, Logy (rented at 53s. 4d. and 2 chalders of malt) is left to Mariota Menteth, relict of Wm. Sympson, and their eldest son, Duncan, for the grassum of 8 merks only, her husband having been killed in the King's army at Flodden.[2] A James Weims of Logy is a witness on 11th June, 1544.[3]

For nearly two hundred years the lands of Logie were in the possession of the Forresters, an ancient and influential family, who "held amongst them the local estates of Torwood, Garden, and others, and for upwards of a century filled the principal municipal offices of provost, bailies, etc., of Stirling—offices then coveted by the aristocracy and landed gentry of the district."[4]

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[1] *Exchcq. Rolls*, xi. p. 144. [2] *Ibid.*, xiv. p. 477. [3] *Stirling Prot.*, 1543-77.
[4] Fleming's *Ancient Castles and Mansions*, p. 158.

Adapted and reproduced by Roy Forrester for "A Forrester Family History"

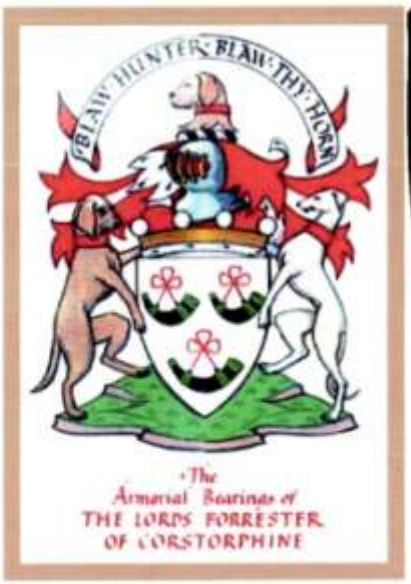
Appendix 20

Figure 7: A Living History by Nathan Forrister

A Living History

Clan Forrester Society

U. S. A.



Forward by Nathan E. Forrister
Clan Forrester Research Contributor
DNA Consultant

Chapter Four
Ancestors of James Forrester of Tollpark

There is little to add to the rich history of the ancient Clan for it has already been told. In this digital age there are now volumes concerning the Clan readily available for our perusal 24 /7. All of this information makes it necessary to review established histories in an effort to deliver the most accurate information available to our members. This effort is an attempt to deliver an unchanged message to a changing world.

In my volunteer role as DNA consultant for Clan Forrester, I have been afforded a unique perspective. Since I am also confirming the genealogy, I often receive documents from private collections. The stipulation is they are not to be published or put on public display; as such the nature of my labor demands strict objectivity. I apply the same discipline to this history. The objective in DNA study, as well as history, is to separate speculation form fact and romance from reality.

Over the past several years I have been confirming the established history. I have also weeded out a lot of speculation and romance. What remains is factual information which is what our membership deserves and demands. It is my private research compiled from my unique perspective. I used it as a historical reference at highland games when I could not instantly recall an important event. As such, it is written in documentary style with short segments for ease of recovery. A couple of our Clan Forrester officers recently reviewed this history and urged me to make it public.

I remind all of you the ancient Chief's line ended in a Baroness who died without issue. As such there is no Chief of Clan Forrester. I contend the revival of Clan Forrester U.S.A. therefore was not for a Chief – it was for the living descendants of genetically diverse families that comprised the membership of the ancient Clan.

There are a few discoveries since the last edition of Clan Forrester was published, but

much of it will be familiar as past work still proves accurate. This is your history. It's about where you came from to where you are now. Writing words about a long ago dead Chief is not for the dead – it's for the modern descendant members of a living Clan Forrester.

Nathan E. Forrister

I hope it proves as valuable a reference for you as it does for me.

Clan Forrester is an ancient lowland Scottish clan. The clan is an armigerous clan, and has no position under Scots law, because there is no chief recognized by the Lord Lyon King of Arms. The patron of the Clan Forrester Society in North America is John Duncan Grimston, Baronet, seventh Earl Verulam, and sixteenth Lord Forrester of Corstorphine. Lord Grimston would have to assume the name Forrester to claim the title Chief of Clan Forrester.

Origins of the Clan

Earliest Mentions

Archibald Forrester witnessed a grant to the Church of Lesmahagow c.1144, in 1200, Marninus Forestarius had lands in the town of Dunipas, and in 1245 Robert the forester witnessed a resignation of lands in Annandale. John le Forester of Berwickshire rendered homage in 1296, Moris le Forester was one of the inquisitions on the lands of Sir John de Calentir in 1303, and William Forrester appears in the muster-roll of the peel of Linlithgow in 1311. From these examples we ascertain the family has been of prominence since the early twelfth century.

These enigmatic names have given rise to speculation of origins from Norse, Celtic, Pictish to Druidic. The evidence of emergence in different locations and divergence of genetic relation of Y DNA haplogroups of Forrester reveals a diversity of origins. Since no one can possibly know the Y DNA haplogroup of the Lords Forrester of Corstorphine, any reference to heredity is purely speculative. The Lords of Torwood and Northumberland Forster are of haplogroup I – L38 and could have arrived on the main Isle at any time in history following the last glacial maximum. The rise of the Lords Forrester however is not noted until quite sometime after the Norse invasion of 1066.

Through analysis of next generation tests of the Y chromosome we now know Northumberland Forster and Stirling Forrester have a genetic divergence of some 4,400 years. The theory they were of the same ilk has been proven false. Torwood Forrester has a haplogroup signature of I – BY14048 while Northumberland is I – BY14026. This could not possibly be known at the time of issuance of arms. The families awarded achievement may have known they were

not related which would account for various matriculations of the hunting horn arms. The logical progression would then be arms were awarded for peerage title rather than relation.

The evidence of Y DNA diversity and distribution of various place names leads us to conclude the surname Forrester is derived from the managers, custodians and laborers of wooded preserves: very similar to a combination of modern Forrest Ranger and Game Warden. Therefore, Forrester is a peerage title or occupational surname of diverse origins. These diverse families pledging support of a Chief comprised the Clan.

There are several theories advanced as to when and where the name was first used as a surname. Although none can be confirmed, it is known that the name, with many variations, appears with some frequency by the late 12th Century. By the 1300's and 1400's, large families were in the areas around Stirling and Edinburgh and in the region of Fife. As the next few centuries passed, bearers of the name were found throughout the Lowlands, southwest into Kintyre and across the Mull of Kintyre into Antrim (Northern Ireland). Families bearing variations of the surname were found in England, particularly noteworthy was the family associated with Bambourgh Castle a few miles south of Berwick-upon-Tweed.

The earliest documents contain various spellings of the name. Do not be surprised to find variant spellings of the surname for the same person in the same document. This practice continued as immigrants to the Colonies are recorded in American history. Therefore all variations of spelling are encouraged to participate. We list several of these variants and more are added as they come to light.

From the Mists of Antiquity

To A Living Clan

Our North American Clan Forrester founders should certainly be commended. Considering the limitations for resource documentation available to them, they did yeoman's work and laid a solid foundation for us to build upon. Today we have multiple source documents at our fingertips. To not employ such an advantage and continue their work would be profligate on our part. Citing their statement there would be errors in their original work is a clear message to subsequent members and researchers to carry on the work they started.

None of them dreamed the human genome would be sequenced: or the resultant studies of Y, mitochondrial and autosomal DNA would become powerful genealogy tools. Nor could they envision an internet where source documents are digitized and archived for all time. In the spirit of their initial work, we have continued and made large strides to correct the errors of their work from the 1960's.

After the battle of Culloden in 1746, tartan was outlawed and the ancient Clans were basically dismantled under the Dress Act of 1746. The resurgence of interest in Scots Clans was generated after the Dress Act of 1746 was repealed in 1782. This repeal led to the reemergence of living Clans during the 19th century in Scotland. It would take a little longer to rediscover Clans that were extinct or no longer contained in contemporary peerage. Such is the lot for Clan Forrester. Beginning with works such as "The Scots Peerage" in 1907 and "Lairds and Lands of Labert and Dunipace Parishes" by John Charles Gibson in 1908, the resurrection of the no longer extant ancient Clan Forrester began.

Building on such source works, our North American Clan founders laid the foundation of our current Clan Society. Ultimately this led to the recognition that Clan Forrester is a lowland Scots Clan in its own right and not the sept of any other by Lord Lyon King of Arms. The reason being a Clan is not solely about its Chief – it's about its surviving members bearing the surname or variant.

In the spirit of our North American founders we have proven the descendants of the Clan of Torwood still remain. And much like our founders, we continue to pull Clan Forrester from the mists of antiquity. Clan Forrester is a living Clan once again.

Chapter Four
Ancestors of James Forrester of Tollpark

Ancient Clan Founder

Sir Adam Forrester is the first confirmed Forrester from contemporary evidence and is also regarded as the first confirmed founder of the Clan Forrester. He was an ambassador, merchant, Provost of Edinburgh, Keeper of the Great Seal of Scotland and Deputy Chamberlain of Scotland. In 1376 he acquired the estate of Corstorphine in Midlothian where Corstorphine Castle once stood.

As previously explained, our clan founder seems to have a peerage title as a surname. Which family he actually arose from is an enigma lost to antiquity. For example, one of our groups of Forrester is a genetic relation to the Sinclair Herdmanston lineage. Herdmanston and Corstorphine are very close in proximity. The Herdmanston lineage has the earliest documentation of the Sinclair Y DNA signature groups. The current age analysis of divergence for Forrester / Sinclair predates our founder Sir Adam. This is not a claim that Sir Adam was a Sinclair. I merely employ this as example of how little we actually know about Sir Adam prior to his rise to prominence.

Wars of Scottish Independence

During the Wars of Scottish Independence the Clan Forrester supported King Robert the Bruce of Scotland and fought against the English at the Battle of Halidon Hill in 1333. A daughter of the chief of Clan Forrester married Robert de Munro of Foulis, chief of the Clan Munro.

15th Century & Clan Conflicts

Sir Adam's son, Sir John Forrester also became Keeper of the Great Seal of Scotland, Chamberlain of Scotland and Keeper of the Household to King James I of Scotland Together they fought in support of the King at the Battle of Humbleton Hill in 1402. The Clan Forrester also fought at the Battle of Sauchieburn in 1488.

16th Century & Anglo-Scottish Wars

In the 16th century during the Anglo-Scottish Wars the Clan Forrester led by the leader of a cadet branch Sir John Forrester of Niddry fought against the English at the Battle of Flodden Field in 1513 where he was slain. The Clan also fought against the English at the Battle of Pinkie Cleugh in 1547 where the seventh chief. Sir James Forrester was there slain. The Clan Forrester also fought at the Battle of Langside in 1568 and the Battle of Ivry in 1590.

17th Century & Civil War

The tenth chief Sir George Forrester was created a Baronet of Nova Scotia and raised to Lord Forrester of Corstophine in 1633. On his death the title became dormant and still awaits to be claimed.

James and William Baille, the sons in law of the first Lord Forrester assumed the name and arms of Forrester and inherited the title under a regrant of the peerage of Scotland.

During the Civil War the Clan Forrester supported the Royalist cause. As a result James, chief of Clan Forrester was fined heavily by Oliver Cromwell and the estates became burdened with debts. James was murdered by his mistress, Mrs Christian Nimmo, when his brother who was mad, inherited the title.

18th Century, Wars of Spanish Succession & Jacobite Uprisings

War of the Spanish Succession

At the beginning of the 18th Century the Clan Forrester fought for the British Government during the War of the Spanish Succession. The chief who was the fifth Lord Forrester was Colonel George Forrester of the Grenadier Guards and Life Guards. The Clan Forrester fought against the French at the Battle of Oudenarde in 1708 and the Battle of Malplaquet in 1709.

Jacobite Uprisings

During the first Jacobite uprising of the 18th century, Sir George Forrester, 5th Lord Forrester, under the patent for Baillie – Forrester, was the recognized Chief of the Clan. Normally the Clan follows its Chief in military affairs. Sir George was also a British officer. At the battle of Preston, November 1715, as Lt. Colonel he led the 26th regiment of

foot against the insurgents. He was promoted full Colonel of the 30th foot regiment in January 1716. He was further promoted to the command of the 2d troop of horse grenadier guards 17th July 1717, and in April 1719 was appointed colonel of the fourth or Scots troop of horse guards. He died in March 1727.

The Clan did not participate for or against the British Government at the battle of Culloden, April 16, 1746. This was common of most Lowland Clans. The 6th Lord Forrester, also Sir George, was a Captain in the British Royal Navy. He died unmarried June 26, 1748. Culloden was the last battle of the 18th century.

France

Two cadet branches of the chief's family in Normandy, France are Le Forestier du Buisson-Sainte Marquerite and Le Forestier de Foucrainville who descend from Sir Adam Forrester of the 14th century. As of 1994 the head of these French branches is M. Jean Le Forrester. The Le Forestier cadets fought at the Battle of Ivry in France in 1590. No known descendants have provided pedigree or Y DNA test at this time.

Chief

The Lords Forrester had for a long time been the recognized chiefs of Clan Forrester. The potential chief is therefore Sir John Duncan Grimston, Baronet, seventh Earl Verulam, sixteenth Lord Forrester of Corstorphine and patron of the Clan Forrester, although he would have to assume the surname of Forrester to become the chief.

Castles and Seats

Castles and seats of the Clan Forrester have included Corstorphine Castle and Torwood Castle. Torwood is in ruin and Corstorphine no longer exists.

Corstorphine Collegiate Church (St John the Baptist's) 37 St Ninian's Loan, Corstorphine, Edinburgh: built by Sir Adam Forrester who died in 1405.

Torwood Castle, Torwood, near Denny, Falkirk. Although not open to the public, the 16th century castle is currently being restored by the Torwood Castle Trust and can be viewed from the outside. The castle is endangered.

Strathendry Castle, Leslie, Glenrothes, Fife. A tower house which was occupied by the Forresters from 1496 until the early 1700's, when it passed through marriage to the Douglases Of Kirkness. Mary, Queen of Scots and Oliver Cromwell both stayed in the keep. It is now the headquarters of the Clan MacIver Society.

Tower of Garden, three and a half miles west of Kippen, Stirlingshire, was held by the Forresters of Garden. It was replaced by a classical mansion in 1824 and there are no remains of the old tower.

Clan Profile

Motto: Blaw, hunter, Blaw Thy Horn.

Crest: A hound's head erased Proper collared Gules.

Patron: Earl of Veralum, 16th Lord Forrester of Corstorphine.

Arms: Argent, three bugle horns Sable, garnished Vert and stringed Gules.

Supporters: Dexter, a ratchhound Proper, collared Gules; sinister a ratchhound Proper, collared Gules.

After the patent of Sir George Forrester, the 10th and 1st Lord Forrester, dated 1650, the title and lands were transferred to his son – in – law, James Baillie, who took the name Forrester. The impalement shield of the Baillie – Forresters is as follows:

ARMS: Quarterly, 1st and 4th argent, three buffalo's horns sable, stringed gules, for the name of Forrester; 2d and 3d azure, nine mullets, for Baillie.

CREST; on a wreath, a talbot's head craz|ed argent.

SUPPORTERS; two talbots of the last.

MOTTO; Spero.

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North American Origins

Clan Forrester Society was founded as the Forrester Genealogical Association Inc. The organization was reactivated and named Clan Forrester Society, INC. in 1968.

Recognition

In 1984, The Lord Lyon King of Arms, clarified the Forresters and variant spellings were a lowland clan – not the Sept of any other Clan. July 30, 1986 The Clan Forrester Society received articles of incorporation from the State of Georgia, U.S.A. The document bears the signature of Max Cleland and has been maintained every year since.

In Memoriam

Many of the founding members have departed this life and a few still remain with us. We honor these pioneers without whom Clan Forrester would not exist today. We continue their work and our commitment to their mission remains: *to identify, record and document every Forrester lineage in North America.*

J. Gerald Forester – Joel K. Forrester Jr. – Jean B. Forester – Mary Forrester – Mrs. Carl F. Kirkland – Mrs. Virginia Forrester – W. Nelson Forrester – George M. Forrester – Mrs. Jeannette M. Fallin – Mrs. Barbara Bell – Edwin Gerald Forrester and Mrs. R. A. Forrester

House of Forrester Compilers

Wallace Redmond Forrester – Lela Forrester Miller Stafft – Verda Allen Forrester – Virginia Yeoman Forrester – Gay Forrester Phillips – Barbara Hill Allegood – Mary Harvey Forrester - G. Frank Forrester – George M. Forrester – Delia Forrester Clayton and Wreatha Best Forrester

Their work continues…

The Lost Clan of the Tor Wood

Revisited

The Forresters of Garden were a prominent family in Stirlingshire and the name appears in the records of Stirling; especially between the years 1360 – 1654. Two charters bearing the great seal dated 1450 and 1493 conveyed the lands of Tor Wood to this branch of the Forrester family. The Torwood was a large forested area in the 12th Century stretching from the River Carron west and north towards Stirling, and inland towards the Campsie Hills. It was traversed by an old Roman Road at this time. In preparation for the battle of Bannockburn it was used as the encampment for the men of James Douglas, one of the leaders of the army of King Robert the Bruce.

Torwood Castle was built for Sir Alexander Forrester. A stone bearing the arms was found dated 1566. The castle was in the Scottish Baronial style, but now stands in ruin and is in endangered status. The fall from favor with the Crown and the subsequent demise of the Lords is another story for another time. I take pause to remind all the Clan is not just its Chief – it is its members.

Lord Lyon Records

The office of Lord Lyon King of Arms dates from the 14th century. The heraldic ancestry of the peerage title for Forrester has been faithfully recorded and archived for the ages. Every person who has the same surname as the chief

is deemed to be a member of the clan according to the Lord Lyon Court. One does not need be a blood descendant of the Chief to be a clan member. These records were tapped and first published by John Charles Gibson in 1908. Colin D. I. G. Forrester tapped the same records in his 1989 publication. I disagree with James A. Forrester, author of the article "The Lost Clan of the Torwood" in the "Hornblawer" archives – the clan was never lost; it was rediscovered.

Torwood Forresters on the tree of Humanity

Colin Forrester relied on David Forrester as reference for his genealogy of the Torwood Clan. David has departed us, but his son, Timothy Hamilton Forrester, has provided us a Y DNA sample. Tim is the only known blood descendant of the Torwood Forresters to my knowledge sith such testing. Though we could predict haplogroup I – L38 from his short tandem repeat test, [STR] we still did not have adequate data to determine the true haplogroup of the Torwood Forresters. Since then, Timothy has been joined by three other men of the Forrester surname. Triangulation from at least two sources is required to solidly confirm a lineage. This started a two year journey to confirm the true haplogroup.

Testing and Analysis

Roy Forrester, Neil Forrester and James Stuart Forrester III, have matched Timothy within haplogroup in STR comparison. James was the last to test and showed the most STR drift within haplogroup. He was the perfect candidate we were looking for to further the genetic identity of the Torwood Forresters. Roy and Jim both agreed to take the Big Y test from FTDNA. From comparison of their matching novel variants, I was astonished to count 26 matching, as yet unnamed, single nucleotide polymorphisms. [SNP] I was astonished because I knew this meant approximately 4,000 years of genetic divergence without an intersecting surname – a very rare event. This meant no affinity group of relevant age could be established for this small group.

The True Haplogroup

With such a rare occurrence we proceeded by the book. The next step was for both men to submit raw BAM files to Y Full sequencing for analysis and confirm the discovery. 25 of the novel variants were true SNP's with one insert / deletion event. [indel] Indels are not considered by the International Society of Genetic Genealogists at this time. Analysis of BAM was then forwarded to the I2a2b haplogroup project as repository and for phylogenetic placement.

Clan Forrester thanks James and Roy as both men followed my recommendations to the letter during this process. These two men are the true pioneers. I'm just glad they allowed me to hitch a ride on their journey. It was a most excellent and rewarding ride!

Clan Forrester thanks Timothy Weakley, Hans De Beule and Stephen Ralls [especially Hans] for their advice and friendship during the confirmation process. I'm certain they had some input with FTDNA to name the new SNP's and the proper phylogenetic order. This also led to the rapid launch of a L38 SNP pack from FTDNA. Neil Forrester ordered this test and all three men are now confirmed as BY14048 – the true haplogroup of the Torwood Forresters.

The Paper Trail Confirmed

Though the Y DNA told us where and when to look, it still took a lot of work to find the connecting documents. I would be remiss if I did not mention an autosomal match to both Roy and Neil. Susan Schrade was tireless in research and documentation of these lines. Without the efforts of Susan and Roy, this story could not be told. Building on the efforts of Gibson and Forrester and in the spirit of our Clan Forrester founders, I think they would be proud of the continuance of their work - the Lost Clan of the Tor Wood has been found.

Clan Forrester Genetic Genealogy

Since the last historical update, Clan Forrester launched a genetic genealogy program in 2014. From the preceding example of "The Lost Clan of the Tor Wood" you have a pretty good idea of how it works. From the preceding example a known line of Tor Wood descent was triangulated with two unknown lineages. The confirmation of the genetic relation serves as empirical evidence for the validation of the traditional paper trail pedigree. It also allows us to spot other males from the unbroken lineages should they test their Y chromosome in the future.

In some instances, the paper trail pedigree is correct but the genetic signature is different from others with a common pedigree. This is not an effort to bar men with such occurrences from a family group. It is an effort to identify undocumented adoption or possible infidelity resulting in a break of the signature male lineage haplogroup. This effort is to document such instances for posterity and eliminate confusion for subsequent generations. In several cases I have been able to isolate the generation of the occurrence and to name the actual genetic ancestor.

What does this have to do with history? Though we are employing cutting edge technology to establish paternal haplogroups today, this will be history for our next generation and the generations to follow. The success or failure of this program will depend on adherence to strict protocols. The main thing for us to remember is to always treat people as we would like to be treated.

We Practice What We Preach

Many folks have commented on the DNA articles I have written for Clan Forrester - most positive, some negative. I always welcome feedback and input - it allows me to better serve our members. One of the main criticisms I receive is the articles are too simplistic and do not contain enough science. I tried this approach to begin our Y chromosome study and the complaint then was "I can't understand the article, please cut back on the technical jargon". We agreed with the critique and the consensus among Clan Officers was a more vernacular approach - this has proven very successful. Since most of our participants are new to genetic genealogy, we prefer 100 words the novice can understand instead of 10,000 words they can't. I increase the complexity on an individual basis as each participant increases in knowledge.

We're Participants Too

The officers of Clan Forrester not only encourage Y DNA testing, many of us are participants ourselves. Our genetic data is entered right alongside those we have encouraged to participate. The thing about DNA study is there is no gain of knowledge without sharing. We only publish kit numbers of each participant and the participant provides the information they wish to be known. Each participant can provide as little or as much as they deem fit. Clan Forrester can provide STR analysis and comparison - but I can't do it without your STR sequence. We may recommend you join appropriate family group projects or haplogroup projects. This is how we connect people and families.

Your Identity is Safe

We have some celebrity and publicly well known participants. It is understandable and reasonable their privacy be protected. As the head of our Y chromosome study, I am the only officer that knows their identity - and I ain't telling the others no matter how much they beg - my wife, Susan doesn't even know so don't ask her. To do so would be a betrayal of trust and the immediate failure of our study. So rest assured if you contact Clan Forrester with a DNA inquiry, our Webmaster, Jeff Forrester, will forward the inquiry to me and I will contact you off list. Jeff has done this on several occasions. The Clan Forrester officers support this privacy policy and I strictly enforce it. If you do not want your identity known it will not be known.

Next Generation and Third Party Analysis

At times I recommend third party analysis for our Big Y or FGC Y elite participants. Full Genomes Corporation [FGC] or Y Full maintains your privacy by issuance of an identification number. VCF and / or BAM files from your FTDNA account can only be requested by you. Once again, only you can provide information you wish to be known. You do not have to provide e-mail contact if you don't want to be contacted. In some occurrences, I act as liaison for anonymous participants. Since Clan Forrester officers are participants we also have accounts for third party analysis with Y Full or FGC - some of us have employed both companies. I recommend Y Full for the novice as it is more user friendly and easier for me to teach necessary navigation skills. FGC analysis is tailored for the more advanced and I personally get a lot more out of their data analysis presentation.

We Help Others

Y chromosome, autosomal and mitochondrial DNA are powerful genealogical tools when properly applied through the scientific method. We are rapidly approaching an age when conventional genealogical paper trails will not be considered without DNA support. This is partly due to the confusion created by erroneous attachments to ancestors in gedcom cloud storage repositories such as ancestry.com and my heritage. It isn't the fault of the company; it is the fault of the genealogist owner of the tree. I remind everyone it is OK to copy and paste for research: but then you must document and confirm.

Our purpose in Forrester genetic genealogy is to identify male paternal lines by triangulating the correct common ancestor from several test results. This has allowed us to identify 14 major Forrest / Forrester / Foster lineages, each with a distinct and unique haplogroup signature. I am certain more will emerge in the future.

As a result of these efforts we have helped hundreds, perhaps thousands now as I lose count, find family. The success of our program has not gone unnoticed. Several Clans have contacted me for advice to emulate what we are doing. We have provided assistance to everyone from beginning layman practitioners to PhD's: we can help you too.

You Support the Progress

Your membership in Clan Forrester supports this research. Funding you provide through membership dues keeps us going and in the public eye at Highland Games across the Southeast. Grandfather Mountain and Stone Mountain games are among the largest in the World so our presence is almost obligatory. All of our officers are volunteers including me. We pay for our own transportation, food and lodging and even admittance for these events. Clan packages normally cover two tickets for events - most of us pay our own way in. Clan Forrester public presence grows with our membership numbers: we thank our members as we have been able to support additional games at Blairsville, GA and Winter Springs, FL near Orlando. We put everything we have back into our membership.

The other officers of Clan Forrester can attest, I seldom get to sit at these games due to the number of inquiries concerning DNA. Our officers support me by bringing me food or drink - sometimes I wish they could go to the toilet for me because it's so hard to get away. It's a good problem though; it represents the growing numbers of those keenly aware you can't have genealogy without genes.

Without your support there would be no Clan Forrester. There would be no continuance of this vital research. There would be no website as repository for articles and information, no Forrester genetic genealogy and no public interaction to further the research. I ask anyone reading this to help keep us out there to work for you. Thanks to you we have enjoyed many successful years - with your continued support our best years are yet to come.

Forrester Arms from 1907 the Scots Peerage

Sir James Balfour Paul – Lord Lyon 1890 - 1926 on the work of David Douglas' rewrite of the work of Woods and Douglas in The Scots Peerage:

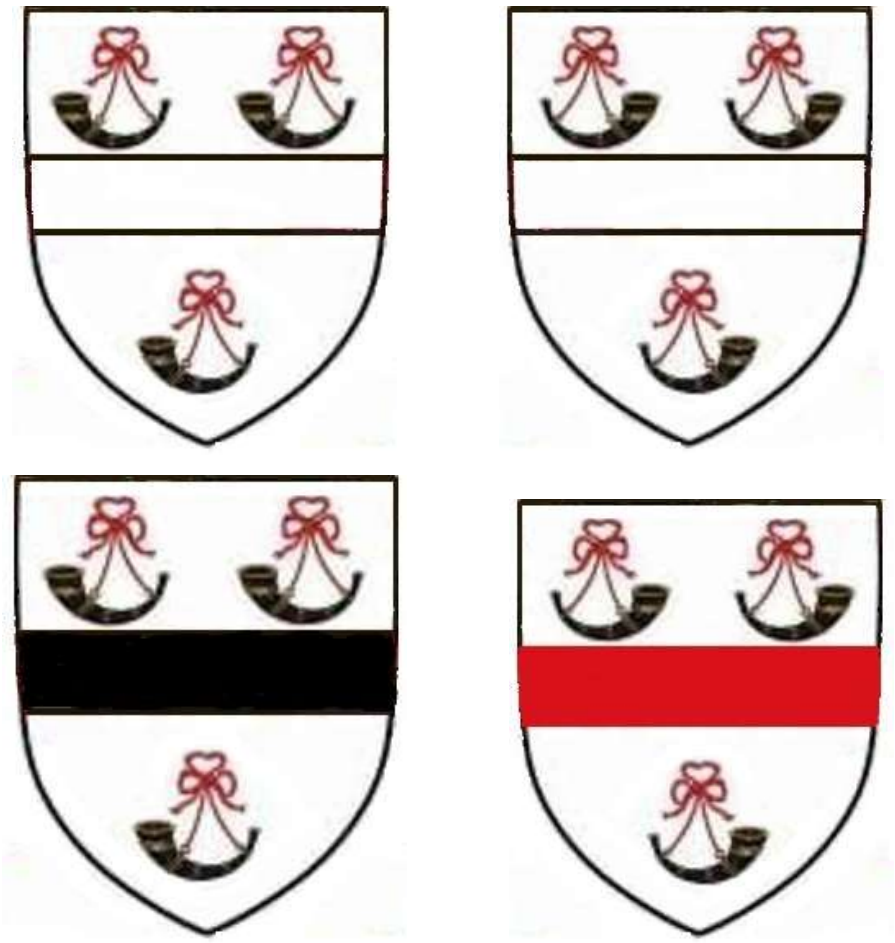
"The works both of Douglas and Wood were for their time admirable examples of ability and research. The former author, himself a member of an ancient Scottish house, was in a position which made it easy for him to collect information from the members of the Scottish nobility, and many of their charter-chests were opened to him. But he and his editor, Wood, laborious and painstaking though they were, lived at a period when the historical records of the country were very much less accessible than they now are. With the exception of the Acts of Parliament in an abridged and mutilated form, absolutely nothing in the way of records had in Douglas' days been printed, and references and authorities had to be patiently sought with much expenditure of time and trouble in the badly arranged, insufficiently housed, and wholly unindexed public documents. The natural consequence was that while their information, so far as it dealt with their own times or the generation immediately preceding, was on the whole commendably accurate, the particulars regarding the earlier centuries were scanty and too frequently untrustworthy."

It's Official

The statement of Sir James Balfour Paul, editor of The Scots Peerage, makes it clear that many of the accounts prior to the 1700's did not reconcile with the records of the Lord Lyon King of Arms records. The records of Lord Lyon have been collected and archived since the mid 1300's. The Lyon Court is essentially placing its stamp of approval on the work of David Douglas as released from 1904 – 1914. After all, it is the first account officially edited by Lord Lyon King of Arms. The book containing the lineage of the Lords Forrester is Volume II, published in 1907 – pages 80 – 100.

I concur with Sir James since there are only fragment mentions in many of the historical records documents. The statement of Sir James should not be construed as a dismissal of official acts of Scots Parliament and their archived accounts concerning conflict and recognition of achievement. It is a statement from more than a century ago, not to build your hopes of official recognition on the fragmented mentions or the disorganized and obscure references from the past.

From the official records which mention arms, I have compiled a few examples of Forrester arms. I do not claim it to be exhaustive. For example, Sir John Forrester, 3rd of Corstorphine is historically documented with arms simply as "a hunting horn stringed". The Carbeth Forresters employed wavy fess gules [red] two mullets [stars] argent [white or silver] and their crest was a hunting horn sable [black] stringed vert [green]



Arms of Sir Archibald Forrester according to Nesbit

The arms of the Lords Forrester have never been recorded with Lord Lyon King of Arms. This could be due to the fact Sir George Forrester, the 10th Laird Forrester and the 1st Lord Forrester of Corstorphine under the new patent died prior to 1672 when register of arms became mandatory. The Foreman [Lyon Office] gives the supporters of Sir Archibald's arms [1482] as a beagle on the dexter side and a greyhound on the sinister. Hence the iconic image of the Lords Forrester.

Only Sir Adam Forrester is reported with the sable chevron. This could be a possible clue to heredity as Forester of Northumberland also had the sable chevron. The vert chevron belonged to Sir John Forster after he was honored for his actions in the battle of Acre. Sir John was awarded governor of Northumberland and Bamburgh Castle. If anything differentiates Scotland Forrester from Northumberland Forester it is dropping the chevron from the arms.

There are many variations of Forrester Arms and the preceding examples are just a few. The arms of the father could only be passed without change to the eldest son. No doubt there are examples of Forrester Arms lost to time.

Much speculation has been given the orientation of the mouths of the bugle horns as differentiation of the Foresters of Northumberland and Forrester of Scotland. The examples of tomb chests of the Lords in St. Johns the Baptist in Corstorphine show the mouths of the bugle horns facing both dexter and sinister. There is no record of orientation so we may conclude the bugle horns orientation was a matter of preference from matriculation to matriculation.

The mysterious origins of Sir Adam, 1st Laird Forrester of Corstorphine, remain enigmatic. Future extraction of DNA sample from the tomb chests in Corstorphine could shed great insight concerning his origins. Until then we are left only with the similarity of ancient arms and speculation.

Another Crest of Clan Forrester

The Scots Peerage also contains an earlier description of the Forrester crest. Everyone is familiar with the iconic image – "a hounds head erased proper collared gules" with the motto "Blaw Hunter – Blaw thy Horn". This crest was borne by Sir James Forrester in 1547.

Many are not aware earlier works were confirmed in Scots Peerage such as Peers' Arms descriptions. From Peers' Arms we find description of a different, perhaps earlier version of the Clan crest. A demi – goat proper, chained gules, collared, horned and unglued. The motto listed is "The Deed Shall Show".

Today's Crest

Personally, I prefer the hounds head to the goat. I think our North American Clan founders chose wisely. As further definition was added, we proudly display the Clan crest as defined by and in honor of Edwin Gerald Forrester. Gerry has departed us and was a past president of Clan Forrester Society. He started the Clan's participation in highland games and was highly instrumental in the Clans full revival. He is survived by his wife, Betty, a son and a daughter. I pray Betty will be with us for years to come.

We Carry the Torch

The officers and contributors of Clan Forrester continue to forward Forrester research which started over 50 years ago. Our service has been a labor of love as we have genuine affection and concern for you, our friends and fellow members of Clan Forrester Society. Your concerns are our concerns.

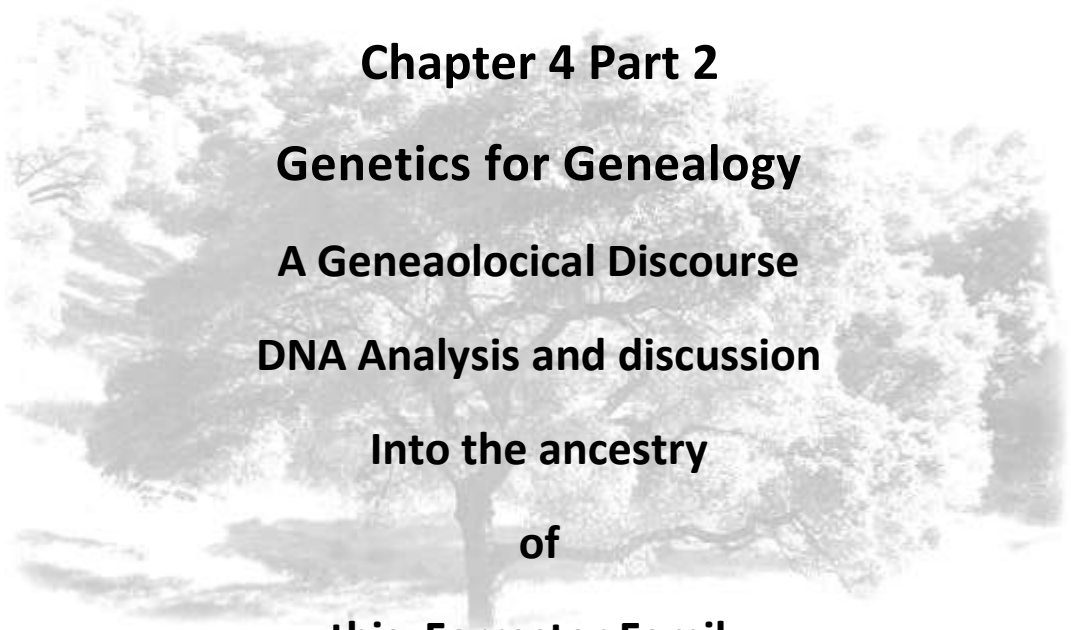
We are aging and know the torch must soon be passed to a new generation. Clan history is a relay race and we have about finished our lap. The torch we pass is the collection of confirmed history we have assembled for our subsequent generations. Our flame may burn out as this is the natural way of things. We will not be around to include our names to the "In Memorial" section of Clan history as we join our predecessors in the "Flowers of the Forest".

Will you carry the torch after we are gone and keep the flame of Clan Forrester shining brightly for all to see?

Clan Forrester Society U.S.A.

The Legacy Continues...

A Forrester Family History
Series



Chapter 4 Part 2

Genetics for Genealogy

A Geneaolocical Discourse

DNA Analysis and discussion

Into the ancestry

of

this Forrester Family

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DNA Tests 1: Chapter 4 Part 2 Genetics for Genealogy Acknowledgements

Part 2 of this chapter deals exclusively with DNA testing and analysis for genealogy. I should note at the outset, those wishing to partake in DNA testing for genealogy, your research does not end but is only the beginning when the DNA testing company provides you with your results. The results in themselves are a staring point. The DNA companies provide contact information of any possible DNA match with whom you must reach out to and exchange both DNA and your genealogical information in order to further your aims. There are a growing number of DNA analytical tools entering the market which you are advised to exploit to their fullest extent to obtain the maximum benefit from your expense and time and efforts with this research.

I wish to thank my cousin Susan Schrade for her help with our analysis of this Forrester Family. In addition to her research into part 1 of this chapter it was she who persuaded me to have my DNA tested to help further our research into our more distant ancestors. It was Susan who broke the ice when she uncovered Neil Forrester as a match via her autosomal DNA results which was subsequently confirmed as a Y DNA match to me. It was Susan who first made the paper link to the Forresters of Stirlingshire, particularly the Forresters of Garden and Torwood. Despite her not being able to have a Y-DNA to test she enthusiastically helped with our research advising us, cajoling and yes even nagging us when we appear to be flagging.

Nathan Forrister, a Vice President and DNA Research Coordinator for the "Clan Forrester Society USA, has been our DNA Guru, teacher and advisor during our long hard struggle to understand and implement the complexities of Genetic Engineering for Genealogy, a relatively new science which as the rocks are turned over, is uncovering new information regarding our ancestors both near and distant, almost daily. Without Nathan's help and advice we would barely have got off the ground with our own YDNA research.

Nathan advised us to undertake some of the new so called 2nd generation DNA tests which he predicted would help us to considerably advance the work already covered by our original DNA tests which combined with our regular genealogy research, he predicted that our Scottish ancestors were the 13th-18th century Forresters of Stirlingshire, Scotland of whom much has already been written into history.

What Nathan has accomplished for us is to positively link via DNA our paternal category to that of the ancient 15th century Forresters of Torwood, Stirlingshire; many of whom held high offices in government circles from the 13th through 17th centuries.

The following DNA tutorials in appendices 4 through 9 were penned by Nathan.

Roy Forrester

Chapter 4 Part 2
DNA Tests 2: Genetics for Genealogy

One of the issues associated with conventional genealogy research is that the further back in time we reach the less accurate are our findings due to the diminishing availability of records and articles.

This is not a scientific discourse but a layman's version of one. Some scientists may dispute some of the following facts, however it is obvious from published articles and reports that some scientists may disagree with my conclusions.

While Genealogy Genetics, a subset of Genetic science, has been studied since at least the 1900s, it has seen a sudden upsurge of popularity among scientists with the recent introduction of testing DNA for Genealogy at affordable prices. New facts are being uncovered almost daily with the result that some of this report may well be out of date before you read it.

For genealogy genetic reference and tutorial material see appendices 1 through 9. For test results and analysis see appendices 10 through 15.

Please note:- Genetics for Genealogy is a relatively young science, and while it can be extremely helpful in your ancestry research it will not point you directly to any particular ancestor but is designed to be used yet another useful tool for Genealogists. Only a small portion of our human DNA is directly associated with genealogy.

Introduction:

The appendices following this introduction are part instructive and part analysis of my DNA results.

As noted in Part 1, we have created a hypothesis that this Forrester family is descended from the 15th century Forresters of Torwood Stirlingshire obtained through records, books and historical articles.

At the request of my cousin and co-author on this chapter Susan Schrade, she and I undertook some specific Genealogy DNA tests in an attempt to identify or confirm some of our distant ancestors, Currently our respective paper trails take us back to the late 17th century with tentative matches into the 14th century to the early Stirlingshire Forresters and we were hoping that our DNA results might substantiate that hypothesis. Nathan was able to confirm our own genealogy and genetic research results, helping us to navigate our way through the intricate and complex subject of Genetics for Genealogy. But for him, much of the data obtained from our DNA tests, particularly our Y-DNA test would have sailed right over our heads, which if nothing else, would have wasted the not inexpensive cost of our DNA testing.

Nathan has written several papers on this subject some of which are included in the appendices.

Humans share approximately 99.5% of identical DNA and it is within the remaining 0.5% that we differ due to a variety of reasons but mostly inheritance and it is this 0.5% which is examined in the DNA tests.

There are three basic DNA tests available for genetic genealogy:

1. **Autosomal DNA (ATdna). General Ancestry**
   Autosomal tests look at chromosomes 1–22 and the X DNA component of the 23rd chromosome. The autosomes (chromosomes 1–22) are inherited from recent ancestors from both parents. The X-(23rd) chromosome follows a special inheritance pattern. Ethnicity estimates are often included with this sort of testing.
2. **Y-DNA. Paternal Only Ancestry**
   Y-DNA looks at the Y-chromosome, which is inherited from father to son, and so can only be taken by males to explore their direct paternal line.
3. **Mitochondrial DNA (mtDNA). Maternal Only Ancestry**
   mtDNA looks at the Mitochondrial, which is inherited from mother to child and so can be used to explore one's direct maternal line

Both male and female children will inherit varying degrees of autosomal DNA from of their paternal and maternal ancestors at least back to 6th or 7th generation, beginning with 50% from each of his/her parents who each inherit 50% of

autosomal DNA from each of their parents etc. The further back in time the less autosomal DNA is shared by a particular ancestor.

Generation	# You Have	Who	Approximate percentage of their DNA that you have inherited
	1	You	100%
1	2	Parents	50%
2	4	Grandparents	25%
3	8	G-grandparents	12.5%
4	16	G-G-grandparents	6.25%
5	32	G-G-G-grandparents	3.12%
6	64	G-G-G-G-grandparents	1.56%
Source:	Nathan Forrister		

See full table to 8th cousin level in Appendix 7 'Understanding your Autosomal DNA' by Nathan Forrister

Note: 'Y' DNA and Mitochondrial DNA are inherited by a child intact with mutations occurring very slowly over many generations.

Owing to recombination, autosomal DNA is inherited in a basically random form from both parents and it is this ad hoc manner which makes interpretation more complex. The above table indicates that we inherit 50% of our DNA from each parent but which 50% is passed down is random. This random inheritance of course results in our individualism and a reason why siblings only share some traits from each parent. Unless you also have had your parents' DNA tested it is difficult to ascertain whether your DNA matches pertain to your father's or mother's line. Having a known reasonably close cousin who has had their DNA tested would help in this regard.

In the full table you will see that 8th cousins inherit only **0.000763%** ancestors DNA. Due to the recombination effect on autosomal DNA inheritance the chances that you will inherit DNA beyond 5th cousins is less than 50/50.

See Bibliography Appendix 2. You are encouraged to read some of the latest internet articles on Genealogy and Genetics.

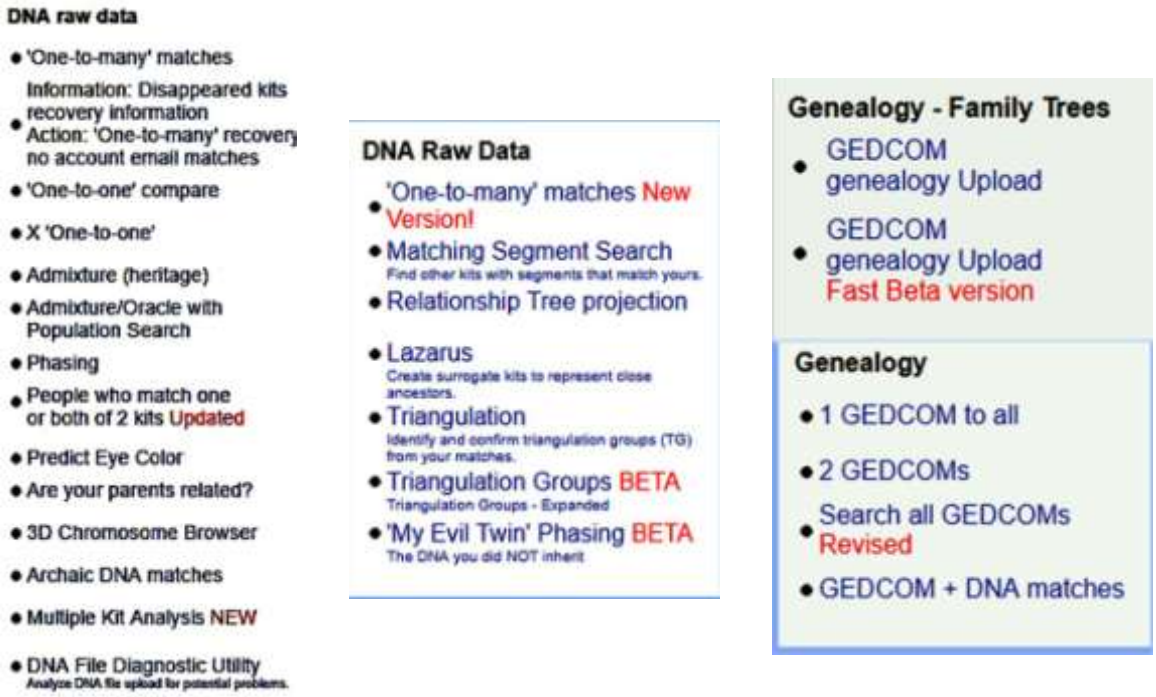
There is at least one autosomal DNA analytical company which specialises in autosomal DNA analyses from many different testing companies e.g. I uploaded my raw data from 23&Me and FTdna as did Nathan who in addition uploaded his ancestry.com data. Many such example are shown in the appendices following this introduction.

Genealogy DNA research examines particular DNA mutation patterns associated with reproduction and environmental factors which occurred anywhere from thousands of years ago to the present time. Such mutations occur at a very slow rate and are inherited by following generations. Each time such a mutation occurs it often creates a separation or branching in the descendant or haplo-tree. In genetic jargon these groups are called haplogroups. The new branch is given its own genetic name associated with the particular mutation. For example the paternal haplotree begins with Adam and his genetic branch haplogroup 'A' down through the alphabet with more downstream subclads at each intersection or branch being rapidly discovered as interest grows in genetics for genealogy

GEDmatch provides DNA and genealogical analysis tools for amateur and professional researchers and genealogists alike. Most tools are free, but we do provide some premium tools for users who wish to help support us with contributions. You will need to upload DNA and / or genealogical (GEDCOM) data to make use of the tools here. Registration requires your name, email and a password of your choice."- GEDmatch:-

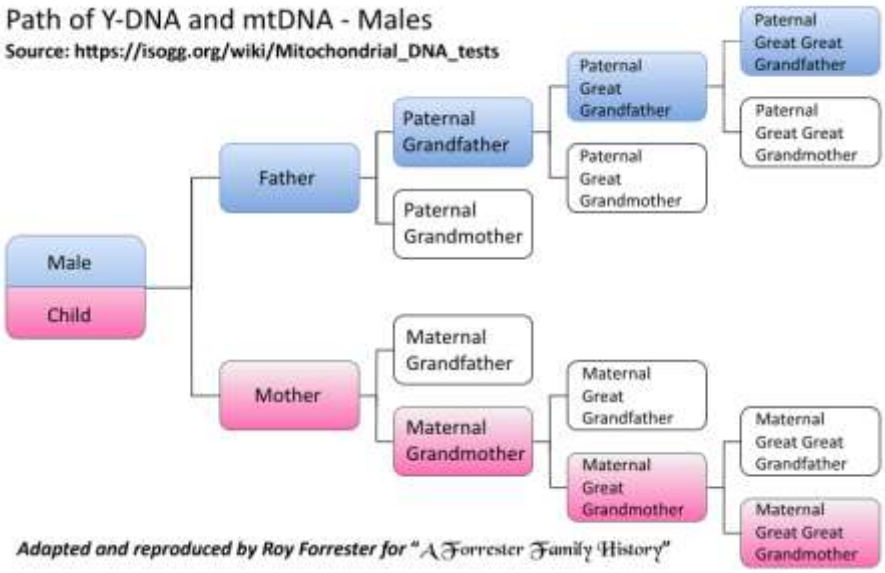
Some of the tools offered by GEDmatch:
The tools on the far left are free; those in centre require a small donation and those on the right are where you can upload your family tree in Gedcom format for analysis.

Figure 8: **Listing of GEDmatch Autosomal Analytical Tools**



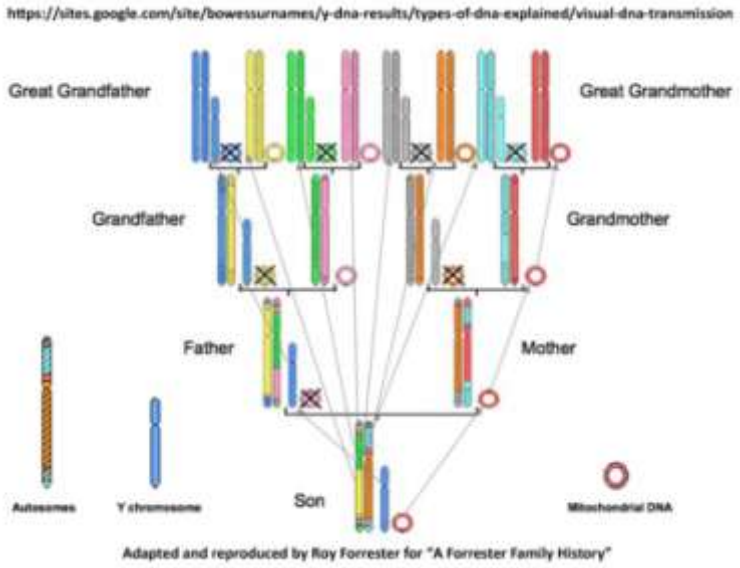
The use of many of those tools can be seen in appendices 7 & 10.

DNA Tests 3: **Y-DNA & mtDNA Descendant chart (ISOGG)**



In my case my paternal 2nd G-Grandfather's haplogroup will be I-BY14048 and my maternal 2nd G-Grandmother's haplogroup will be T2b

DNA Tests 4: Y-DNA; mtDNA & Autosomal Descendant Chart (FTdna)



The above visual demonstration charts illustrate the effect of DNA inheritance by sons. The difference between sons and daughters is that daughters inherit their father's 'X' strand of Chromosone 23 in place of his 'Y'strand leaving daughters with two 'X' strands in their chromosome 23. Daughters only, pass down their mother's Mitochondrial DNA to their children of both sexes. Note Mitochondrial DNA is not part of the 46 Chromosomes in humans but separately present in every cell. https://ghr.nlm.nih.gov/primer/basics/mtdna

The 22 chromosomes containing our Autosomal DNA are shared on a 50/50 basis from both parents but in an ad hoc manner due to a process called recombination resulting in a unique but similar DNA structure to the parents which is what differentiates one sibling from another, even in the case of identical twins. The Y-DNA is transmitted exclusively from father to son; daughters inherit an X-DNA from their fathers and their mothers. The Mitochondrial DNA is transmitted from mother to her children of either sex. The inheritance of the X strand of chromosome 23 is shared in a special manner. A son inherits his mother's X DNA which is a combination of the X DNA from both his maternal grandparents in a recombination manner and a daughter inherits one X strand from her mother in a similar recombination manner and the other X strand unaltered directly from her father.
This establishes two patterns that can be helpful in X-DNA genealogical research:

1. Any father-to-son relationship can be excluded from X-DNA research because the X-chromosome is not passed from father to son.
2. Because an X-chromosome is passed exactly from father to daughter, it will remain unchanged for that generation. This means that X chromosomes change less often along father-daughter pedigree lines. Stronger X-DNA matches are more likely to share a common ancestor on father-daughter lines than on mother-daughter lines.

Mutations which occur during conception or created environmentally are passed down to that particular child and not necessarily to his siblings. A mutation which is due to environmental factors may be passed down to any of his children but not his siblings. In which case, that particular mutation or SNP will create a branching haplogroup.

I will demonstrate later how the X DNA was used to define one of my maternal cousins.

Y-DNA and mtDNA cannot be used for ethnicity estimates, but can be used to find one's paternal and maternal haplogroup, which are unevenly distributed geographically. Haplogroups define groups of people with same or similar DNA patterns or haplotypes.

From the three DNA tests we can get a handle on most of our available DNA relatives and compare them to our genealogy paper trails

The first test called an autosomal test, examines particular DNA mutation patterns in the first 22 of our 23 chromosomes, and some companies test the 'X' DNA string of the 23rd chromosome, identifying common inherited DNA patterns between two individuals and determining whether there is a possible match. This type of test initially throws up many possible matches inherited from a common paternal or maternal ancestor. Good communication with a potential match and good genealogy based family tree research is subsequently required to confirm or eliminate any of these potential matches.

From our conventional genealogy paper trail Susan and I are confirmed paternal third cousins twice removed. We checked for an autosomal DNA match and found a shared section on Chromosome 20. Susan next located Neil Forrester as a DNA match with shared DNA also on Chromosome 20, with about 70% of the shared DNA between Susan and me. This DNA match was later confirmed through my 'Y' DNA test. Contacting Neil directly via the DNA testing company we were able to conclude that our common ancestors were Alexander Forrester born 1712 and his wife Helen Crawford born 1716 in Dunipace, Stirlingshire, my paternal 4th Great Grandparents and Susan's 6th G-Grandparents.

Alexander's parents according to OPR records were Marion Ure and James Forrester, a couple mentioned in a book entitled 'The Forresters a Lowland Clan and its Lands' by Colin D.I.G. Forrester. James, it turned out, was a great grandson of Sir Alexander Forrester 5th of Garden who was descended from the Stirlingshire Forresters of Torwood.

Using her autosomal DNA test results, Susan was able to identify several cousins both maternal and paternal from various European countries. I identified and found a number of potential relatives which is still a work in progress including a couple of maternal relatives, one of whom initially did not have any information about her ancestors but combining our autosomal DNA with other known factors we were able to determine her paternal ancestry.

Finally, I undertook a Y DNA test which tests for patrilineal ancestors only. This resulted in seven matches (three Forresters, three Fosters and a Brown) with predicted MCRA (**M**ost **R**ecent **C**ommon **A**ncestors) within the past 600 years.

Using Colin Forrester's book, we were able to construct out family trees from our 5th G Grandparents back to the 15th century Forresters of Torwood.

Therefore, between Colin's book, public records and our own paper trails we formed a hypothesis that I and my paternal matches are descended from the Forresters of Torwood, Stirlingshire, Scotland.

The initial 'Y'DNA test checks STR markers (Short Tandem Repeat) Currently one can test from 12 to 111 STR markers in which each have an associated number or allele. The number represents the number of repeated DNA segments in a particular position on the Y-Chromosome. The pattern produced by the series of alleles is termed a haplotype and people with the same or similar haplotypes are said to be related with common ancestors within the genealogical time frame (past 1000 years). Such related people are grouped into what is termed a haplogroup. Haplogroups are coded beginning with A for Adam down through the alphabet with branching stages or what is termed subclads on the way.

My first Y-DNA test with FTdna was taken at the Y-STR 12 marker level. STRs being repeat DNA segments at particular loci on the Y DNA: e.g DYS is the marker name, 13 is the number of repeats called an allele, the pattern of alleles is called a haplotype and people with the same or closely matching haplotypes form groups called haplogroups and initially FTdna will attempt to predict your haplogroups from your haplotype. A predicted haplogroup can be confirmed through special SNP tests **(single-nucleotide polymorphism)** which in layman's terms is a single mutation at a particular location on the 'Y' chromosome and is unique to a person's DNA and his close matches.

Table 4: **My Y-12 Marker STR Test Reults**

Subject Tested	Genetic Distance	Paternal Ancestor Name	Country of Origin	Haplo-group[1]	DYS 393	DYS 390	DYS 19	DYS 391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS 389ii
Roy Forrester	Ref.	William Forrester	Scotland	I-M170	13	22	16	10	13-17	11	13	11	12	11	28
Source	*FTdna Data for Roy Forrester*														

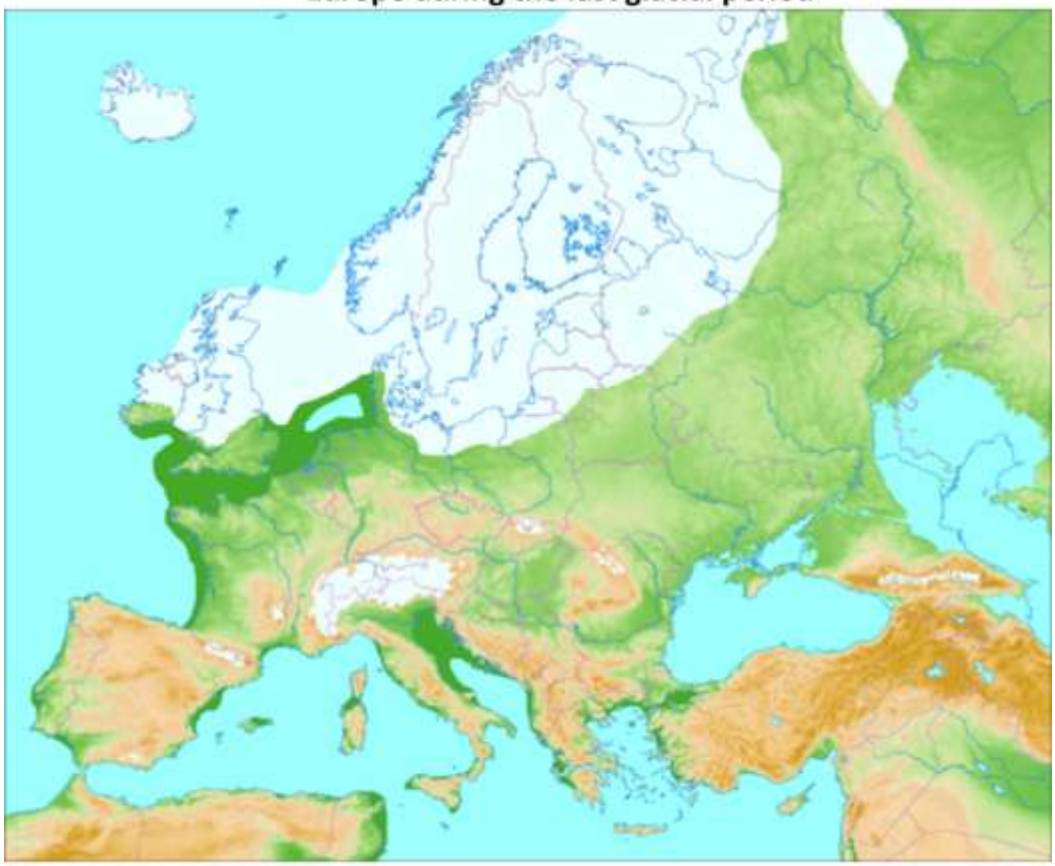
The 12 marker test is normally considered insufficient for accurate results except in special circumstances. A more practical minimum number of markers is 37; the optimum number of markers (accuracy/price) is 67. My haplotype at STR Y111 and that of my matches can be seen in appendix 11. FTdna attempt to predict our haplogroup from our haplotypes, failing that they conduct a backbone test with a limited number of SNPs. At the Y12 level my haplogroup had to be determined by a backbone test which in my case and initially that of all my matches was the parent 'I' haplogroup, aka I-M170. M170 being the name of the SNP (mutation) tested. I and two of my matches arranged to take extra specific SNP tests with FTdna called the 'BigYtest' which resulted in our haplogroup being reassessed downstream to subclad I-BY14048, a mutation believed to be created about 4000 years ago with common ancestors expected to be found within the past 600 years.

The main issue I had with my Y-DNA result is my low count of matches. Currently I have a total of seven positive matches (Y-DNA) out of many thousands of people who have taken this test. FTdna are involved with many Y DNA projects such as family name, country and haplogroup projects etc. For example, the Scottish project currently has over 10,000 members, I and one of my Y matches are the only participants with a BY14048 haplogroup in that project. There many hypotheses explaining this disparity but they remain to date unproven. The 'I' haplogroup began in Europe as hunter gatherers to be later largely supplanted by R1b farmer group and which may explain the situation somewhat!

The I haplogroup mutation is believed to be some 40,000 years old and the R mutation about 25, 000 years ago, both have subsequently developed many subclads over the millenniums since with the R subclads being the dominant haplogroups in Europe

The haplogroup percentages shown in the table below are approximate with similar percentages applying to the whole of Europe. Since both haplogroup populations existed through the last glacial period surviving populations including those with haplogroups I & R and other haplogroup would likely have retreated southern Europe, below the ice shelf.

Europe during the last glacial period



https://en.wikipedia.org/wiki/Last_glacial_period

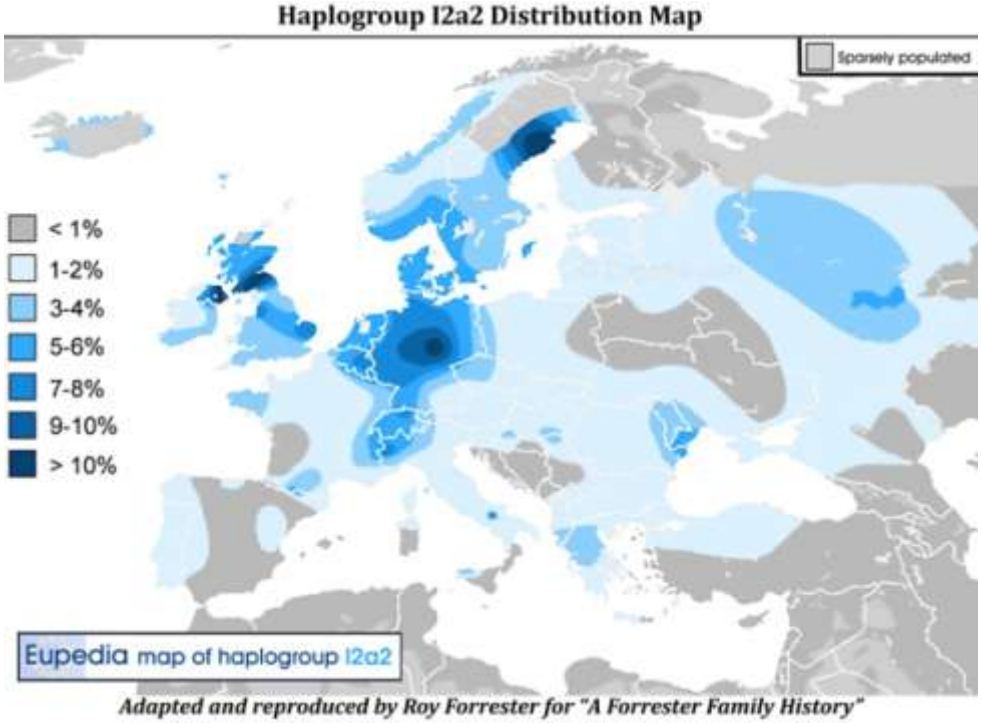
The Ice shelf began to withdraw to its approximate condition today around 12,000 years ago

The following table was produced some years ago and may need to be updated. As far as I can tell, the premise is still valid with the percentages still roughly the same. Today over 70% of Caucasians worldwide are in haplogroup R1b or its subclads compared to this Forrester group with less than 4%.

DNA Tests 5: Percentage Paternal Haplogroup Distribution of Great Britain and Ireland												
Region/ Haplogroup	I1	I2a1	I2a2 aka I-M436	R1a	R1b	G	J2	J1	E1b	T	Q	Sample size
England	14	2.5	4.5	4.5	67	1.5	3.5	0	2	0.5	0.5	> 5000
Ireland	6	1	5	2.5	81	1	1	0	2	0	0	> 5000
Scotland	9	1	4	8.5	72.5	0.5	2	0	1.5	0.5	0.5	> 5000
Wales	12	1	3	1	74	2.5	0.5	0	4	1	0	411
Source: http://www.eupedia.com/genetics/britain_ireland_dna.shtml												

1. Haplogroup I-BY14048 is a subclad of I2a2.
2. See next chart for full paternal haplogroup tree.
3. The haplogroups of the majority of Forresters/Forsters etc will share approximately the same percentages as above.

Haplogroup I2a2 aka I-M436, the shaded column in the table above is an upstream clad of my haplogroup (I-BY14048) shared with about 4% of the population of the United Kingdom whereas the R1b clad shares almost 75-80%

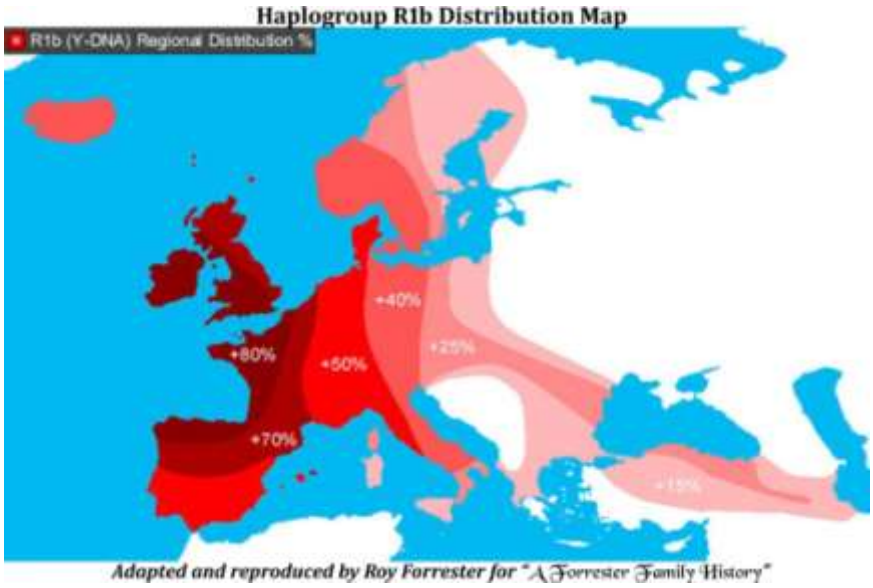


Adapted and reproduced by Roy Forrester for "A Forrester Family History"

The I2a2 population varies across Europe between <1% to > 10%. Note the concentration in the Scottish Lowlands

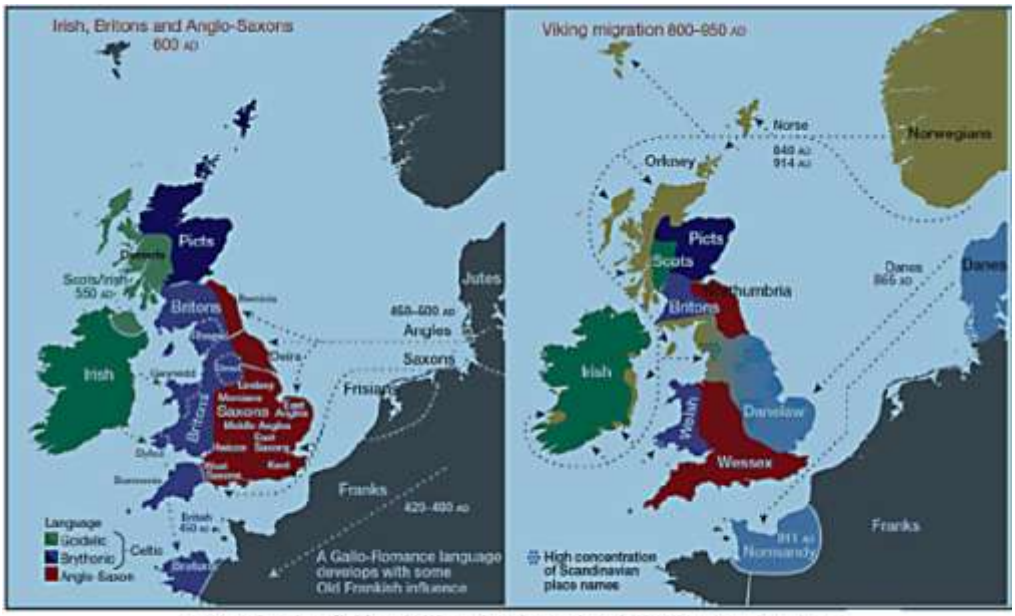
Haplogroup I2a2 aka I-M436 is an ancestor clad to our haplogroup I-BY14048.

In contrast haplogroup R1b population varies in density from 15% and 80%



Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Haplogroup designations cannot be used to define ethnicity. For example, ethnic population and surname population groups in the United Kingdom will randomly share all of the above clads but not necessary at those percentages. However we have seen in FTdna's projects, the majority of people, regardless of ethnicity or surnames, fall into the R1b haplogroup or it's subclads.



Saxon migrations (left) and Viking migration to the British Isles. by Hans De Beule
Adapted and reproduced by Roy Forrester for "A Forrester Family History"

It is interesting to note that the shortest distance between Ireland and Scotland is only 12 miles.

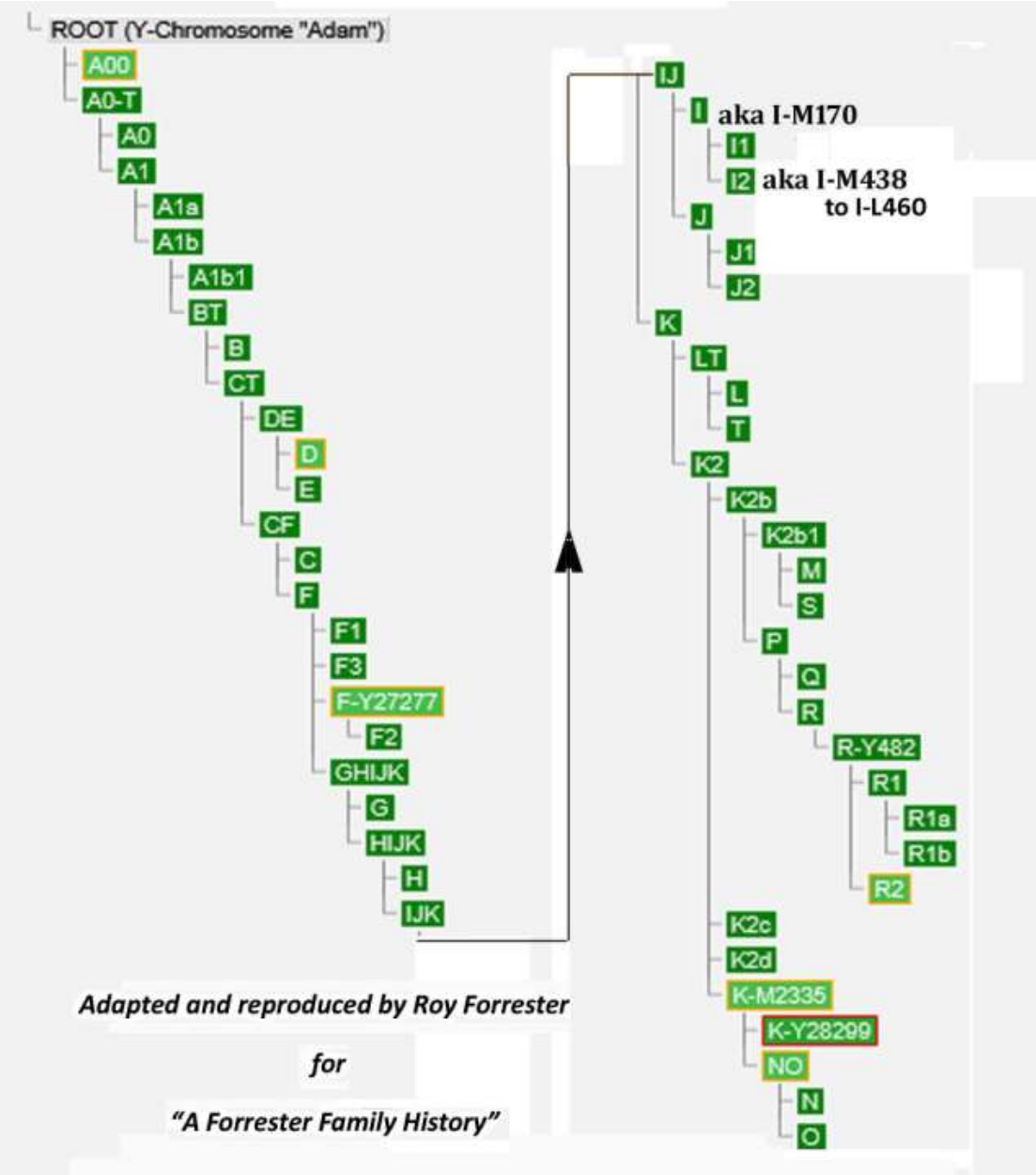
The following paternal haplotree chart shows the fictitious Adam at haplogroup A00 branching into haplgoups A0-A1and so on. This Forrester family's major downstream clad is 'I' aka I-M170 branching into I2 and so on down to I-BY14048

FTdna's main focus is on testing DNA. They provide a limited amount of analytical tools. YFull.com, who specialise in analytical tools, fill that gap.

"YFull.com was founded in 2013 and focuses on the interpretation of Y-chromosome sequences. The main aim of the project is to provide services for the analysis of full Y-chromosome raw data (BAM) files and convenient

visualization. The data is collected and analysed and newly discovered single-nucleotide polymorphisms (SNPs) are placed on an experimental Y-tree. Haplogroup and thematic projects are offered." ISOGG

DNA Tests 6: **Y-Full Y Halotree**



My haplogroup progession from I2 aka (I-L438) downstream:-

- **I-L460 aka I2a> I- M436 aka I2a2> I-S2525> I-L38 > I-S2606> I-L13076> I-S2488> BY14048**
- See detailed explanation in part 2 appendix 11

My current haplogroup, and those of my matches, I-BY14048, are descendant haplogroups of I2 aka I-M438 above

Predominately a European haplogroup. I found the following blog interesting:

Y-DNA Haplogroup I Predominant in European Hunter-Gatherers. The full article may be seen on the following website:

http://dispatchesfromturtleisland.blogspot.com/2013/12/y-dna-haplogroup-i-predominant-in.html

"We have long known that mtDNA haplogroup U (especially U5) was predominant in European hunter-gatherers. We now have a substantial set of ancient Y-DNA from early European hunter-gathers that establishes that Y-DNA haplogroup I (particularly I2) was predominant in those same European hunter-gatherers.

"The data is, of course, incomplete. It isn't entirely clear how true this is of European hunter-gatherers in Southwest Europe, for example. But, the fact that all of the half a dozen Mesolithic European hunter-gatherers from the two sites for which data is available have Y-DNA haplogroup I is quite powerful evidence (none of the samples exclude I2, but not all are that specific).

"Today, Y-DNA haplogroup I accounts for a little less than 20% of Europeans with a much higher percentage of Scandinavians (among the last population of Europe to adopt farming) and in the Balkans . I1 which is not present in the ancient samples currently more common than I2. I1 appears to have expanded much later, perhaps around the time of the Nordic Bronze Age or maybe even a later phase of the Nordic Bronze Age. Thus, less than 10% of European men are in the I2 Y-DNA clade. Its mtDNA counterpart, mtDNA haplogroup U, is found in about 11% of Europeans (the non-U5 clades are mostly outside of Europe or rare). These estimates aren't perfect since some clades of each haplogroup may have been late arrivals, and there may be other haplogroups in ancient DNA of that period which has not yet been discovered.

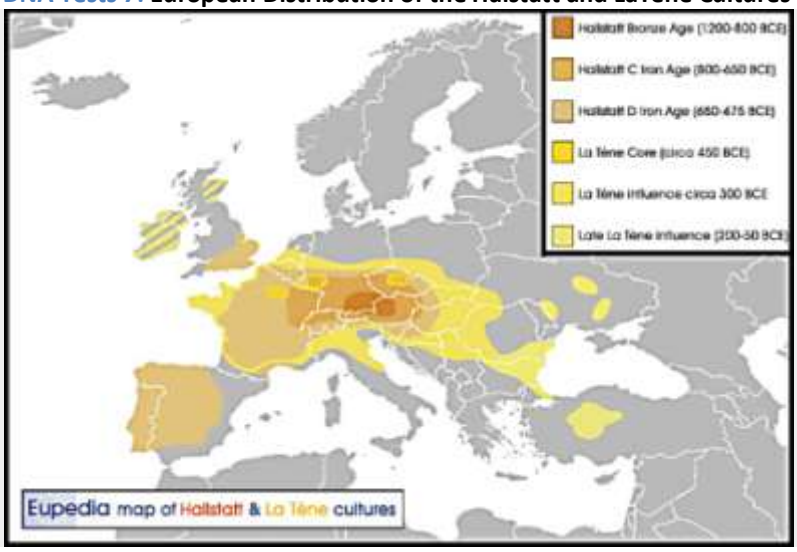
"But, it is a fair guess that the Paleolithic European hunter-gatherer population in which both Y-DNA I and mtDNA U were predominant is the source of something on the order of one-ninth or one-tenth of the modern European gene pool. Likewise, it is fair to say that modern Uralic and Nordic European populations in far Northern Europe in modern Europe, which have high concentrations of both haplogroups, are probably closest to these ancestral populations within Europe. The corollary of this observation is that the contribution of this Paleolithic hunter-gatherer population in other parts of Europe may be even more shallow."

"I-L38 could have appeared during or soon after the Last Glacial Maximum, perhaps 17,000 years ago. Most of its branches would have become extinct and only one survived with a patriarch living during the Bronze Age, probably in Germany. The oldest known L38 sample comes from the **Unetice culture** in central-east Germany 4,000 years ago. Four out of the six samples from the 3,000 year old Lichtenstein Cave in central Germany belonged to L38+ as well. The cave was part of the Bronze Age **Urnfield Culture**.

"Based on the STR dating, it is believed that this lineage spread from Germany to England via Belgium in the Late Iron Age with the Celtic people of the **Hallstatt and La Tène cultures**. I-L38 is therefore essentially a **Alpine Celtic** haplogroup. Nowadays I-L38 has a distribution mostly limited to Alpine Italy (esp. Piedmont), Switzerland, the German Rhineland, the Harz mountains, the Low Countries, eastern France, and the British Isles (with the exception of Cornwall and Wales). Isolated samples have been found in western Spain, Hungary, Romania, Bulgaria, central Turkey and Ukraine, all places settled by Alpine Celts.

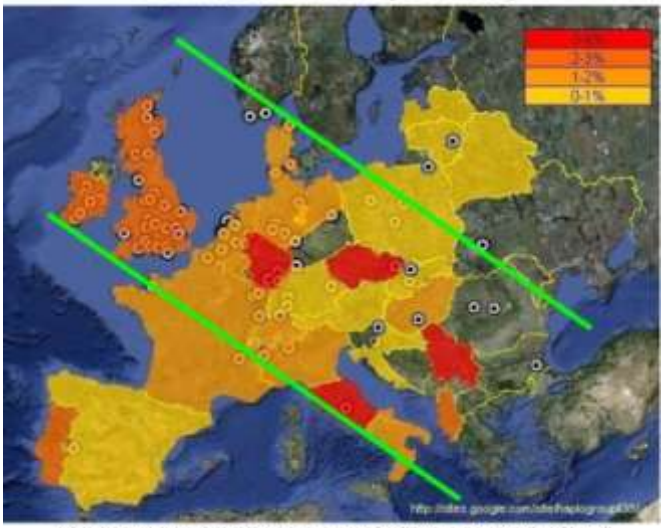
"The distribution of I-L38 matches fairly well that of haplogroup R1b-U152 north of the Alps. Both haplogroups are also found at low frequency in Hungary, Romania, Bulgaria and central Turkey, probably reflecting the migration of La Tène Celts in the third century BCE (see map). R1b-U152 is associated with both the Central European Celts (Unetice, Urnfield, Hallstatt, La Tène) and the Italic people. In Italy, I-L38 is limited to the Alpine region, mostly the north-west, where Gaulish tribes settled, and it is likely that I-L38 was brought to Italy by Celtic migrations many centuries after the arrival of Italic tribes from the Alpine Danube region. I-L38 people would therefore have been autochthonous to the region between the Alps, Central Germany and the Low Countries and were assimilated into the Celtic society during the Hallstatt or La Tène period."

DNA Tests 7: European Distribution of the Halstatt and LaTéne Cultures



Our haplogroup BY14048, a descendant of I-L38 was believed to have formed around 4,000 years ago, long before family names were in use. According to current scientific thinking we can expect to find our most recent common ancestors within the past 600 years and according to our Y-DNA, combined with our paper trails, our common ancestors are expected to be found in the 15th century.

Estimated I-L38 distribution (De Beule 2011)



Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Currently I have 7 confirmed Y-DNA matches three Forresters, three Fosters and one Brown

All of my current matches' STRs tested to at least 37 markers and three of us have taken our STR tests to a 111 marker level to better define our haplotypes. Initially our paternal haplogroup was assigned to I-M170. Three of us have subsequently taken special SNP tests are now reassessed to I-BY14048. Our haplotypes suggest if the remaining 5 undertook similar SNP tests they would also be reassessed to I-BY14048.

Recently, Nathan Forrister, using a process called Y-DNA triangulation, connected our Y-DNA to that of the Torwood Forresters thereby confirming our hypothesis about the family of whom much has been published in both book and electronic format.

Although Genetic Science is one of the mainstream science tracks in use today, genetic research for genealogy began to be developed relatively recently; consequently as new discoveries are being uncovered every day, the base lines are constantly changing. Unfortunately advertising hype tends to indicate that once the DNA test(s) are complete,

identifying currently unknown ancestors is simple. Quite the contrary, it requires hours of persistent hard work, by genealogical researchers both professional and non professional combining genealogy standard research with genetic research to reach any sort of reasonable conclusion, especially knowing that as new knowledge come to light one's conclusions may have to be changed or even reversed. The more who volunteer to take the available DNA tests, the larger the Genealogical/Genetic database becomes resulting in more accurately defined results. Genetics should be regarded as one more valuable tool in genealogy research and not a means to an end.

The following provides both tutorial (appendices 1 through 9) and a more in depth explanation of our DNA results. (appendices 10 through 15).

Appendix 1

Genetics for Genealogy Reference Material

Glossary of DNA Terminology
https://isogg.org/wiki/Genetics_Glossary is currently one of the best references available.
ISOGG is:- The International Society of Genetic Genealogy
Autosomal DNA: For a technical explanation check http://isogg.org/wiki/Autosomal_DNA .
Autosomal DNA (atDNA) testing https://en.wikipedia.org/wiki/Genealogical_DNA_test
Mitocondrial DNA: http://isogg.org/wiki/Mitochondrial_DNA_tests
Y- DNA: http://isogg.org/wiki/Y_chromosome_DNA_tests

Additional companies provided DNA analytical services:

1. GEDmatch offers special tools which allow one to examine autosomal DNA with possible matches in more detail, with the added advantage of being able to examine the results with others tested by different companies.
2. Y-Full will evaluate ones SNPs raw data in detail from 2nd generation Y DNA tests and compares them to other DNA matches.

In addition I had expert help from the American Clan Forrester Society. Nathan Forrister, their DNA consultant and coordinator was available to answer our queries it seemed 24/7.

A Y-STR is a short tandem repeat (STR) on the Y chromosome. Y-STRs are usually designated by DYS numbers. The standard Y-chromosome (Y-DNA) test used for genealogical purposes looks at Y-STRs, called 'Markers'. These markers have different values; the series of alleles for different people form haplotypes

By themselves, Y-chromosome DNA (Y-DNA) short tandem repeat (STR) markers from a Y-DNA test do not have any particular meaning. The value of testing Y-DNA STR markers comes from creating a Y-DNA signature (haplotype) with them and comparing that Y-DNA signature to others in a database. They are useful for genetic genealogy because your Y-DNA signature distinguishes your paternal lineage from others. They can then be used with Family Tree DNA's comparative database to discover genealogical connections or historic ancestry.

"A haplotype (haploid genotype) is a group of genes in an organism that are inherited together from a single parent. A haplogroup is a group of similar haplotypes that share a common ancestor with a single-nucleotide polymorphism mutation or SNP

"STR Polymorphisms: Most of our DNA is identical to DNA of others. However, there are inherited regions of our DNA that can vary from person to person. Variations in DNA sequence between individuals are termed "polymorphisms". As we will discover in this activity, sequences with the highest degree of polymorphism are very useful for DNA analysis in forensic cases and paternity testing. This activity is based on analyzing the inheritance of a class of DNA polymorphisms known as "Short Tandem Repeats", or simply STRs.

"Is it the same as a Mutation?
Mutations by themselves do not classify as polymorphisms. A polymorphism is a DNA sequence variation that is common in the population. A mutation, on the other hand, is any change in a DNA sequence away from normal (implying that there is a normal allele running through the population and that the mutation changes this normal allele to a rare and abnormal variant.)

"In polymorphisms, there are two or more equally acceptable alternatives and to be classified as a polymorphism, the least common allele must have a frequency of 1% or more in the population. If the frequency is lower that, the allele is regarded as a mutation

"STRs are short sequences of DNA, normally of length 2-5 base pairs, that are repeated numerous times in a head-tail manner, i.e. the 16 bp sequence of "gatagatagatagata" would represent 4 head-tail copies of the tetramer "gata". The

polymorphisms in STRs are due to the different number of copies of the repeat element that can occur in a population of individuals."

FTdna uses Y STR tests to create haplotypes which can predict haplogroups and close DNA matches with a Time to the Most Recent Common Ancestors (TMRCA) to within the last millennium when surnames were beginning to be adopted.

People with similar haplotypes have common ancestors within the genealogical time frame

"An SNP test
Single nucleotide polymorphisms, frequently called SNPs (pronounced "snips"), are the most common type of genetic variation among people. Each SNP represents a difference in a single DNA building block, called a nucleotide. For example, a SNP may replace the nucleotide cytosine (C) with the nucleotide thymine (T) in a certain stretch of DNA.

"SNPs are Copying Errors. To make new cells, an existing cell divides in two. But first it copies its DNA so the new cells will each have a complete set of genetic instructions. Cells sometimes make mistakes during the copying process - kind of like typos. These typos lead to variations in the DNA sequence at particular locations, called single nucleotide polymorphisms, or SNPs (pronounced "snips").

"DNA is passed from parent to child, so you inherit your SNPs versions from your parents. You will be a match with your siblings, grandparents, aunts, uncles, and cousins at many of these SNPs. But you will have far fewer matches with people to whom you are only distantly related. The number of SNPs where you match another person can therefore be used to tell how closely related you are.

"STRs vs SNPs.
A good source: https://dna-explained.com/2014/02/10/strs-vs-snps-multiple-dna-personalities/ provides a reasonable explanation as to the differences between STRs and SNPs as it applies to Genealogy."

Haplogroups:

From ISOGG.org/wiki/Haplogroup:-
"A haplogroup is a genetic population group of people who share a common ancestor on the patrilineal or matrilineal line. Haplogroups are assigned letters of the alphabet, and refinements consist of additional number and letter combinations.
"Y-chromosome DNA (Y-DNA) haplogroups are determined by single-nucleotide polymorphism (SNP) tests. SNPs are locations on the DNA where one nucleotide has "mutated" or "switched" to a different nucleotide.

"Because a haplogroup consists of similar haplotypes, it is possible to predict a haplogroup from the haplotype. A SNP test is required to confirm the haplogroup prediction. Not all the testing companies offer SNP testing, and consequently their customers' haplogroup predictions are sometimes inaccurate."

The above definitions and explanations were directly downloaded from articles posted on the internet particularly the International Society of Genetic Genealogy (ISOGG

"Y dna: FTdna offer two different Y DNA tests:

a) *An STR test:*
By themselves, Y-chromosome DNA (Y-DNA) short tandem repeat (STR) markers from a Y-DNA test do not have any particular meaning. The value of testing Y-DNA STR markers comes from creating a Y-DNA signature (haplotype) with them and comparing that Y-DNA signature to others in a database. They are useful for genetic genealogy because your Y-DNA signature distinguishes your paternal lineage from others. They can then be used with Family Tree DNA's comparative database to discover genealogical connections or historic ancestry.

A Y-STR is a short tandem repeat (STR) on the Y chromosome. Y-STRs are usually designated by DYS numbers. The standard Y-chromosome (Y-DNA) test used for genealogical purposes looks at Y-STRs, called Markers. These markers have different values or alleles for different people or haplotypes

A haplotype (haploid genotype) is a group of genes in an organism that are inherited together from a single parent.[1][2] A haplogroup is a group of similar haplotypes that share a common ancestor with a single-nucleotide polymorphism mutation or SNP

STR Polymorphisms Most of our DNA is identical to DNA of others. However, there are inherited regions of our DNA that can vary from person to person. Variations in DNA sequence between individuals are termed "polymorphisms". As we will discover in this activity, sequences with the highest degree of polymorphism are very useful for DNA analysis in forensics cases and paternity testing. This activity is based on analyzing the inheritance of a class of DNA polymorphisms known as "Short Tandem Repeats", or simply STRs.

STRs are short sequences of DNA, normally of length 2-5 base pairs, that are repeated numerous times in a head-tail manner, i.e. the 16 bp sequence of "gatagatagatagata" would represent 4 head-tail copies of the tetramer "gata". The polymorphisms in STRs are due to the different number of copies of the repeat element that can occur in a population of individuals.

A Short Tandem Repeat (STR) analysis is one of the most useful methods in molecular biology which is used to compare specific loci on DNA from two or more samples. A short tandem repeat is a microsatellite, consisting of a unit of two to thirteen nucleotides repeated hundreds of times in a row on the DNA strand. STR analysis measures the exact number of repeating units. "

FTdna uses Y STR tests to define haplotypes, testees with closely matched haplotypes are considered close matches with a Time to the Most Recent Common Ancestors TMRCA of within the last millennium when surnames were beginning to be adopted. From a group of closely matched haplotypes FTdna can predict haplogroups.

Genealogy DNA research examines particular DNA mutation patterns associated with reproduction and generational change from thousands of years ago to the present time. Such mutations occur at a very slow rate from a few generations to many hundreds of generations but over time a pattern evolves into what we call groups of people which in Genetic jargon these groups are called haplogroups. Each time such a mutation occurs it often creates a separation or branching in the descendant or haplotree. The new branch is given its own genetic name associated with the particular mutation. For example the paternal haplotree begins with Adam and his genetic branch A00 down to R2 with more subclads being uncovered as more people sign up for DNA testing. This Forrester family's first main branch is at haplogroup I then I2 etc.

The initial 'Y'DNA test checks STR markers (Short Tandem Repeat) Currently In FTdna one can test from 12 to 111 STR markers in which each have an associated number or allele. The number represents the number of repeated DNA segments in a particular position on the Y-Chromosome.

Subject Tested	Genetic Distance	Paternal Ancestor Name	Country of Origin	Haplo-group	DYS 393	DYS 390	DYS 19	DYS 391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS 389ii
Roy Forrester	Ref.	William Forrester	Scotland	I-M170	13	22	16	10	13-17	11	13	11	12	11	28

In the above table the STR marker DYS393 has 13 DNA segment repeats, DYS390 has 22 and so on, and the value is called an allele. The numerical pattern created by the string of alleles is called a haplotype and people with the same or similar haplotypes are said to be related. A 12 marker test is normally considered insufficient for accurate results except in special circumstances. A more practical minimum number is 37 and the optimum number accuracy/price is 67. The maximum number of markers FTdna will test is 111. From my first test at the 12 marker level FTdna could not predict my haplogroup my haplogroup had to be determined by what FTdna calls a backbone test or specfic SNP test which in my case was limited to SNP M170. As will be seen later, I arranged for specific SNP tests and my haplogroup was reassessed to downstream I-BY14048.

An SNP test

Single nucleotide polymorphisms, frequently called SNPs (pronounced "snips"), are the most common type of genetic variation among people. Each SNP represents a difference in a single DNA building block, called a nucleotide. For example, a SNP may replace the nucleotide cytosine (C) with the nucleotide thymine (T) in a certain stretch of DNA.

SNPs are Copying Errors. To make new cells, an existing cell divides in two. But first it copies its DNA so the new cells will each have a complete set of genetic instructions. Cells sometimes make mistakes during the copying process - kind of like typos. These typos lead to variations in the DNA sequence at particular locations, called single nucleotide polymorphisms, or SNPs (pronounced "snips").

DNA is passed from parent to child, so you inherit your SNPs versions from your parents. You will be a match with your siblings, grandparents, aunts, uncles, and cousins at many of these SNPs. But you will have far fewer matches with people to whom you are only distantly related. The number of SNPs where you match another person can therefore be used to tell how closely related you are.

One useful aspect of testing SNPs is the SNP furthest downstream which tests positive is used to define one's haplogroup eg in our case my matches and me were initially assigned to haplogroup I-M170 the defining SNP being M170. When two of my matches and me undertook deeper SNP tests our haplogroup was Reassessed to I-BY14048 with the defining or terminal SNP being BY14048 or its equivalent SNP.

STRs vs SNPs.

A good source: https://dna-explained.com/2014/02/10/strs-vs-snps-multiple-dna-personalities/ *provides a reasonable explanation as to the differences between STRs and SNPs as it applies to Genealogy.*

Haplogroups:

from ISOGG.org/wiki/Haplogroup:-

A Haplogroup is a branch of the human family tree. All men in the same Y-DNA haplogroup share the same SNP or SNPs (unique marker/s in the Y-chromosome) which they have inherited from their common ancestor. The haplogroup is like a name for that common ancestor person. The haplogroup tells about current distribution and the migration patterns of the descendants of the haplogroup founder. The major Eurasian Y-DNA-haplogroups (E1b, G2a, I1, I2, J1, J2, R1a, R1b, etc.) formed over tens of thousands of years. Since 2012 more and more recent SNPs (under 3,000 years old) are available. These types of SNPs are informative for the historical time and allow also research in to the genealogical time frame.

- *Equivalent SNPs: mutations observed in the same haplogroup are equivalent and can all be used to describe a haplogroup. It is impossible to define the chronological order (time of occurrence) of the SNPs in one haplogroup.*
- *Synonymous SNPs: names describing the same mutation are synonymous; example: L21 = M529 = S145*

also

A haplogroup is a genetic population group of people who share a common ancestor on the patrilineal or matrilineal line. Haplogroups are assigned letters of the alphabet, and refinements consist of additional number and letter combinations.

Y-chromosome DNA (Y-DNA) haplogroups are determined by single-nucleotide polymorphism (SNP) tests. SNPs are locations on the DNA where one nucleotide has "mutated" or "switched" to a different nucleotide.

Because a haplogroup consists of similar haplotypes, it is possible to predict a haplogroup from the haplotype. A SNP test is required to confirm the haplogroup prediction. Not all the testing companies offer SNP testing, and consequently their customers' haplogroup predictions are sometimes inaccurate.

The above definitions and explanations were directly downloaded from articles posted on the internet particularly the International Society of Genetic Genealogy (ISOGG).

Genetic Genealogy is based upon particular DNA mutations, namely SNPs.
"In a sequencing project Single Nucleotide Polymorphisms (SNPs) and DNA mutations are defined as DNA variants detectable in >1 % or <1 % of the population, respectively. ... These problems can impact the accuracy of the interpretation and the functional relationship between a disease state and a genomic sequence. Jul 15, 2015"
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Appendix 2

Part 2 DNA Bibliography

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22. http://clanforrester.org/dna.php DNA tutorials by Nathan Forrister
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24. https://ghr.nlm.nih.gov/primer/basics/mtdna US National Library of medicine

There are also many books on the subject of Genetics for Genealogy coming onto the market. Also see part 1 Bibliography

Appendix 3

DNA Tests 8: Genetic DNA Testing 101

From Wikipedia, the free encyclopedia

Extract 4: Autosomal DNA Testing for Genealogy

Autosomal DNA are the 22 pairs of chromosomes that do not contribute to gender. These are inherited exactly equally from both parents and roughly equally from grandparents to about 3x great-grand parents. Inheritance is more random and unequal for more distant ancestors. The X-chromosome is also often included in Autosomal DNA tests. The X-chromosome has a special path of transmission. Both males and females receive an X-chromosome from their mother, but only females receive a second X-chromosome from their father.

Generally, a genealogical DNA test might test about 700,000 SNPs (single-nucleotide polymorphisms). Like mtDNA and Y-DNA SNPs, autosomal SNPs are changes at a single point in genetic code. Autosomal DNA recombines each generation. Therefore, the number of markers shared with a specific ancestor decreases by half each generation. Some type of microarray chip (Firmware) is used by the laboratory. Different chips test different SNPs.

The major component of an autosomal DNA test is matching other individuals. (humans share less than 99.9% of their DNA and the remaining 0.1% is considered for genealogical DNA testing) If two individuals share more than a certain threshold of the DNA tested, they are considered a match by the testing company. Based on the amount of shared DNA, usually expressed in centiMorgens(cM), their relationship may be predicted. Due to the random nature of DNA inheritance, the exact relationship cannot be exactly predicted. Depending on the threshold, all 5th cousins and closer should be a match. Whether 6th cousins and further match depends on how DNA has been inherited.

More detailed analysis of matches including the method of triangulation can reveal more precisely how two matches are related genealogically. GedMatch offers free tools for these purposes. This area of DNA testing can be the most complex and difficult to understand. Many popular blogs and websites explain these tools for beginners.

Most companies offer a percentage breakdown by ethnicity or region. Generally the world is specified into about 20-25 regions, and the approximate percentage of DNA inherited from each is stated. This is usually done by comparing the frequency of each Autosomal DNA marker tested to many population groups. The reliability of this type of test is dependent on comparative population size, the number of markers tested, the ancestry informative value of the SNPs tested, and the degree of admixture in the person tested. Earlier ethnicity estimates were often wildly inaccurate, but their accuracies have since improved greatly.

Extract 5: mtDNA (Mitochondrial) Testing for Genealogy

The Mitochondrion is a component of a human cell, and is technically not DNA. It is very small, at just 16,569 base pairs (by comparison the human genome is 3.2 Billion base pairs). It is transmitted from mother to child, thus a direct maternal ancestor can be traced using mtDNA. The transmission occurs with very little recombination or mutation. A perfect match found to another person's mtDNA test results indicates shared recent ancestry. More distant matching to a specific haplogroup or subclade may be linked to a common geographic origin.

Some people cite rare paternal mtDNA transmission as invalidating mtDNA testing,[1] but this has not been found problematic in genealogical DNA testing, nor in scholarly population genetics studies.

What gets tested

mtDNA, by current conventions, is divided into three regions. They are the coding region (00577-16023) and two Hyper Variable Regions (HVR1 [16024-16569], and HVR2 [00001-00576]).[2] All test results are compared to the mtDNA of a European in Haplogroup H2a2a.

The two most common mtDNA tests are a sequence of HVR1 and HVR2 plus a full sequence of the mitochondria. Some mtDNA tests may only analyze a partial range in these regions. Generally, testing only the HVRs has limited genealogical use so it is increasingly popular and accessible to have a full sequence test. The full sequence is still somewhat controversial because it may reveal medical information.

Understanding test results

It is not normal for test companies to give a base-by base list of results. Instead results are compared to the Sequence (CRS), which is the mitochondria of a European women from Haplogroup H. Differences between the CRS and the tester are usually very few, thus it is more convenient than listing ones raw results for each base pair.

Examples

Note that in HVR1, instead of reporting the base pair exactly, for example 16,111, the 16 is often removed to give in this example 111. The Letters refer to one of the 4 bases (A,T,G,C) that make up human DNA.

Region	HVR1	HVR2
Differences from CRS	111T,223T,259T,290T,319A,362C	073G,146C,153G

Extract 6: Y-DNA Testing for Genealogy

The Y-Chromosome is part of the 23rd pair of human chromosomes. Only males have a 'Y'-chromosome, because women have 2 'X' chromosomes in their 23rd pair. A man's patrilineal ancestry, or male-line ancestry, can be traced using the DNA on his Y chromosome (Y-DNA), because the majority of the Y-chromosome is transmitted father to son nearly unchanged. A man's test results are compared to another man's results to determine the time frame in which the two individuals shared a most recent common ancestor, or MRCA, in their direct patrilineal lines. If their test results are a perfect, or nearly perfect match, they are related within genealogy's time frame.[4] A surname project is where many individuals who's Y-chromosomes match collaborate to find their common ancestry.

Women who wish to determine their direct paternal DNA ancestry can ask their father, brother, paternal uncle, paternal grandfather, or a paternal uncle's son (their cousin) to take a test for them.

STR markers

Most common is STRs (short tandem repeat). A certain section of DNA is examined for a pattern that repeats (e.g. ATCG). The number of times it repeats is the value of the marker. Typical tests test between 30 and 120 STR markers. STRs mutate fairly frequently. The results of two individuals are then compared to see if there is a match. Close matches may often join a surname project. DNA companies will usually provide information about how closely related two matches are, based on the difference between their results. One's haplogroup can be predicted but not confirmed by a STR test. Confirmation requires a SNP test.

Extract 7 : Haplotype / Haplotypes

Downloaded from: http://www.nature.com/scitable/definition/haplotype-haplotypes-142

A haplotype is a group of genes within an organism that was inherited together from a single parent. The word "haplotype" is derived from the word "haploid," which describes cells with only one set of chromosomes, and from the word "genotype," which refers to the genetic makeup of an organism. A haplotype can describe a pair of genes inherited together from one parent on one chromosome, or it can describe all of the genes on a chromosome that were inherited together from a single parent. This group of genes was inherited together because of genetic linkage, or the phenomenon by which genes that are close to each other on the same chromosome are often inherited together. In addition, the term "haplotype" can also refer to the inheritance of a cluster of single nucleotide polymorphisms (SNPs), which are variations at single positions in the DNA sequence among individuals.

Extract 8: Haplogroups

From Wikipedia, the free encyclopedia: https://en.wikipedia.org/wiki/Haplogroup

In molecular evolution, a haplogroup (from the Greek: ἁπλούς, *haploûs*, "onefold, single, simple") is a group of similar haplotypes that share a common ancestor having the same single nucleotide polymorphism (SNP) mutation in all haplotypes. Because a haplogroup consists of similar haplotypes, it is possible to predict a haplogroup from haplotypes. An SNP test confirms a haplogroup. haplogroups are assigned letters of the alphabet, and refinements consist of additional number and letter combinations, for example R1b1. Y-chromosome and mitochondrial DNA haplogroups have different haplogroup designations. haplogroups pertain to deep ancestral origins dating back thousands of years.[1]

In human genetics, the haplogroups most commonly studied are Y-chromosome (Y-DNA) haplogroups and mitochondrial DNA (mtDNA) haplogroups, both of which can be used to define genetic populations. Y-DNA is passed solely along the patrilineal line, from father to son, while mtDNA is passed down the matrilineal line, from mother to offspring of both sexes. Neither recombines, and thus Y-DNA and mtDNA change only by chance mutation at each generation with no intermixture between parents' genetic material.

1. The International Society of Genetic Genealogy see Haplogroup definition in DNA--NEWBIE GLOSSARY

What that is saying that two people with the same haplogroup have a common ancestor at some point in history.

The following is a partial listing of DNA definitions by ISOGG of abbreviations used in this text

SNPs

SNP (Single-nucleotide polymorphism) happens when a single place in the genome sequence is altered during the cell formation process and this mutation persists in the progeny. A person has many inherited SNPs that together create a unique DNA pattern for that individual. Snips clarify the branching of a tree-separation of different subhaplogroups and to discover deep ancestry. A terminal SNP is the defining SNP of the latest subclade known by current research. It should be unique (UEP) and constant in time. ISOGG maintains a Y-SNP Index where synonymous names are listed

Clade

Clad comes from the Greek word Klados = branch. A Clade on the Y chromosome tree is also called a Haplogroup. Subclade describes a sub-clade being downstream (occurring later in time). A Clade includes all the descendants of a single MRCA (most recent common ancestor). See also TMRCA.

Haplogroup

A Haplogroup is a branch of the human family tree. All men in the same Y-DNA haplogroup share the same SNP or SNPs (unique marker/s in the Y-chromosome) which they have inherited from their common ancestor. The haplogroup is like a name for that common ancestor person. The haplogroup tells about current distribution and the migration patterns of the descendants of the haplogroup founder. The major Eurasian Y-DNA-haplogroups (E1b, G2a, I1, I2, J1, J2, R1a, R1b, etc.) formed over tens of thousands of years. Since 2012 more and more recent SNPs (under 3,000 years old) are available. These types of SNPs are informative for the historical time and allow also research in to the genealogical time.

- Equivalent SNPs: mutations observed in the same haplogroup are equivalent and can all be used to describe a haplogroup. It is impossible to define the chronological order (time of occurrence) of the SNPs in one haplogroup.
- Synonymous SNP: names describing the same mutation are synonymous; example: L21 = M529 = S145

Nomenclature System (YCC)

2002 the Y Chromosome Consortium (YCC) proposed two widely accepted nomenclature systems for Y-DNA haplogroups.[1] Major haplogroups are labeled with large capital letters (A–T). "Paragroups" are distinguished from haplogroups by using the * (star) symbol, which represents chromosomes belonging to a clade but not its subclades. Examples for the haplogroup defined by the SNPs L21/M529/S145 and L459:

- Hierarchical system: R1b1a2a1a2c (ISOGG 2016 11.20), R1b1a2a1a*1b4* (FTDNA 2009), R1b1a2a1a*1b3* (ISOGG 2012 v7.62), R1b1*b2a1a2f* (23andMe 2009).
- Shorthand - SNP system: R-L21, R1b-L21, R-M529, R-S145. This system is more robust to changes in topology but widespread SNPs have often up to three synonymous names. Additionally different corporations/labs in many cases select an equivalent SNP for the same haplogroup as primary (R-L459). For seldom and new terminal SNPs there is also the risk that they are not unique (recurrent, unstable) or not detectable with all lab methods.

Y-STR - DYS values

STR (Short tandem repeat) is a short DNA motif (pattern). Y-STRs occur on the Y-DNA. DYS (DNA Y-Chromosome Segment) numbers show the repeats of an STR on that position. A DYS value typically mutates with a certain (low) probability to a higher or lower value from generation to generation. But this DYS values are not unique and not constant in time.

Y-DNA - Haplotype

Y-DNA Haplotype is defined as one person's set of values for the DYS locations. A set of DYS values is highly informative for tracing recent ancestry (genealogical time). The quantity of needed DYS values depends on the research goal and the frequency of nearby haplotypes. For surname projects 12 or 25 markers can be enough, while for extended haplotpye studies (lineage distinction, pre surname time, SNP research) and to find more distant matches 37 to 111 markers are used. Modal haplotype is the most commonly occurring haplotype derived from a specific group. It should be near or identical to the common ancestor of that group.

DNA - Matches

Y-DNA Matches are other kits (tested males) that have the same or similar numbers for the DYS values. While the same values usually are only probable in near relatives (father, son, brother, grandfather, cousins), step mutations can show a relation until many generations ago. In major european haplogroups (R1b-U106, R1b-U152, R1b-L21, I1-M255, E1b-M78, J2a-L26, G2a-L30, I2-M223, etc.) many subclades have overlapping haplotypes. In this case only by high DYS coverage and positive testing of a recent terminal SNP the recent common ancestor is proven. See also TMRCA.

Appendix 4

The following series of instructive articles (Appendices 4 through 9) were written by Nathan Forrister on behalf of Vice President of the Clan Forrester Society and DNA Research Consultant and Coordinator.

Why Do We Test DNA?

Every serious genealogy researcher has a brick wall. It may be in the 1800s, 1500s or earlier; we all eventually exhaust the empirical paper trail. Forensic, or genetic genealogy, may be the best recourse when the inevitable occurs. Though it can not name the parent of our last confirmed ancestor, it can place us in the correct line through sequence comparison and haplotype. This important tool has already allowed me to correctly tie two dead ends together. My brick wall occurred in the mid 1800s.

Through the collection of DNA data, we have identified many lines of Forrester, (and variant spellings) beginning life in America as Forrest. The Forrest / Forrester's are now a vast lineage. Two of these groups test positive at SNP U106, suggesting a common ancestor prior to the emergence of surnames. A third, Canadian group of Forrest appears to be M-222 which is downstream of P312. (By International Society of Genetic Genealogy, SNP tree)

We have tested one line at SNP P310 positive and U106 / P312 negative. Further testing on this line at SNP DF100 has proven negative. This means we do not as yet have a representative of the "third brother" of U106 and P312. The L11 / P310** designation predates U106.

With the contribution of more data, our goal is to identify each Forrest / Forrester line in America. This can only be accomplished by testing and comparison of sequences. We encourage all untested males with any variant spelling of Forrest / Forrester to participate in this program. Your participation may help someone break through their "brick wall": more importantly, it may lead to breaking your own "brick wall" in genealogy research.

Nathan E. Forrister
Clan Forrester
DNA Consultant

Appendix 5

Understanding DNA:-Terminology

By Nathan Forrister

The basis of understanding your DNA test results is much like understanding English; you must know the slang or lingo. For example, we use DNA as shorthand for deoxyribonucleic acid. This is because we are lazy and don't want to write a long word when an acronym will suffice. Without getting too complicated, other common terms include locus, (loci plural) nucleotide, allele, short tandem repeat, haplogroup, single nucleotide polymorphism and haplotype or sub clade.. These terms seem complicated but are easily understood with a little study.

Locus is simply a particular position, point or place. Each locus is given a position we see as a DYS followed by a number in test results. For example, DYS393 is normally the first locus on test results. DYS is shorthand for DNA - Y chromosome - segment. Nucleotide is the basic building block of nucleic acids such as RNA and DNA. Allele is simply a fancy word for "repeat" and the number of short tandem repeats contained in a particular nucleotide or segment is reported. See example chart below.

LOCUS	1	2	3	4	5	6	7	8	9	10	11	12
DYS#	393	390	19*	391	385a	385b	426	388	439	389-1	392	389-2
ALLELE	12	24	14	10	11	15	12	12	12	13	13	29

I use the first panel of 12 as example as it is the most important in determining Haplogroup. A haplogroup forms over many generations and may predate the 24 generation emergence of surnames. Haplogroups are noted by letter such A, E, or R just to name a few. Using DYS393 as example, the repeat motif is AGAT and is repeated 12 times in the example above. Each locus has a standard repeat motif and the number of repeats is recorded on the chart.

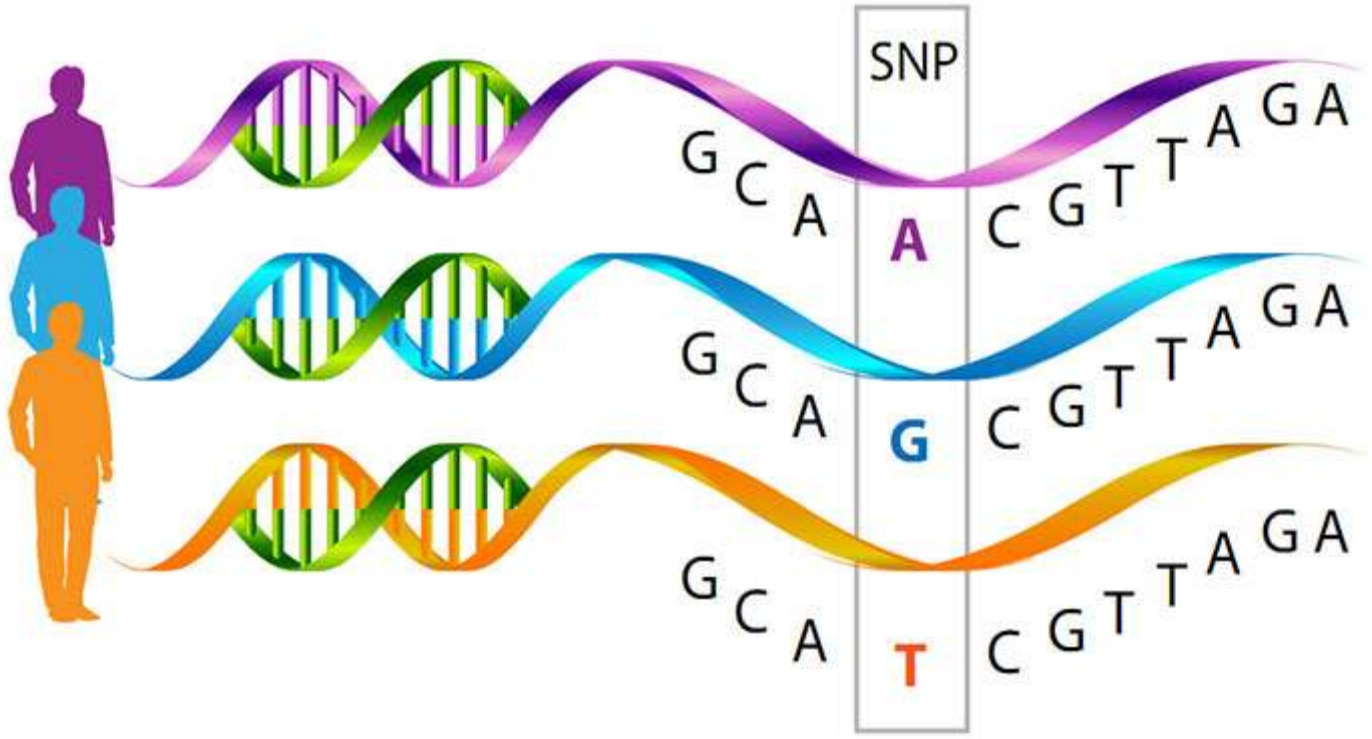
You can be in the same haplogroup as someone but not share a common ancestor in 24 generations. Three of the first twelve Alleles are "fast changers." Fast changers are usually noted by a red highlight such as DYS385a and b and DYS439. These will give you your first clue for ancestors in the 24 generation emergence of surnames or your haplotype. If you match someone 12 out of 12 you are probably related in this time frame. If you match 11 of 12 you are possibly related. If you match 10 of 12 or lower you are probably not related in the time frame. This is a lot of information contained in just the first 12 markers.

Sub Clades

This is another term you will become familiar with. Since most of our participants are in the R1b family we all share the definitive alleles that mark mutation M269. This means we all shared a common ancestor in the past 30,000 years or so. It does not tell us who our surname relative group may be. We got our first clue in the first twelve alleles; more markers are required to obtain sub clade. This is why I recommend 37 markers as the base unit of testing. 67 markers are required for participants in the Western Atlantic Modal Haplotype to eliminate many false positive matches.

We are now seeking others that share common mutations known as haplotype. A haplotype is a set of DNA polymorphisms that tend to be inherited together. A haplotype can refer to a combination of alleles or to a set of single nucleotide polymorphisms (SNPs) found on the same chromosome.

Comparison of sequence to other participants in family surname projects is a good way to start to determine sub clade. Notice of similar groups of alleles and in some cases a single allele match can determine haplotype. Though many matches can be confirmed through sequence comparisons, this is not always the case and further testing may be required to "zero in" your exact family sub clade. Sequence comparison is your best bet to determine possibilities for SNP tests to confirm you are in a particular group and eliminate costly trial and error by ordering all available SNP tests for your sequence.



Single Nuleotide Polymorphism

Sub Clades are confirmed by testing single nucleotide polymorphisms. For example, our groups B and C once shared a common ancestor as both groups test positive for the single nucleotide polymorphism known as U106. The two groups are not related in the 24 generation emergence of surnames as they only match on six of the first twelve markers. Since the common ancestor further mutations occurred and group C tested positive as low as R - Z301 while group B tested positive as low as R - Z31. Both groups share the Forrest surname and are considered genetically not related. The SNP testing allowed each group to "zero in" or focus on other participants in their respective haplotypes or subclades.

Enjoy Your Experience

This short definition of terms is not all inclusive, but it should give you some basic knowledge allowing you to enjoy your experience of DNA test results. It should allow you to make more competent decisions regarding whether to upgrade to higher number of markers or to test SNP's. With new SNP's being discovered each year, it may be necessary from time to time to order tests to further "zero in" on your particular haplotype. Knowing how to compare sequences will arm you in future decisions.

Genetic DNA testing is still in its infancy. Knowledge is building rapidly. I have devoted several years to DNA study and try to keep up with discoveries as they emerge. I am always available to assist you in your journey.

Understanding Your Results: Fast Changers

Building upon the basic terminology of DNA, you will want to find those closely related to you. FTDNA will provide you with matches and you will notice "genetic step distance" of each match. As previously discussed, 12 marker tests will only provide haplogroup. You may be an exact match to many folks with different surnames at this level of testing as they are in the same haplogroup. This is why our base level of testing is 37 makers and in many cases we need 67 to isolate subclade or haplotype.

This is not an exact science and one size does not fit all. There are variations that apply to each unique sequence. Since mutations occur randomly they may appear in consecutive generations or may not happen in 20 generations. Mutations may move up or down. There are also multi step mutations to consider. Mutation rates are calculated by algorithm and are an average of when polymorphisms may occur. Keeping this in mind, let's explore the variations

most often found in faster changing alleles. Most charts identify these alleles with a red highlight for your convenience.

Let's identify the "fast changers" in the first 37 markers:

First panel (1-12) DYS# 389a, 389b* and 439

Second panel (13-25) DYS# 449 and 464a, b, c and d

Third panel (26-37) DYS# 576, 570, CDYa and CDYb

*389a and b may reverse positions. For example a value of 11-12 may reverse to 12-11. The exact position is impossible to ascertain. This reversal is not considered a mismatch. This is also the case for DYS# 459, 464 and YCAII.. It is not possible to determine the exact order.

A 37/37 match means you are closely related to this participant sharing the same surname or variant. The probability of time to most recent common ancestor is 50% in 5 generations and 90% in 16 generations. The 50% likelihood in 5 generations is because mutations occur randomly. On average a mutation rate of 0 - 3 can be expected in 5 generations. Contact with these individuals and comparison of paper trails is essential to confirm the exact generation of common ancestor. Very few achieve this level of match.

A 36/37 match means you are related to this participant sharing the same surname or variant. Your mismatch most likely occurred at DYS# 576, 570, CDYa or CDYb. I have personally witnessed a genetic distance of 5 steps at CDYb between confirmed fourth cousins. Both participants shared a common third great grandfather. Testing of their fathers revealed the mutation was five steps at CDYb in one generation. The mentioned alleles are multi copiers and fast movers: CDY is the most volatile. This is why you should explore four and five step distances with the same surname or variant. Very few achieve this level of match.

A 35/37 match means you may be related to this participant sharing the same surname or variant. One of your mismatches may have occurred in the first 25 markers and you probably matched 24/25. Refer to the "fast changers" above as it is most likely as mismatch occurred at one of these alleles. If the two mismatches occur in the first panel it is not likely you are related. This will push back the time to most recent common ancestor but is still within the 24 generation time frame.

A 34/37 match means you may be related to this participant sharing the same surname or variant. If 2 of the mismatches occur in the first panel it is unlikely you are related. Comparison of other "fast movers" should be observed. This participant may be related in the 24 generation time frame.

A 33/37 match means you share the same surname or variant. Still check at CDYa and CDYb to rule out a multi step mutation. Most times, two of the mismatches are in the first panel and the participant is probably not related. Paper trail comparison is the only way to confirm or reject this match.

The same holds true for 67 marker tests. There are no "fast changers" in the fourth panel (38-47), five in the fifth panel (48-60) at DYS# 413a and b, 557, 481 and 446; zero in last panel (61-67).

A 67/67 match means you are closely related to a participant with the same surname or variant. The percentages increase to 50% in 3 generations and 90% in 5 generations. Very few will achieve this level of match.

A 65-66/67 match means you are related to a participant with the same surname or variant. The only exception is if the two mismatches occur in the first panel of twelve. Examine the fast changers and look for multi step mutations. Very few will achieve this level of match. The confidence level the participant is related is very well within the time frame of emergence of surnames.

A 63-64/67 match means you are probably related to a participant with the same surname or variant. Again the first panel of 12 is very important. Again check the fast changers listed. There is still a good chance this participant is related within the time frame for emergence of surnames.

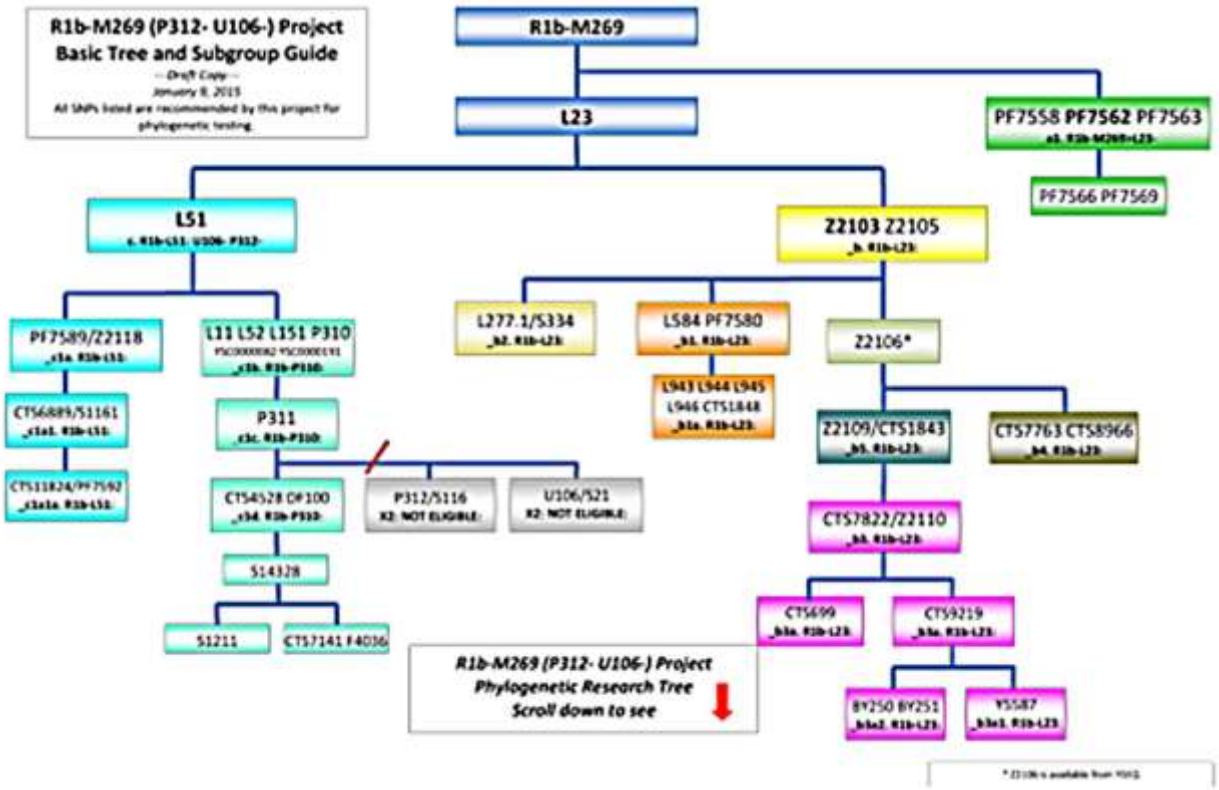
A 61-62/67 match means you are possibly related to a participant with the same surname or variant. This type of match will be on the threshold of time frame for emergence of surnames.

Matches below 32/37 and 60/67 are considered most likely not related even within the same surname. Allele position of mismatch should be considered. Examination of paper trail and the possibility of multi step mutation place these matches within the realm of possibility though not probable.

The Phylogenetic Tree

Since most of our participants are in the R1b-M269 [Formerly R1b1a2] family I want to familiarize you with our phylogenetic tree. All of us will share the mutation M269 and will consider it our common ancestor. A large group sharing a common ancestor is called a Haplogroup. The inevitable polymorphisms of nucleotides would further divide us into subclades or haplotypes. In genealogy this is your family group leading to most recent common ancestor.

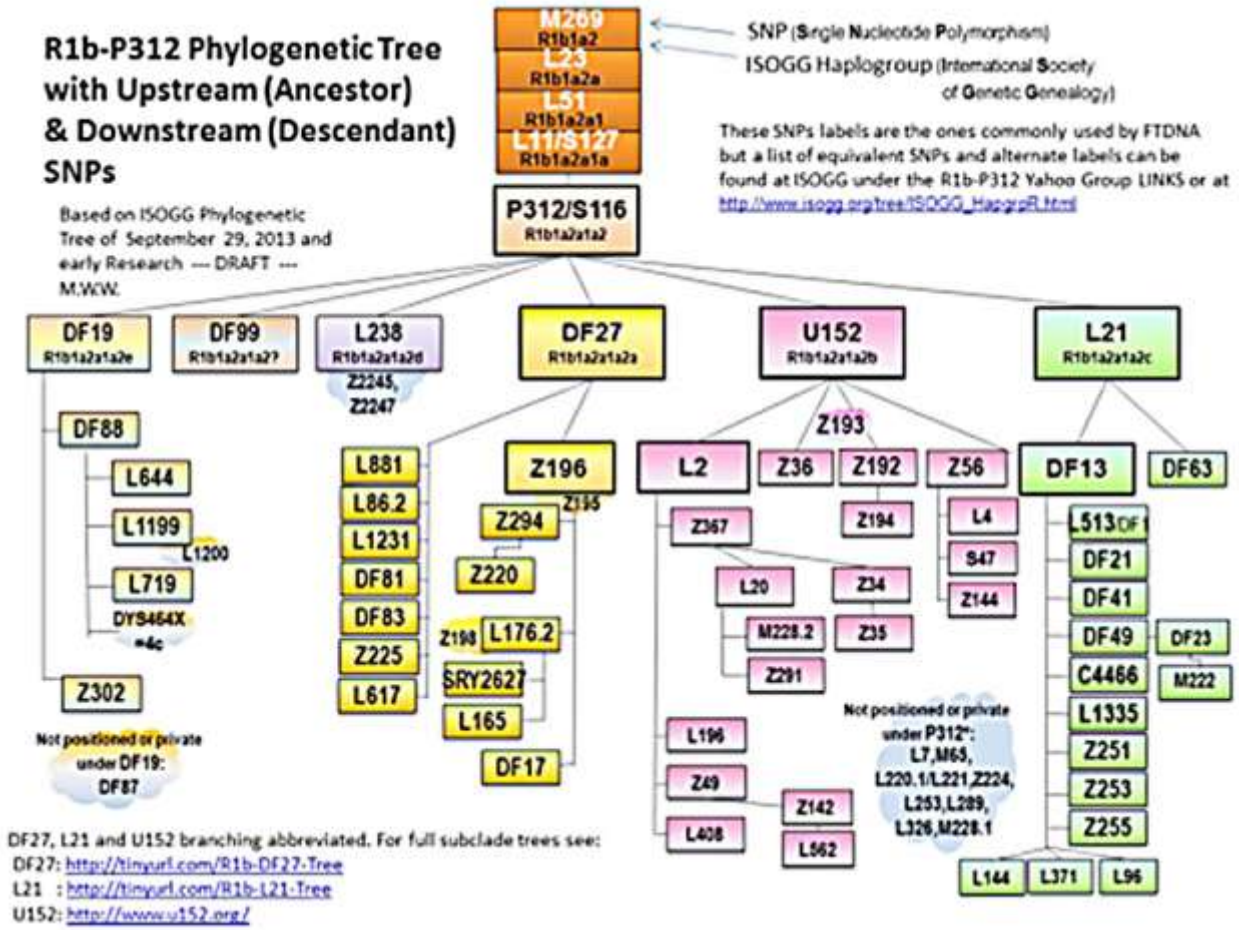
This list, courtesy of FTDNA, is not all inclusive. Updated in January 2015, it is a good up to date representation of the major SNP's downstream of R1b-M269. You will note it includes the newly discovered "third brother" of P312 and U106 known as CTS4528 or DF100. There are so many SNP's downstream of P312 and U106 they will be shown on a separate chart.



P312 and Subclades

Comparison of your sequence to others may give you a clue when ordering SNP tests. There are variants to all SNP's. Fortunately, there are several folks who have blazed the trail and have positive tests for each SNP listed below. You may not be an exact match with someone at DF27 or U152 but you may be in parameter for testing at these SNP's. As discussed previously, a 1 step distance on fast changers may still make you eligible for testing.

You will notice non positioned "private markers" in this tree. These are believed mutations within the last 500 years. A private marker is when only one individual or family has been identified. These are monitored as family and then branch groups may emerge in the future.

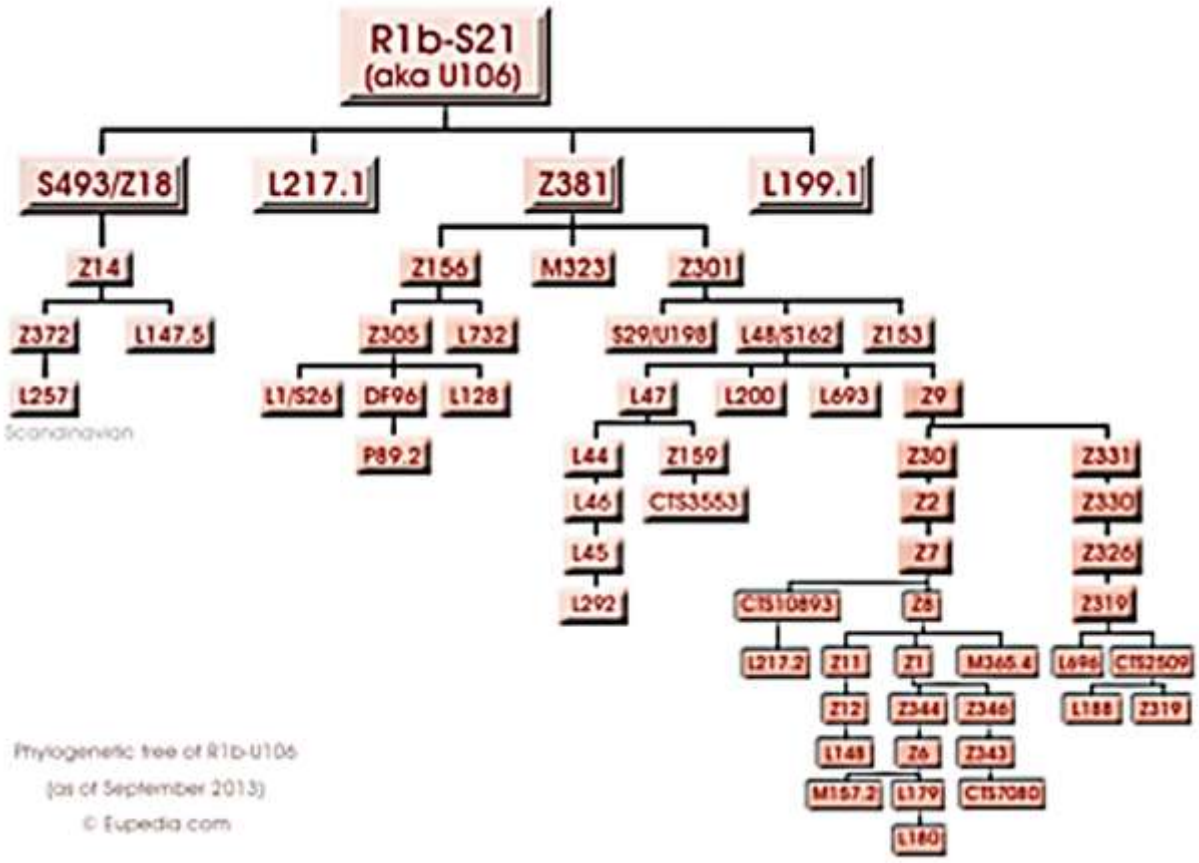


U106 and Subclades

As you go further down the phylogenetic tree it becomes more difficult to separate and determine terminal SNP's. For example, an individual testing positive at Z2 may next choose both CTS10893 and Z8 to ascertain which direction to go. A negative test on both should then test Z7. If the test at Z7 is also negative the participant is Z2 terminal and noted Z2*.

A positive test at Z8 may assume Z7 positive and again compare sequences for testing. If no revelation is discovered through comparison, I would recommend the participant to test the lowest level of options presented. In this case it would be L148, Z6 and Z343. The reason is this rule out options downstream with a negative test. It also assumes positive upstream if the test is positive.

I would only test M356.4 if micro alleles are present in my test results. Micro alleles are additional markers at loci such as DYS393 and more commonly DYS464. The normal at 464 is four values but up to seven have been observed.



Setting Genetic Testing Goals

Genetic testing goals will vary from person to person. Since genealogy is considered a hobby, finances will be a factor in decisions. We will focus on Y DNA goals in this article. Autosomal and mitochondrial will be addressed in later articles.

We have covered just the basics of Y DNA testing so far. Y DNA has several things to offer depending on your goals and budget. These include:

1] Placement in family group: surname project(s)
2] SNP confirmation to lowest known branch of family group
3] Next generation sequencing by comparison of SNP'
4] Pursuit of true "terminal" SNP
5] Discovery of private SNP'
6] Choosing haplogroup project(s)

Family Group: STR comparison of 12 and 25 markers will not always place a participant in the correct family group. Family groups are being defined by haplogroup or lowest tested single nucleotide polymorphism. [SNP] A 37 marker test is usually all that is required to match your sequence to the correct family group through STR comparison. In a few cases I have recommended upgrade to 67 markers to prove relation to family group. I have recommended only one 111 marker upgrade for this purpose. Upgrades cost money and we attempt to place you in a family group at the lowest cost possible. If this is your only goal you are finished. Sequence comparison will show if you are in parameter for haplogroup to other SNP testing participants.

Lowest Known Branch: This requires SNP testing. Lowest known branch is in reference to phylogenetic order in ISOGG and FTDNA SNP haplotree. Currently my family group lowest known branch is R - Z31 aka Z7. Any other person in my family group can order this one SNP test and match me on the haplotree. The genetic relation is now confirmed as it is proven by the presence of this SNP.

Next Generation Sequencing: This is where it gets fun. Next generation tests such as Big Y or FGC Y Elite test beyond known branches. Big Y covers about 41,800 SNPs and FGC about 53,350. Since I have tested Big Y, matches to men outside of surname have identified 10 new SNPs below the Z7 level and above Z8. This has produced a tiny subclade named FGC17344 with only five surname sequences in parameter of positive match. FGC17344 will eventually be placed in the ISOGG SNP haplotree. I have 11 remaining "singletons" or unmatched novel variants. As men from my family group test next generation, many of these singletons will be matched and produce a new family group defining SNP.

Pursuing True "Terminal" SNP: I never liked the term "terminal" SNP: it suggests the end of the line or lowest possible SNP. The definition has caused much confusion and made many reluctant to pursue further testing. As demonstrated above, I am already 10 SNP' below my family group' "terminal" SNP as defined by FTDNA. I prefer lowest know branch as the definition for family groups. Lowest know branch is a group thing; terminal SNP is a personal thing. As demonstrated above I have 11 remaining singletons. My true terminal SNP is among them. Terminal SNP occurs if or when only one singleton remains.

Private SNP: A private SNP is defined by the International Society of Genetic Genealogy as follows: either a binary polymorphism* observed only once, or multiple times with the associated STR profiles showing less than 15% of markers have diverged. A private SNP occurs at such a low level it should not be used to define a haplogroup. Thus it becomes a private SNP for a family and sometimes an individual.

* The ISOGG defines a binary polymorphism as a polymorphism with two states. It could be a single nucleotide polymorphism (SNP) or an insertion/deletion. [Also called an indel]

This type of SNP discovery will remain private for the foreseeable future. Reprint from 2016 ISOGG concerning private SNP' and indels:
Because of the abundance of alternatives now available, only single nucleotide polymorphisms (SNPs) are being accepted, and not insertions or deletions (indels) for new additions. In exceptional cases other variants may be considered for inclusion on a case by case basis if they can be clearly demonstrated to have equivalent properties to SNPs, but the burden of proof required will be much higher and at the discretion of the committee.

Choosing a Haplogroup Project:
Think of a haplogroup project as an extended family group. Where do you and your family belong in the human SNP haplotree? How many families are out there distantly related to my own?

For example, some of our members are P312+ >L21+ > DF13+ and Z253+. There is a haplogroup project for P312, L21 and Z253. One may join P312 with just their STR sequence. To join L21 or Z253 a positive SNP test at these levels is required. Some of our members are P312+ > L21+> DF13+ > DF49+ descending to subclades below R-M222. They would not be eligible for the Z253 project but could join P312, L21 and DF13. There are haplogroup projects for DF49 and R-M222.

This demonstrates the importance of SNP testing. Since there are 12 brother Clades directly downstream of L21, your sequence may appear similar to hundreds, if not thousands, of participants. Your placement in haplogroup projects will depend on which mutation or SNP is present in your Y DNA.

Good haplogroup projects have active administrators and co - administrators. They are available to advise you on SNP testing and placement of your sequence in the haplotree. Some my post removal or placement on an inactive list if recommended tests are not ordered. Haplogroup projects are where new discoveries of SNP' occur. Two or more must match in a haplogroup project for consideration of addition to the ISOGG SNP tree. Choosing the right haplogroup project can make a huge difference in your journey and exploration of genetic relationships. Several of our Clan Forrester family groups are currently in this process.

A Journey through Time:
As we travel back in time all of us will share a common ancestor. As I have employed P312 and U106 in examples our common ancestor was P311 man. Both of these large subclades emerged from one man born thousands of years ago. As we descend to lower subclades we move forward in time. SNP testing will eventually move us forward to a point in time when men began to take surnames. As we explore the shared SNP' with other surname groups we can estimate the time we departed genetic relations with them. This gives us a clearer picture of our own family migration routes. It covers the span of time from where we came from to where we are now.

Nathan Forrister
Clan Forrester Society
DNA Research Coordinator

Appendix 6
Employing DNA to Establish Paper Trail
And Relations
by Nathan Forrister

Since you can't replace documentation to establish a proper paper trail, DNA can serve as empirical evidence to support and in some instances, help to find documentation. So genetic genealogy and breaking through genealogical "brick walls" is really a simple process: it does require some time and patience though.

1] Gather documentation and theorize paper trail

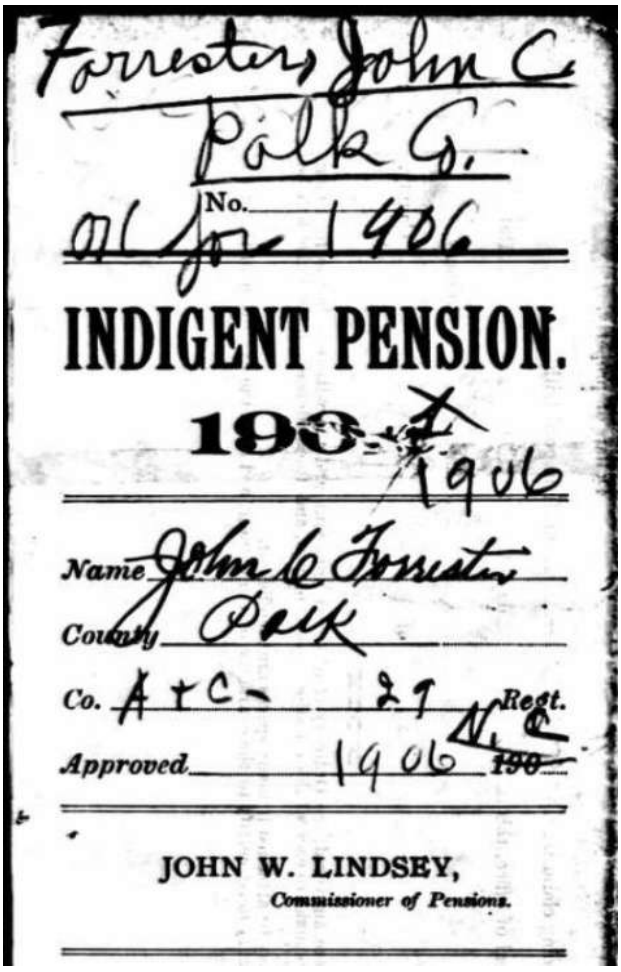
2] Test Y chromosome and autosomal DNA

3] Compare matches to confirm a paper trail based on genetic relation

I employed this simple logic to find the ancestry of my 2nd great grandfather, John Coleman Forrister. We knew John moved to Esom Hill, Polk County, Georgia from Cherokee County, North Carolina about 1881 and very little else.

We also knew John served as a Private in the Confederate Army as evident by placement of a veterans gravestone at Shiloh Cemetery in Esom Hill. Since this is about all we had to go on finding the correct paternity seemed difficult if not impossible. A record of Confederate soldiers is a good source of documentation so I started on line and found record of John enlisting in Murphy, North Carolina. I also noticed an Edward Forrester enlisted on the same day – this was my first clue. I started gathering documentation.

The search moved to the Polk County, Georgia Courthouse. There I found record of land deeds and death. Searching the National Archives, I ran across John's indigent soldier pension application dated 1906.



Forresters John C
Polk G.
No.
Oct Jan 1906

INDIGENT PENSION.

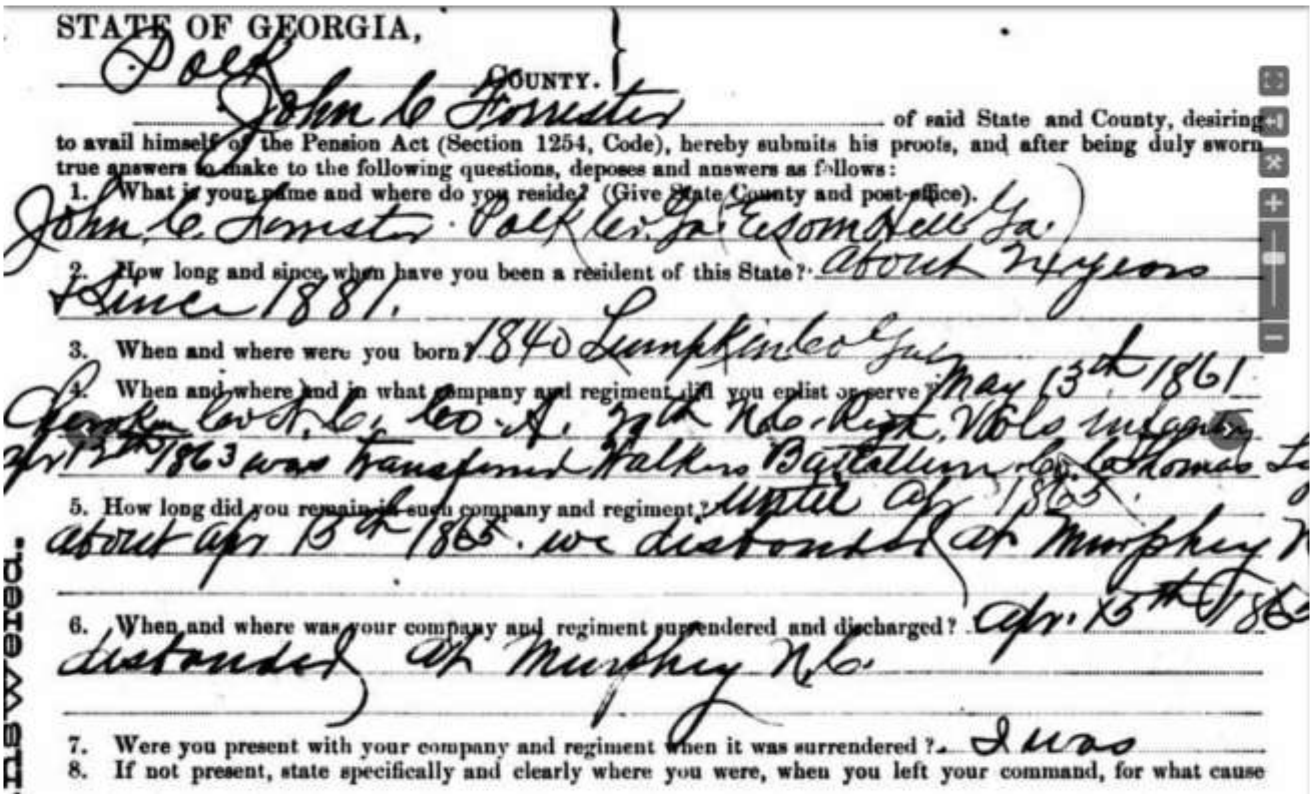
1906

Name John C Forrester
County Polk
Co. A & C - 29 Regt. N. C.
Approved 1906 ~~190~~

JOHN W. LINDSEY,
Commissioner of Pensions.

The greatest revelation from the record is John was not born in North Carolina. Neither were any of his siblings as it turned out. This revelation caused me to seriously examine the "established consensus parents" of John listed as Alfred Forrester and Isbel Hammond of Wilkes County, North Carolina. John stated in his pension application he was born 1840 in Lumpkin County, Georgia – this is a long way from Wilkes County, North Carolina. I don't believe my 2nd great grandfather was a liar.

I am a Forrister and some believe us to be a bit hard headed and obstinate at times, so naturally I concluded my 2nd great grandfather probably knew more about when and where he was born than anybody else. I chose to reject the "established consensus ancestors" in favour of a hard document I had in front of me from my 2nd great grandfather's own testimony. For many of my cousins this proved unpopular. [For some it still remains] They also having Forrister blood set out to prove me wrong. Believe it or not, this was a good thing – it only made me more determined and maybe this had a little to do with the obstinate thing of which I spoke.



STATE OF GEORGIA,
Polk COUNTY.

John C Forrester of said State and County, desiring to avail himself of the Pension Act (Section 1254, Code), hereby submits his proofs, and after being duly sworn true answers to make to the following questions, deposes and answers as follows:

1. What is your name and where do you reside? (Give State, County and post-office). John C. Forrester Polk Co. Ga. Esom Hill Ga.
2. How long and since when have you been a resident of this State? About 14 years Since 1881.
3. When and where were you born? 1840 Lumpkin Co Ga
4. When and where and in what company and regiment did you enlist or serve? May 13th 1861 [illegible] Co. A, 7th N.C. Regt. Vols infantry Apr 13th 1863 was transferred Walkers Battalion [illegible]
5. How long did you remain in such company and regiment? until Apr 1865 about Apr 13th 1865. we disbanded at Murphey [illegible]
6. When and where was your company and regiment surrendered and discharged? Apr 13th 186[illegible] disbanded at Murphey N.C.
7. Were you present with your company and regiment when it was surrendered? I was
8. If not present, state specifically and clearly where you were, when you left your command, for what cause

The 1830 and 1840 Census

I didn't find my ancestors in the 1830 or 1840 Lumpkin County, Census. For one thing, Lumpkin didn't become a County until 1832. I found Forresters in Habersham County, Georgia in both censuses. At the time of John's birth, White County had not been established. Habersham and Lumpkin Counties bordered each other. The 1840 census yielded a family of interest in the Mt. Yonah district – Henderson Forrester. Mt. Yonah became modern day Cleveland in White County, Georgia.

Henderson Disappeared by 1850

I could not find Henderson anywhere in the United States in 1850. I had to admit defeat and conclude he had died while my 2nd great grandfather was still a young boy. Where many would have given up I saw opportunity – I was looking for a widow with children somewhere in Northeast Georgia or Southwestern North Carolina. This narrowed the search considerably.

Widow Sarah Forrester appeared in the 1850 Franklin County, Georgia census. Among the named children was a combination I had been looking for – Edward and John. Sarah was in the home of her parents, Thomas P. Baldwin and Jane Garner Edwards.

Name	Sarah Forrester
Age	45
Birth Year	abt 1805
Birthplace	Georgia
Home in 1850	District 32, Franklin, Georgia, USA
Gender	Female
Family Number	176
Household Members	Thomas Baldwin 67 Jane Baldwin 66 Sarah Forrester 45 Thomas Forrester 19 Edward Forrester 16 John Forrester 9 Newton Forrester 5 Mark A Forrester 3 Susan Forrester 13

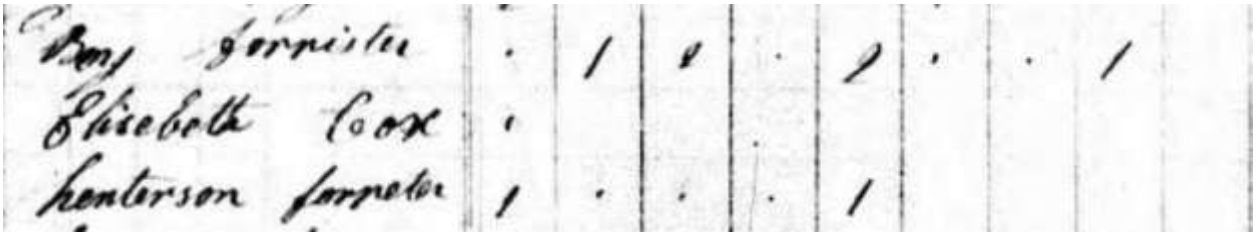
I was fairly certain the Cherokee County, North Carolina Forresters who are still there were our cousins: I just didn't know how. Though I was fairly certain I had found the mother, Sarah Baldwin, this created more questions to answer. Since John moved from Cherokee to Esom Hill and moved from Franklin County, Georgia to Cherokee where was the connection? Was Thomas the oldest born son at age 19 to a 45 year old widow or were there older children who had left the home? 45 – 19 = 26 and women of this era usually married younger than 25 and had children within a couple of years of marriage. I decided to take a look at the Cherokee North Carolina census and was surprised at what I found.

Name	Benjamin Foster
Age	21
Birth Year	abt 1829
Birthplace	Georgia
Home in 1850	Cherokee, North Carolina, USA
Gender	Male
Family Number	761
Household Members	Thomas Brown 52 Elizabeth Brown 46 Jane Brown 21 Brunette Brown 18 Ezekial G Brown 14 Energy D Brown 12 John L Brown 6 Denady Brown 4 Benjamin Foster 21

Benjamin Forrester was the first to arrive in Cherokee and was living in the home of Thomas Brown in 1850. Benjamin married Jane Rebecca Brown a year later in Cherokee. Benjamin as a possible oldest son of Henderson Forrister and Sarah Baldwin also provided a clue for the name of a possible grandfather.

This gave a little more credence to Benjamin Forrester being one door down from Henderson Forrester in the **1830 Habersham County census**. Henderson had one son under 5, 1 daughter under 5 and 2 daughters over 5 and under age 10. So the one male under 5 with 3 sisters in Henderson's household in 1830 exactly fits the age of Benjamin in the 1850 Cherokee census. It also lets us know he had three older sisters. We may never find the daughters since we don't know their names. If they survived they probably married and the change of name may not allow us to know who they were.

The apparent connection to Benjamin Forrester Jr also provided a clue as to where John Coleman Forrister got his middle name. One of Benjamin Jr's sons was named Coleman. Did Henderson borrow a name from his younger brother to name my ancestor? In the gedcoms I could explore Coleman was the oldest born son of Benjamin Jr. Census data from Lincoln County North Carolina and Habersham County Georgia revealed he had three older brothers.



I have several autosomal matches tracking back to Habersham with no connecting ancestor. The missing daughters could be the source of these matches.

They Thought the Ancestor was Henderson

Fairly confident the folks named Forrister in Cherokee County, North Carolina led me to contact, converse and visit some of them. They were all near Murphy and my Mom lived in adjacent Polk County, Tennessee so this was rather convenient for me. Mom and Dad had no idea they were moving into an area with many Forrister folk scattered across Cherokee, Polk and bordering Bradley County, Tennessee near Cleveland when they moved to Turtletown, TN in 1994. Many more can be found in Hamilton County near Chattanooga. The older folks in Murphy knew of Sarah since she died in nearby Bradley County, TN. One of the older ladies thought Sarah's husband had died in the 1840's and was named Henderson.

I had arrived to the conclusion this was the most likely candidate before I ever spoke with these folks. Having knowledge of Sarah was a huge plus since all children on the 1850 Franklin County, Georgia census could be confirmed as siblings. I found the remaining Forrister's in Murphy were all descendants of Benjamin Forrester at this time and the matriarch was Jane Brown. Another confirmation I had correctly identified Benjamin in the 1850 census in the home of Thomas Brown. My theory was beginning to solidify.

So I had established a good theoretical paper trail from John Coleman Forrester back to James Forrest Sr died 1755 Eno River, Orange County, North Carolina. The only problem is there was insufficient documentation to prove the theory. This caused suspicion, justifiably so, among my cousins because there was no hard paper trail. This suspicion continued after one cousin hired a professional genealogist to prove me wrong: Forrister obstinance perhaps? They were quite shocked when the genealogist responded my research was solid and that I was probably right. I still lacked empirical evidence to tie everything together but I had something the female Forrister researchers did not possess – Y Chromosome DNA.

Ancestry Y DNA was a Bust

I was extremely disappointed with my ancestry.com Y DNA test. It applied a "shotgun" approach which left huge gaps at critical loci to actually confirm a solid match to other descendants of James Forrest Sr. Live and learn… The autosomal test on the other hand started to produce relatives in this group almost right away.

Saved my Pennies for FTDNA

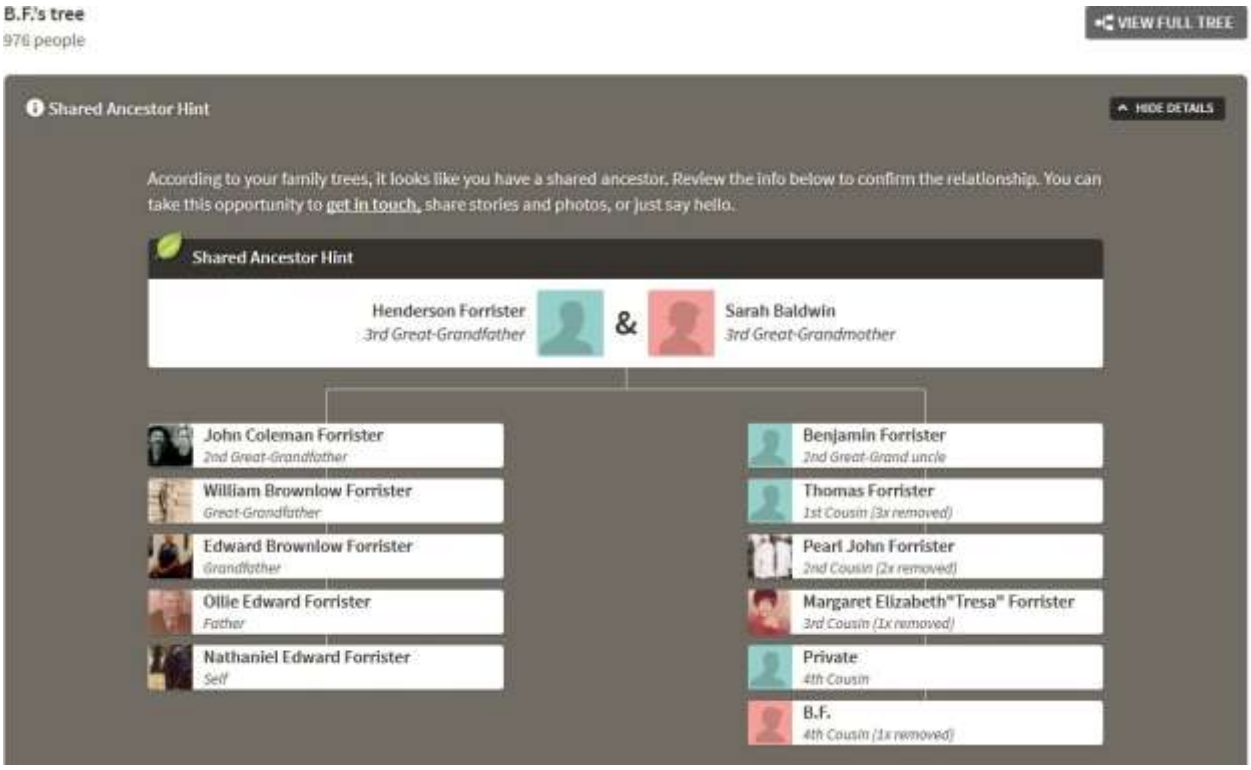
I corrected the folly of the now discontinued ancestry.com Y test in 2015. I ordered 111 markers from FTDNA and also purchased Big Y which is a next generation Y DNA test built on single nucleotide polymorphisms rather than short tandem repeats. These tests provided what I needed as empirical evidence to prove the relations to James Forrest Sr. I also employed Big Y to confirm two non paternal events to the Forrest group and established a family Y haplogroup. Currently 2 other men have taken this level of testing and match me at R – BY18011. Reinforced with autosomal matches from Ancestry, FTDNA, 23&ME and gedmatch.com, the rest as they say is history.

My kit # is B15179

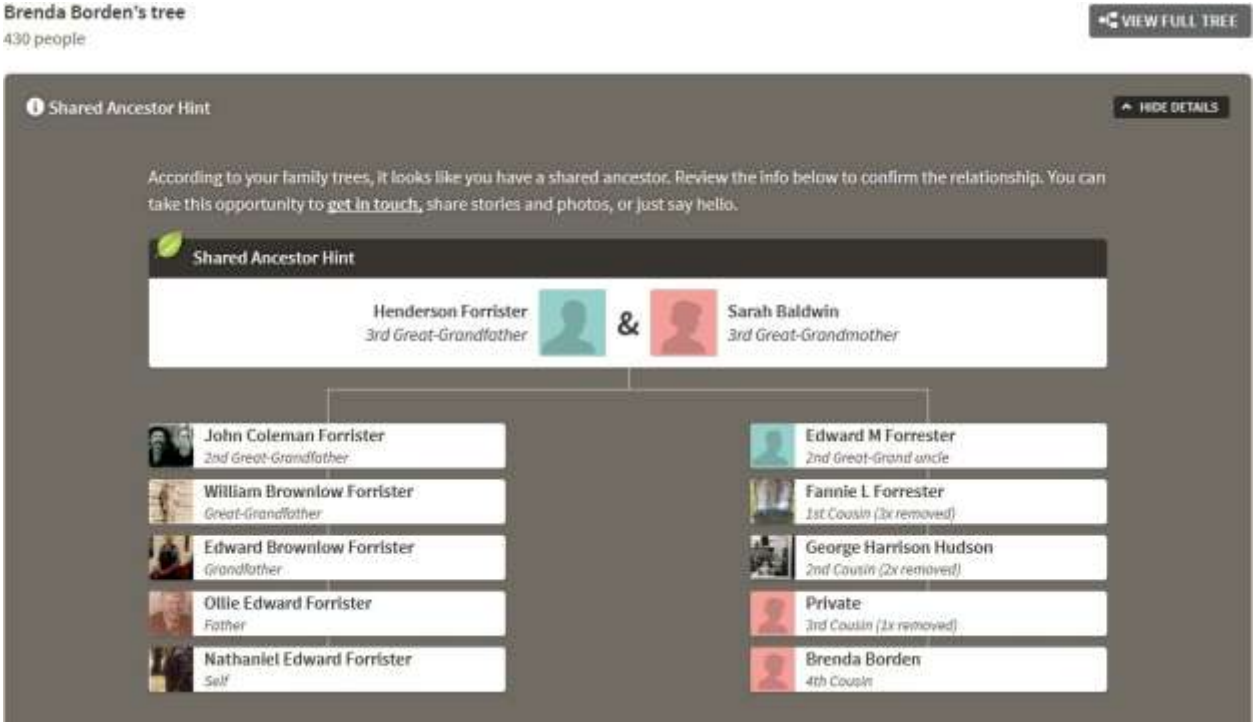
1226	428418	John Wesley Harrison, b. 1833 and d. 1916	Unknown Origin	R-BY18011
[05] Z30>Z27>Z345>Z2>Z7>FGC7559>FGC17354>Y28576>BY18011>FGC51332>				
1227	231326	James Forrester, b @1680 and d. 1755	Unknown Origin	R-Z2
1228	B15179	James Forrest, abt 1630, died about 1710 VA	Scotland	R-BY18011
1229	317086	James Forrest, b. 1695 and d. 1755	Scotland	R-Z31
1230	514579	James Horn Esq, b. 1725, Baltmore Co., MD, d. 1792	Unknown Origin	R-BY18011

For verification of STR sequences for descendants of James Forrest Sr visit
www.familytreedna.com/public/Forrest?iframe=yresults
We are group B. The descendants of Alfred Forrester and Isbel Hammond are group C. They are great people and I've enjoyed working with them.
For verification of haplogroup SNP testing visit
www.familytreedna.com/public/Forrest?iframe=ysnp
Autosomal matches to date to John Coleman Forrister – 21
Autosomal matches to date to Henderson Forrister – 2
Autosomal matches to date to Benjamin Forrester Jr – 1
Autosomal matches to date to Benjamin Forrester Sr – 8
Autosomal matches to date to James Forrest Sr – 4
There are an additional 11 autosomal matches to James Forrest Sr where the match's family tree does not go back far enough.
More will be added as more relatives test – 19 more descendants of John Coleman Forrister will eventually be added to Henderson Forrester and Sarah Baldwin DNA Circles on ancestry,com One tested with FTDNA and one with 23&ME

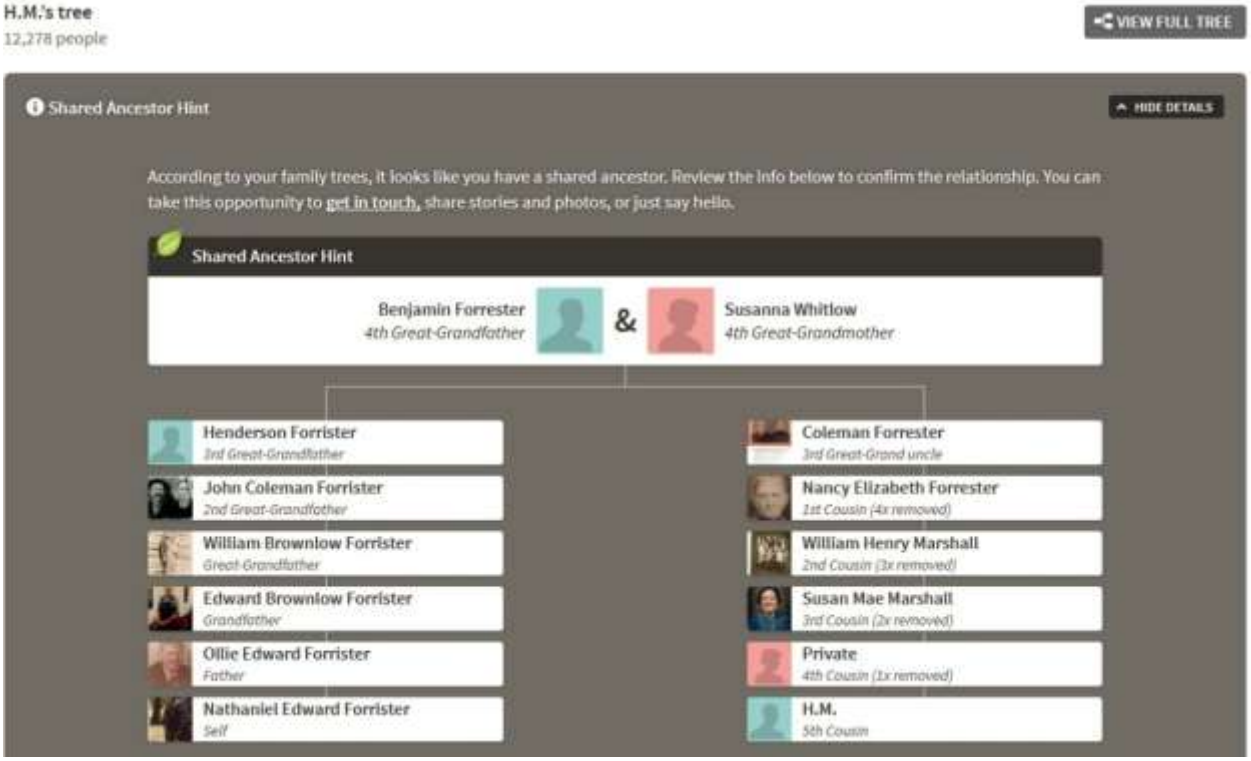
Autosomal matches and confirmed relations to follow:



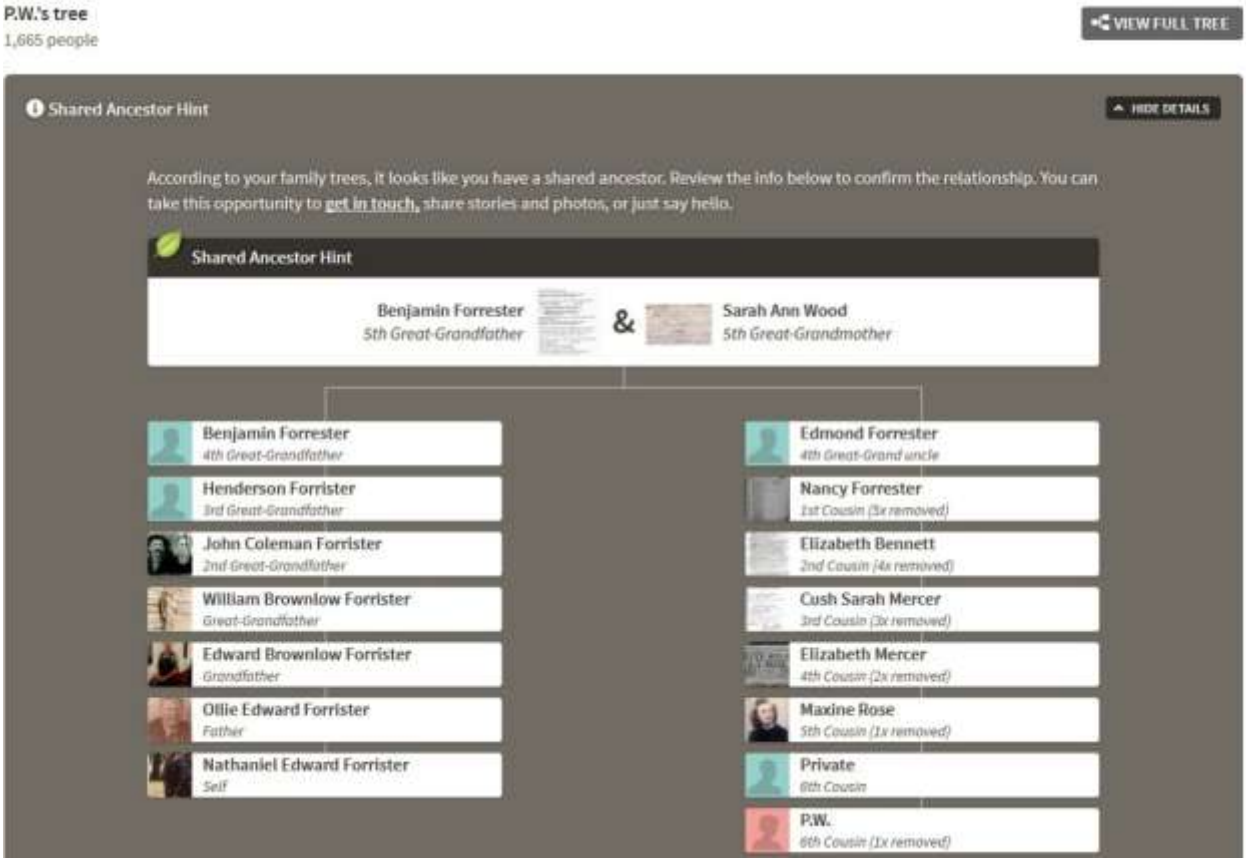
4th cousin 1 X removed with common ancestor as Henderson Forrister and Sarah Baldwin. Benjamin was 1st born son and John Coleman was 4th son.



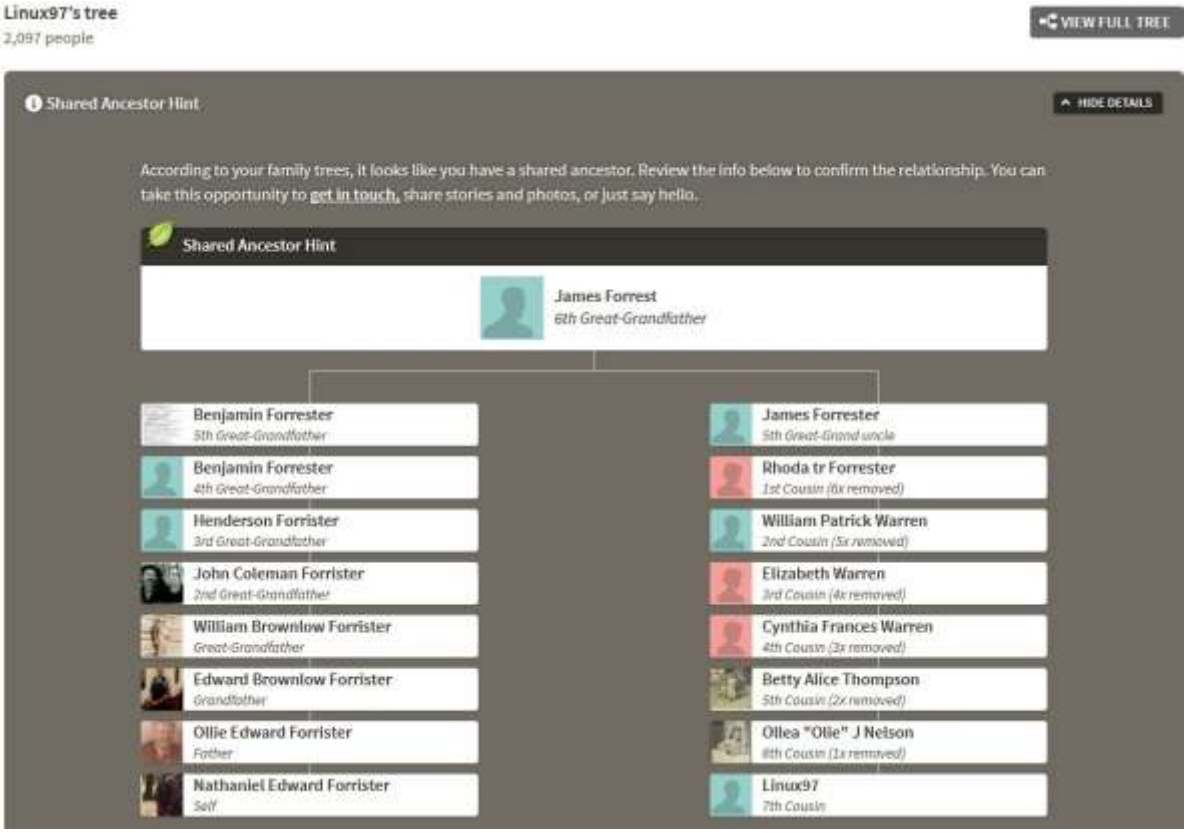
4th cousin with common ancestor as Henderson Forrister and Sarah Baldwin
Edward was the 3rd son and about 6 years older than John.



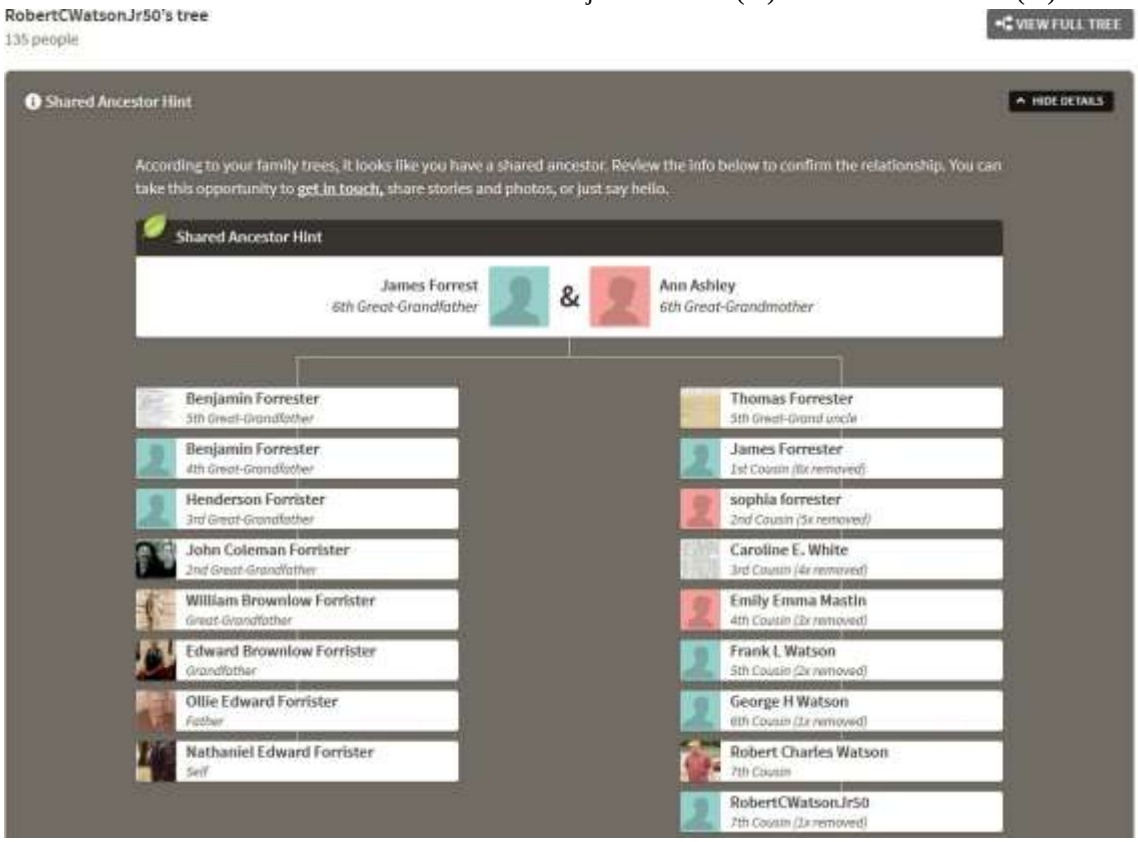
5th cousin match to Benjamin Forrester Jr, Henderson and Coleman as brothers is established.



6th cousin match to Benjamin Forrest[er] Sr, Benjamin Jr and Edmond established as brothers.



7th cousin relation to James Forrest Sr which establishes Benjamin Forrest(er) Sr and James Forrest(er) Jr as brothers.



7th cousin I X removed relation to James Forrest Sr which established Benjamin Forrest(er) Sr and Thomas Forrester as brothers.

Chapter Four
Ancestors of James Forrester of Tollpark

The fourth brother named in 1755 will of James Forrest Sr.

I am descent of Benjamin, and we have seen example of Benjamin, Thomas and James as brothers. This only leaves William to complete the set.

From R.R. : RSR Family Tree (3)

William Forrest
B: 1726 in Orange, North Carolina, United States
D: 8 Aug 1777 in Orange, North Carolina, United States

SHADRACH FORREST
B: 1740 in Orange, North Carolina, United States
D: 15 Jan 1820 in Bedford, Bedford, Tennessee, United States

Elizabeth Forrest
B: 10 OCT 1779 in Orange, North Carolina, United States
D: 7 Feb 1871 in Gadsden, Etowah, Alabama, United States

From Nathan Forrister : Nathan Forrister Tree (1)

James Forrest
B: 1690 in Henrico County, Virginia, USA
D: 5 Sep 1755 in Eno River Orange, Colonial North Carolina

Anyone who has seriously studied this family knows William Forrest was the son of James Forrest Sr. RSR has not quite made the connection and probably lacks the Y DNA for final confirmation. There are two additional similar almost matches back to William. There are a total of 11 of these matches that almost make the connection back to the common ancestor in my results.

With 14 Y DNA cousins currently with STR results in Forrest / Forrester project group B; 58 autosomal matches with relationships tracking back to James Forrest Sr: and 11 more that almost make the connection - I have to conclude the thesis as proven. The confirmation of Y DNA haplogroup and autosomal relations breaks through the “brick wall” of lack of documentation for conventional paper trail proof for my family tree.

Appendix 7
Understanding Autosomal DNA
by Nathan Forrister

Autosomal DNA is not a one step solution for all of your genealogical questions. It is the most widely used DNA test and the most misunderstood and abused. Autosomal testing is a great genealogical tool for the following purposes:

1] To confirm genetic relation to a certain ancestor(s) through matches to other descendants.

2] To break through genealogical brick walls.

3] Provide an approximation of genetic ethnicity by percentage.

Confirming relations is not always an easy task. I suggest easing into close known relations before determining more distant ones for 2 reasons:

1] These known relation matches will aide in confirming or eliminating other matches

2] With known relations it is possible to triangulate and confirm previously unknown relatives.

Triangulation is the only way to prove kinship with someone not previously identified as family. This method may be employed to prove or disprove established pedigree charts.

Autosomal DNA is a combination event of 22 pairs of chromosomes from your parents DNA. This makes every person unique unless you are identical twins – even then there are slight differences. Your siblings will share large segments of this DNA which are measured in centimorgans [cM]. Since recombination is random no two siblings will be exactly alike. Approximately half of your DNA will come from your father and half from your mother. This percentage will then decrease by 50% from grandparents, great grandparents and so on. See chart below:

Generation	# You Have	Who	Approximate Percentage of Their DNA That You Have Today
	1	You	100%
1	2	Parents	50%
2	4	Grandparents	25%
3	8	Great-grandparents	12.5%
4	16	Great-great-grandparents	6.25%
5	32	Great-great-great-grandparents	3.12%
6	64	Great-great-great-great-grandparents	1.56%

Recombination occurs with each generation. The chart above reflects half from each parent but this is not necessarily the truth. Autosomal is inherited in "chunks" so the 50/50 rule is a rough estimate. By the time we go back to 4th great grandparents, we may or may not inherit a portion of their autosomal admixture. This is why we can expect to see lower numbers of matching cM as generational distance increases. Odds are 7th and 8th cousin autosomal matches will be hit or miss.

Percentages of identical by descent and matching cM segments drop dramatically as generation distance increases:

Average autosomal DNA shared by pairs of relatives, in percentages and centiMorgans			
% shared	Total cM shared half-identical (or better)	Relationship	Notes
100% (Method I)/50% (Method II)	3400.00	Identical twins (monozygotic twins)	Fully identical everywhere
50%	3400.00	Parent/child	Half-identical everywhere
50% (Method I)/37.5% (Method II)	2550.00	Full siblings	Half-identical on 50%/1700 cM and fully identical on a further 25%/850 cM.
25%	1700.00	Grandparent/grandchild, aunt-or-uncle/niece-or-nephew, half-siblings	
25% (Method I)/23.4375% (Method II)	1593.75	Double first cousins	Half-identical on 21.875%/1487.5 cM and fully identical on a further 1.5625%/106.25 cM
12.5%	850.00	First cousins, great-grandparent/great-grandchild, great-uncle or aunt/great-nephew or niece, half-uncle or aunt/half-nephew or niece	
6.25%	425.00	First cousins once removed, half first cousins, great-great-grandparent/great-great-grandchild, great-great-aunt/uncle, half great-aunt/uncle	
6.25%	425.00	Double second cousins	
3.125%	212.50	Second cousins, first cousins twice removed, half first cousin once removed, half great-great-aunt/uncle, great-great-great-grandparent/great-great-great-grandchild	
1.563%	106.25	Second cousins once removed, half second cousins, first cousin three times removed, half first cousin twice removed	
0.781%	53.13	Third cousins, second cousins twice removed	
0.391%	26.56	Third cousins once removed	
0.195%	13.28	Fourth cousins, third cousins twice removed	
0.0977%	6.64	Fourth cousins once removed. third cousins three times removed	
0.0488%	3.32	Fifth cousins	
0.0244%	1.66	Fifth cousins once removed	
0.0122%	0.83	Sixth cousins	
0.0061%	0.42	Sixth cousins once removed	
0.00305%	0.21	Seventh cousins	
0.001525%	0.10	Seventh cousins once removed	
0.000763%	0.05	Eighth cousins	

Based on percentages, by the 4th cousin level the odds of an identical by descent match are 45 – 50%. Fifth cousin matches, 10 – 15% and 6th cousin 2 – 5%. This makes 7th and 8th cousin matches rare since the odds are less than 2% non recombined segments remain. Since the odds drop so dramatically, most reference charts don't go past 4th cousin

with any real confidence. "Sticky" segments do remain however, and distant matches' 5th – 8th cousin can be confirmed. I have no matches past 8th cousin and believe this is the far end of autosomal parameters and capabilities.

Identical by Descent vs. Identical by State

Autosomal matches will always be a mixture of true, or identical by descent matches, and false, or identical by state matches. Identical by state is remnant cM segments from deep base populations. For example, your composition is 97 – 100% European chances are you share autosomal segments with people totally unrelated to you. This can be quite confusing especially as generation distances increase. As a rule of thumb, I look for segments of 7cM or higher with a minimum of 500 matching SNP's as the low threshold of true or identical by descent matches.

While shared cM and SNP's is a good indication of relation, male lineages should still be confirmed by Y chromosome comparisons and SNP testing. A female needs a male relative to test Y chromosome for the purpose of confirming male paternal lines. In cases of brother and sister, their mitochondrial DNA will be the same since all mitochondrial is passed on by the mother. This method confirms male paternal lineage for females as well.

Beware Erroneous Attachments to Pedigree Trees

I have a few autosomal matches to females that are identical by descent. The females' surname is Forrester and their pedigree trees tie back to my confirmed male line of Forrest. The only problem is their direct Forrester ancestors have tested Y chromosome and are of different Y chromosome haplogroups than I. In all cases the common ancestor was of a surname other than Forrester. I include this warning because there are 12 confirmed Y haplogroups of Forrester and all have intermarriage relatives from the available gene pool in early colonial America.

Ethnicity Percentage Reports

Don't place too much importance on these reports associated with autosomal DNA tests. In one of the most famous cases of identical triplets, their ethnicity percentages varied greatly while the cM and SNP range was remarkably stable. Ethnicity reports are based on comparison to base populations as they exist today. Many of us in the U. S. have been removed from the base European, Asian, Island and African populations for 300 years or longer. As a result the "pie chart" percentages of ethnic composition may vary greatly among siblings and cousins.

There are several do it yourself ethnic calculators available. Gedmatch.com has combined most of these in a single repository for comparisons to various base populations. From my experience, dodecad v3 offers the closest comparison to base populations.

Chromosome Browser
Gedmatch, the great equalizer

Of the big three testing companies, ancestry, 23 & ME and FTDNA, ancestry does not offer a chromosome browser for comparison of cM and SNP matches. The ancestry test is as good as the competition in my opinion. Ancestry does offer the convenience of linking autosomal results to your family tree – the other two companies do not have this feature. I combine ancestry with gedmatch chart in following examples.

Gedmatch.com was invented as a third party repository of autosomal results and accepts raw data from all three companies listed above and a few that aren't. Gedmatch is a free service that accepts donations to continue. Kit prefixes from various testing companies is listed below:

A = ancestry.com
C = combined – this utility is no longer available since the combination from two or more companies were producing inconsistent results.
D = DeCode Me
F = FTDNA
M = 23 & ME
P = phased – this is a comparison requiring parents and child
T = newer kits from FTDNA

The chromosome browser utility allows for comparison of matching cM segments over 22 chromosomes and the X chromosome. Comparison is also available for up to 5 kits to identify overlapping cM segments which triangulate genetic common ancestor of participants. It is practically impossible to determine identical by descent autosomal matches without comparison in a chromosome browser.

See following examples of confirmed genetic relations to a common ancestor:

Comparing Kit A462080 (*NEF59) and M609567 (*Diana F.)
NEF grandfather is Diana's great grandfather – 1st cousin 1X removed
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 7.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
1	5,667,508	24,885,080	36.6	2,480
1	232,130,424	247,141,305	35.9	2,134
3	22,334,170	54,241,271	27.6	2,844
3	110,916,545	144,621,072	33.4	3,342
3	193,645,745	199,302,161	12.5	565
6	41,470,556	70,797,494	22.5	2,204
6	91,696,043	154,769,100	63.3	6,428
7	4,443,550	12,788,923	15.7	1,192
7	78,294,104	94,378,352	15.4	1,454
8	82,139,527	96,803,496	9.4	1,093
9	28,345,201	83,561,747	27.2	2,743
10	77,725,897	92,722,930	15.7	1,706
10	130,525,576	135,280,033	12.1	792
11	121,989,641	131,521,015	21.1	1,511
13	47,353,850	87,560,347	28.3	3,530
14	97,337,662	102,462,002	12.5	670
16	54,059,877	61,259,627	9.9	788
17	3,394,664	10,296,488	20.1	1,108
18	68,896,604	76,092,518	20.8	1,198
19	7,605,347	56,861,514	65.6	4,040
20	19,108,667	50,148,283	33.6	2,972
21	13,591,802	22,412,812	21.4	1,112
21	31,670,285	46,897,344	35.9	2,467
22	15,235,618	23,934,477	23.9	956
22	42,853,645	49,524,956	23.5	1,277

Largest segment = 65.6 cM
Total of segments > 7 cM = 643.8 cM
25 matching segments
Estimated number of generations to MRCA = 2.2
298460 SNPs used for this comparison.

How do I read this chart? Chr is an abbreviation of chromosome. The Start and End location is the **BED region** of the chromosome where the matching **centimorgans and SNP's** were found. BED is abbreviation for **Browser Extensible Data** which is basically a storage / retrieval numbering system. Since gedmatch employs build 37 the Bed regions listed are Chr37 / hg19 references.

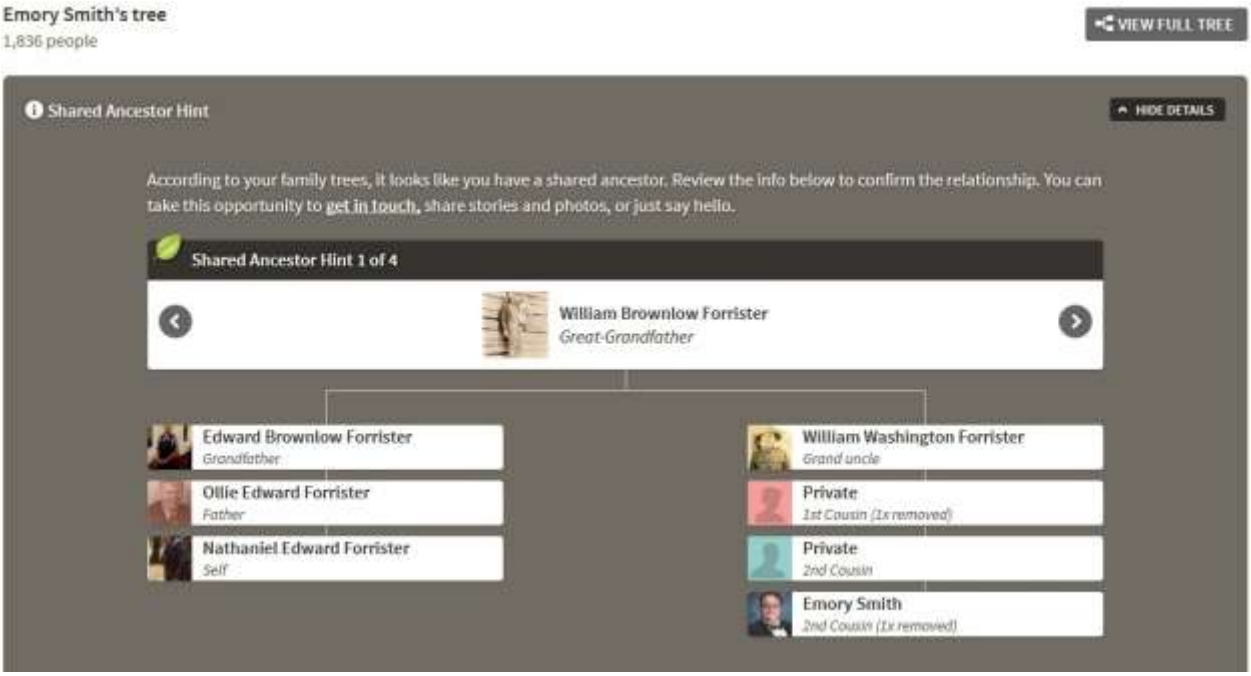
Comparing Kit A462080 (*NEF59) and A267813 (Emory William Smith)
NEF great grandfather is Emory's 2nd great grandfather – 2nd cousin 1X removed
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 7.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
1	5,626,139	18,891,938	27.9	2,405
1	31,125,996	54,462,625	23.3	2,677
1	56,040,625	62,615,265	10.4	1,233
3	121,919,588	147,882,985	26.4	3,448
3	150,642,408	180,872,350	27.2	3,510
4	5,261,468	8,101,914	11.4	868
5	65,739,015	109,296,474	41.1	5,134
5	174,681,657	180,615,468	10.4	1,005
7	29,211,284	41,303,569	15.9	2,033
9	14,377,817	76,614,777	39.1	5,174
9	103,263,073	114,836,374	13.8	2,122
11	109,146,862	117,504,653	12.5	1,542
12	51,497,412	68,554,632	17.5	2,294
13	38,069,034	71,363,953	25.8	4,257

Largest segment = 41.1 cM
Total of segments > 7 cM = 302.6 cM
14 matching segments

Estimated number of generations to MRCA = 2.8

403576 SNPs used for this comparison.



Comparing Kit A462080 (*NEF59) and A853130 (Janie Barbara PUCKETT)

NEF great grandfather is Janie's great grandfather – 2nd cousin

Minimum threshold size to be included in total = 500 SNPs

Mismatch-bunching Limit = 250 SNPs

Minimum segment cM to be included in total = 7.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
1	97,618,373	110,243,315	11.8	3,022
1	206,229,972	215,332,488	12.3	2,476
2	3,852,712	7,300,634	8.3	1,164
4	168,603,093	181,731,400	16.5	2,912
7	12,930,194	20,092,111	10.3	2,336
9	132,077,094	136,870,777	13.6	1,437
11	115,513,725	121,073,107	8.9	1,794
14	46,856,920	79,257,394	34.3	8,316
15	85,240,186	90,867,745	11.6	1,784
17	22,663,173	53,601,316	35.8	6,741

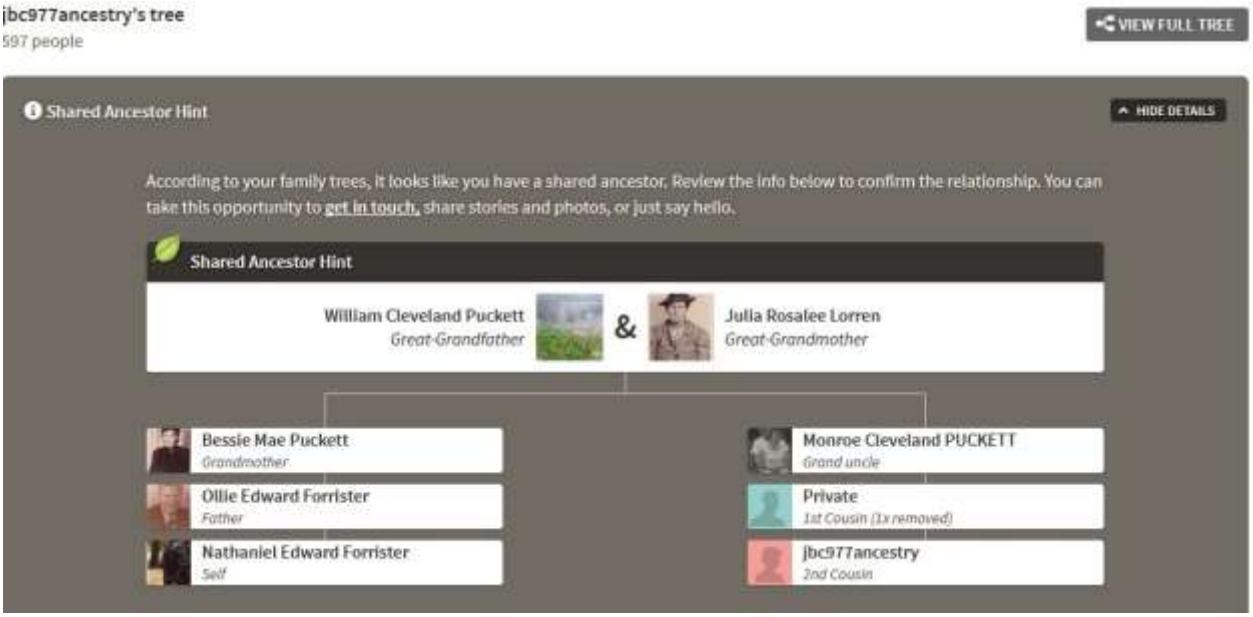
Largest segment = 35.8 cM

Total of segments > 7 cM = 163.4 cM

10 matching segments

Estimated number of generations to MRCA = 3.2

666933 SNPs used for this comparison.



More distant relations

Due to recombination, more distant relations will experience lower cM matches. The total number begins to drop dramatically at the 3rd cousin level. Though the total of cM is lower, the matching segments will remain above 10cM and 1,000 SNP's.

Comparing Kit A462080 (*NEF59) and M285956 (David Pruitt)
NEF 2nd great grandfather is David's 2nd great grandfather – 3rd cousin
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 7.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
3	9,240,620	19,398,565	12.8	1,334
3	110,916,545	154,919,951	45.8	4,385
5	29,964,108	51,994,865	19.0	1,700
11	76,119,762	97,936,752	19.5	2,205

Largest segment = 45.8 cM
Total of segments > 7 cM = 97.2 cM
4 matching segments
Estimated number of generations to MRCA = 3.6
296529 SNPs used for this comparison.

Comparing Kit A462080 (*NEF59) and T368014 (Nolon B Brothers)
NEF 3rd great grandfather is Nolon's 2nd great grandfather – 3rd cousin 1X removed
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 7.0 cM

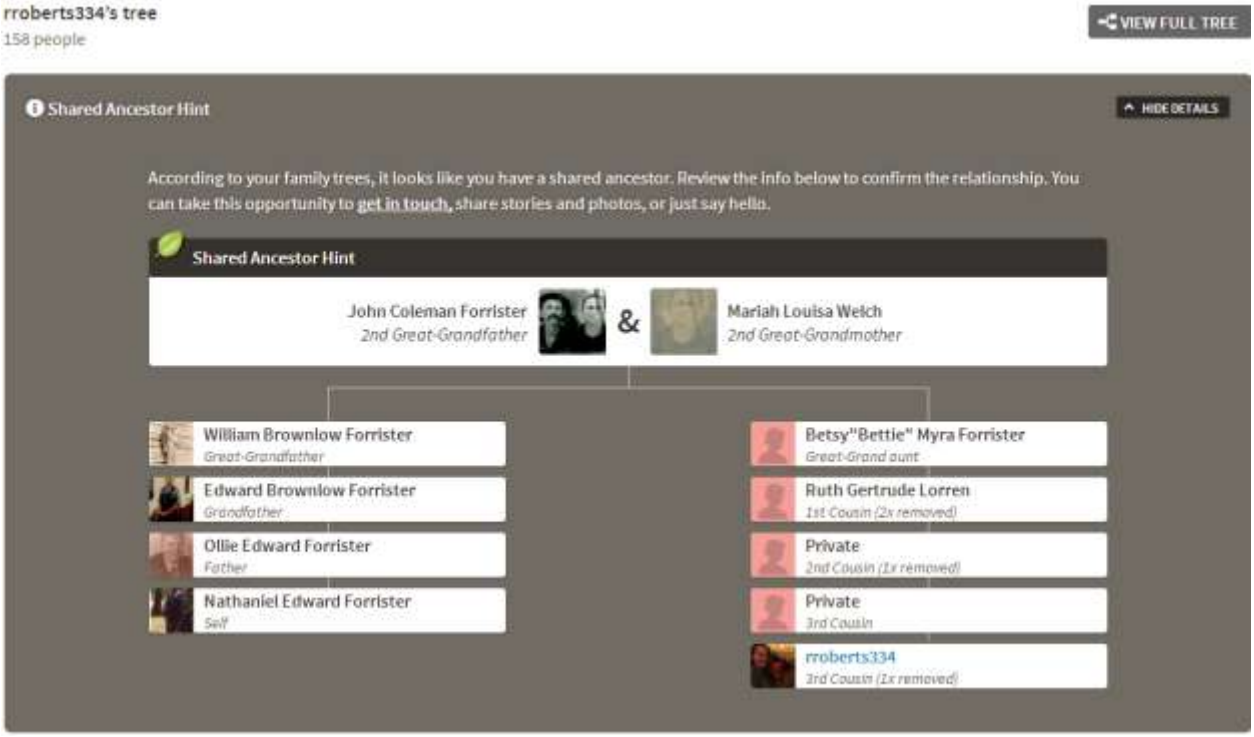
Chr	Start Location	End Location	Centimorgans (cM)	SNPs
1	219,759,089	233,182,132	15.6	3,750
1	234,699,606	247,169,190	29.5	3,634
11	102,134,503	117,420,265	16.2	3,824
12	4,210,305	8,929,839	11.8	1,457

Largest segment = 29.5 cM
Total of segments > 7 cM = 73.0 cM
4 matching segments
Estimated number of generations to MRCA = 3.8
666724 SNPs used for this comparison.

Comparing Kit A462080 (*NEF59) and A450654 (Rachel Roberts)
NEF 2nd great grandfather is Rachel's 3rd great grandfather – 3rd cousin 1X removed
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 7.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
4	5,839,635	11,025,856	14.3	1,613
10	1,173,077	7,623,359	18.1	2,735

Largest segment = 18.1 cM
Total of segments > 7 cM = 32.4 cM
2 matching segments
Estimated number of generations to MRCA = 4.4
650029 SNPs used for this comparison.

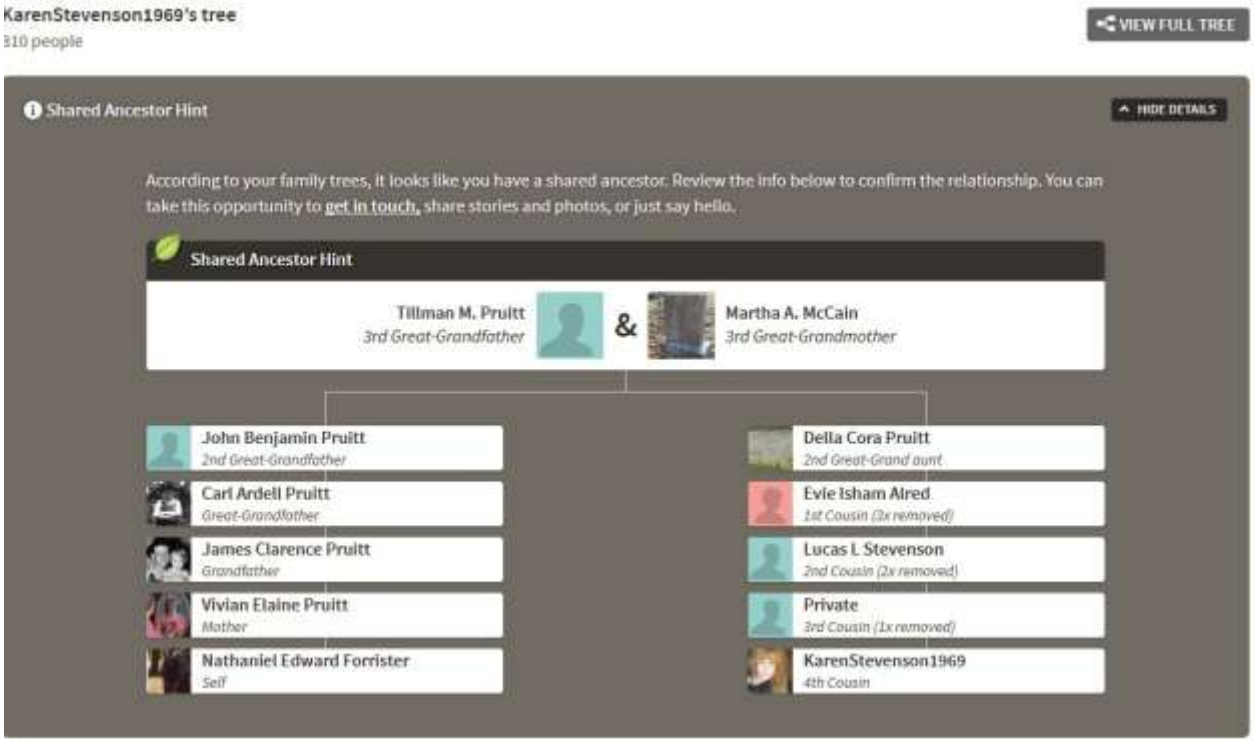


Comparing Kit A462080 (*NEF59) and A844389 (Karen Stevenson)
NEF 3rd great grandfather is Karen's 3rd great grandfather – 4th cousin
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 5.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
14	18,397,823	26,275,168	20.2	2,414

Largest segment = 20.2 cM
Total of segments > 5 cM = 20.2 cM
1 matching segments

661280 SNPs used for this comparison.



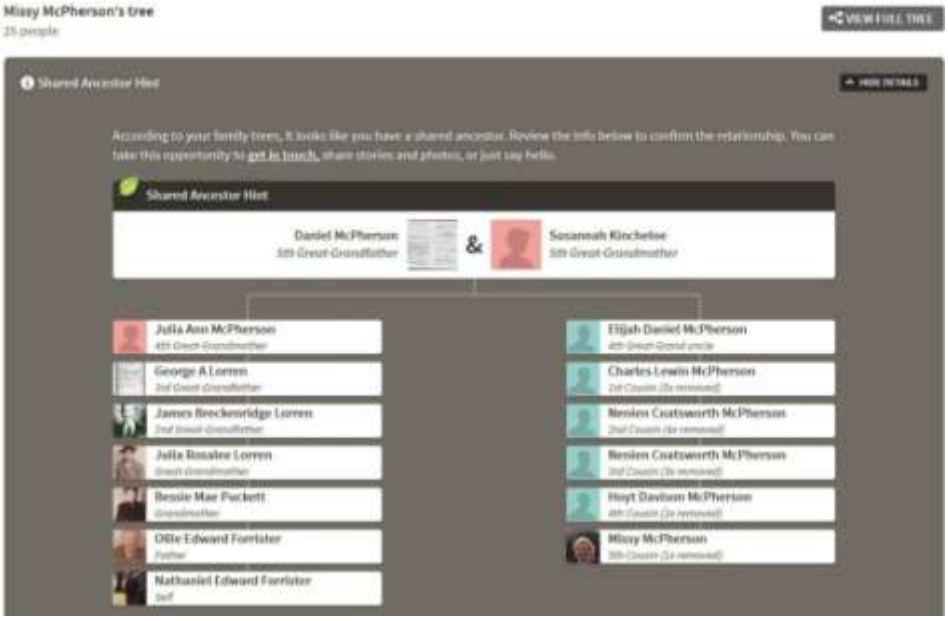
Note I have dropped the parameter of comparison from 7cM to 5cM. Though the relation is 5 generations back the estimated number of generations is also missing. The comparison of 20.2 cM with 2,414 SNP's is still a solid identical by descent match. Recombination is occurring at this level and the matches become hit or miss as the generational distance increases.

Comparing Kit A462080 (*NEF59) and A897883 (*Missy)
NEF 5th great grandfather is Missy's 4th great grandfather – 5th cousin 1X removed
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = **5.0 cM**

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
12	12,941,686	25,562,333	18.1	3,868
15	39,022,224	49,316,404	6.8	1,984

Largest segment = 18.1 cM
Total of segments > 5 cM = **24.9 cM**
2 matching segments

657153 SNPs used for this comparison.



As presented we notice the total cM numbers and matching segments drop as genetic distance increases. As we near the threshold of autosomal relevance the comparison shifts to segments of 5cM or higher with a minimum of 500 SNP's. The match of 18.1 cM with 3,868 SNP's solidifies the under 7 cM of 6.8 cM and 1,984 SNP's as identical by descent. The default minimum for SNP's has always been 500 SNP's – from the comparison above there are no other segment of 5cM and 500 SNP's shared by NEF and Missy McPherson.

The distant relation to Missy requires a deeper look. Since we got a good "chunk" of identical by descent on chromosome 12, this allows us to consider lower cM matches.

Comparing Kit A462080 (*NEF59) and A897883 (*Missy)
Minimum threshold size to be included in total = 500 SNPs
Mismatch-bunching Limit = 250 SNPs
Minimum segment cM to be included in total = 2.0 cM

Chr	Start Location	End Location	Centimorgans (cM)	SNPs
2	133,085,026	136,733,501	3.8	898
5	16,894,399	19,519,939	3.5	540
5	95,228,890	99,249,586	3.1	707
7	71,074,998	75,761,995	3.9	502
9	121,811,389	124,743,095	3.0	678
10	84,748,919	87,124,899	2.2	594
10	114,830,484	117,851,287	4.5	797
11	37,076,007	40,106,260	2.1	512
12	12,941,686	25,562,333	18.1	3,868
15	39,022,224	49,316,404	6.8	1,984

Largest segment = 18.1 cM
Total of segments > 2 cM = 51.0 cM
10 matching segments
657153 SNPs used for this comparison.

As you can see there are an additional 8 matching segments below the 5cM threshold at 500 SNP's or higher. Total cM has also increased from 24.9 to 51.0. The high match of 18.1 cM on chromosome 12 lends support to these low cM matches as also being identical by descent. From our chart of percentage and cM at this level we see Missy and I share "sticky" segments that should have recombined but have not.

0.0244%	**1.66**	**Fifth cousins once removed**

The additional segments are more in parameter of the average 0.0244% / 1.66 cM segments we expect at this level of relation.

FTDNA

Some cousins decide not to employ gedmatch as a secondary repository or possibly a third. This is fine since ancestry and 23&ME raw autosomal can be uploaded to FTDNA as well. Once your FTDNA account is established you can enter up to five individuals in comparison to your results. The following screenshot is my autosomal compared to 1st cousin 1 X removed and 2nd cousin. The first thing that strikes you as odd is there is only one matching segment on chromosome 13. Normally there are several. This again goes to prove recombination is totally random so always expect the unexpected.

Let's examine chromosome 13 a bit further for lower cM possibilities:

Name	Chr	Start	End	cM	No of SNPs
Herbert McKinley Forrister	13	21517575	30471766	19.1	3300
Herbert McKinley Forrister	13	42074715	46366581	4.85	1300
Herbert McKinley Forrister	13	95184644	112180463	35.8	6126
Nathan Wesley Forrister	13	31724186	38003107	8.61	1900
Nathan Wesley Forrister	13	67773189	69544705	2.36	500
Nathan Wesley Forrister	13	102680592	109811204	17.9	2856
Nathan Wesley Forrister	13	112183509	114121631	4.36	537

The chromosome painted visual is accurate as only one matching segment is found. To compare in excel simply click on "Download to excel (CSV format)".

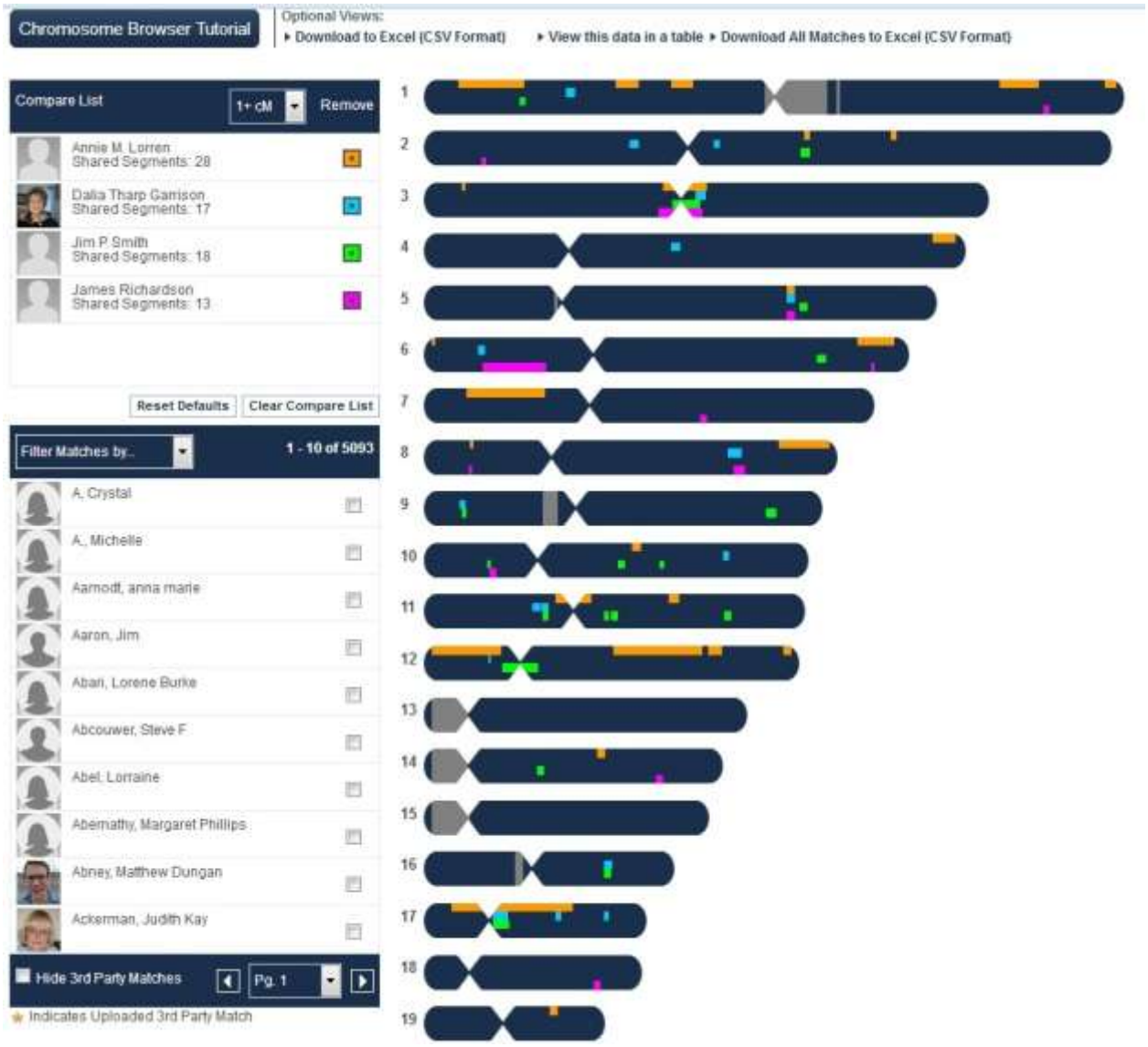
FTDNA allows you see who your matches share with you. Simply check the box to the left of the individual's name and then click the "in common with" banner. You can then note which cousins with common ancestors you wish to compare in chromosome browser. I've added three in this next example who share ancestors with me, Herb and Wesley.

The excel comparison CSV may be downloaded as explained previously.
Herb and I share common ancestors through female Puckett sisters. Therefore he and I will share ancestors Wesley will not share with us. I add four cousins to Herb in this next example.

All of these relations are 2nd to 3rd cousins. At a glance you can see several overlapping segments. Of particular interest is chromosome 12 where all five cousins share overlapping segments.

Triangulation to More Distant Cousins

The graphic above is a good representation of triangulation: finding an unknown point from two known points. Basing the comparison on a known close relation to more distant matches we see four additional cousins are confirmed as identical by descent. Exploring deeper I chose matches I have in common with Annie Lorren to find common ancestors I share with her which are more distant. I drop the parameter to 1cM for these explorations since some may be 7th or 8th cousins with very low matching cM remaining.



All except Annie Lorren are 5th – distant cousin which is FTDNA speak for they don't really know. When I find common ancestors to these types of matches they are 6th cousin 1 X removed through 8th. Chromosome 17 overlapping segments with me, Annie, Dalia Garrison and Jim Smith confirm an identical by descent match. Chromosome 3 reveals low cM match for all four to me. For James Richardson, the triangulation is a bit harder to spot. Jim has low cM triangulation with Annie and I on chromosome 1, 3, 5 and 6.

I don't know the actual relations for these distant cousins or the common ancestors. My tree may not be complete or their trees may not be complete to find the common link. These types of matches can't be confirmed without triangulation of two points of known relation to the third unknown relation. This can't be done without a chromosome browser.

Gedmatch 2D Browser

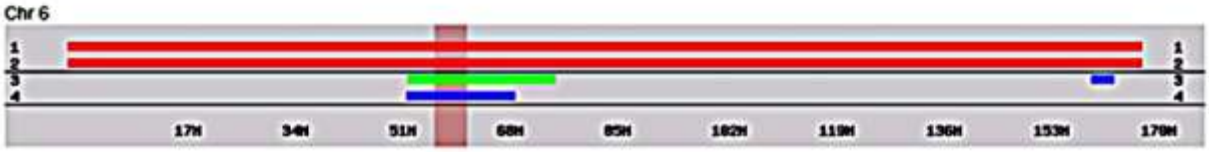
Gedmatch has a similar feature to FTDNA for triangulation. Here you are not limited to number of selections though there is a minimum of three. From previously known example to Rachel Roberts, I discovered she had two sisters who were also in my matches but do not have accounts on ancestry. In this example I use Rebecca Maddoxl as the known relation and how autosomal triangulates to her. Both of her sisters share over 3,500 cM with Rebecca. Using herl as the base for comparison I chose her two sisters, me and Cousin Dianna to demonstrate triangulated matches on gedmatch.

Chr 5

Match ID	Type	Name	Matching segments on Chromosome 5	Overlap with previous match
1	V4	Amie Lindsey (M399793)	91139 - 180623543 (209.317 cM)	New Root
2	F2	Rachel Roberts (A450654)	91139 - 113989891 (123.403 cM), 114025677 - 180623543 (85.905 cM)	91139 - 113989891, 114025677 - 180623543
3	V4	*Diana F. (M609567)	124125248 - 140851433 (13.201 cM)	124125248 - 140851433

Chr 6

Match ID	Type	Name	Matching segments on Chromosome 6	Overlap with previous match
1	F2	Rachel Roberts (A450654)	148878 - 170732309 (194.119 cM)	New Root
2	V4	Amie Lindsey (M399793)	150878 - 170693361 (194.092 cM)	150878 - 170693361
3	F2	*NEF59 (A462080)	54229326 - 77413400 (11.4798 cM), 162848888 - 166172629 (5.78401 cM)	54229326 - 77413400, 162848888 - 166172629
4	V4	*Diana F. (M609567)	53985140 - 71092512 (7.2829 cM)	54229326 - 71092512



There are other overlapping segments but chromosome 5 and 6 are adequate to demonstrate triangulation for five people. As you can see all four selections have overlapping segments on chromosome 6. Dianna shares overlapping segments with the three sisters on chromosome 5.

You get the idea so I will not go on to more distant relations on gedmatch. With the examples I've provided you should be well on your way to becoming your own advocate and becoming a pro at distinguishing identical by descent autosomal matches.

My goal is to increase your knowledge. My hope is to enhance your DNA experience. My wish is all of your genealogical questions will be answered.

Appendix 8
Understanding Your Results: Fast Changers by Nathan Forrister

Building upon the basic terminology of DNA, you will want to find those closely related to you. FTDNA will provide you with matches and you will notice "genetic step distance" of each match. As previously discussed, 12 marker tests will only provide haplogroup. You may be an exact match to many folks with different surnames at this level of testing as they are in the same haplogroup. This is why our base level of testing is 37 makers and in many cases we need 67 to isolate subclade or haplotype.

This is not an exact science and one size does not fit all. There are variations that apply to each unique sequence. Since mutations occur randomly they may appear in consecutive generations or may not happen in 20 generations. Mutations may move up or down. There are also multi step mutations to consider. Mutation rates are calculated by algorithm and are an average of when polymorphisms may occur. Keeping this in mind, let's explore the variations most often found in faster changing alleles. Most charts identify these alleles with a red highlight for your convenience.

Let's identify the "fast changers" in the first 37 markers:

First panel (1-12) DYS# 389a, 389b* and 439

Second panel (13-25) DYS# 449 and 464a, b, c and d

Third panel (26-37) DYS# 576, 570, CDYa and CDYb

*389a and b may reverse positions. For example a value of 11-12 may reverse to 12-11. The exact position is impossible to ascertain. This reversal is not considered a mismatch. This is also the case for DYS# 459, 464 and YCAII.. It is not possible to determine the exact order.

A 37/37 match means you are closely related to this participant sharing the same surname or variant. The probability of time to most recent common ancestor is 50% in 5 generations and 90% in 16 generations. The 50% likelihood in 5 generations is because mutations occur randomly. On average a mutation rate of 0 - 3 can be expected in 5 generations. Contact with these individuals and comparison of paper trails is essential to confirm the exact generation of common ancestor. Very few achieve this level of match.

A 36/37 match means you are related to this participant sharing the same surname or variant. Your mismatch most likely occurred at DYS# 576, 570, CDYa or CDYb. I have personally witnessed a genetic distance of 5 steps at CDYb between confirmed fourth cousins. Both participants shared a common third great grandfather. Testing of their fathers revealed the mutation was five steps at CDYb in one generation. The mentioned alleles are multi copiers and fast movers: CDY is the most volatile. This is why you should explore four and five step distances with the same surname or variant. Very few achieve this level of match.

A 35/37 match means you may be related to this participant sharing the same surname or variant. One of your mismatches may have occurred in the first 25 markers and you probably matched 24/25. Refer to the "fast changers" above as it is most likely as mismatch occurred at one of these alleles. If the two mismatches occur in the first panel it is not likely you are related. This will push back the time to most recent common ancestor but is still within the 24 generation time frame.

A 34/37 match means you may be related to this participant sharing the same surname or variant. If 2 of the mismatches occur in the first panel it is unlikely you are related. Comparison of other "fast movers" should be observed. This participant may be related in the 24 generation time frame.

A 33/37 match means you share the same surname or variant. Still check at CDYa and CDYb to rule out a multi step mutation. Most times, two of the mismatches are in the first panel and the participant is probably not related. Paper trail comparison is the only way to confirm or reject this match.

The same holds true for 67 marker tests. There are no "fast changers" in the fourth panel (38-47), five in the fourth panel (48-60) at DYS# 413a and b, 557, 481 and 446; zero in fourth panel (61-67).

A 67/67 match means you are closely related to a participant with the same surname or variant. The percentages increase to 50% in 3 generations and 90% in 5 generations. Very few will achieve this level of match.

A 65-66/67 match means you are related to a participant with the same surname or variant. The only exception is if the two mismatches occur in the first panel of twelve. Examine the fast changers and look for multi step mutations. Very few will achieve this level of match. The confidence level the participant is related is very well within the time frame of emergence of surnames.

A 63-64/67 match means you are probably related to a participant with the same surname or variant. Again the first panel of 12 is very important. Again check the fast changers listed. There is still a good chance this participant is related within the time frame for emergence of surnames.

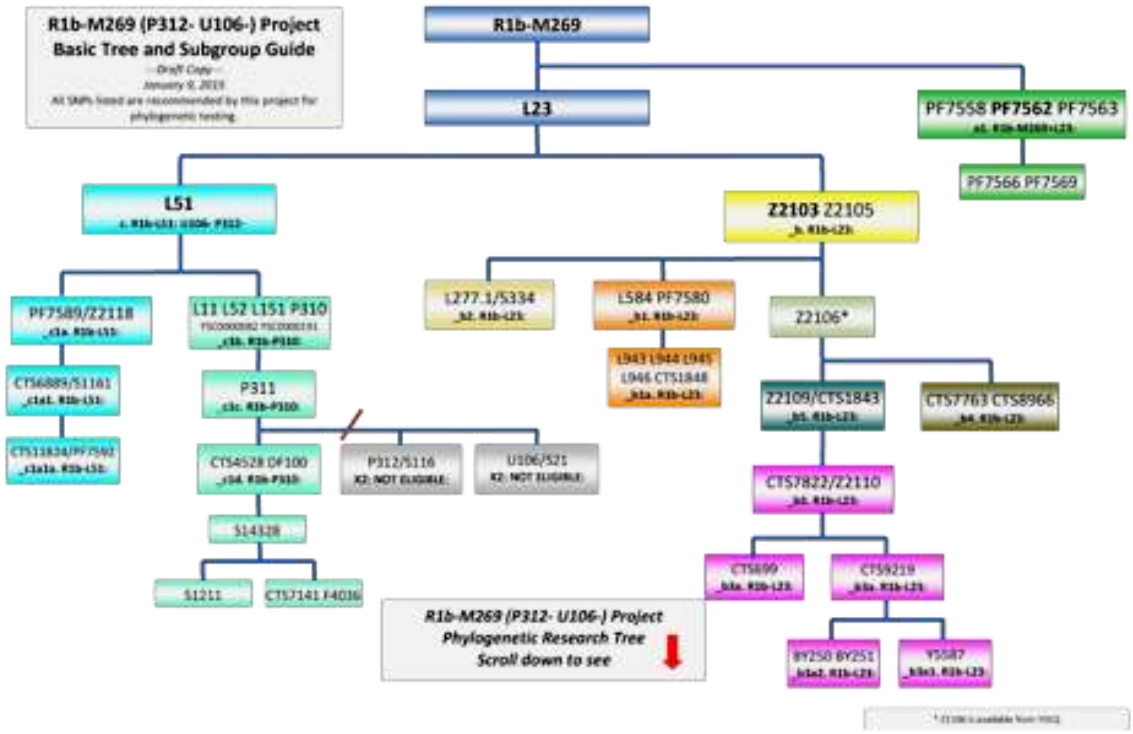
A 61-62/67 match means you are possibly related to a participant with the same surname or variant. This type of match will be on the threshold of time frame for emergence of surnames.

Matches below 32/37 and 60/67 are considered most likely not related even within the same surname. Allele position of mismatch should be considered. Examination of paper trail and the possibility of multi step mutation place these matches within the realm of possibility though not probable.

The Phylogenetic Tree

Since most of our participants are in the R1b-M269 [Formerly R1b1a2] family I want to familiarize you with our phylogenetic tree. All of us will share the mutation M269 and will consider it our common ancestor. A large group sharing a common ancestor is called a Haplogroup. The inevitable polymorphisms of nucleotides would further divide us into subclades or haplotypes. In genealogy this is your family group leading to most recent common ancestor.

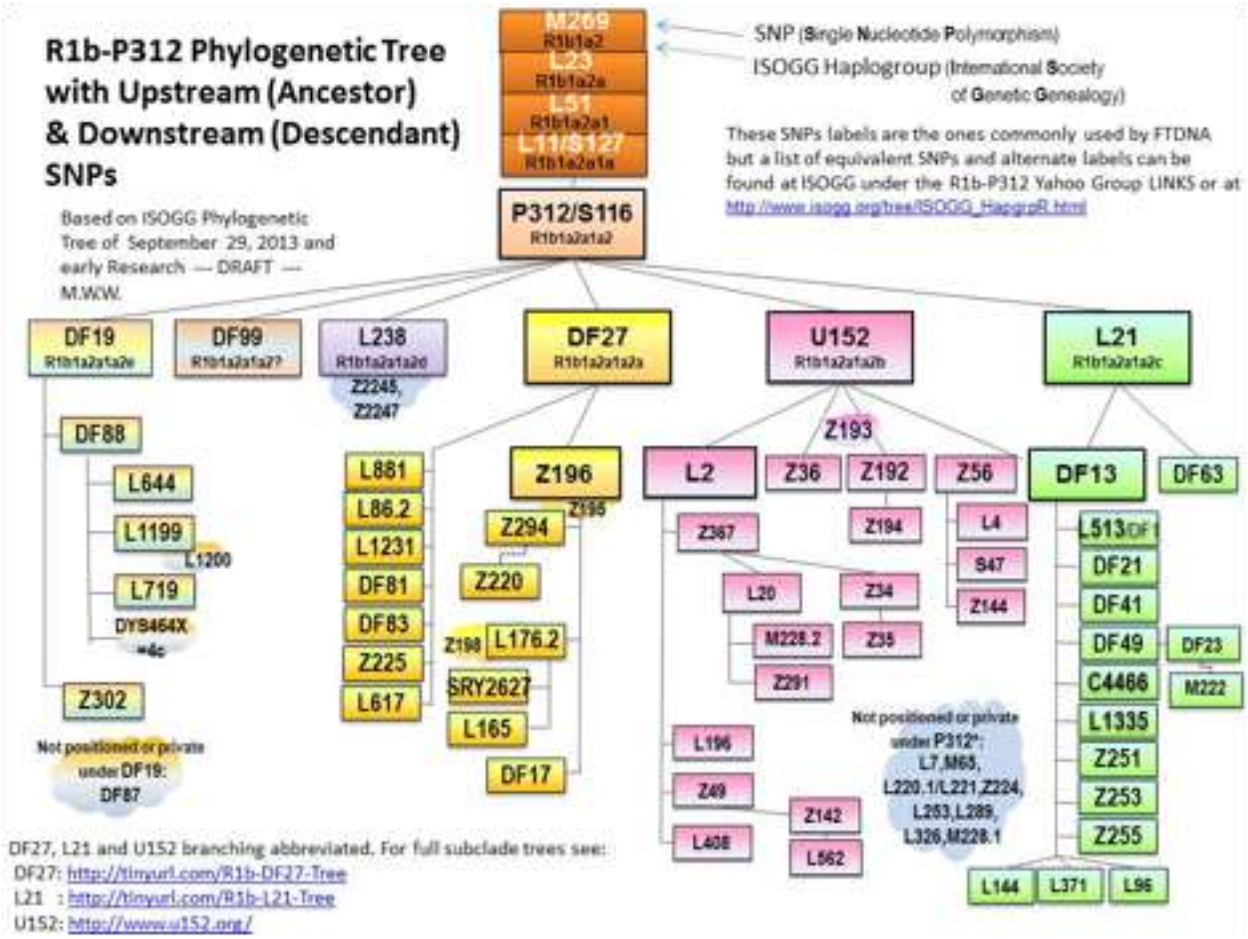
This list, courtesy of FTDNA, is not all inclusive. Updated in January 2015, it is a good up to date representation of the major SNP's downstream of R1b-M269. You will note it includes the newly discovered "third brother" of P312 and U106 known as CTS4528 or DF100. There are so many SNP's downstream of P312 and U106 they will be shown on a separate chart.



Comparison of your sequence to others may give you a clue when ordering SNP tests. There are variants to all SNP's. Fortunately, there are several folks who have blazed the trail and have positive tests for each SNP listed below. You

may not be an exact match with someone at DF27 or U152 but you may be in parameter for testing at these SNP's. As discussed previously, a 1 step distance on fast changers may still make you eligible for testing.

You will notice non positioned "private markers" in this tree. These are believed mutations within the last 500 years. A private marker is when only one individual or family has been identified. These are monitored as family and then branch groups may emerge in the future.

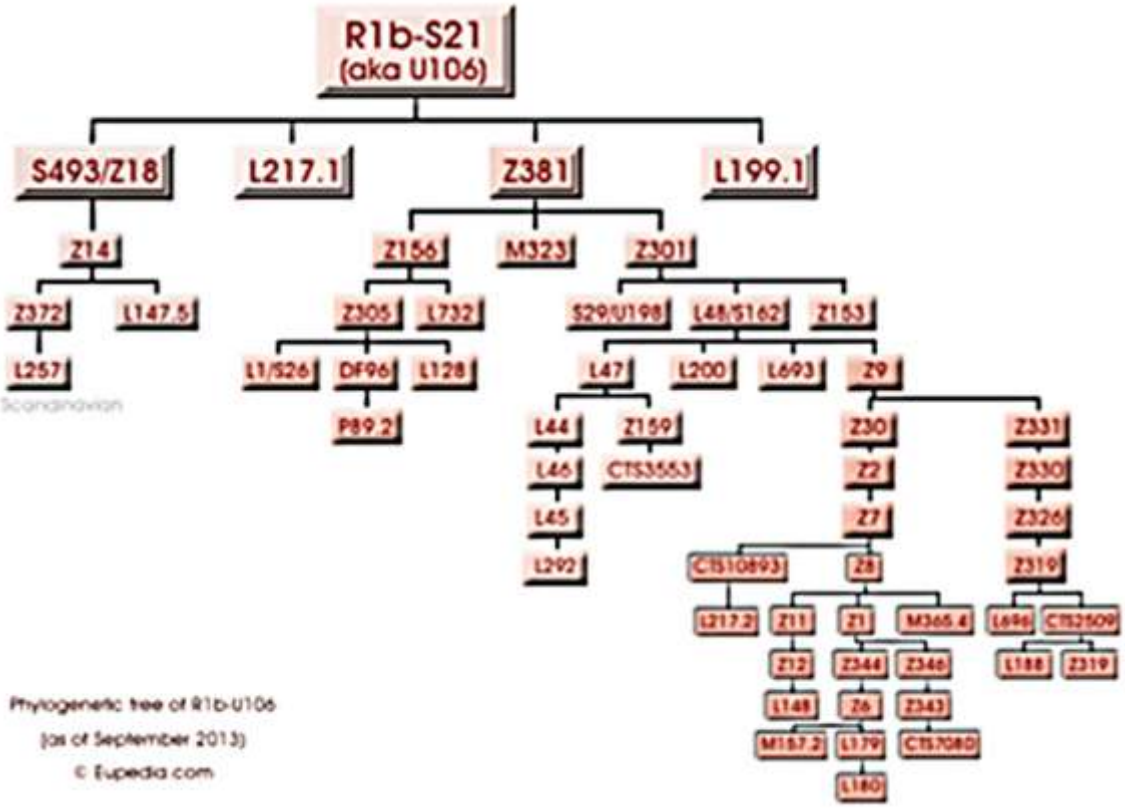


U106 and Subclades

As you go further down the phylogenetic tree it becomes more difficult to separate and determine terminal SNP's. For example, an individual testing positive at Z2 may next choose both CTS10893 and Z8 to ascertain which direction to go. A negative test on both should then test Z7. If the test at Z7 is also negative the participant is Z2 terminal and noted Z2*.

A positive test at Z8 may assume Z7 positive and again compare sequences for testing. If no revelation is discovered through comparison, I would recommend the participant to test the lowest level of options presented. In this case it would be L148, Z6 and Z343. The reason is this rule out options downstream with a negative test. It also assumes positive upstream if the test is positive.

I would only test M356.4 if micro alleles are present in my test results. Micro alleles are additional markers at loci such as DYS393 and more commonly DYS464. The normal at 464 is four values but up to seven have been observed.


R1b-S21
(aka U106)
S493/Z18
L217.1
Z381
L199.1
Z14
Z156
M323
Z301
Z372
L147.5
Z305
L732
S29/U198
L48/S162
Z153
L257
L1/S26
DF96
L128
L47
L200
L693
Z9
Scandinavian
P89.2
L44
Z159
Z30
Z331
L46
CTS3553
Z2
Z330
L45
Z7
Z326
L292
CTS10893
Z8
Z319
L217.2
Z11
Z1
M365.4
L696
CTS2509
Z12
Z344
Z346
L188
Z319
L148
Z6
Z343
M167.2
L179
CTS7080
L180
Phylogenetic tree of R1b-U106
(as of September 2013)
© Eupedia.com

Appendix 9

Setting Genetic Testing Goals by Nathan Forrister

Genetic testing goals will vary from person to person. Since genealogy is considered a hobby, finances will be a factor in decisions. We will focus on Y DNA goals in this article. Autosomal and mitochondrial will be addressed in other articles.

We have covered just the basics of Y DNA testing so far. Y DNA has several things to offer depending on your goals and budget. These include:
1] Placement in family group: surname project(s)
2] SNP confirmation to lowest known branch of family group
3] Next generation sequencing by comparison of SNP'
4] Pursuit of true "terminal" SNP
5] Discovery of private SNP'
6] Choosing haplogroup project(s)

Family Group: STR comparison of 12 and 25 markers will not always place a participant in the correct family group. Family groups are being defined by haplogroup or lowest tested single nucleotide polymorphism. [SNP] A 37 marker test is usually all that is required to match your sequence to the correct family group through STR comparison. In a few cases I have recommended upgrade to 67 markers to prove relation to family group. I have recommended only one 111 marker upgrade for this purpose. Upgrades cost money and we attempt to place you in a family group at the lowest cost possible. If this is your only goal you are finished. Sequence comparison will show if you are in parameter for haplogroup to other SNP testing participants.

Lowest Known Branch: This requires SNP testing. Lowest know branch is in reference to phylogenetic order in ISOGG and FTDNA SNP haplotree. Currently my family group' lowest know branch is R - Z31 aka Z7. Any other person in my family group can order this one SNP test and match me on the haplotree. The genetic relation is now confirmed as it is proven by the presence of this SNP.

Next Generation Sequencing: This is where it gets fun. Next generation tests such as Big Y or FGC Y Elite test beyond known branches. Big Y covers about 41,800 SNP' and FGC about 53,350. Since I have tested Big Y, matches to men outside of surname have identified 10 new SNP' below the Z7 level and above Z8. This has produced a tiny subclade named FGC17344 with only five surname sequences in parameter of positive match. FGC17344 will eventually be

placed in the ISOGG SNP haplotree. I have 11 remaining "singletons" or unmatched novel variants. As men from my family group test next generation, many of these singletons will be matched and produce a new family group defining SNP.

Pursuing True "Terminal" SNP: I never liked the term "terminal" SNP: it suggests the end of the line or lowest possible SNP. The definition has caused much confusion and made many reluctant to pursue further testing. As demonstrated above, I am already 10 SNP' below my family group' "terminal" SNP as defined by FTDNA. I prefer lowest know branch as the definition for family groups. Lowest know branch is a group thing; terminal SNP is a personal thing. As demonstrated above I have 11 remaining singletons. My true terminal SNP is among them. Terminal SNP occurs if or when only one singleton remains.

Private SNP: A private SNP is defined by the International Society of Genetic Genealogy as follows: either a binary polymorphism* observed only once, or multiple times with the associated STR profiles showing less than 15% of markers have diverged. A private SNP occurs at such a low level it should not be used to define a haplogroup. Thus it becomes a private SNP for a family and sometimes an individual.

* The ISOGG defines a binary polymorphism as a polymorphism with two states. It could be a single nucleotide polymorphism (SNP) or an insertion/deletion. [Also called an indel]

This type of SNP discovery will remain private for the foreseeable future. Reprint from 2016 ISOGG concerning private SNP' and indels:
Because of the abundance of alternatives now available, only single nucleotide polymorphisms (SNPs) are being accepted, and not insertions or deletions (indels) for new additions. In exceptional cases other variants may be considered for inclusion on a case by case basis if they can be clearly demonstrated to have equivalent properties to SNPs, but the burden of proof required will be much higher and at the discretion of the committee.

Choosing a Haplogroup Project:
Think of a haplogroup project as an extended family group. Where do you and your family belong in the human SNP haplotree? How many families are out there distantly related to my own?

For example, some of our members are P312+ >L21+ > DF13+ and Z253+. There is a haplogroup project for P312, L21 and Z253. One may join P312 with just their STR sequence. To join L21 or Z253 a positive SNP test at these levels is required. Some of our members are P312+ > L21+> DF13+ > DF49+ descending to subclades below R-M222. They would not be eligible for the Z253 project but could join P312, L21 and DF13. There are haplogroup projects for DF49 and R-M222.

This demonstrates the importance of SNP testing. Since there are 12 brother Clades directly downstream of L21, your sequence may appear similar to hundreds, if not thousands, of participants. Your placement in haplogroup projects will depend on which mutation or SNP is present in your Y DNA.

Good haplogroup projects have active administrators and co - administrators. They are available to advise you on SNP testing and placement of your sequence in the haplotree. Some my post removal or placement on an inactive list if recommended tests are not ordered. Haplogroup projects are where new discoveries of SNP' occur. Two or more must match in a haplogroup project for consideration of addition to the ISOGG SNP tree. Choosing the right haplogroup project can make a huge difference in your journey and exploration of genetic relationships. Several of our Clan Forrester family groups are currently in this process.

A Journey through Time:
As we travel back in time all of us will share a common ancestor. As I have employed P312 and U106 in examples our common ancestor was P311 man. Both of these large subclades emerged from one man born thousands of years ago. As we descend to lower subclades we move forward in time. SNP testing will eventually move us forward to a point in time when men began to take surnames. As we explore the shared SNP' with other surname groups we can estimate the time we departed genetic relations with them. This gives us a clearer picture of our own family migration routes. It covers the span of time from where we came from to where we are now.

Appendix10
DNA Tests 9: My Autosomal DNA Test Results and Analysis

Refer to Appendix 7 Understanding your autosomal DNA by Nathan Forrister

Autosomal DNA (atDNA) testing https://en.wikipedia.org/wiki/Genealogical_DNA_test

What gets tested

Autosomal DNA consists of the 22 pairs of chromosomes that do not contribute to sex. These are inherited equally from both parents and roughly equally from grandparents to about 3x great-grand parents. Inheritance is more random and unequal from more distant ancestors. Generally, a genealogical DNA test might test about 700,000 SNPs (single-nucleotide polymorphisms). Like mtDNA and Y-DNA SNPs, autosomal SNPs are changes at a single point in genetic code. Autosomal DNA recombines each generation. Therefore, the number of markers shared with a specific ancestor decreases by about half each generation.

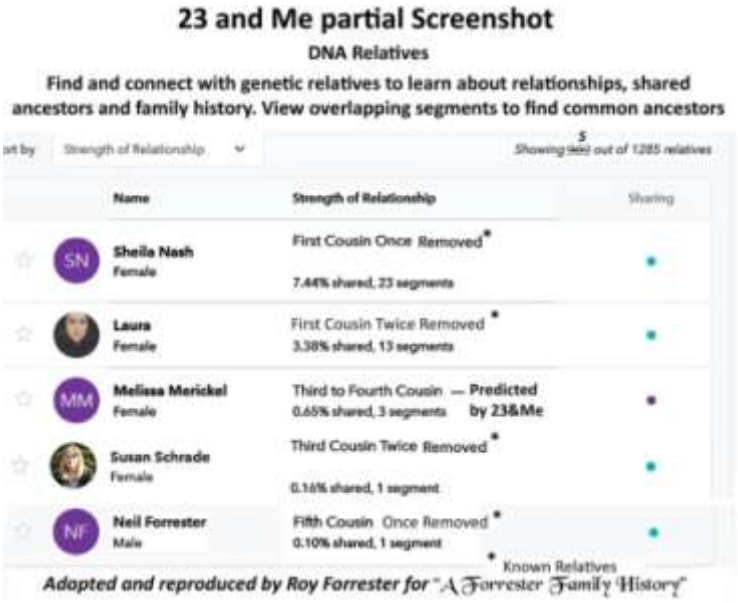
Matching process

The major component of an autosomal DNA test is matching other individuals. Where two individuals share in common a number of consecutive SNPs, it can be *projected* that they share a segment of DNA at that part of their genomes. If the segment is longer than a minimum threshold amount set by the testing company, then these two individuals are considered to be a match. The unit for segments of DNA is the centiMorgen(cM). For comparison, a full human genome is about 6500 cMs. Most companies will show the customers how many cMs they share, and across how many segments. From the number of cMs and segments, the relationship between the two individuals can be estimated, however due to the random nature of DNA inheritance, relationship estimates, especially for distant relatives, are only approximate. Some more distant cousins will not match at all.

Various advanced techniques and analysis can be made on this data. This includes features such as In-common/Shared Matches, Chromosomes Browsers, Phasing and Triangulation and Admixture tools. This analysis is often required if DNA evidence is being used to prove or disprove a specific relationship. Various online blogs explain these concepts for beginners.

At Susan's suggestion I undertook an Autosomal test with 23andMe, initially resulting in some 1285 potential relatives from 1st to 6th cousins and beyond including Susan and at least 2 maternal 1st cousins together with Neil Forrester a paternal 5th cousin. Attempts are still ongoing to identify other potential relatives particularly those sharing most DNA with me.

DNA Tests 10: 23 and Me Screenshot (Autosomal DNA) Edited



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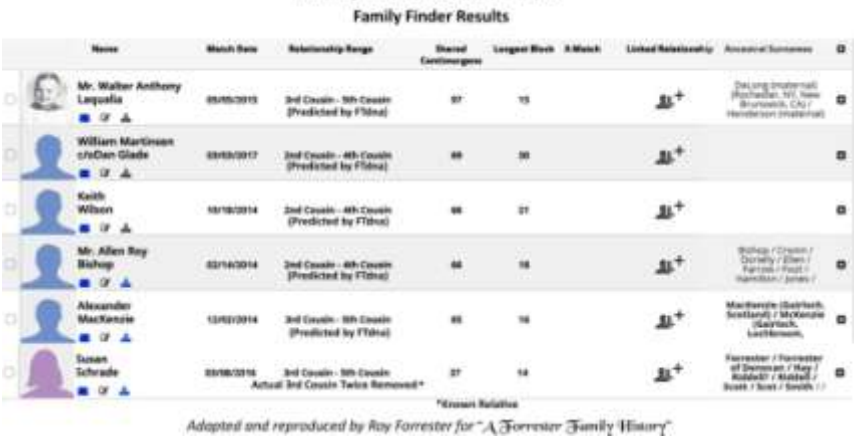
Of my 1285 possible 23 and Me matches, a third were entered anonymously so were discounted; of the remaining two thirds only 4 have so far been positively identified as directly connected to 'this Forrester family".

FTdna has a similar Autosomal test (named Family Finder) and similar matches but with generally different participants with different potential matches. In my case FTdna autosomal results were obtained by analysing my 23 and Me raw data.

DNA Tests 11: Family Tree DNA Screenshot (Autosomal DNA)



DNA Tests 12: Predicted Relationships with Autosomal DNA shared by pairs of relatives, in percentages and centiMorgans		
% shared	Total cM shared half-identical (or better)	Predicted Relationship
6.25%	425.00	First cousins once removed, half first cousins, great-great-grandparent/great-great-grandchild, great-great-aunt/uncle, half great-aunt/uncle (Sheila Nash and Roy Forrester - actual 554 cM . Sheila Nash and Laura -actual 500 cM)
3.125%	212.50	Second cousins, first cousins twice removed, half first cousin once removed, half great-great-aunt/uncle, great-great-great-grandparent/great-great-great-grandchild (Laura and Roy Forrester- actual 252 cM)
0.195%	13.28	Fourth cousins, third cousins twice removed (Susan Schrade & Roy Forrester -actual 12 cM)
0.0244%	1.66	Fifth cousins once removed (Neil Forrester & Roy Forrester -actual 8cM)
0.0061%	0.42	Sixth cousins once removed (Neil Forrester & Susan Schrade- actual 8cM)
from: http://isogg.org/wiki/Autosomal_DNA_statistics		

The actual relationship between two people is proportional to the Identical by Descent (IBD) value in centiMorgans and the position on the chromosome of the matching Megabase Pairs. The actual cM value (centiMorgan) takes both into account. See example in the next table.

The closer the relationship, the more predictable and greater the shared DNA in cMs (centMorgans).

Since Autosomal DNA is passed to children from both parents in a manner known as recombination which results in the DNA received from both parents being somewhat scrambled, it is almost impossible to tell from the matching results whether the matches are paternal or maternal unless one or both the testees' parents have been tested for comparison.. One method of getting over this dilemma is known as the Phasing Method.

Another method is called triangulation, determining a maternal or paternal DNA match where a known relative is tested against an unknown relative: Susan Schrade and I are paternal 3rd cousins, as derived from our family tree paper trail. Our autosomal results show a match on Chromosome 20. Susan found that Neil Forrester also shows up as a match on chromosome 20, indicating that Neil is a paternal cousin at a greater distance. A subsequent family tree paper trail defined Neil as a 6th cousin once removed to Susan and a 5th cousin once removed to me. The paternal match was later confirmed by Neil's Y Match to me.

DNA Tests 13: 23andMe Autosomal dna matching results between Susan Schrade; Neil Forrester and Roy Forrester							
Matching Susan Schrade against Roy Forrester							
Match Name	**Chromosome**	**Segment Start In MegaBase Pairs**	**Segment End In MegaBase Pairs**	**Segment Length In MegaBase[1 & 2] Pairs**	**Segment Length In centiMorgans[1]**	**No. of SNPs**	**IBD/IBS[11]**
Susan Schrade: Ref.	**20**	***Susan and Roy Forrester are 3rd cousins twice removed.***					
Roy Forrester	**20**	**45.5**	**51.8**	**6.3**	**11.7**	**1610**	**IBD**
Matching Neil Forrester against Susan Schrade and Roy Forrester							
Neil Forrester: Ref.	**20**	***Neil is Susan's 6th cousin once removed and my 5th cousin once removed,***					
Roy Forrester	**20**	**47.2**	**51.7**	**4.5**	**7.2**	**1047**	**IBD**
Susan Schrade	**20**	**47.2**	**51.8**	**4.6**	**7.9**	**1106**	**IBD**
Source:	**Susan Schrade**						

1. A "Base Pair" is a physical distance in the chromosome while 'centiMorgan' cM value is genetic distance taking into account t he position on the chromosome of the matching segment.
2. See http://isogg.org/wiki/CentiMorgan for a definition of the above results.
3. For comparison, a maternal first cousin once removed, shares with me 554 cMs in 23 segments within 15 Chromosomes.
4. For reference there are approximately some 62 million base pairs in Chromosome 20 but appro ximately 99.9% are not SNPs. See ISOGG site referenced above.
5. Ancestor charts of Roy Forrester, Susan Schrade and Neil Forrester see appendices 5, 6 & 7 of part 1 of this chapter.
6. Neil's and my paternal haplogroup as confirmed by 23 & Me is I2b2 which has recently been renamed I2a2b aka I-L38. As seen later in this chapter my actual haplogroup in the FTdna results is I-BY14048 which is downstream to I-L38, i.e. FTdna tested more downstream SNPs
7. Haplogroups are determined by the defining or terminal SNP. See Part 2 appendices
8. In this case the segment length in centiMorgans is defined by the length of shared DNA segments.
9. Minimum Segment length applied to the above test is 7 centMorgan (cM)
10. 7 cM match is considered the border line between a positive match and a maybe match. The matches are Identical by Descent (IBD)
11. For an explanation of IBD/IBS see https://dna-explained.com/2012/09/03/matches-family-ibd-vs-population-ibs/

From family data supplied by Neil, we determined that our common ancestors were Alexander Forrester born 1712 and his wife Helen Crawford, Neil via their son George born 1756, Susan and I via their son William b 1744.

The different testing companies often produce slightly different result from the same data input mostly due to their use of slightly different analytical Firmware/software.

Autosomal DNA Comparison between Susan Schrade and Roy Forrester with different testing/evaluation companies:

DNA Tests 14: DNA Results Comparison from different testing/evaluation companies					
Chr	Start Location	End Location	Centimorgans (cM)	SNPs	Source
20	45558831	51924497	11.68	1610	23andMe
20	44867806	51434354	12.6	2021	Gedmatch
20	44979579	51376306	13.64	2084	FTdna

In each case the same raw autosomal data was used in the evaluation

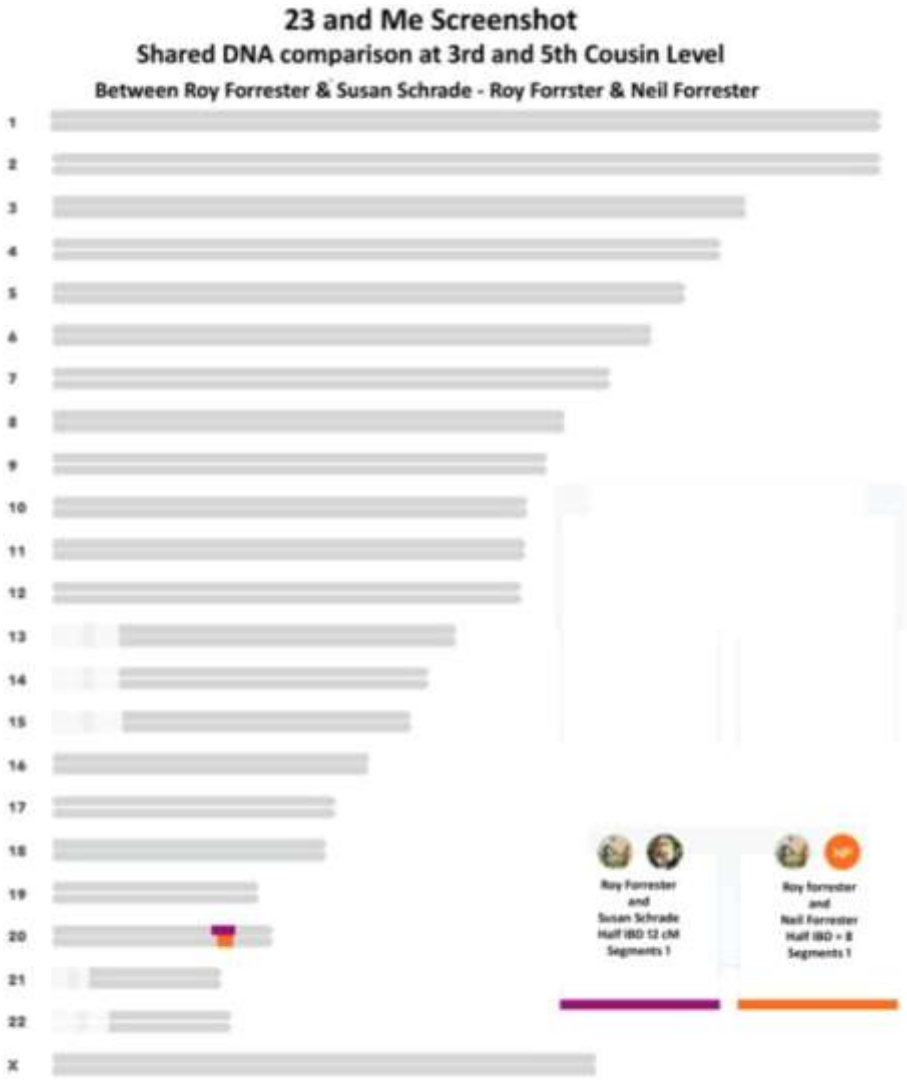
Gedmatch accept a raw autosomal data upload for analysis from several genealogy DNA testing companies.

FTdna can test your autosomal DNA directly or they will accept your 23 and Me raw data for upload and analysis.

The Most Recent Common Ancestors for Susan and me are James Forrester of Tollpark and his wife Ann Scott both born in the last decade of the 1700s. Susan is descended from William, my G-Grandfather's brother (see chapters 6 & 7 Books 1 & 2 of this series).

Neil's segment match is about 66% of the match between Susan and me, indicating that our most recent common ancestor is earlier in the time frame, reflected in our degree of relationship (see matching results table above).

DNA Tests 15:-An example of Paternal 3rd and 5th cousin matches:-



Adapted and reproduced by Roy Forrester for "A Forrester Family History"

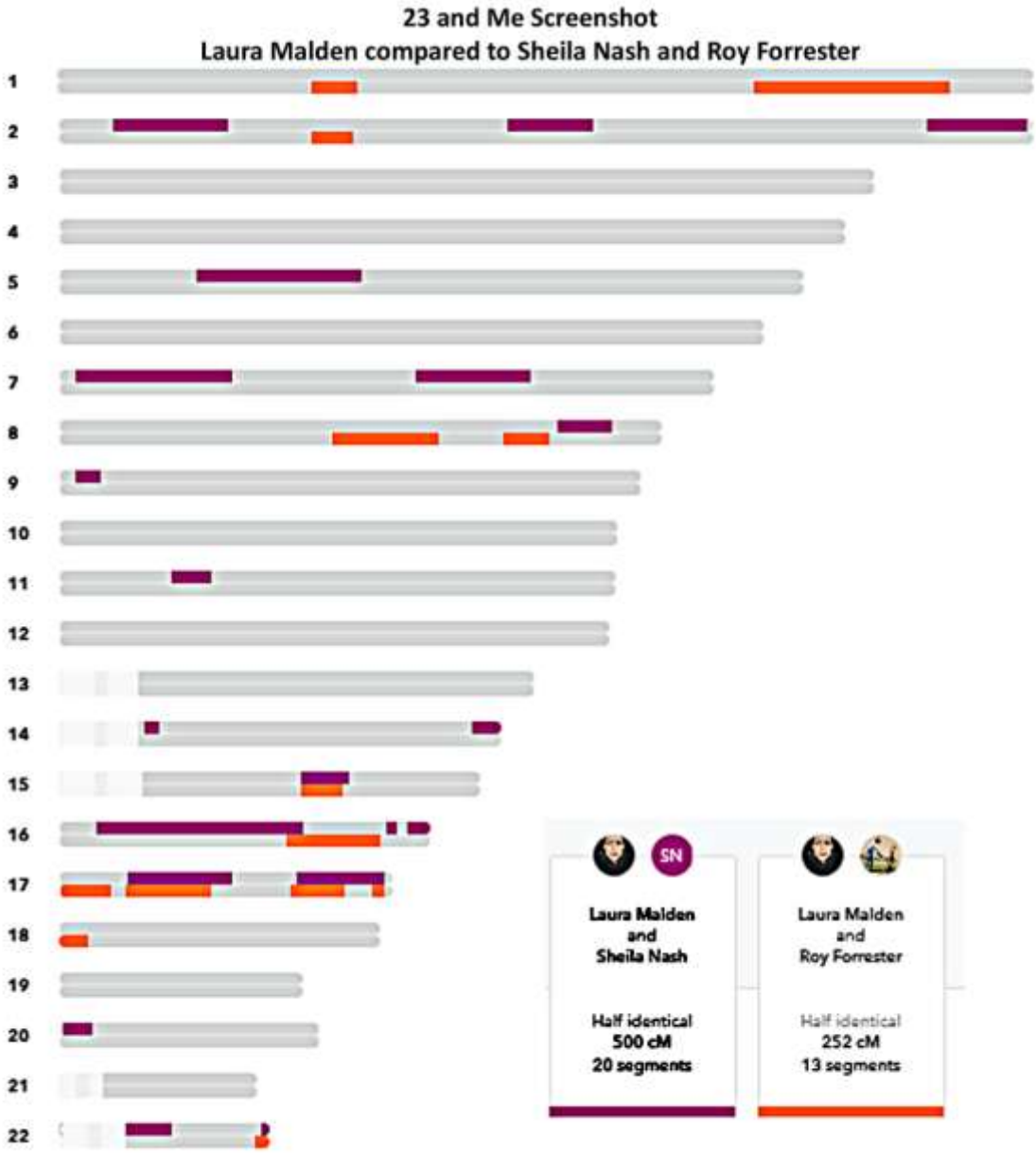
DNA Tests 16: Matching Segments between Susan Schrade; Neil Forrester and Roy Forrester.						
Comparison	**Chrom.**	**Start Position**	**End Position**	**Genetic Distance (cM)**	**Number of SNPs**	**Relationship**
Roy Forrester / Susan Schrade	**20**	**45558831**	**51924497**	**11.68**	**1610**	**3rd Cousin twice removed**
Roy Forrester / Neil Forrester	**20**	**47289675**	**51790871**	**7.17**	**1047**	**5th Cousin once removed**
Neil Forrester / Susan Schrade	**20**	**47289675**	**51943826**	**7.89**	**1106**	**6th Cousin once removed**
Source:- 23 and Me						

Neil is also a firm match in my Y-DNA.

The following charts from 23 & Me and Gedmatch reveal maternal relatives at the 1st cousin level:

DNA Tests 17: An example of Maternal 1st cousin matches

Matching DNA between Roy Forrester, Sheila Nash and Laura
Data from 23 and Me®

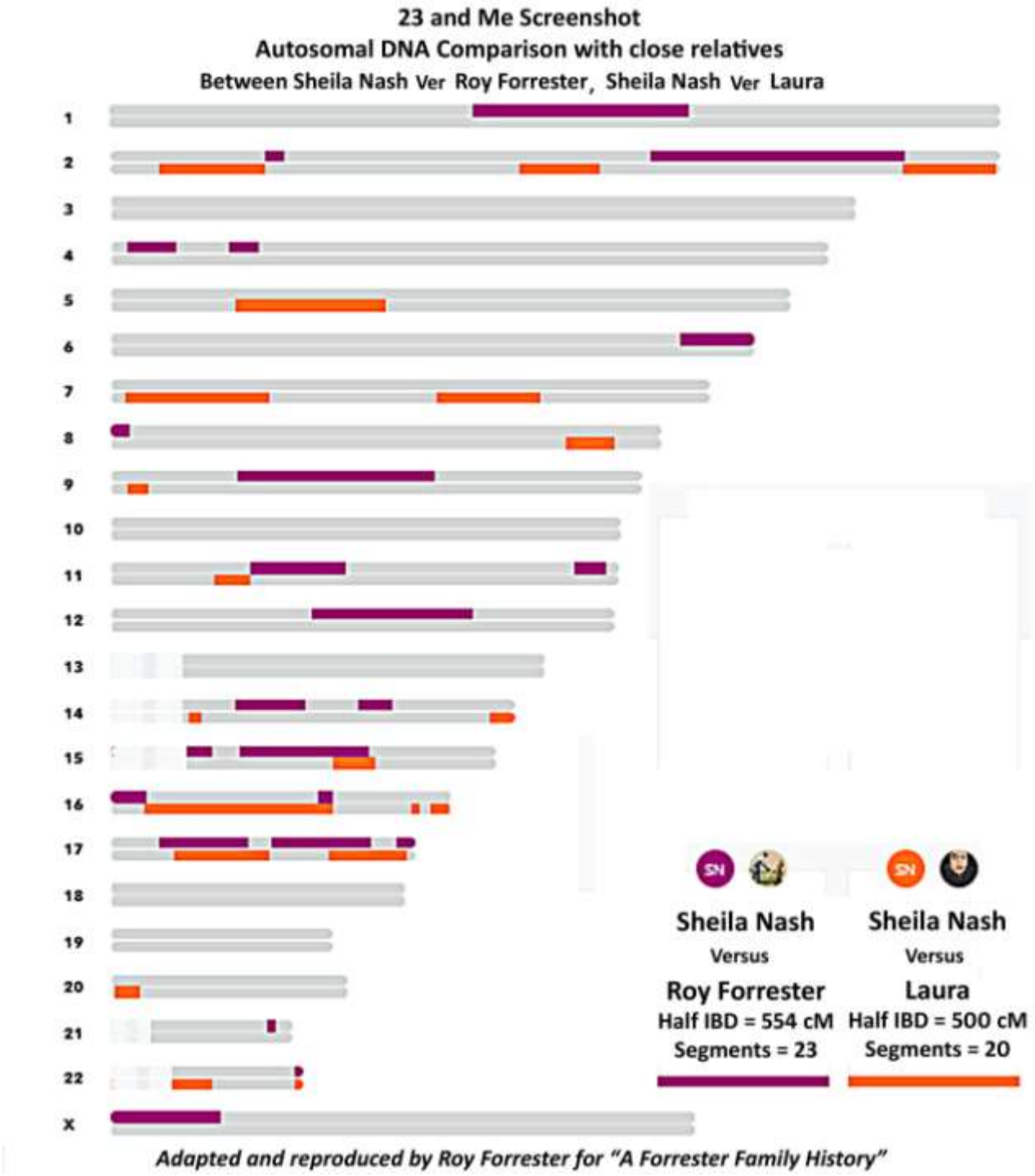


Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Sheila Nash, my mother's grand niece and therefore my 1st cousin once removed, showed up as a match at the 1st cousin level. Laura Malden showed up as a match at the 2nd cousin level. As shown above Sheila shares 500 centiMorgans of autosomal DNA with Laura and I share half that amount. In the following chart Sheila and I share 554 centMorgans and Laura and Sheila share 500 centMorgans.

Thus it would appear that Sheila and Laura and I are related to each other at 1st cousin level or at the most, second cousins with a generation difference between each of us. Both Sheila's and my paper trails converge at my Grandfather Frank McLachlan as our common ancestor, Laura's paper trail ancestry is unknown.

DNA Tests 18: Autosomal DNA Comparison between Sheila Nash & Laura Malden and between Sheila Nash & Me



Tha above chart illustrates the shared DNA between Sheila Nash; Laura Malden and me, with Sheila as the reference. I share about the same amount of DNA with Sheila as Sheila and Laura. As Sheila is my cousin once removed then Laura is Sheila's 1st cousin once removed and therefore Laura is my 1st cousin twice removed. One of the main differences between both charts is that Sheila and I share a significant portion of X DNA. Since our common ancestors are my maternal Grandparents and Sheila's grandmother is my mother's sister then we should expect see some sharing of our X DNA. From Laura's perspective the lack of sharing any X DNA with either Sheila or me will play a significant role in determining whether her relationship to us is via her father or her mother.

The following tables enumerate the above charts.

DNA Tests 19: Matching segments between Sheila Nash & Roy Forrester				
Chromosome	Start Point	End Point	Genetic Distance (cM)	#SNPs
1	101644898	162042801	45.95	6351
2	42181226	47423591	7.94	1504
2	147537807	216540777	58.73	1229
4	4209796	17280522	27.43	3357
4	31339910	38937055	8.63	1400
6	151513858	170909002	34.49	5480
8	1	4705811	12.16	2457
9	33518281	85910512	27.01	4470
11	36967260	62209534	13.75	3677
11	122932409	131496574	16.79	2227
12	52981676	96093358	45.19	8026
14	65762781	74708873	8.30	1840
14	33075243	51312785	18.03	3547
15	33877585	68597127	40.56	7488
15	1	27046741	27.68	824
16	1	9165054	22.13	2591
16	54812333	58974871	7.81	1162
17	75667936	81041077	14.63	1146
17	42345979	69238807	31.76	4875
17	12849022	36152099	27.67	3493
21	41383783	43743039	7.61	972
22	48824991	51178090	7.91	738
X	1	29174779	41.69	3297
Total			554 cM	72151
Source: https://you.23andme.com/				

DNA Tests 20: Matching Segments between Sheila Nash & Laura			
Chromosome	Genomic Coordinates	Genetic Distance (cM)	#SNPs
2	216297875 - 241586195	43.73	5857
2	111797458 - 133491577	21.33	3618
2	13621702 - 42176266	34.43	6243
5	33258805 - 73179672	31.14	6620
7	3736942 - 41924651	59.29	10015
7	86401804 - 114355460	25.47	5238
8	121013590 - 133897733	20.42	3047
9	4036730 - 9968038	12.30	2158
11	27381899 - 36711834	10.35	1812
14	100330046 - 107287663	12.51	925
14	20673985 - 23998013	11.64	1087
15	58741300 - 70185411	15.87	2530
16	84523790 - 90149922	17.34	1633
16	8773196 - 58974871	57.00	6988
16	79603790 - 81993974	6.01	880
17	16509917 - 42005741	23.92	3436
17	57637803 - 78812175	41.53	4508
20	731744 - 7836714	20.32	2188
22	1 - 26939992	26.00	2332
22	48701023 - 51178090	8.67	784
X		0	0
Total		Total 500cM	71899
Source: https://you.23andme.com/			

DNA Tests 21: Matching Segments between Laura & Roy Forrester			
Chr	Genomic Coordinates	(cM)	#SNPs
1	64708011 - 76862648	10.42	2530
1	177820480 - 228072809	50.95	9553
2	62789278 - 73235358	11.99	2114
8	107790203 - 118662557	6.30	1777
8	65960510 - 92078257	20.63	4650
15	58471025 - 68613490	13.58	2303
16	54856671 - 77879657	26.19	4566
17	16221319 - 36557089	19.79	2578
17	257557 - 12655081	31.52	3175
17	56225712 - 69345056	15.37	2177
17	75577377 - 78929020	11.83	884
18	1 - 6922019	20.50	1740
22	47503067 - 51178090	12.19	1161
X		0	0
Total		252 cM	39208
Source: https://you.23andme.com/			

DNA Tests 22: Matching Segments between Laura & Roy Forrester.				
Chromosome	Start Location	End Location	(cM)	SNPs
1	64,332,677	76,751,065	10.4	2,213
1	175,994,680	226,443,250	49.7	8,584
2	62,520,896	73,353,636	11.9	1,861
8	65,942,769	92,403,821	21.2	3,966
11	237,972	2,701,683	7.9	556
14	100,726,671	106,353,025	8.7	593
15	56,164,760	66,429,101	15.1	2,008
16	53,318,542	76,525,505	24.3	4,068
17	828,226	12,773,704	33.5	2,830
17	15,797,511	34,126,675	19.2	2,354
17	53,388,464	66,980,486	16.3	1,977
17	73,008,055	76,458,857	13.9	879
18	59,836	6,980,606	24.4	1,717
22	45,749,007	49,524,956	15.5	1,137
Total			272	34,743
Source: https://www.gedmatch.com/				

Thus it would appear that Susan and Laura and I are related to each other at 1st cousin level or at the most, second cousins. Sheila's and my paper trails converge at my Grandfather Frank McLachlan as our common ancestor, Laura's ancestry is unknown. Gedmatch has an analytical tool which will help to determine exactly what Laura's and my relationship therefore is:-

Gedmatch – Relationship Tree Projection

Relationship Projections

Data you (Roy Forrester) provided:

DNA Kit Number 1: M176406 (M) Roy Forrester
DNA Kit Number 2: Mxxxxxxx (F) Laura
Autosomal Genetic Distance Total: 279.8 cM
Autosomal Genetic Distance Largest Value: 50.95 cM

X-DNA Genetic Distance Total: 0 cM
X-DNA Genetic Distance Largest Value: 0 cM
Generational adjustment: -2 generations. Donor 1 is older than Donor 2.
Overlap factor entered for Genetic Distance is 1. This means that if your results are less than 29 Pct below the projected value, or 41 Pct above the projected value, they will not be shown as a match.
Comments: 2nd Cousin or 1st cousin 2 times removed

Gedmatch Calculated Values and assumptions:

Maximum possible assumed Autosomal Total Genetic Distance Value for a perfect match = 3587
Maximum possible assumed X-DNA Total Genetic Distance Value for a perfect match = 196
Your total Autosomal Genetic distance as a percentage of the maximum = 7.8 Pct.
Your total X-DNA Genetic distance as a percentage of the maximum = 0 Pct.
Estimated average number of generations to the common ancestor based on Autosomal values: 2.8

Based on X-DNA Genetic Distance, there is no relationship through the X-Chromosome. This means that the ancestry of one or both of these 2 individuals probably has one or more Father-to-son generations that has blocked the transfer of X-DNA. That eliminates possible relationship paths that do not contain father-son generations.

Estimated number of generations from Donor 1 to Common Ancestor = 2
Estimated number of generations from Donor 2 to Common Ancestor = 4
Proposed Cousin relationship = 1 removed 2 time(s)

Conclusions:

Note: Gedmatch used Laura's and my 23 and Me raw data for their comparison. Sheila has not uploaded her raw data to Gedmatch, but her ancestors and our relationship was determined from our respective paper trails and our 23 and me autosomal DNA match.

In the case of Laura, Sheila and me the 'X' DNA plays a crucial role in understanding this relationship. A daughter's X DNA is inherited (a) one strand directly from her father completely and (b) the other strand from her mother. In the latter case her mother's X-DNA was inherited from both her parents, i.e. from both Laura's maternal grand grandparents via DNA recombination. This is one thing which makes the X DNA different from autosomal DNA:

This establishes two patterns that can be helpful in X-DNA genealogical research:

a. Any father-to-son relationship can be excluded from X-DNA research because the X-chromosome is not passed from father to son.

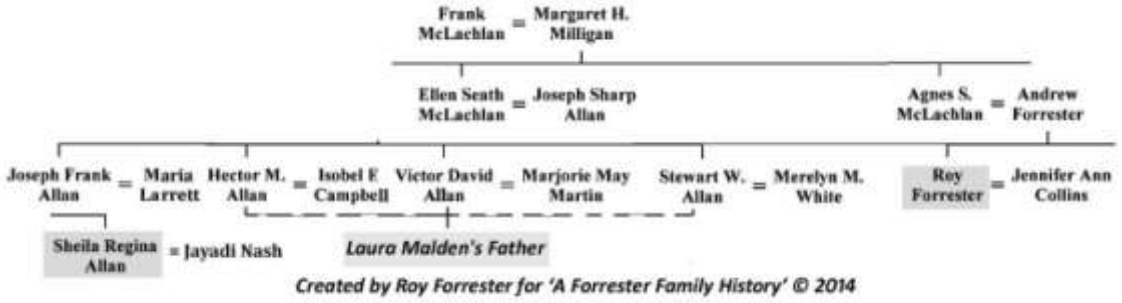
b. Because an X-chromosome is passed exactly from father to daughter, it will remain unchanged for that generation. This means that X chromosomes change less often along father-daughter pedigree lines. Stronger X-DNA matches are more likely to share a common ancestor on father-daughter lines than on mother-daughter lines.

From the previous charts and tables we see that Sheila and I share about 42 cMs of our X DNA. Laura does not share any X DNA with either Sheila or me.

According to GedMatch I am two generations down from our common ancestors who are therefore my maternal grandparents. This agrees with my genealogy family tree. Laura is four generations from our common ancestor therefore the same generation as my grandchildren. 23 and Me's DNA data and our family tree confirm that Sheila and I are 1st cousins once removed, from the DNA pattern Sheila and Laura are 1st cousins once removed and Laura and I are first cousins twice removed.

The lack of X chromosome sharing between Laura and both Sheila and me, implies that there is a Father/Son relationship in the ancestral chain somewhere. My link to our common ancestor is via my mother and Sheila's link is via her father and maternal grandmother therefore Laura's connection to our common ancestor is via her father, one of Sheila's uncles:

DNA Tests 23: Frank McLachlan's Descendant Tree



Laura's ancestry progression:
Laura's Father > Sheila's Uncle > Sheila's grandmother (Ellen(Helem) McLachlan) > Frank McLachlan and his wife Margaret Miligan

Anita West's matching segments by GedMatch

Anita West is an example of a borderline DNA match. Her paper trail indicates that she is descended from my 4th G-Grandparents Alexander Forrester and Helen Crawford via their son Adam. The DNA matches at this point do not appear to support her paper trail. Most of her matching DNA falls under 4 cM and is normally considered IBS (Identical by State IBS) although they also may be IBD (Identical by Descent) but originated many thousands of years ago.

GEDmatch.Com Autosomal Comparison - V2.1.1(b)
Minimum segment cM to be included in total = 4.0 cM
Source: www.gedmatch.net

DNA Tests 24: Roy Forrester and Anita West Shared DNA (5th Cousin Once removed)

Chr	Start Location	End Location	MegaBase Pairs	CentiMorgans (cM)	SNPs	IBD/IBS
11	128,949,044	130,423,279	1.5	4.1	430	IBS
13	28,789,513	30,377,640	1.6	4.0	532	IBS
22	46,322,933	47,297,493	1.0	5.7	453	IBS

DNA Tests 25: Susan Schrade and Anita West Shared DNA (6th Cousin Once removed)

Chr	Start Location	End Location	Megabased Pairs	Centimorgans (cM)	SNPs	IBD/IBS
14	100,921,828	103,954,889	3.03	4.1	544	IBS
19	54,647,765	56,206,434	1.56	5.8	428	IBS

DNA Tests 26: Comparing Edward Law and Anita West (6th Cousin)

Chr	Start Location	End Location	Centimorgans (cM)	SNPs	IBD/IBS
8	137,388,532	139,322,987	4.0	490	IBS
19	17,122,240	20,175,416	5.1	689	IBS

In the above tables a minimum matching segment length of 4 centiMorgans was used as a baseline. Most DNA testing companies consider at least a minimum of 7 centiMorgans as a baseline for a positive match between two people. The matches using Gedmatch with Anita West were all below 7 cMs but above 4 cMs. In the case of the 23 and Me comparison between Neil Forrester and Susan or myself the cM number was barely above 7. The following is Nathan Forrister's take; this refers to a different match but applies equally to the above:

"You do have one matching segment that approaches alike by descent with Brian More. This is on chromosome 4 - 11.5cM with 2,616 SNP's. You will notice the SNP count is more than 200 times greater than the cM count. This holds true with alike by descent segments. Discount all segments below 6cM as alike by state regardless of the SNP count. In fact, I actually discount all below 10cM."

Based on Nathan's response, the above tables for Anita West represent an identical by state (IBS) scenario not an identical by descent. (IBD)

Identical by state or identity by state (IBS) is a term used in genetics to describe two identical alleles or two identical segments or sequences of DNA. ... In genetic genealogy the term IBS is generally used to describe segments which are not identical by descent and therefore do not share a recent common ancestor. ISOGG

Another direct descendant of Adam Forrester b 1757 is Richard Brian Sommerville who is Anita's 4th Cousin. Only Chromosome 11 could be considered Identical by Descent (IBD).

DNA Tests 27: Matching DNA between Anita West and Brian Sommerville 4th Cousins

Chr	Start Location	End Location	Centimorgans (cM)	SNPs	IBS/IBD
2	217,671,790	219,949,518	4.4	538	IBS
7	147,770,490	150,524,562	5.4	649	IBS
11	115,962,550	119,314,166	4.8	1,000	IBD

DNA Tests 28: Matching DNA between Roy Forrester and Brian Somerville 5th cousin once removed

Chr	Start Location	End Location	Centimorgans (cM)	SNPs	IBS/IBD
2	230,814,865	233,553,749	4.5	846	IBD

The paper trails indicated that Anita West, Brian Somerville, Susan Schrade and I have a common ancestor in Alexander Forrester and Helen Crawford but not entirely supported by the level of matching DNA segments. This may well be due to an effect called recombination, Brian Somerville is my 5th cousin and Anita West is my 5th cousin once removed. DNA relations to 3rd cousins are pretty solid, beyond that they can be pretty spotty so the jury is still out as far as this family's connection to Brian and Anita.

Another spinoff from Gedmatch is the ancient ancestry predictor. Various DNA testing companies provide this service with minor variations between them due to differences in the software used.

The following tables have been constructed from Gedmatch using the autosomal results from Susan Schrade, James Forrester and me uploaded to Gedmatch from FTdna and 23 and Me. They compute the combined autosomal data both Maternal and Paternal. (Some companies provide separate ancient Ancestor predictions based on haplogroups but generally only if both parents have been tested).

As can be seen from the following tables we are principally Northern European and Baltic, basically Northern Germany, Holland, the Scandinavian countries and Great Britain and Ireland.

DNA Tests 29: Ancient Ancestors derived from Autosomal DNA data Chromosomes 1 -22

	Gedmatch Admixure K13 Oracle Results		Gedmatch Admixture K15 Oracle Results	
#	Population (source)	Distance	Population (source)	Distance
1	North_Dutch	4.08	Norwegian	4.76
2	North_German	4.45	West_Norwegian	5.65
3	Orcadian	4.71	North_Dutch	6.5
4	Danish	4.75	Swedish	6.64
5	Norwegian	5.26	Danish	7.06
6	Southeast_English	5.34	Orcadian	7.76
7	Irish	5.42	Southwest_English	7.98
8	Swedish	5.89	West_German	8.28
9	Southwest_English	6.34	Southeast_English	8.47
10	West_Scottish	6.4	North_Swedish	8.56
Gedmatch Admixure Tables for Roy Forrester (K15 was developed later than K13				

The above calculations, based upon DNA from both my parents, represent ancestors prior to the 2nd millennium AD. The following 23&Me/FTdna Admixture table represents ancestors from the late 1st millennium on.

	Roy Forrester	Susan Schrade	James S Forrester
Population	% of Population	% of Population	% of Population
North_Atlantic	47.59	46.06	49.71
Baltic	27.31	30.78	24.54
West_Med	14.03	8.72	14.57
East_Med	5.95	8.32	4.17
West_Asian	2.33	2.4	4.03
Source: Based on Gedmatch Addmixture Eurogenes K13 model			

	Susan Schrade	Roy Forrester	James Forrester
Population	% of Poulation	% of Poulation	% of Poulation
European Hunters Gatherers	43.05	39.31	37.27
Caucasian	22.68	23.00	17.92
European Early Farmers	22.62	26.12	30.99
South Central Asian	6.52	4.12	6.56
Ancestral Altaic	4.35	5.17	5.33
Source: Gedmatch Autosomal Addmixture MDLP K23b Oracle Model Calculator			

Nathan used the Eurogenes EUTest V2 K15 Model Calculator: The K- 15 admixture is most interesting. Seems there are heavy doses of French - Basque, Swedish and Norwegian. Looks like you guys were Anglo - Saxon invaders of the 5th century - especially when you toss in lower percentages of Southwest French and Southeast English..
Using this test with Susan's and my Gedmatch kit numbers produced very similar results. RF

Nathan Forrister/Jim Forrester	
Population	%
North_Sea	35.43
Atlantic	29.42
Baltic	11.01
West_Med	10.02
Eastern_Euro	8.95
East_Med	2.71

Source: Gedmatch Admixture Eurogenes EUTest V2 K15 Model Calculator

Both FTdna and 23 and Me indicate we are about 85% British and/or Irish. From my DNA received from both arents. (by 23 and Me) Past 1000 years

23 & Me Admixture Results		**FTdna Admixture Results**	
Poulation (Source)	**Percentage**	**Poulation (Source)**	**Percentage**
European	**99.9%**	**European**	**98%**
Northwestern European	**99.7%**	**British Isles**	**47%**
British & Irish	**86.5%**	**West and Central Europe**	**46%**
French & German	**3.0%**	**Southeast Europe**	**5%**
Scandinavian	**0.5%**	**Finland**	**<2%**
Finnish	**0.1%**	**Oceana**	**<1%**
Broadly Northwestern European	**9.6%**	**Scandinavia**	**0%**
Southern European	**0.1%**		
Iberian	**0.1%**		
Broadly European	**< 0.1%**		
Sources: FTdna DNA testing company's Admixture results			

Gedmatch indicate a greater amount of Scandinavian DNA than that shown by 23 & Me or FTdna. Gedmatch's calculations are based on DNA samples from a number of different testing companies and employ a greater range of tools.

Previously it we reported (courtesy of Hans De Beule) that the route of the I-L38 haplogroup, our ancestor paternal haplogroup's passage through time was via the River Rhine in Germany to its mouth in Holland and Flanders indicating that our early ancestors were probably Germanic as indicated by the map right:-

I-L38 Haplogroup Migration in Europe
by Hans De Beule
Adapted and reproduced by Roy Forrester for "A Forrester Family History"

However recent research is indicates that we probably possess more Viking DNA than previously revealed in the test results.

Since this test includes DNA from both my parents it is difficult to determine which result is from which parent. Ethnically my mother is a Scottish Highlander with both Irish (McLachlan originally Lochlainn an old Irish name for Vikings) and Viking (Ross) blood and my father is a Lowlander and a descendant of the I-L38 haplogroup.

The Viking Chronology table by Hans De Beule (appendix 15) indicates that the Vikings attacked and settled in parts of the Rhine and Holland and Great Britain and Ireland within the path of the I-L38 haplogroup which may just be the source of some of our Viking blood.

Admixture calculations should be treated with caution as this ISOGG article indicates:

Admixture calculations **https://isogg.org/wiki/Admixture_analyses**

Admixture analysis (more properly known as biogeographical ancestry analysis) is a method of inferring someone's geographical origins based on an analysis of their genetic ancestry. An admixture analysis is one of the components of an autosomal DNA test. Companies which offer such tests include 23andMe, Family Tree DNA, Ancestry.com, the Genographic Projectand BritainsDNA.com.

Admixture calculations provide genetic ancestry analysis to individuals tested for high-density single-nucleotide polymorphism (SNP) data. The different SNP extraction methods (mostly SNP-chips) need substantial overlap of extracted SNPs to allow meaningful comparisons. Admixture analysis usually builds ancestral components also called clusters by comparing a dataset of samples. Both the used datasets (regional, continental, worldwide) and the ancestral components (number, age) are very diverse depending on the used setup and analysis method. A new sample (not used in the dataset) is normally compared to the ancestral components by the calculation of the percentages. Additional tools allow also the prediction of ancestral populations. The analysis is strongly limited by the diversity and accuracy of the dataset, for example calculating an Asian individual with an Admixture tool based on an European dataset will not give meaningful results.

Accuracy and sophistication

Most calculators use a shared subset of the up to 0.7 million SNPs provided by Family Finder, AncestryDNA, 23andMe, etc. These are compared with publicly available datasets and the companies' own proprietary datasets. As can be seen from the Autosomal DNA testing comparison chart the accuracy and sophistication vary greatly and have not yet reached the quality desired for accurate genetic genealogy research. The public dbSNP (Build 137) database contains ca. 45 million human SNPs, and comprehensive whole-genome sequencing (WGS) of all human populations could substantially increase that number and allow much better calculators.[1]

Quotation 8: http://isogg.org/wiki/Identical_by_descent

Everyone has two copies of each chromosome – one chromosome inherited from their father and one chromosome inherited from their mother. Matching segments can be on half-identical regions (HIRs) (matches on the paternal or maternal chromosome) or fully identical regions (FIRs) (matches on both the paternal and maternal chromosome). FIRs are generally only seen in full siblings and double cousins, but are sometimes found in more distant relatives if the individual comes from an endogamous (intermarrying) population.

Identity by descent can be considered on various timescales. According to population genetics theory all individuals have common ancestry in the distant past, and we all have short, old IBD segments in common. For the purposes of genetic genealogy the focus is on detecting large IBD segments within a genealogical timeframe (effectively within the last ten generations) where there is a possibility of identifying the common ancestor through documentary records. In general terms the larger the segment the closer the relationship, but the frequency of the segment also needs to be taken into account. High-frequency IBD segments are more likely to be a signal of distant sharing at the population level whereas a segment that is only observed in two independently sampled individuals is more likely to be IBD.[1]

"*Any given pair of individuals is related through many common ancestors, though many of these relationships will be too distant to result in detectable IBD segments. If the two individuals have ancestors from the same geographical region they might have many recent common ancestors, but many of the relationships will not result in IBD sharing, and there might only be one or two segments inherited from just a few of their many common ancestors. In a study of a European subset of the Population Reference Sample (POPRES) dataset it was estimated that for the most part IBD blocks longer than 4 cM come from 500 to 1,500 years ago, and blocks longer than 10 cM are within the last 500 years.*"

The above results are based upon Autosomal matches i.e matches of the numbered non sex chromosomes which can be misleading since testing companies do not distinguish which of the two chromosomes inherited from both one's parents is being matched; therefore if two people being compared share segments at the same place on both chromosomes (*fully identical regions*) the cM value will be doubled, thereby halving the genetic distance; thus indicating a match(s) in the wrong time frame.

In effect this infers that many of the autosomal potential matches shown in the DNA testing company results will be Identical by State and so can be discounted. If more than two matches show matching DNA in the same positions on the same chromosomes then they become a good potential match and pursuing their paper trail should ultimately establish that.

Genealogical Time Frame A time frame within the last 500 up to 1000 years since the adoption of surnames and written family records. An individual's haplotype is useful within this time frame and is compared to others to help identify branches within a family.

As an integral part of 23 and Me autosomal DNA test they also test certain SNPs to calculate our haplogroups. Paternal from my Y DNA at I-L38 and Maternal from my Mitocondrial DNA at T2b.

Understanding test results

It is not normal for test companies to give a base-by base list of results. Instead results are compared to the Sequence (CRS), which is the mitochondria of a European women from Haplogroup H. Differences between the CRS and the tester are usually very few, thus it is more convenient than listing raw results for each base pair.

Examples

Note that in HVR1, instead of reporting the base pair exactly, for example 16,111, the 16 is often removed to give in this example 111. The Letters refer to one of the 4 bases (A,T,G,C) that make up human DNA.

Region	HVR1	HVR2
Differences from CRS	111T,223T,259T,290T,319A,362C	073G,146C,153G

Note: One's maternal haplogroup is defined by certain mutations within the mtDNA similar to Y-SNPs. The following is an example of my Maternal haplogroup:

DNA Tests 30: Maternal line (mitochondrial genome) Terminal SNPs denoting T2b haplogroup

T2b Defining Mutations			
variant	call	rCRS	anc
i3001955	A	930	G
i5049817		930	G
rs3021087	A	5147	G
i3001821	G	16304	T
SOURCE: 23ANDME DATA FOR ROY FORRESTER			

My paternal haplogroup is defined by my terminal Y chromosome SNP:

DNA Tests 31: Paternal line (Y chromosome) Terminal SNPs I2b2[1] haplogroup

I2b2[1] defining mutations				
variant	call	rCRS		anc
rs7892889 (L38)[2]	G	A	→	G
rs7893015 (L65)	G	A	→	G
rs7893033 (L39)	C	T	→	C
rs7893103 (L40)	C	T	→	C
Source	*23 and Me Data for Roy Forrester*			

1. haplogroup I2b2 is now called I-L38
2. Terminal SNP rs7892889 (L38) in my 'Y' Chromosome has recently been tested positive by FTdna
3. SNPs L38; L39; L40 and L65 are equivelant SNPs and any one can be used to define haplogroup I212b1

As will be illustrated in the following appendix, 23 and Me's SNP testing is not complete. Through supplemental SNP tests, FTdna define haplogroups to a greater depth.

It should be noted that because of the manner Autosomal DNA is inherited from parents in which each child inherits only 50% of each parent's DNA in a process called recombination, this may skew some results. For example, a brother and a sister will each inherit 50% of their autosomal DNA from their mother and father, they will almost certainly not inherit exactly the same DNA and their descendants trying to define common ancestors will have to take that into consideration. Also as in the case of the Admixture tables, two siblings having the same evaluation using their respective autosomal DNA may produce slightly different results unless they are identical twins. Even then there can be variations as in the case of the "The Dahm triplets" who as expected share almost identical DNA however their admixture results were each slightly different, entirely due to the recombination effect.

The above issue does not apply to Y-DNA or Mitochondria DNA. Both are inherited virtually intact with mutations occurring in between 10 and 1000 generations. In the following appendix my Y-DNA results are discussed and analysed.

Appendix 11

DNA Tests 32: My Y-DNA Test Results and Analysis

Refer to Appendices 5, 6,8 and 9 for Y-DNA references

A Y-DNA test helps genealogists trace their patrilineal ancestors. All males inherit their fathers Y chromosome almost intact. All male descendants of a common ancestor will have the same or closely similar Y Chromosome DNA and can be grouped together in what is termed a Haplogroup. Depending upon how close their DNA matches are, the test results can reveal any close matches with projected common ancestors within the genealogical time frame e.g. within the last millennium, at the same time producing an indication of the number generations to that common ancestor by calculating what is termed, Genetic Distance, between any two matches.

My main reason for taking a Y-DNA test with FTdna is to see how it may help me determine my paternal ancestors beyond James Forrester of Tollpark born 1794 in Cumbernauld, Scotland. (my 2nd Great Grandfather) My paper trail hypothesis indicates that this Forrester Family may be descended from the 14th century Forresters of Torwood, Stirlingshire. My Y-DNA haplogroup determination indicated that this Forrester Family formed a part of a relatively rare percentage of the European population but does not directly help me determine James' ancestors. However, another test result called 'Genetic Distance' calculated from the number of DNA mutations found between me and any of my relatively close DNA matches does.

Y DNA: FTdna offer two different Y DNA tests:

A Short Tandem Repeat normally called an STR looks for repeat sequences of DNA at certain loci called an STR marker in the inherited regions in the paternal 23rd chromosome known as the Y DNA chromosome. The value of the repeat sequence is termed an 'allele' and the pattern of the alleles establishes what is called a 'haplotype'. If possible, FTdna use the haplotypes to predict a haplogroup. Haplotypes vary from person to person through DNA mutations. The following table shows the results of my first Y-DNA STR test at the 12 marker level. I had only two matches at this level with comparable haplotypes.

Subject Tested	Genetic Distance	Paternal Ancestor Name	Country of Origin	Haplo-group[1]	DYS 393	DYS 390	DYS 19	DYS 391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS 389ii
Roy Forrester	Ref.	William Forrester	Scotland	I-M170	13	22	16	10	13-17	11	13	11	12	11	28

1. My Initial haplogroup assignment created using what is termed a 'Backbone Test"

FTdna did not have sufficient information to predict a haplogroup so made a backbone test which tests specific SNPs to define my haplogroup. At this stage with this test they could only define my parent haplogroup as the 'I' haplogroup aka I-M170, M170 being the defining SNP.

An SNP test

Single nucleotide polymorphisms, frequently called SNPs (pronounced "snips"), are the most common type of genetic variation among people. These are single point mutations. FTdna use special selective SNP tests or the BigY test to define a haplogroup. (The BigY tests thousands of SNPs basically in a shotgun fashion to locate the final determining SNP which will be the SNP(s) furthest downstream from the parent haplogroup).

STRs vs SNPs.

A good source: https://dna-explained.com/2014/02/10/strs-vs-snps-multiple-dna-personalities/ *provides a reasonable explanation as to the differences between STRs and SNPs as it applies to Genealogy.*

Originally my haplogroup was predicted to be I-M170, the parent 'I' haplogroup. After further SNP testing I was reassessed to subclad I-L38 and finally to subclad I-BY14048. What this means is that anybody whose DNA SNP tests resulted in a haplogroup assignment of BY14048 is a close relative to within the past 600 years as shown in the following table:

An excellent introduction to Haplogroup I-L38 and subclads is:
In Search of the Origin of I2a2b-L38 (Getting Started with I2a2b-L38 (v1.0) by Hans De Beule 7th Dec. 2016 can be viewed on the following website:
https://sites.google.com/site/haplogroupil38/i-l38-snp-tree

Another, I-L38 Median Networks IV: I-L38: SNPs, STRs, and the FTDNA I-L38 Panel
By Stephen Prata – August 2017 **https://sites.google.com/site/haplogroupil38/-2017-median-networks-iv**

Hans and Stephen are administrators for the I-L38 project on FTdna and Y-Full sites and know as much about this haplogroup as anyone.

As will be seen later in this appendix, terminal or defiing SNPs are used to determine haplogroups and their subclads for each individual tested, with most of the subclads having been formed many thousands of years ago. STRs are used to define matches or haplotypes within the Genealogical time frame, (up to 500-1000 years ago when surnames were being adopted. ISOGG) newer SNPs are creeping in to this genealogical time frame. My current subclad I-BY14048 has a predicted TMRCA of between 600 and 75 years ago.

The initial 'Y'DNA test checks STR markers (Short Tandem Repeat) Currently one can test from 12 to 111 STR markers in which each have an associated number or allele. The number represents the number of repeated DNA segments in a particular position on the Y-Chromosome.

Whether we test for 12 markers or 111 markers and compare with someone with the same number of markers the total difference in the sum of the numbers represents what is called Genetic Distance and which is proportional in a non linear manner to the approximate number of years to a common ancestor for the two individuals

FTdna sets a limit on genetic distance to be considered as a match for each group of STR markers, eg at Y12 markers it is 1; for 37 markers it is 4; for 67 markers it is 7; and for 111 markers it is 10. This affects how you can view your matches, e g at Y37 I can view 6 of my 7 matches, at 67 and 111 markers I can only view 2. 5 of my matches did not upgrade to a Y67 or marker test. If I had limited my tests to the Y37 level I would not be able to see or know about James Stuart Forrester at that level, because he has a genetic distance of 5 at the Y37 level but 6 at Y67 and 7 at Y111.

At the twelve marker level Tim Forrester has an identical set of STR results to me and Jim Brown has one mutation at DYS388 resulting in a genetic distance of 1 and Rob Foster has 2 mutations at DYS19 & DSY439 and therefore would not be considered a match at the 12 marker level .

The pattern of STR alleles forms what are called a haplotypes and people with the same or similar haplotype are said to be related. A 12 marker test is normally considered insufficient for accurate results except in special circumstances. A more practical minimum number is 37 and the optimum number (accuracy/price) is 67. At the Y12 level my haplogroups had to be determined by what FTdna calls a backbone test or specific SNP test which in my case was M170 the defining SNP for the parent 'I' haplogroup aka I-M170.

** The FTDNA TiP™ results are based on the mutation rate study presented during the 1st International Conference on Genetic Genealogy, on Oct. 30, 2004. The above probabilities take into consideration the mutation rates for each individual marker being compared. Since each marker has a different mutation rate, identical Genetic Distances will not necessarily yield the same probabilities. In other words, even though XXXX has a Genetic Distance of YY from ZZ, someone else with the same Genetic Distance may have different probabilities, because the distance of 1 was prompted by mutations in different markers, with different mutation rates. Hans DuBeule.:

In other words the effect of a single mutation in one STR will probably be different from a single mutation in a different STR ie the genetic distance relationship is not linear: two matches, each with a genetic distance of 3 from a reference match may have a different time period to common ancestors than for a different match.

As more people signed up for Y-DNA testing the number of my matches at the Y37 level grew to 7.

Finally I opted for the Y-DNA111 test. At this level I had only two of my Y37 level matches remaining simply because 5 of my 7 matches did not advance to the Y111 test.

The following is a transcription of the YDNA match information presented by FTdna on my personal pages.

In my particular case I and two of my matches took the Y111 test, the remaining five remaining at the Y37 test.

On my personal webpage at FTdna I can view 6 of my 7 matches at the Y37 level

DNA Tests 33: FTdna's Screenshots of Roy Forrester's Y-DNA Matches

FTdna Matches at Y 37 and Y111 STR Markers from my FTdna Personal Pages				
Genetic Distance	Name	Earliest Known Ancestor	Y-DNA Haplogroup	Terminal SNP
Ref: Y37 & Y111	Roy Forrester	William Forrester 1744-1787	I-BY14048 Big Y Test	BY14048
3	Susan Elva May Verco Y-DNA37	Ronald Keith foster	I-M170 Predicted	
3	Phil . Foster Y-DNA37		I-M170 Predicted	
3	Neil Forrester Y-DNA37	Forrester	I-BY14048 I-L38 Pack	BY14048
3	Mr. Timothy Hamilton Forrester Y-DNA37	Robert Forrester b.1793 and d.1866	I-M170 Backbone Test	M170
3	J. Brown Y-DNA111 FF	Castlecomer	I-M170 Backbone Test	M170
4	Mr. Robin James Foster Y-DNA37	Foster	I-M170 Backbone Test	M170
5	J. Brown Y-DNA111 FF	Castlecomer	I-M170 Backbone Test	M170
7	james s forrester III Y-DNA111 FF BigY	Robert Forrester b 1400	I-BY14048 Big Y test	BY14048
Adapted and reproduced by Roy Forrester for "A Forrester Family History"				

James S Forrester's match cannot be viewed at the Y37 level because he has 5 mutations which are above FTdna's limit of 4 at Y37. The Y111 test shows that he is well within the match limits.

While I and my matches continued with our conventional genealogy research, our Y-DNA results left us scratching our heads over the fact that we have only 7 matches, this is out of thousands of testees. For example, in FTdna's Scottish Project, currently with over 10,000 members, I and one of my matches with similar STR values. From the tests

Special SNP tests can be purchased to better define one's haplogroup. Since 23andMe®'s haplogroup assignment was I2b2, currently known as I2a2b1 aka I-L38, I arranged for a few downstream SNP tests with FTdna, initially resulting in a reassessment to I-L38 S2606+ S2488+. Later at the urging of Nathan Forrister, Jim Forrester and I undertook FTdna's BigY test which tests thousands of downstream SNPs resulting in our haplogroups being reassessed to I-BY14048. BY14048 being the furthest downstream SNP tested positive to date.

Neil Forrester then undertook the new FTdna I2 L38 SNP Pack test also resulting in being reassessed to I-BY14048. Our STR haplotypes make it almost certain that my 7 YDNA matches will belong to the same haplogroup, therefore all our paternal relatives and ancestors including our sons etc. will belong to that same haplogroup.

To some extent the reason why I have only 7 YDNA matches out of thousand of testees may be explained by the fact that ours is a very minor haplogroup, rated as between one seventieth and one twentieth of the major haplogroup R1b and its subclads. Except for some hypotheses, a satisfactory reason has not been proffered by any genetic or genealogy scientist to date. As more people take DNA tests it may become apparent. If our ancestral hypothesis is correct and we are linked to the Forresters of Stirlingshire, there should potentially be many more matches.
Note: Eventually from our collective DNA results Nathan Forrester was able to confirm that our hypothesis is true.

DNA Tests 34: Percentage Paternal Haplogroup Distribution of Great Britain and Ireland

Percentage Y-DNA frequencies by region												
Region/ Haplogroup	I1	I2a1	I2a2[1]	R1a	R1b	G	J2	J1	E1b	T	Q	Sample size
England	14	2.5	4.5	4.5	67	1.5	3.5	0	2	0.5	0.5	> 5000
Ireland	6	1	5	2.5	81	1	1	0	2	0	0	> 5000
Scotland	9	1	4	8.5	72.5	0.5	2	0	1.5	0.5	0.5	> 5000
Wales	12	1	3	1	74	2.5	0.5	0	4	1	0	411
Source: http://www.eupedia.com/genetics/britain_ireland_dna.shtml												

1. Haplogroup I-BY14048 aka I2a2b1b3a is a subclad of I2a2 aka I-M436. -ISOGG

The above table clearly shows that only about 4% of the population of Great Britain and Ireland will, if tested, be assigned to haplogroup I2a2 aka I-M436 or subclads. While this explains my small number of matches it does not explain why. Haplogroup 'I', was one of the earliest hunter gatherer European haplogroups with R1b mostly farmers arriving later and one hypothesis is that the farmers swamped the hunter gatherers almost out of existence at the same time pushed many of the remaining hunter gatherers farther north..

Terminal or defining SNPs are mutations which occurred most recently and are used to determine haplogroups for each individual tested, most of the subclads having been formed many thousands of years ago. STRs are used to define matches or haplotypes within the Genealogical time frame (0-1000 years ago), newer SNPs are creeping in to this genealogical time frame. For example my current subclad I-BY14048 has a predicted TMRCA of between 600 and 75 years ago. A range of STR markers tested by FTdna varies from a minimum of 12 to a maximum of 111. The greater the number of markers, the higher the resolution. (Y-Full a Y DNA evaluation company used 333 markers and came up with 21 differences between James S Forrester and me.

DNA Tests 35: Y-Full close STR Matches[1]

Compared STRs	Differences	Distance	ID	Most distant ancestor	Scotland	Defining SNP
333	21	0.063	YF07950 James Stuart Forrester	Robert Forrester b. 1805 Scotland d. 1861 Ohio USA	Scotland	Y 30359[2]

DNA Tests 36: Y-Full SNP Matches[1]

MRCA branch	TMRCA CI 95% ybp	Most distant ancestor	Country of origin [i]	ID	Terminal Hg	Shared SNPs	Assumed shared SNPs	All shared SNPs
I-Y30539[2]	225 (600<->75)	Robert Forrester[3] b. 1805 Scotland d. 1861 Ohio USA	United States	YF07950	I-Y30539[2]	38	14	52

1. *Y-Full is a Y-DNA evaluation company, evaluating Y-DNA results from other testing companies such as FTdna.*
2. *SNP Y30359 is an equivalent SNP to BY14048 .That is a haplogroup can be defined by any one of the equivalent SNPs.*
3. *Robert Forrester is James Stuart Forrester's ancestor. Our common furthest known ancestor is Robert Forrester b c1400.*

The next table reflects the age of this haplogroup shared by James and myself which indicates the time frame for our common ancestor ie <600 years.

Extract 9: from Y Full Subclad Statistics						
Haplogroup	Selected SNP	Known SNP	Novels	Unrounded age (ybp)	Rounded age (ybp)	Age by all samples (ybp)
I-Y30539 aka I-BY14048	2	1	1	380	375 (100-1150)	225 (75-600)
Source: YFull.com My personal page.						

(The full table has been reproduced later in this appendix)

DNA Tests 37: Example of FTDNA 'Y37' Chromosome STR Marker Test Results

Marker #					1	2	3	4	5_6	7	8	9	10	11	12
Subject Tested	Genetic Distance	Paternal Ancestor Name	Country of Origin	Haplo-group[1]	DYS 393	DYS 390	DYS 19	DYS 391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS 389ii
Roy Forrester	Ref.	William Forrester	Scotland	I-BY14048	13	22	16	10	13-17	11	13	11	12	11	28
Neil Forrester	3	George Forrester	Scotland	I-BY14048	13	22	16	10	13-17	11	13	11	12	11	28
Tim Forrester	3	Robert Forrester	Scotland	I-M170	13	22	16	10	13-17	11	13	11	12	11	28
Jim Brown	3@37 5@111	Brown	Ireland	I-M170	13	22	16	10	13-17	11	12	11	12	11	28
Rob Foster	4	Foster	Unknown Origin	I-M170	13	22	17	10	13-17	11	13	12	12	11	28
Phil Foster	3	Foster	Unknown Origin	I-M170	13	22	16	10	13-17	11	13	11	12	11	29
James S Forrester	5@37 7@111	Robert Forrester	Scotland	I-BY14048	13	22	16	10	13-17	11	13	12	12	11	28

Marker No.	13	14-15	16	17	18	19	20	21	22-23-24-25	26	27	28-29	30	31	32	33	34-35	36	37
Subject Tested	DYS 458	DYS 459	DYS 455	DYS 454	DYS 447	DYS 437	DYS 448	DYS 449	DYS464	DYS 460	Y-GATA-H4	YCAII	DYS 456	DYS 607	DYS 576	DYS 570	CDY	DYS 442	DYS 438
Roy Forrester	18	8-10	10	12	25	15	21	29	13-14-15-15	11	9	19-19	14	14	16	19	35-39	11	10
Neil Forrester	18	8-9	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	16	18	35-39	11	10
Tim Forrester	17	8-10	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	16	19	34-39	11	10
Jim Brown	18	8-10	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	16	19	36-39	11	10
Rob Foster	18	8-10	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	17	19	35-39	11	10
Phil Foster	18	8-10	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	17	19	35-39	11	10
Jim Forrester	18	8-9	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	16	18	35-38	11	10

Compiled from FTdna® results by Roy Forrester for 'A Forrester Family History'

DNA Tests 38: FTdna's Y111 STR test results from marker 38 to 111

Marker #	GD	38	39	40-41	42	43	44	45	46	47	48	49-50	51	52	53	54	55	56
STR Marker Name	@ Y111	DYS 531	DYS 578	DYF 395 S1	DYS 590	DYS 537	DYS 641	DYS 472	DYF 406 S1	DYS 511	DYS 425	DYS413	DYS 557	DYS 594	DYS 436	DYS 490	DYS 534	DYS 450
Roy Forrester	Ref	11	8	15-16	8	11	10	8	10	9	12	21-22	15	12	12	12	15	8
Jim Forrester	7	11	8	15-16	8	11	10	8	10	9	12	21-22	15	12	12	12	15	8
Jim Brown	5	11	8	15-16	8	11	10	8	10	9	12	21-22	15	12	12	12	15	8

Marker #	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74
STR Marker Name	DYS444	DYS481	DYS 520	DYS 446	DYS 617	DYS 568	DYS 487	DYS 572	DYS 640	DYS 492	DYS 565	DYS 710	DYS 485	DYS 632	DYS 495	DYS 540	DYS 714	DYS 716
Roy Forrester	13	23	21	11	13	12	14	11	12	12	11	29	14	8	16	10	25	27
Jim Forrester	13	23	22	11	13	12	14	11	12	12	11	29	14	8	16	10	25	27
Jim Brown	13	23	21	11	13	12	14	11	12	12	11	29	14	8	16	10	25	27

Marker #	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
STR Marker Name	DYS717	DYS505	DYS556	DYS549	DYS589	DYS522	DYS494	DYS533	DYS636	DYS575	DYS638	DYS462	DYS452	DYS445	Y-GATA-A10	DYS463	DYS441	Y-GGAAT-1B07
Roy Forrester	20	11	12	13	12	12	8	11	11	10	11	12	29	11	12	22	14	11
Jim Forrester	20	11	12	13	12	12	8	11	11	10	11	12	29	11	12	22	14	11
Jim Brown	20	11	12	13	12	12	8	11	11	10	11	12	29	11	12	22	14	11

Marker #	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111
STR Marker Name	DYS525	DYS712	DYS593	DYS650	DYS532	DYS715	DYS504	DYS513	DYS561	DYS552	DYS726	DYS635	DYS587	DYS643	DYS497	DYS510	DYS434	DYS461	DYS435
Roy Forrester	10	20	15	21	10	23	16	11	15	25	12	21	18	13	13	17	9	12	11
Jim Forrester	10	20	15	20	10	23	16	11	15	25	12	21	18	13	13	17	9	12	11
Jim Brown	10	20	15	20	10	23	16	11	15	24	12	21	18	13	13	17	9	12	11
Compiled from FTdna® results by Roy Forrester for 'A Forrester Family History'																			

Each shaded cell represents a mutation difference between me and my matches. The genetic difference is sum of shaded cells for each person.

Genetic distance is the term used to describe the number of differences or mutations between two sets of Y-chromosome DNA or mitochondrial DNA test results. A genetic distance of zero means that there are no differences in the two results and there is an exact match.
From:-.http://www.isogg.org/wiki/Genetic_distance

The genetic distance between each of my matches is laid out in the following table:

DNA Tests 39: DNA Genetic Distance Computation								
Reference:-	No. Of STRs Tested	Roy	Neil	Tim	Jim	Rob	Phil	Jim S.
Roy Forrester	Y37 & Y111	Ref	3	3	3 & 5	4	3	5 & 7
Neil Forrester	Y37	3	Ref	4	4	5	4	2
Tim Forrester	Y37	3	4	Ref	4	4	3	4
Jim Brown	Y37 & Y111	3 & 5	4	4	Ref	4	4	5 & 7
Rob Foster	Y37	4	5	4	4	Ref	2	5
Phil Foster	Y37	3	4	3	4	2	Ref	5
Jim S. Forrester	Y37 & Y111	5 & 7	2	4	5 & 7	5	5	Ref
Source: *Compiled by Roy Forrester for 'A Forrester Family History' from FTdna results*								

The Genetic Difference is proportional to the number of generations between me and any of my matches but is not linear because it also depends upon the location of the mutation(s) on the chromosome. FTdna try to compensate for that by providing a tool called the TIP report:

Hans De Beule made the following comments:
** The FTDNA TiP™ results are based on the mutation rate study presented during the 1st International Conference on Genetic Genealogy, on Oct. 30, 2004. The above probabilities take into consideration the mutation rates for each individual marker being compared. Since each marker has a different mutation rate, identical Genetic Distances will not necessarily yield the same probabilities. In other words, even though XXXX has a Genetic Distance of YYY from ZZZ, someone else with the same Genetic Distance may have different probabilities, because the distance of 1 was prompted by mutations in different markers, with different mutation rates. Hans DuBeule.:

The next chart was made using FTdna' 'Tip Report' data and takes into account the STR location on the Y Chromosome providing an effective Genetic Distance and how it affects the probability of generations to common ancestors.

DNA Tests 40: FTdna Tip Reports for Roy Forrester and each of his matches									
Number of Generations	Jim Forrester @ Y111 GD=7	Jim Brown @ Y=111 GD=5	Jim Forrester @ Y67 GD=6	Jim Brown @ Y67 GD=3	Jim Brown @ Y37 GD=3	Neil Forrester @ Y37 GD=3	Tim Forrester @Y37 GD=3	Phil. Foster @Y37 GD=3	Robin Foster @Y37 GD=4
4	10.95%	24.29%	9.23%	45.06%	30.57%	29.22%	29.87%	11.70%	11.41%
8	57.57%	75.37%	46.65%	84.60%	70.73%	69.05%	69.87%	46.37%	45.65%
12	88.55%	95.35%	78.79%	96.76%	90.37%	89.38%	89.87%	75.49%	74.83%
16	97.84%	99.35%	93.46%	99.42%	97.24%	96.82%	97.03%	90.64%	90.25%
20	99.67%	99.93%	98.29%	99.90%	99.27%	99.12%	99.20%	96.83%	96.64%
24	99.96%	99.99%	99.60%	99.99%	99.82%	99.77%	99.80%	99.01%	98.94%
Source: FTdna Tip Report for Roy Forrester									

Columns 2 through 5 illustrate the possibility of a common ancestor between two people varies with the number of markers tested and where the mutations are located along the marker chain.

For purposes of calculation a generation is about 30 years. Some researchers may use anything from 25 to 35 years.

Nathan Forrister made the following comment:

Nathan's comment re FTdna's Genetic Distance calculation:

"The problem with calculations to most recent common ancestor is the mutation rate is a best guess. Nature is random and chaotic and does not fit into our neat algorithms. As a result, computer generated matching is often erroneous. Such is the case with Jim and Roy. The 37 marker comparison was telling me there was a relation between the two even though the computer did not catch the relation. This is because experience has taught me to overlook genetic distance steps at certain loci."

Though Jim and Roy are a 104/111 match, which is solid, I overlook the genetic steps at DYS459 and CDYb and you could also add DYS570. This solidifies the match further to 106 / 111 or a 5 step mismatch. These loci occur in the first 37 markers and bring Jim and Roy into parameter of relation. Of course the computer is not programmed to overlook the difference at these loci and did not generate a notification of relation at the 37 marker level. Based on experience, it was a calculated decision to recommend Jim pursues further testing."

The following two tables were modified by Nathan's suggestion, the first includes and the second omits DYS 570 which has the effect of reducing the genetic distance, indicating a closer relationship between me and my matches than previously.

DNA Tests 41: DNA Genetic Distance Computation. Omitting STR's DSY459 & CDY-b								
Reference:-	No. Tested STRs	Roy	Neil	Tim	Jim	Rob	Phil	Jim S.
Roy Forrester	Y37 & Y111	Ref	2	2	2 & 4	4	3	3 & 5
Neil Forrester	Y37	2	Ref	2	2	4	3	1
Tim Forrester	Y37	3	3	Ref	3	4	3	2
Jim Brown	Y37 & Y111	3 & 5	3	4	Ref	3	4	3 & 5
Rob Foster	Y37	4	4	5	4	Ref	2	3
Phil Foster	Y37	3	3	4	3	2	Ref	3
Jim S. Forrester	Y37 & Y111	3 & 5	1	3	3 & 5	3	3	Ref

DNA Tests 42: 'Y' 37 DNA Genetic Distance Computation. Omitting DYS459; DYS570 & CDY-B								
Reference	No. of STRs Tested	Roy	Neil	Tim	Jim	Rob	Phil	Jim S.
Roy Forrester	Y37 & Y111	Ref	1	2	2_4	4	3	2_4
Neil Forrester	Y37	1	Ref	2	2	3	2	1
Tim Forrester	Y37	2	2	Ref	4	5	4	2
Jim Brown	Y37 & Y111	2_4	2	4	Ref	3	4	2_4
Rob Foster	Y37	4	3	5	3	Ref	3	2
Phil Foster	Y37	3	2	4	4	3	Ref	2
Jim S. Forrester	Y37 & Y111	2_4	1	2	2_4	2	2	Ref

Computing the number of generations to the TMRCA from genetic distance is not an exact science and subject to many variables

The following GD/Generation calculator was downloaded from the following website:

https://genealogy.stackexchange.com/questions/9186/genetic-distance-to-generations-calculation-for-y-str-dna-tests

DNA Tests 43:- TMRCA at 90% Confidence Lever for FTdna Matches

Number of Markers	Genetic Distance											
	0	1	2	3	4	5	6	7	8	9	10	11+
111	4	7	9	11	14	16	18	20	22	24	26	
67	6	10	13	17	20	23	26	29	32	34		
37	8	12	17	21	24	28						
25	18	29	39	49								
12	48	78	103									

* Data derived using J. D. McDonald's TMRCA Calculator (http://dna-project.clan-donald-usa.org/tmrca.htm)

Probably not related | Possibly related | Probably related | Related | Tightly related | Very tightly related

Adapted and reproduced by Roy Forrester for "A Forrester Family History

https://genealogy.stackexchange.com/questions/9186/genetic-distance-to-generations-calculation-for-y-str-dna-tests

The above table enables the calculation of an approximate number of generations to the MRCA. (Most Recent Common Ancestor)
The actual number of generations to our common ancestors from our family trees is:
Neil Forrester 7 v Roy Forrester 6 actual Genetic distance = 3 @Y37. By Nathan's method GD =1 @ Y37
James S Forrester 10 v Roy Forrester 10 actual genetic distance = 7 @ Y111. By Nathan's method GD = 4 @ Y111
Neil is my 5th cousin once removed and James is my 10th cousin.

There are many such calculators on the market all slightly different from each other.

At this stage in genetic/genealogy science, be wary of making firm predictions from the genetic distance/generation calculations.

Haplogroups:

from https://isogg.org/wiki/Haplogroup :-
A haplogroup is a genetic population group of people who share a common ancestor on the patrilineal or matrilineal line. Haplogroups are assigned letters of the alphabet, and refinements consist of additional number and letter combinations.
Y-chromosome DNA (Y-DNA) haplogroups are determined by single-nucleotide polymorphism (SNP) tests. SNPs are locations on the DNA where one nucleotide has "mutated" or "switched" to a different nucleotide.

Because a haplogroup consists of similar haplotypes, it is possible to predict a haplogroup from the haplotype. An SNP test is required to confirm the haplogroup prediction. Not all the testing companies offer SNP testing, and consequently their customers' haplogroup predictions are sometimes inaccurate.

The constantly evolving DNA research for Genealogy is creating much confusion with Haplogroup naming conventions. Haplogroups are normally defined by a terminal SNP. Haplogroups both paternal and maternal are named from the alphabet. For example my parent paternal haplogroup is known as haplogroup I and defined by a particular SNP in my case M170 with subclads being defined by SNPs furthest downstream from the parent haplogroup and named with following letters and/or numbers e.g I2a2b. With the recent introduction of 2nd generation DNA tests many more new SNPs are being uncovered and named almost every day, resulting in a naming meltdown. ISOGG decided to name the haplogroups using the defining SNP name (called a terminal SNP) e.g. I2a2b became I-L38, L38 being the defining SNP name. The problem with this is:

(a) Many SNPs have multiple names created when different companies uncover and same new SNP and provide its own company brand name. e,g. My current subclad is defined by FTdna as BY14048
(b) many subclads currently have multiple defining equivalent SNPs e.g

BY14049+ BY14050+ BY14051+ BY14052+ BY14053+ BY14054+ BY14055+ BY14056+ BY14057+ BY14058+ BY14059+ BY14060+ BY14061+ BY14062+ BY14063+ BY14064+ BY14065+ BY14066+ BY14067+ BY14068+ BY14069+ BY14070+ BY14071+.

And of course Y-Full listing has a similar or equivalent SNP names:

BY14048/Y30517+ BY14049/Y30518+ BY14050/Y30519+ BY14051/Y30520+ BY14052/Y30521+ BY14053/Y30522+ BY14054/Y30523+ BY14055/Y30524+ BY14056/Y30525+ BY14057/Y30526+ BY14059/Y30528+ BY14060/Y30529+ BY14061/Y30530+ BY14062/Y30531+ BY14063/Y30540+ BY14064/Y30532+ BY14065/Y30533+ BY14066/Y30534+ BY14067/Y30535+ BY14069/Y30536+ BY14070/Y30537+ BY14071/Y30539+ L1400+ M4697+ Y30527+ Y30538+ Y30541+ ZS10442+

eg. FTDNA name BY14048 - Y Full name Y30517

Any one of the SNPs above can be used as the haplogroup defining SNP (Terminal SNP)

All the equivalent SNPs to BY14048 have been uncovered since the introduction of 2nd Generation testing such as FTdna's 'Big Y' which tests literally thousands of SNPs discovering many new such SNPs as those shown above. It is expected that as more people sign up for DNA testing those currently equivalent SNPs will be reallocated, forming more new haplotree branches.

It should be noted that FTdna use SNP BY14048 aka Y30517 as our defining SNP whereas Y-Full use Y30539 aka BY14071.

Originally I was assigned to the parent 'I' Haplogroup or I-M170, then after more SNP tests, to subclad I-L38, finally to subclad I-BY14048.

My Y Haplogroup progression from the I Haplogroup branch:
I-M170>I-L438>I-L460>I-M436>I-Y1075>I-L38>I-S2606>I-Y13076>I-S2488>I-BY14048 aka I-Y30539

An excellent introduction to Haplogroup I-L38 and subclads is:

In Search of the Origin of I2a2b-L38 (Getting Started with I2a2b-L38 (v1.0) by Hans De Beule 7th Dec. 2016 can be viewed on the following website:
https://sites.google.com/site/haplogroupil38/19-getting-started-with-i-l38

Another, I-L38 Median Networks IV: I-L38: SNPs, STRs, and the FTDNA I-L38 Panel
By Stephen Prata – August 2017 https://sites.google.com/site/haplogroupil38/-2017-median-networks-iv

Hans and Stephen are administrators for the I-L38 project on FTdna and Y-Full sites and know as much about this haplogroup as anyone.

As will be seen later in this appendix, Terminal or defining SNPs are used to determine haplogroups and their subclads for each individual tested, with most of the subclads having been formed many thousands of years ago. STRs are used to define matches or haplotypes within the Genealogical time frame, (up to 500-1000 years ago when

surnames were being adopted. ISOGG) newer SNPs are creeping in to this genealogical time frame. My current subclad I-BY14048 has a predicted TMRCA of between 600 and 75 years ago.

Genetic DNA testing for genealogy is a relatively new science and in a very fluid state with new discoveries occurring and definitions changing almost daily. A discussion on the technicalities of DNA testing for genealogy would be out of date before finished. Eventually, in the near future, the science will level off to a more stable situation. The industry needs a greater number of testees to create a larger database which in turn uncovers new SNPs increasing the resolution and sometimes necessitate changing some definitions.

In cultures where surnames are passed from father to son, there is additional evidence beyond a DNA match that two men who share a surname are related. Y-chromosome DNA (Y-DNA) test results should be interpreted based on both this information and the actual results.

If Jim Brown, Phil Foster, Rob Foster, Tim Forrester and Keith Robinson undertook either an L38 SNP Pack test; or the Big Y test or even a single SNP BY14048 test, the probability is that their haplogroups would also be reassessed to BY14048 and our collective common ancestors will lie within the last millennium. Note Hans DeBeule, the FTdna I-L38 project administrator, has finally persuaded FTdna to offer the I2-L38 SNP Pack test which would test multiple known and unknown SNPs downstream of I-L38 and Neil took advantage of this offer. In the next appendix one of Reginald Foster's descendants has been tested down to I-BY14026 which according to Y-Full was formed about the same time as I-BY14048 which indicates that the split came prior to Reginald Foster's ancestors crossing into the United Kingdom in 1066 and possibly up to 4000 years ago.

Both Jim Brown's and Jim Forrester's Genetic Distance from me has increased by 2 between markers 38 and 111.

While the genetic distance value between two individuals provides a clue as to how far back in time their common ancestors can be expected to be found, the actual calculation is complex and the result still full of probabilities. There are many such calculators on the internet and the chart created by Harry Vervet is one which purports to indicate the probability for a given genetic distance the number of generations at a confidence level of 90% can be indicated, for example at the Y111 marker level James S Forrester has a genetic distance of 7 and Harry's chart indicates that he would probably be separated from me by 20 generations. Assuming a generation period as between 25 and 33 years then our common ancestor might be expected to be between 300 and 660 years ago.

Jim's genealogical paper trail can be seen in Chapter 4 part 1 appendices 8 and 11. Our closest common ancestor is Alexander Forrester 5th of Garden (1540 - c.1598) approximately 480 years ago.

Genealogical Time Frame: A time frame within the last 500 up to 1000 years since the adoption of surnames and written family records. An individual's haplotype is useful within this time frame and is compared to others to help identify branches within a family. From ISOGG Glossary of Genetic Terms – 2016

In comparison to the above STR matches, the following table is based upon FTdna's I-L38 Group L38+ S2606+ S2488+ matches. This project is open to all who can claim I-L38 in their ancestral haplogroups.

This table illustrates how my FTdna matches show one haplotype and TGaylor Myres and Shiras another and will belong to a different haplogroup if tested probably I-Y13074.

Taylor, Myers and Shiras show a GD of between 10 and 11 indicating that our common ancestors lie outside the Genealogical Time Frame.

Another example is illustrated in the following appendix

DNA Tests 44: Example of FTdna I-L38 Project, Group L38+> S2606+ > Y13070+ > S2488+ entries

Marker #					1	2	3	4	5_6	7	8	9	10	11	12
Subject Tested	Genetic Distance @ Y37	Paternal Ancestor Name	Where born	FTdna I-38 Project Group	DYS 393	DYS 390	DYS 19	DYS3 391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS 389 ii
.James S Forrester	5@Y37 7@Y111	Robert Forrester C1805-1861	Scotland	I-BY14048	13	22	16	10	13-17	11	13	12	12	11	28
Roy Forrester	Ref.	William Forrester 1750-1818	Scotland	I-BY14048	13	22	16	10	13-17	11	13	11	12	11	28
Neil Forrester	3	George Forrester	Scotland	I-BY14048	13	22	16	10	13-17	11	13	11	12	11	28
Myers	11	William H Myers 1832-1887	Germany	I- S2488	13	24	15	11	13-17	11	13	11	12	11	29
Taylor	Ref	Robert Taylor 1621-1688	England	I-Y13074	13	24	15	10	15-14	11	13	11	12	11	29
Shiras	11	William Shiras 1740	Scotland	I-M170	13	27	17	10	13-15	11	13	11	12	11	28

Marker #	13	14-15	16	17	18	19	20	21	22-23-24-25	26	27	28-29	30	31	32	33	34-35	36	37
Subject Tested	DYS 458	DYS 459	DYS 455	DYS 454	DYS 447	DYS 437	DYS 448	DYS 449	DYS464	DYS 460	Y-GATA-H4	YCAII	DYS 456	DYS 607	DYS 576	DYS 570	CDY	DYS442	DYS 438
James Forrester	18	8-9	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	17	19	35-38	11	10
Roy Forrester	18	8-10	10	12	25	15	21	29	13-14-15-15	11	9	19-19	14	14	16	19	35-39	11	10
Neil Forrester	18	8-9	10	12	25	15	21	28	13-14-15-15	11	9	19-19	14	14	16	18	35-39	11	10
Myers	16	8-10	10	12	25	15	21	27	13-14-15-15	10	9	19-19	14	14	18	16	35-35	11	12
Taylor	17	8-10	10	12	25	15	20	28	13-14-15-15	10	10	19-19	14	14	17	17	34-36	11	12
Shiras	17	8-10	11	12	25	15	20	28	13-14-15-15	11	9	19-19	14	14	16	16	35-36	11	13

The Genetic Distance between this Forrester family and Taylor; Myers and Shiras is quite large:-

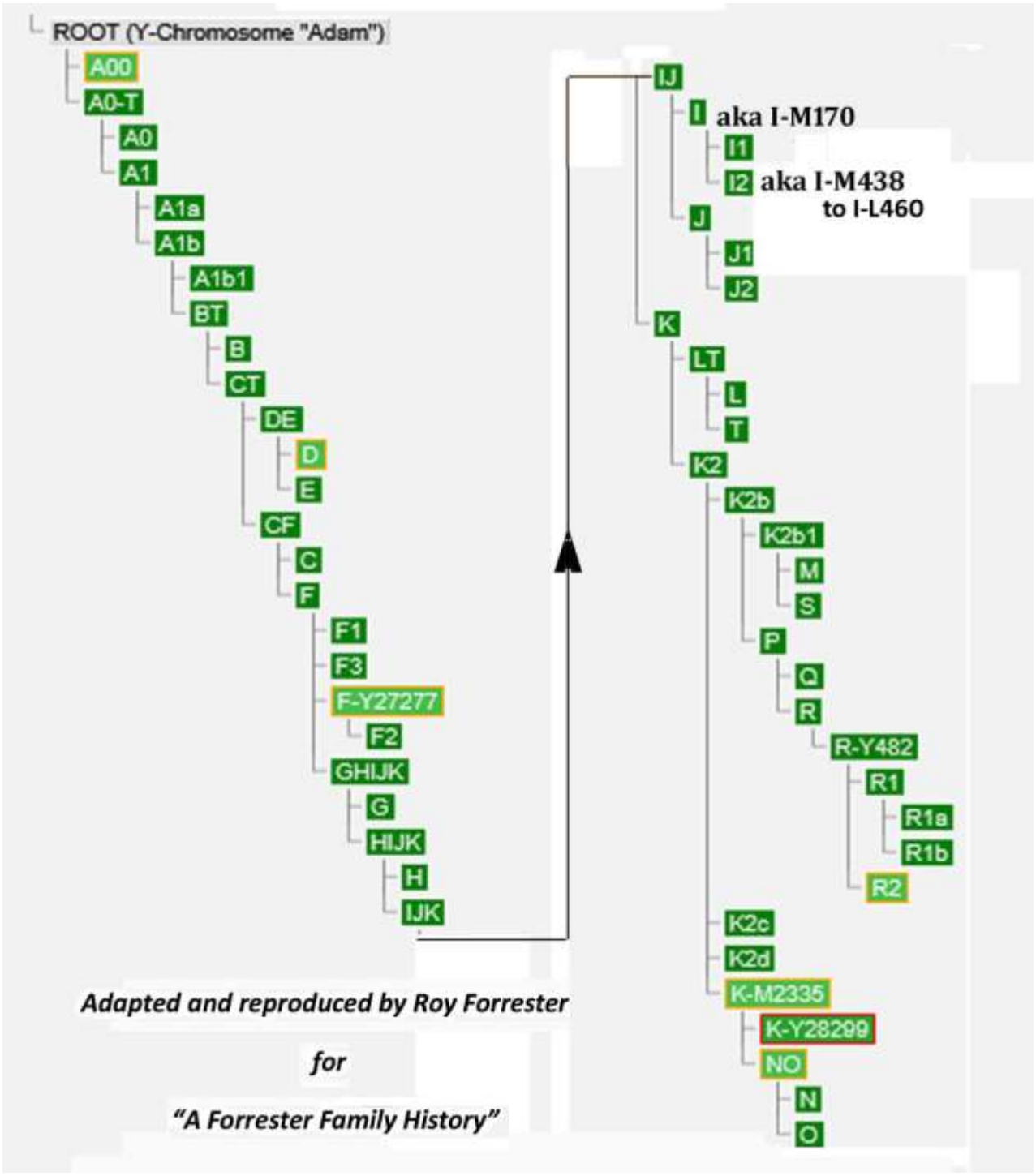
DNA Tests 45: DNA Genetic Distance Computation @ Y37

Reference:-	No. Of STRs Tested	Roy Forrester	James Forrester	Neil Forrester	Taylor	Myres	Sheras
Roy Forrester	Y37 & Y111	Ref	5	3	14	11	10
James S Forrester	Y37 & Y111	5	Ref	2	15	13	11
Neil Forrester	Y37	3	2	Ref	14	12	10
Robert Taylor	Y37	14	15	14	Ref	9	11
William Myres	Y37	11	13	12	9	Ref	13
William Sheras	Y37	10	11	10	11	13	Ref

Source: *FTdna I-L38 Project*

The raw genetic distance between Taylor or Myers or Shiras and this Forrester family places our common ancestors back to the first millennium or beyond, way outside the normal genealogy time period. Similarly the genetic distance between Taylor; Myers and Shiras places their common ancestors into the same period. Using Nathan's calculator would reduce the numbers but not enough to bring common ancestors to within the genealogical time frame.

DNA Tests 46: **'Y' Parent Haplotree**



The only other person currently to match me on haplogroup I-Y30539/S14048 in YFull is James Stuart Forrester MD as seen above and in the following I-L38 extract, Neil Forrester has not signed up with **Sep 2017**

DNA Tests 47: Haplogroup YTree I-L38 Extract v6.01 at 04 January 2018

I-M170 > I-L438 > I-L460 > I-M436 > > I-Y10705 >:

- **I-L38 S2498 * FGC29587/Y13064 * S2590+67 SNPs formed 12200 ybp, TMRCA 4800 ybpinfo**
- I-L38*
- I-BY14072 BY14072formed 4800 ybp, TMRCA 4800 ybpinfo
  - I-BY14072*
    - id:YF05980BEL [BE-VOV]
  - I-L533 L533/S295
    - id:YF04132USA
  - I-S27697 S27697
    - id:YF05815USA [US-AL]
- **I-S2606 S2606 formed 4800 ybp, TMRCA 4400 ybp info**
  - **I-Y13076 Y13076/FGC29569 formed 4400 ybp, TMRCA 4400 ybp info**
    - I-Y13076*
    - **I-S2488 S2488formed 4400 ybpinfo**
      - I-S2488*
      - **I-Y30539 [3] ZS10442 * Y30535/BY14067 * Y30523/BY14054+25 SNPsformed 4400 ybp, TMRCA 225 ybpinfo**
        - **id:YF08015SCT Roy Forrester**
        - **id:YF07950USA [US-CA] James S Forrester**
      - **I-Y13074 FGC29697/Y13091 * Y13074/FGC29631 * Y13082/FGC29624+4 SNPs formed 4400 ybp, TMRCA 4200 ybp info**
      - **Taylor, Myers and Shiras**
        - I-Y13074*
          - id:YF03048ENG
        - I-Y29636 Y29636 * S10663 * Y29638+9 SNPs formed 4200 ybp, TMRCA 2300 ybp info
          - id:YF07997USA [US-NY]
          - id:HG01988BRB
    - I-PH1237 PH1237 formed 4400 ybp, TMRCA 4300 ybp info
      - I-PH1237*
        - id:YF09472USA [US-MS]
        - id:ERR1019082ITA [IT-BG]
      - I-Y32631 Y32631 * PH2591 formed 4300 ybp, TMRCA 3200 ybp info
        - I-Y32631*
          - id:YF02649DNK [DK-84]
        - I-Y33743 Y33743 formed 3200 ybp, TMRCA 3100 ybp info
          - id:YF09965FRA [FR-54]
          - id:YF09019SWE [SE-M]
      - **I-Y31038 BY14030/Y31039 * BY14026/Y31038 * BY14034/Y31042+5 SNPs formed 4300 ybp, TMRCA 2900 ybp info**
        Reginald Foster; Elisha Foster

1. In the chart above, SNP Y13074 is now shown as a brother clad to BY14048. Y10705 has now been positioned between I-M436 and I-L38. I-BY14026 is now a subclad of I-PH1237
2. The above haplotrees are updated approximately every month so are constantly being changed as new information is uncovered.
3. **I-Y30539 = Y30517/BY14048** . Equivalent SNPs have been noted previously

Y Full Subclades statistics for Roy Forrester
Lengh coverage: 7648986 bp

Haplogroup	Selected SNP	Known SNP	Novels	Unrounded age (ybp)	Rounded age (ybp)	Age by all samples (ybp)
– I-Y30539	2	1	1	380	375 (100-1150)	225 (75-600)
– I-S2488	24	23	1	3896	3900 (2600-5700)	4400 (3500-5400)
– I-Y13076	25	24	1	4056	4100 (2700-5800)	4400 (3900-5100)
– I-S2606	25	24	1	4056	4100 (2700-5800)	4400 (3900-4900)
– I-L38	25	24	1	4056	4100 (2700-5800)	4800 (4200-5300)
– I-Y10705	75	74	1	12049	12000 (9600-14900)	12200 (10500-13900)
– I-M436	109	108	1	17484	17500 (14500-20900)	17400 (15700-19200)
– I-L460	142	141	1	22759	22800 (19300-26600)	21100 (19300-22800)
Source: Y-Full.Com Adapted and reproduced by Roy Forrester for "A Forrester Family History"						

From the table above I-L38 an ancestor haplogroup of our I-BY14048 was formed some 12000 years ago towards the end of the Last Glacial Maximum, beginning the relatively modern era of European population. It is believed that I-L38 formed near the source of the River Rhine on what is now the Swiss German border. The following two maps indicate the possible route of our branch following the Rhine to its mouth on the Dutch Belgium border then over to Britain.

(2014) I-L38 Distribution

From 2008 on it became clear that the Upper Rhine region in Germany has the highest continental I-L38 frequency and diversity; thus is the likely point of origin of the I-L38 MCRA. (Hans De De Beule, 2008

It is almost certain that our haplogroup I-BY14048 was formed in continental Europe prior to migrating to Britain. The latter may have occurred as late as the eleventh century and before the fifteenth century, since DNA evidence connects our haplogroup to the 15th century Torwood Forresters. This picture lends credence to the possibility that our haplogroup formed a small part of the Flemish population of Flanders and debunks the theory that our Forrester group was descended from the ancient Druids.

The following tables derived from Y-Full and FTdna illustrate

DNA Tests 48: Partial Y-Full SNP Chart of the I Haplogroup to I-BY14048 ..							
Name	Sample ID	HG	Y10705 *****	L38 *****	S2606 ****	S2488 ****	BY14048 *****
	YF07139	I-Y10705*	+	-	-	-	-
	YF05980	I-BY14072*	+	+	-	-	-
	YF04132	I-L533	+	+	-	-	-
	YF05815	I-S27697	+	+	-	-	-
J. Forrester	YF07950	I-Y30539	+	+	+	+	+
R. Forrester	YF08015	I-Y30539	+	+	+	+	+
Taylor	YF03048	I-Y13074*	+	+	+	+	-
	YF07997	I-Y29636	+	+	+	+	-
	HG01988	I-Y29636	+	+	+	+	-
	ERR1019082	I-PH1237*	+	+	+	-	-
	YF09472	I-PH1237*	+	+	+	-	-
	YF10313	I-Y31038*	+	+	+	-	-
	YF04823	I-Y32046	+	+	+	-	-
	YF08696	I-Y32046	+	+	+	-	-
	YF02649	I-Y32631*	+	+	+	-	-
	YF09965	I-Y33743	+	+	+	-	-
	YF09019	I-Y33743	+	+	+	-	-
	YF04800	I-Y20293	+	+	+	-	-

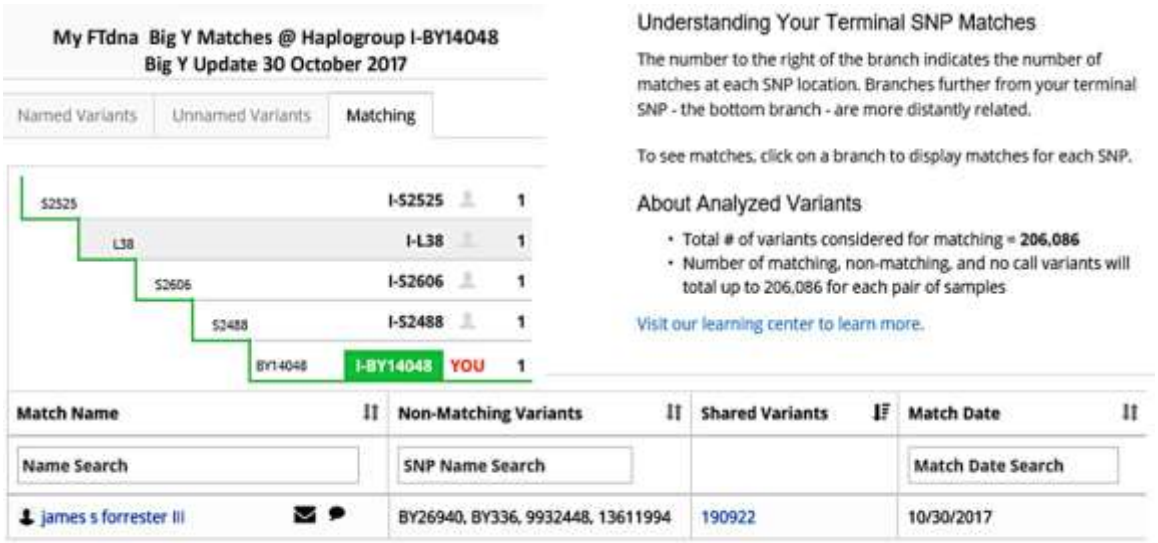
DNA Tests 48: Partial Y-Full SNP Chart of the I Haplogroup to I-BY14048 ..							
Name	Sample ID	HG	Y10705 *****	L38 *****	S2606 ****	S2488 ****	BY14048 *****
	YF05298	I-Y20293	+	+	+	-	-
	YF04516	I-Y18921*	+	+	+	-	-
	YF04787	I-Y19211	+	+	+	-	-
	YF10990	I-S24121*	+	+	+	-	-
	YF03809	I-BY14023	+	+	+	-	-
	YF10137	I-BY14023	+	+	+	-	-
	YF03352	I-Y16417	+	+	+	-	-
	YF03807	I-Y16417	+	+	+	-	-
	YF05472	I-Y31085	+	+	+	-	-
	YF04766	I-Y17117*	+	+	+	-	-
	YF04041	I-Y17266	+	+	+	-	-
	YF04042	I-Y17266	+	+	+	-	-

Note the ancestor haplogroups for all in the above table are I-M170:

> I-Y10705 > I-M436 > I-L460 > -L438 > I-M170

Currently Y-Full has only two members with Haplogroup I-BY14048, Myself and James S Forrester. If Neil Forrester joined there would be a grand total of three

DNA Tests 49: **FTdna BigY matches**



Adapted and reproduced by Roy Forrester for "A Forrester Family History"

Note: FTdna have not updated their haplotree at this time so haplogroup I-Y13076 is missing.

Since the above table was assembled in May 2017, another 15 have joined YFull but the result remains the same i.e. only James Forrester and I remain positioned at Y30539 aka BY14048. If Neil were to sign up for Y-Full the total at Y30539 would increase to a grand total of 3. In the previous table FTdna indicate that I have only one match at levels **Y10705/S2525** to **Y30517/BY14048.**

While STR results are capable of defining common ancestors within the past 1000 years, SNPs generally predict common ancestors over previous millenniums. A I-L38 matches table demonstrates how taking advantage of this technology helps to narrow down possible matches. After I undertook my first extended SNP test changing my haplogroup from the parent I-M170 to I-L38, I joined FTdna's I-L38 project which initially provided me with between 300 to 400 possible matches. Undertaking further SNP tests which changed James and my haplogroup to I-BY14048 initially cut that number down to 12. (Taylor, Myers and Shiras and James S Forrester to name a few). Admittedly the genetic distance for 3 matches (Taylor, Myers and Shiras) still puts them well beyond the normal STR match range, Some newer SNPs are changing the TMRCA (Time to the Most Recent Common Ancestor) to under

1000 years, bringing them in to direct competition with STRs. As previously noted, my latest haplogroup defining SNP BY14048 has a TMRCA of between 75 and 600 years.

The paper trails of my Y matches eventually lead us to Stirlingshire, Scotland; Northern Ireland; Northumberland, England etc. and the Y matches predict common ancestors in the 1600s or earlier this knowledge can eventually help to find the point back in time at which the various families diverge.

At Nathan Forrister's suggestion, James Forrester and I took the FTdna's new 2nd Generation DNA test the BigY with the expectation of finding some new SNPs located downstream of SNP S2488.
The big Y results extended our haplogroups to I-BY14048 plus 24 equivalent SNPs which are reported to be downstream of S2488.

A little later Neil Forrester undertook an I2-L38 Pack test which covered the essential SNPs downstream of I-L38. His result was I-BY14048 as predicted.

Finally a summation of our Y-DNA test results by Nathan Forrister:

Extract 10: from "A Living History"

The Lost Clan of the Torwood Revisited

The Forresters of Garden were a prominent family in Stirlingshire and the name appears in the records of Stirling; especially between the years 1360 – 1654. Two charters bearing the great seal dated 1450 and 1493 conveyed the lands of Tor Wood to this branch of the Forrester family. The Torwood was a large forested area in the 12th Century stretching from the River Carron west and north towards Stirling, and inland towards the Campsie Hills. It was traversed by an old Roman Road at this time. In preparation for the battle of Bannockburn it was used as the encampment for the men of James Douglas, one of the leaders of the army of King Robert the Bruce.

Torwood Castle was built for Sir Alexander Forrester. A stone bearing the arms was found dated 1566. The castle was in the Scottish Baronial style, but now stands in ruin and is in endangered status. The fall from favor with the Crown and the subsequent demise of the Lords is another story for another time. I take pause to remind all the Clan is not just its Chief – it is its members.

Lord Lyon Records

The office of Lord Lyon King of Arms dates from the 14th century. The heraldic ancestry of the peerage title for Forrester has been faithfully recorded and archived for the ages. Every person who has the same surname as the chief is deemed to be a member of the clan according to the Lord Lyon Court. One does not need be a blood descendant of the Chief to be a clan member. These records were tapped and first published by John Charles Gibson in 1908. Colin D. I. G. Forrester tapped the same records in his 1989 publication. I disagree with James A. Forrester, author of the article "The Lost Clan of the Torwood" in the "Hornblawer" archives – the clan was never lost; it was rediscovered.

Y DNA Triangulation

Though we knew of the Carbeth line descent from Torwood from the work of Colon D. I. G. Forrester, the genetic haplogroup could not be proven from just one line. Colin was aided by David Forrester, who confirmed the lineage in Colin's work. David's son, Timothy Hamilton Forrester, has tested his Y DNA. Patience pays off and Tim has now been joined by three other men bearing the surname Forrester: Roy Forrester, Neil Forrester and James Stuart Forrester III.

A Surprise

Roy and James took the research to the next level and ordered next generation sequencing tests from FTDNA Big Y. I expected their results to show the usual and we would be able to build an affinity group and sift their origins. My initial findings were the two men shared 26 novel variants that no one else possessed. I thought this can't be right since this equates to 4,000 years or so without an intersection from another surname. Both gentlemen underwent third

party analysis with Y Full chromosome sequencing. 25 of the novel variants proved true with one insert / deletion event.

A Rare Group

With analysis behind us it became a matter of who would name the newly matched, as yet unnamed, single nucleotide polymorphisms. FTDNA has named the cluster BY14048. Y Full estimates the emergence of this cluster on average as 4,400 years before present. The estimate to most recent common ancestor was average 225 years before present with a 95% confidence range of 75 – 600 years before present. This is due to the small number of "singleton" mutations possessed by Roy.

1463

Now knowing where and about when to look the paper trail of two additional lines are tracked back to Torwood. The common ancestor of the three lines is Robert Forrester, born about 1463, son of Alexander Forrester and Miss Bruce. The triangulation method proves three unbroken male lines dating back to at least 1463. We expect this haplogroup to grow a bit as more men with surname Forrester test in the United Kingdom.

Recognition

Don't think for a second I accomplished this on my own. Susan Schrade, an autosomal match to Roy and Neil, labored tirelessly on this project. Susan and Roy were already deep into the research when I was contacted. Without Susan and Roy this story could not be told. Of course it takes two to tango: without the next generation tests of Roy and James we would not know the haplogroup of the Torwood Forresters. Clan Forrester acknowledges and applauds the achievement of these genetic pioneers.

Continuation

The work is the culmination of those laying the foundations before us: Gibson, Forrester and our North American Clan founders. I believe they would be proud later generations have heeded the call and continued their work. For James A. Forrester, author of "The Lost Clan of the Tor Wood" from our hornblawer arcives – The Lost Clan of the Tor Wood has been found.

Nathan Forrister

DNA Research Coordinator

Clan Forrester Society

Appendix 12

Genetics and Genealogy 1: Reginald Foster 1595-1681

Following the previous appendix where I used the FTdna I-L38 Project results to highlight some distant DNA relatives and Common ancestors; the Foster Project provides a similar indication. This project covers all the Forresters with such spelling variations viz *Foerster, Forester, Forestier, Forister, Forrester, Forrister, Forster, Foster, Vorster, Voster etc.*

As seen in the previous appendix the majority of European Y-DNA testees will be assigned to the R haplogroup and its subclads; however still quite a few will belong to the I haplogroup and it's subclads, many I1 others I2. I and my FTdna matches including my Foster matches are descended from Haplogroup I2 to I-BY14048. This appendix illustrates another Foster family, Reginald Foster and his descendants positioned at I-BY24026. Both haplogroups are descended from I2 via I-L38 to I-S2606. I-S2606 split into at least 3 haplogroups some 4,000 years ago. My branch descends to I-BY14048, and Reginald Foster's to I-BY14026 (see see chart below)

DNA Tests 50: The I-L38 Haplotree by Hans De Beule ISOGG 2017

L38/S154,
BY14072
L533/S295
S27697
S2606
S24121
S19763, S21118, S22679
***Y16415**, S11558, Y16416, Y17142, Y17270, S24647*
Y17121, Y17139
***Y17117**, Y17119, Y17126, Y17127*
BY14018,
Y17266, Y17267, Y17268
BY14649/Y31907,
Y16417,
BY14023,
PH1237
PH2591
Y33743
BY14026/Y31038, BY14039, BY14041, BY14044, Y14045, BY14046, BY14047 **Reginald Foster**[1]
S2488
BY14048/Y30517, BY14049/Y30518, BY14050/Y30519, **Forrester/Foster Forster etc**[2]
Y14051/Y30520, BY14052/Y30521,BY14053/Y30522, BY14054/Y30523, BY14055/Y30524, BY14056/Y30525, BY14057/Y30526, BY14059/Y30528, BY14060/Y30529, BY14061/Y30530, BY14062/Y30531, BY14064/Y30532, BY14065/Y30533, BY14066/Y30534, BY14067/Y30535, BY14069/Y30536, BY14070/Y30537, L1400, Y30527, Y30538, Y30541, ZS10442.2
FGC29631/Y13074, FGC29624/Y13082, FGC29660, FGC29697/Y13091
S8239, S10663, S15797, S19035, S19092, S25571, Y29636, Y29637, Y29638, Y29639, Y30609
BY1183/Y18920
Y18919
S4556/Y20293, Y20295, Y20297, Y20376, Y20381, Y20384
Y20294, Y20296, Y20298, Y20377, Y20378, Y20380, Y20383

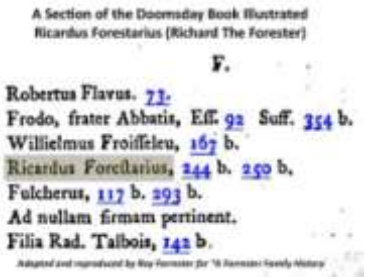
1. Descendants of Reginald Foster and Elisha Foster and others
2. My FTdna Y Matches and others

From the STR tables shown below show the STR results of two Fosters descendants of Reginald Foster and Elisha Foster with a genetic distance of 4. This clearly indicates that they are from the same genetic family and by definition

will belong to the same haplogroup. Elisha's descendants have taken the optional SNP test to confirm their haplogroup as I-BY14046

Reginald Foster born c 1595 shows up in many family trees with about as many different biographies attached; there is a lot of speculation as to where he was born, some indicating that he was born in Exeter, Devon, England others in Essex, England and yet others say he was born in Northumberland and descended from Sir Richard Forrester an officer in William the Conqueror's army and later knighted and granted lands in Northumbria. Northumbria, once known as The Kingdom of Northumbria, an area of Eastern Britain stretching from Edinburgh on the Forth in the North to Hull on the Humber in the south.

The earliest indication of Foresters in England begins with William the Conqueror's invasion of England in 1066. Included in his army is a Ricardus Forestarius, (as seen in the Doomsday Book of 1086, the first English census) aka Richard the Forester who later became Sir Richard Forester and was granted lands in Northumbria and neighbouring Berwick on the Anglo/Scottish border. While historians, as they often do, disagree with each other, in general they indicate that this Sir Richard Forrester is the progenitor of the Forsters/Fosters of Bamburgh and Adderstone, Northumbria. (For a good historic reference of the Anglo/Scottish Border families including the Fosters/Forsters see the book "The Steel Bonnets" by George Macdonald Fraser) There are also a number of documents which indicate that Sir Richard Forester is descended from the Foresters of Flanders and is of Flemish origin.


A Section of the Doomsday Book Illustrated
Ricardus Forestarius (Richard The Forester)

F.

Robertus Flavus. 73.
Frodo, frater Abbatis, Eff. 92 Suff. 354 b.
Willielmus Froiffeleu, 167 b.
Ricardus Forcllarius, 244 b. 250 b.
Fulcherus, 117 b. 293 b.
Ad nullam firmam pertinent.
Filia Rad. Talbois, 142 b.

Extract 11: Richardus Forestarius- Doomsday Book

There are historic references linking Reginald Foster to Sir Richard Forester such as the book "Foster Genealogy being the record of Reginald Foster" by Fredrick Clifton Pierce 1899. (which is of course disputed by other historians)

Whatever the truth, Reginald Foster sailed from England to the America c1638 with his wife and family and established himself in Ipswich, Massachusetts, US. He was said by some to be a Puritan fleeing persecution in England so some argue that he could not be a descendant of Sir Richard Forrester since they say a knight's family would not be fleeing England. There are in fact many such people who left to better themselves in the English Colonies of that period irrespective of the rank in society, particularly if they were not the eldest son. His subsequent life in America is very well documented.

Note: All the Armorial Coats of Arms for the Forresters/Fosters/Forsters, some of which are shown below, have similar designs, indicating a familial relationship between them; in fact the shield in one of the Foster coats of arms is said to be identical to that of Sir Adam Forrester, 1st Laird of Corstorphine.

DNA Tests 51: FTdna' SNP test results to date

Name	Distant Ancestor	Haplogroup	SNP Test results
Foster	Reginald Foster 1595-1681	I-L39[1]	M170+, L39+, P215+, (S2606+)[2] P217+, P37-, M223-, M253- S24121- (S2488-)[5]
Foster	Eilsha Foster Sr 1766-1833	I-BY14026	M170, L39+, S2606+, Y3070+, BY14026+ S24121-, S2488-, S4556-, M223-, Y105-, P15-, F780-
Roy Forrester	William Forrester b abt 1750 d 1818	I-BY14048	M170+, L38+, S2606+, M223-, M253-, P37-, S2488+, BY14048+[3]

Source: Family Tree DNA®

1. Tests which are positive on SNP L38 are also positive on L38, L39, L40 and L65 and are known as 'Equivalent SNPs' and take on the haplogroup I-L38
2. From I-L38 FTdna Project Group L38+> S2606+ (S24121-)
3. SNP S24048, A subclad of I-L38 is the furthest downstream SNP for Roy Forrester at present.
4. An equivalent I-L38 haplogroup tree by Ray Banks shows SNP S2488 in a different position and not equivalent to Y13074 but still downstream of L38.
5. Reginald is shown as S24121negative and S2488 negative (see Elisha Foster next table) so is probably BY14026+

The latest Phylogenitic I2a tree indicates that our two lines separated sometime after the creation of SNP S2606 our closest common SNP into separate branches, one containing SNP BY14048 and the another BY14046.

The two Fosters in the following table have the same haplotype (GD<5 at Y-37) and therefore have a common haplogroup as shown in the following table, Fortunately Elisha Foster has taken the supplementary SNP test, assigning him and Reginald Foster to haplogroup I-BY14026. As previously shown my assigned haplogroup is I-BY14048 which by definition means we do not share common ancestors within the past 1000 years.

DNA Tests 52: Y-STR comparison between Reginald Foster and Roy Forrester															
STR Marker Reference															
Subject Tested	Genetic Distance	Paternal Ancestor Name	Ancestor's Country	Haplo-group[1]	DYS393	DYS 390	DYS 19	DYS391	DYS 385	DYS 426	DYS 388	DYS 439	DYS 389i	DYS 392	DYS389ii
Roy Forrester	13	William Forrester 1744-1818	Scotland	I-BY14048 S2488+	13	22	16	10	13-17	11	13	11	12	11	28
Note: My STR haplotype is qute different from the two Foster haplotypes shown below															
Foster	Ref	Reginald Foster, 1595-1681	England	I-L39 S24121-	14	25	15	10	13-17	11	13	12	13	11	28
Foster	4	Elisha Foster Sr. 1766-1833	England	I-BY14026 S2488-	14	25	15	10	13-17	11	13	12	13	11	29

***The Genetic Distance between Elisha and Reginald Foster is 4**

	STR Marker Reference																		
Marker ID	DYS458	DYS459	DYS 455	DYS 454	DYS447	DYS437	DYS448	DYS 449	DYS464	DYS460	Y-GATA-H4	YCAII	DYS456	DYS607	DYS576	DYS570	CDY	DYS442	DYS438
Roy Forrester	18	8-10	10	12	25	15	21	29	13-14-15-15	11	9	19-19	14	14	16	19	35-39	11	10
Foster	18	8-10	10	12	25	15	21	30	14-15-15-15	10	9	19-19	13	14	16	17	35-36	12	10
Foster	18	8-10	10	12	25	15	21	29	14-14-15-16	10	9	19-19	13	14	16	17	35-36	12	10

Note: All the Fosters in the tablesbelow have the same STR haplotype therefore by definition share the same haplogroup

DNA Tests 53: FTdna Foster Project Group 13			
Kit #	Ancestor	Country of Ancestry	Haplogroup
	Reginald Foster b. 1595 d. 1681	England	I-M170
	Reginald Foster, 1595 England - 1681 MA	England	I-M170
	Andrew Foster b.1584 England d. 1685 Andover, MA	England	I-M170
	Reginald Foster, b. 1602, England, d. 1681, Mass.	Unknown Origin	I-M170
	Reginald Foster, b ca 1595 in England, d 1681 MA	United Kingdom	I-M170
	Reginald Foster, b. 1595, Brunton, England	England	I-M170
	Reginald Foster b.1602-d.1681 Massachusetts	England	I-M170
	Reginald Forster 1795	England	I-P217
	S2606+ Elisha Foster,Sr1766-1833,b:VT/MA-USA[3]	England	I-BY14026
	Reginald Foster, 1595-1681	England	I-L39
Group 58			
	William Forrester b abt 1750 d 1818 Cumbernauld,	Scotland	I-BY14048

DNA Tests 54: FT dna I-L38 Project Group L38+> S2606+ > Y13070+ > Y13057+ > PH1237+				
	Foster	Reginald Foster, 1595 England - 1681 MA	England	I-M170
	Foster	Reginald Foster, b. 1602, England, d. 1681, Mass.	Unknown Origin	I-M170
	Foster	Reginald Foster, b ca 1595 in England, d 1681 MA	United Kingdom	I-M170
	Foster	Reginald Foster b.1602-d.1681 Massachusetts	England	I-M170
	Foster	Reginald Forster 1795	England	I-P217
	Foster	S2606+ Elisha Foster,Sr1766-1833,b:VT/MA-USA[3]	England	I-BY14026
	Foster	Reginald Foster, 1595-1681	England	I-L39
FTdna I-L38 Project Group L38 (21 Basic) L38+> S2606+ > Y13070+ > S2488+> BY14048+				
	Roy Forrester	William Forrester b abt 1750 d 1818 Cumbernauld, Dunbarton (East) Scotland	Scotland	I-BY14048

1. M170 is the terminal SNP for Haplogroup I-M170 the parent I Haplogroup. I-P217 is a subclad of I-M170 and I-L38/L39 is a subclad of P217 and I-BY14026 and I-BY14048 are brother subclads of I-L38/L39.
2. Elisha Foster is a genetic distance of 4 from Reginald Foster and is BY14026+. Since all the Fosters in the tables have the same STR haplotype then all the Fosters above share the same farthes downstream haplogroup which in this case is I-BY14026.
3. A total of 8 descendants of Reginald Foster in FTdna's Foster Project. Elisha Foster's STR results indicate that she is also part of Reginald Foster's family

Reginald Foster's genealogy is recorded in the book entitled "Foster Genealogy being the record of Reginald Foster" by Fredrick Clifton Pierce 1899. In this book Reginald is shown to be a descendant of the Forsters of Bamburg, Northumberland who in turn are said to be descended from the Flemish Foresters, Forestiers/Forestarius of Flanders.

Reginald Foster/Forster in the tables above was one of the progenitors of the Fosters USA having immigrated in 1638 to Massachusetts, USA and his reputed armorial family crest/coat of arms (left) is similar to the Foster/Forrester Coats of Arms shown below.

Extract 12: From an email by Nathan Forrister :

"I forgot to add, this is the same family haplogroup for the Northumberland Forester's. Makes one go Hmmm...
The genetic drift in haplogroup between the two sequences makes you guys distant cousins.
Garden / Torwood Forrester I - L38, Bamburgh Forester - I - L38. Coincidence? "

Extract 13: An article by the late Gerrald (Gerry) Forster

"Thus ends the brief but interesting fragment, stumbled upon virtually by accident, yet from which a considerable amount of information can be gleaned. If nothing else, it at least proves a familial relationship between the Scottish family of Forresters or Forsters, in that the Scottish Herald - Lyon, King of Arms, must have granted both the same identical armorial bearings, on Royal authority. This can only be done if the persons concerned are actually of the same ilk - in other words, if they are directly related, or descended from the same progenitors. Also it shows that the Bamburgh Fosters/Forsters were granted their Arms at around the same historical point in time as Sir Adam Forrester of Corstorphine received his."

The shield above left, in the Foster coat of Arms is similar to that of Sir Adam Forrester 1st Laird of Corstorphine, Edinburgh ancestor of the 1st Lord Forrester of Corstorphine.

Much has been written about the Foresters/Fosters of Northumberland over the years in historical references, books and now on the Internet, much of it contradictory (so what is new?) The general gist is that a Ricardus Forestarius, (Richard the Forester) an officer in William the Conqueror's army was knighted as Sir Richard Forester and granted lands on the English/Scottish border:

A 12th century descendant of Richard became the governor of Bamburgh Castle, Northumberland (about the same time as Marnin the Forester was registered in Dunipace, Stirlingshire)

Reginald Foster was a descendant of the Bamburgh Fosters/Forsters/Foresters. See reference next:
https://minerdescent.com/2011/09/27/sir-richard-forester-of-flanders/
Reginald FOSTER was born 1594/1595 in Exeter, Devonshire, England. He married Judith WIGNOL on 28 Sep 1619 in Theydon Garnon, Essex, England. He immigrated in 1638 with his five sons, Abraham, Reginald, William, Isaac, and Jacob, and settled at Ipswich, Mass. Other records indicate that he was born in Northumberland.
After Judith died, he married again, Sep 1665 to Sarah Larriford, widow of John Martin, of Ipswich. Reginald died 30 May 1681 in Ipswich, Essex, Mas.
While none of the above with the exception of the DNA results is conclusive, it forms a pretty good hypothesis that this Forrester family may possibly have originated with the Flanders Foresters.

While the common ancestor for Reginald Foster and this Forrester family probably dates back to the early 1st millennium or even earlier, before surnames were in use, my common ancestors with my FTdna Foster matches will be found in the second millennium.

Note the R1b/I2a Haplogroup ratio of the population in Scotland is approximately 70:1 which is about the same ratio as in the Flemish populations of Flanders, Belgium & France.

This and the previous appendix illustrate:

1. How DNA tests can help to identify ancestors out of reach of such records as births, marriages and deaths etc.
2. Separate potential relatives with the Forrester name or its variants from non relative Forresters.
3. New SNPs are being constantly uncovered as the popularity of DNA testing for Genealogy improves, increasing the database of SNPs which were created nearer to the present time. For example my current SNP furthest downstream in the I Haplogroup is I-BY14048 with predicted common ancestors in the past 600 years. Elisha Foster's defining SNP is BY14026, brother clad to BY14048 and which mutated about the same time as BY14048 defines the two branches e.g. Elisha & Reginald Foster and Roy & Jim Forrester

It is important to note that the Foster family name has other possible origins.

1. 'Foster Parent' from the Middle English Foster a derivative of fostrian 'to nourish or rear'.
2. From the Old French fustier", or "fostrian" A block of wood
3. From Old English "forcetier" Steel Sheers as used in agriculture. The same origin as forceps.
4. A contraction of "Forester" from Latin-Forestarius "the Forester" Today a person who controls and maintains forests or wooded areas. In medieval times, a senior servant of the Monarch or landed baron who maintained and defended an estate from intruders, poachers and armed attacks.

In our particular case we are referring to the fourth definition.

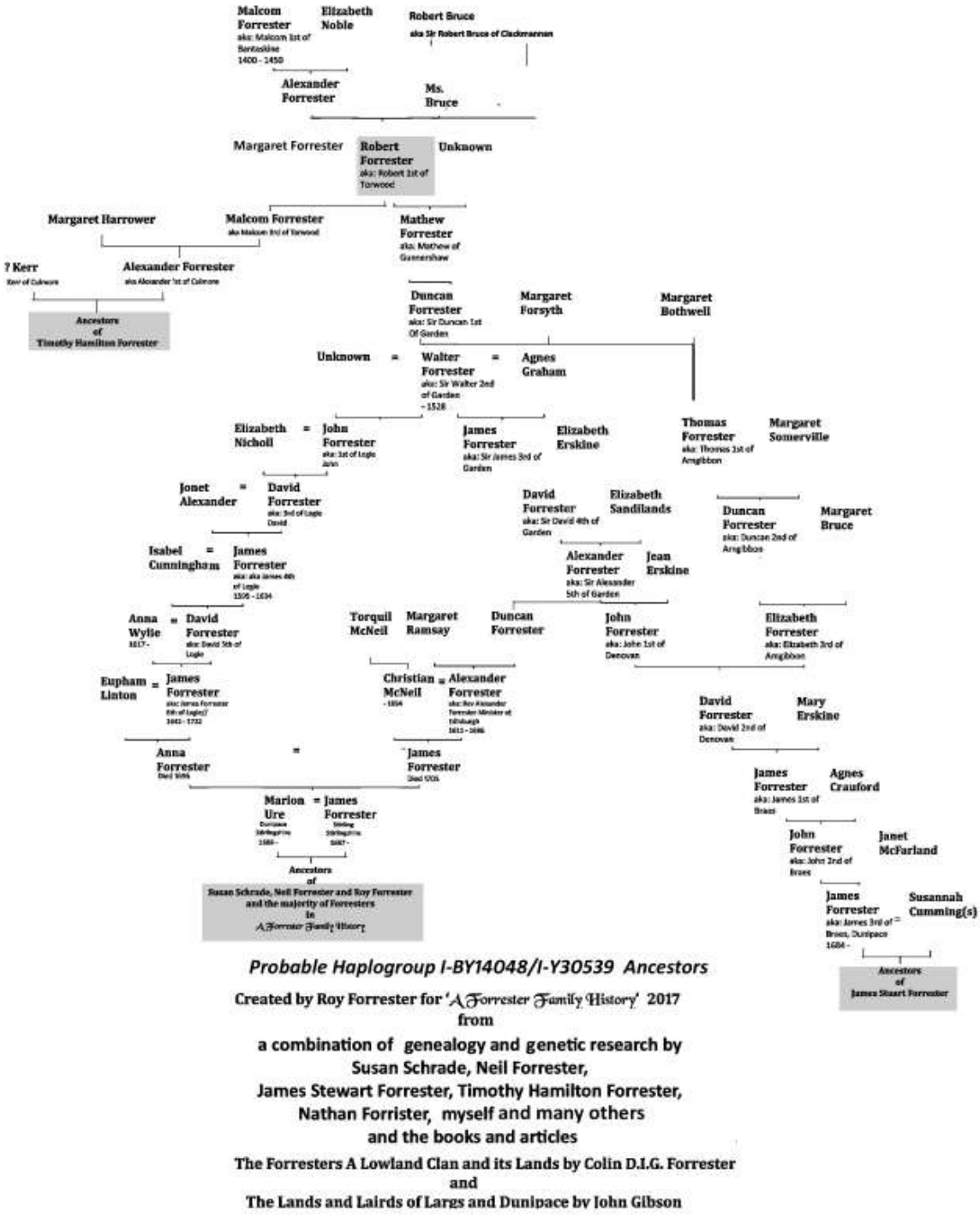
Just as there are several Forrester lines in Scotland there are several lines of Foster/Forster/Forester families in England particularly Northumbria. The paper trails of both my Foster matches traces back at least to Northern Ireland. My Foster matches are presumed to have the same haplogroup as me (I-BY14048) whereas Reginald Foster's descendants haplogroup is presumed to be I-BY14026 both downstream of I-S2606. Reginald Foster's paper trail connects him to Sir Richard Forester then to Baldwin V of Flanders. The armorial coat of Arms of the Fosters/Forsters of Northumberland is almost identical to that of Sir Adam Forrester 1st Laird of Corstorphine indicating a close familial relationship. There is the possibility that the Early Forresters and Corstorphine may be directly descended from Sir Richard Forester with the haplogroup I-BY14026.

While the above hypothesis suggests that there may be a link between Reginal Foster and the Forresters of Corstorphine we do not currently have any DNA evidence to support it.

Appendix 13

FT Chart 16: Probable Haplogroup I-BY14048 Ancestors

Note: This tree is likely to change as



Probable Haplogroup I-BY14048/I-Y30539 Ancestors

Created by Roy Forrester for 'A Forrester Family History' 2017
from
a combination of genealogy and genetic research by
Susan Schrade, Neil Forrester,
James Stewart Forrester, Timothy Hamilton Forrester,
Nathan Forrister, myself and many others
and the books and articles

The Forresters A Lowland Clan and its Lands by Colin D.I.G. Forrester
and
The Lands and Lairds of Largs and Dunipace by John Gibson

Note: This chart is likely to change as research continues.

Appendix 14

Table 5: I-L38 Chronology

https://sites.google.com/site/haplogroupil38/chronology

This page summarizes the migrations that can/could be linked at haplogroup I-L38. It should be seen as a never ending work in progress. **Hans de Beule(2014)**

Era	Event	Relation to I-L38
Paleolithic (old stone age) til 100,00 years ago		
310,000 - 79,000 years ago	The "Eurasian Adam" (the MRCA of all non-Africans) lived in Africa. This megahaplogroup, called CT, was characterized by SNP mutation M168.	
48,000 years ago	The SNP mutation M89 occurred on one branch of megahaplogroup CT, creating megahaplogroup F. F-M89 probably originated in Eurasia.	
38,500 years ago	F-M89 branches IJ and K separated 38,500 years ago. Haplogroup IJ probably originated in the vicinity of West Asia (Iran) or the Middle East and subsequently spread throughout Western Eurasia (Caucasus, Anatolia).	
32,000 years ago	Around 32,000 years ago the Early Gravettian culture appeared in the Crimean Mountains (southern Ukraine).	Possibly the Gravettian culture also carried haplogroup IJ of which haplogroup I is a branch.
25,000-19,500 years ago	Between 25,000 and 19,000 years ago the ice sheets reached their maximum extension. This period is called the Last Glacial Maximum (LGM). Just before or during this ice age haplogroup I, characterized by SNP mutation M170, arose from an IJ father.	It is unclear where haplogroup I originated.
22,000 years ago	Around 22,000 years ago people from the Middle East, Anatolia and the Balkans brought the Solutrean or Gravettian culture to southwest Europe. I branches I1 (M253) and I2 (M438/P215/S31) separated around 22,000 years ago. I2 probably originated in a Carpathian/Balkan LGM refugium or in Anatolia or the in the Caucasus ...	Possibly the Gravettian culture also carried haplogroup I. Is is unclear where the branches of haplogroup I sheltered during the Last Glacial Maximum.
21,000 years ago	I2 branches I2a (L460) and I2b separated around 21,000 years ago.	It is unclear where the ancestral lines of I2a and I2b separated.
20,000 years ago	I2a branches I2a2 (P214/M436) and I2a1 (P37) separated around 20,000 years ago.	It is unclear where the ancestral lines of I2a2 and I2a1 separated.
19,500 years -12,800 years ago	Starting 19,500 years ago, there was a gradual warming for the next 7000 years. Following the retreating ice sheet, populations that had advanced to an epigravettian toolkit began to re-enter central Europe around 17,000 years ago. Beginning 14,800 years ago, the temperatures increased rapidly for the next 2000 years.	It is unclear if I2a2 branches recolonized Europe.
12,800 - 11,500 years ago	Around 12,800 years ago, the warm climate changed very abruptly in the Tardiglacial (Late Glacial), a 1,300 years long period of cold climatic conditions. Around 12,500 years ago I2a2 branches I2a2a-M223 and I2a2b-L38 separated. When the Big Freeze ended 11,500 years ago, the Holocene began with a continual warming that has been stable to the present.	It is unclear where the ancestral lines of I2a2a and I2a2b separated.

Mesolithic (middle stone age) from 10,000 to 5,500 years ago		
8,200 years ago	Due to the rising sealevel Doggerland was flooded, separating Great Britain from mainland Europe.	It is unlikely (but not impossible) that I-L38 was present on the British Isles before Doggerland was flooded.
8,000 years ago	A I2 (L68) and a I2a1b* M423 sample were found in Motola, Sweden. Also in Loschbour, Luxembourg a I2a1b* M423 sample was found. I2 haplotypes are seen as West European Hunter-Gatherers (WHG). Mesolithic hunter/gatherer probably integrated peacefully into Neolithic farming culture that spread from Anatolia along the Romanian and Serbian Danube gorges.	It is unknown if and when I-L38 hunter/gatherers converted into farmers.
7,500 years ago	Farmers reached central Europe (LBK: linear pottery culture); dramatic reduction in hunter/gatherer mtDNA.	It is unknown if and when I-L38 hunter/gatherers converted into farmers.
6,500 years ago	Excavations at Pločnik, a Vinča culture site in Serbia, recovered tin-bronze artefacts. This is the oldest proof of bronze making in Eurasia.	Since the MRCA of most contemporary I-L38s is situated in the EBA, the history of bronze industry might be of importance.
6,500 years ago	LBK farmers displaced by new farming groups with more modern mtDNA distribution.	It is unknown if and when I-L38 did become part of farming groups.
6,000 – 4000 years ago	Isotope analyses on bones from the Blätterhöhle (Hagen, Germany) indicates that farmers and hunter/gatherers lived as separate communities next to each other.	The distance between the Blätter cave and Lichtenstein cave is 250 Km.
Neolithic (new stone age) from 5,500 to 4,600 years ago		
5,500 years ago	I2a2b branches I-L38* and I-L533 separated.	It is unclear where the ancestral lines of I-L38 and I-L533 separated.
5,500 - 5,000 years ago	Groups from the Usatovo culture (that likely harbored I2a-L460 branches) possibly migrated from the Black Sea and the Dniester (Ukraine) around the Carpathians bringing the pre-Germanic language (closer) to Germany.	There are several scenario's about how I-L38 entered Germany. The Usatovo-scenario is a scenario based on linguistic arguments.
Early Bronze Age (EBA) 4,600-3,600 years ago		
4500 years ago	From the Balkan and Carpathians bronze technology entered central Europe (and changed the egalitarian society of farmers). Central Germany became a crossroad of European trade. Ores, metals, salt, barnstone, lapislazuli, ivory, fabrics, parfums, Alpine daggers, British axes, Carpathians spindles and horses were traded. Materials and people travelled through Europe on a pack animal or over water.	The actual distribution of I-L38 from the Alps, along the Rhine, to the British Isles still might be a reflection of the bronze age trade routes.
4,400 years ago	The first Bell Beakers (AOO or All Over Ornamented) appeared in the Danube, Rhine, and Elbe/Saale regions appeared around 4400/4200 years ago.	The distribution of I-L38 along the Rhine and into the British Isles, resembles the Bell Beaker distribution.

4,300 – 3,600 years ago	The Únětice culture flourished. This archaeological culture is known 1400 Czech/Slovakia sites, 550 Polish sites, 500 German sites and in a lesser degree from north-eastern Austria and western Ukraine. In Central Europe, the Unetice culture included numerous smaller groups like the Straubing, Adlerberg and Hatvan cultures. The princes of the Únêtician centres of metalworking provided finished goods to the areas to their north that still stuck to late neolithic ways of life and production. As symbol of their power and wealth "princely graves" were erected, among them the Leubingen barrow in central Germany. The Unetice culture was followed by the Tumulus culture.	This is the context in which the MCRA of most contemporary I-L38s lived and in which this MCRA apparently reproduced succesfully. May be I-L38 was affiliated to a bronze age prince as a vassal of a prince or as a wealthy metal workers. Power and/or wealth often result in reproductive success. This might explain the hub-structure in the I-L38 networks. The distance between the Lichtenstein cave and Leubingen is 120 Km. The "burg" near the Lichtenstein cave suggests a local chiefdom.
4,000 years ago	The MRCA of most contempary I-L38s lived.	Since most present I-L38 samples are generic and the highest I-L38 frequency and diversity is found in south-west Germany it is likely the I-L38* MCRA lived there.
3,700 years ago	At the end of the EBA the north of Europe managed to get around the Únêtician monopoly and took part in the central European distribution network for copper and tin (and the techniques of working them); leading to a gradual decline of the Únêtician culture.	Might explain why the EBA I-L38 population boost did not last and why I-L 38 was outnumbered by other haplogroups.
3,600 years ago	The Nebra Sky Disc (Únêtician culture) was made as a solar and lunar based indicator for agricultural seasons. The copper of the Nebra disc comes from the Mitterberg in Austria and the gold from Romania.	The distance between Nebra and the Lichtenstein cave is 150 Km.
Middle Bronze Age (MBA) from 3,600 to 3,200 years ago		
3600 - 3200 years ago	The Hügelgräber or Tumulus culture (1600 until 1300/1200 BC) spread from Hungary (Carpathian Bassin) to eastern France (Alsace). The Hügelgräber culture was followed by the Urnfield culture.	It seems likely that the ancestors of the 'Lichtenstein people' had roots in the Tumulus culture.
3500 years ago	MRCA of most contempary I-L533s lived.	It is unclear where the ancestral lines of I-L38 and I-L533 separated.
Late Bronze Age (LBA) from 3,300 to 2,800 years ago		
3300 - 2800 years ago	From 3,300 to 2,800 years ago the Urnfield culture had spread north of the Alps. The Lichtenstein people that were burried in the Lichtenstein cave belonged to the Unstrut culture, a central German Urnfield group.	The Lichtenstein cave proved that I-L38 was present in the Unstrut group which of the Urnfield culture.
3300 - 2800 years ago	Northern Swiss and South and South-Western German Urnfield groups entered the South of Belgium. They conquered local groups and, in a number of cases, embraced the old local Neolithic habit of collective inhumation in caves (as the Trou del Leuve and Trou de L'Ambre). In these caves also bronze bracelets, rings, amulets and pottery was found.	The resemblance to the Lichtenstein cave is remarkable.

Iron Age from 2,800 to 2,700 years ago		
2750 - 2420 years ago (Hallstatt period)	The Hallstatt culture developed out of the Urnfield culture. It extended for some 1000 kilometers from the Champagne-Ardenne in the west to the Danubian Lowland in the east, and from the Main, Bohemia, and the Little Carpathians in the north to the Swiss plateau and Austria in the south.	The distribution of the Hallstatt culture ressembles the distribution of I-L38.
2450 - 2100 years ago (La Tène period)	The Hallstatt culture was followed by the La Tène culture. The Tenian culture spread from the middle Rhine region East into the Danube valley, South into Switzerland, and West and North into France, the Low Countries, Denmark, and the British Isles. This period marked the first of the great Celtic migrations.	The distribution of the La Tène culture ressembles the distribution of I-L38.
Roman Empire from 100 BC to 400 AD		
70 BC	The Coritani, a tribe that inhabited the Roman 'Agri Decumates' in what is now southwest Germany, crossed the Channel and founded Leicester. They also controlled Nottinghamshire, Lincolnshire and a part of Yorkshire.	Might explain the early presence of I-L38 on the British Isles.
Great Migrations, Barbarian invasions, Volkswänderung transition Antiquity to Early Middle Ages from 400 to 800 AD		
3rd -5th century	The Alemanni, a confederation of Suebian Germanic tribes located on the Upper Rhine river, conquered the Roman 'Agri Decumates' in 260 and expanded into the Alsace and northern Switzerland, In this era the Franks were a competing Germanic confederation occupying land in the Lower and Middle Rhine in the 3rd Century.	Might explain the distribution of I-L38 in Switzerland and the North of Italy.
4th -6th century	Decline of the Roman Empire. In 496, the Alemanni were conquered by Frankish leader Clovis. After the collapse of Rome in the West, the Frankish tribes conquered most of Gaul in the 6th century.	Might explain the distribution of I-L38 in France.
Middle Ages from 400 to 1400 AD		
10th - 14th century	In search of a buffer population, farming technology, and mining expertise, Hungarian kings invited Germans to settle in Transylvania. The bulk of the colonists came from Luxembourg, the Moselle region, the Rhineland, and Flanders. This migration of the 'Transylvanian Saxons' was part of a larger process called the Ostsiedlung (the medieval eastward migration of Germans into eastern Central Europe and Eastern Europe).	Might explain the distribution of eastern Central European and Eastern European I-L38 samples.
AD 1066	Norman Conquest of England William assembled a large invasion fleet and an army gathered from Normandy and all over France, including contingents from Brittany and Flanders.	Might explain the distribution of I-L38 on the British Isles.
AD 1308	In 1308 the Teutonic Knights conquered the formerly Polish region of Pomerelia with Gdańsk (Danzig). Their monastic state was mostly Germanized through immigration from central and western Germany.	Might explain the distribution of I-L38 in Poland.
11th-17th	Between the eleventh and seventeenth centuries three waves of Flemish migrated to Scotland; consecutively: allies of the Normans, weavers and religious (Protestant) refugees. Most Flemish settled in the North or on the East coast of Scotland. *Note: This Forrester family's MCRA existed during this period. RF*	Might explain the relation between Scottish and continental I-L38 samples. It also might explain the distribution of I-L38 in Scotland.

11th-16th century	Skilled Flemish weavers and textile workers migrated to major centers such as London, Norwich and Colchester from the 11th to the 16th century.	Might explain the relation between English and continental I-L38 samples.
13th - 17th century	From the 13th until 17th century, the Hanseatic League dominated trade along the coasts from the Baltic to the North Sea and inland during the Late Middle Ages and early modern period.	Might explain the relation between Scandinavian, Dutch and Scottish samples.
Modern History from 1500 AD til present		
AD 1524-1525	The German Peasants' Revolt (1524–1525) was a widespread popular revolt in the German-speaking areas of Central Europe, .	The German Peasants' Revolt probably have triggered the Yenishe (which has I-L38 haplotypes among them) to roam.
AD 1568-1648	As a result of the Eighty Years' War ((1568-1648) tens of thousands Flemish and Walloons fled to the Netherlands, England and Germany.	The religious refugees migrating to the Netherlands explains why many Dutch I-L38 haplotypes have Flemish roots.
AD 1618-1648	As a major consequence of the Thirty Years' War (1618–1648) more than 66% of the population between Mainz and Augsburg fled - de facto depopulating the UpperRhine region.	Because of the Thirty Years' War many Rhineland-Palatinates, among them certainly a fair amount of I-L38 haplotypes, fled in all directions.
17th-19th century	German seasonal workers, called Hollandgänger, migrated back and forth between Germany and the Netherlands.	The Hollandgängers explain why many Dutch I-L38 haplotypes have quite recent German roots.
AD 1708-1709	Exhausted by the War of the Palatinate (1689-1697) and as a result of an extreme harsh winter Palatinates fled to England, Ireland and the United States.	Might explain the distribution of I-L38 samples in England, Ireland and the United States.
AD 1680-1750	Emmigrants from Alsace, southwestern Germany, and Switzerland settled in Pennsylvania in the 17th and 18th centuries. They are known as the Pennsylvania Dutch.	Explains the distribution of most I-L38s in the United States.
18th century	Austrian Empire encouraged Germans to settle in regions of the empire that had been depopulated by Turkish wars. In the Banat, many came from Alsace-Lorraine, Franconia and the Palatinate. They were all refered to as Banat (or Danube) Swabians.	Might explain the distribution I-L38 samples in the former Banat (Romania, Serbia and Hungary).

Last update: March 2014 - Hans De Beule
https://sites.google.com/site/haplogroupil38/chronology

Appendix 15
Table 6: Viking Chronology
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https://sites.google.com/site/haplogroupil38/-2018-the-vikings-of-i-l38

As a point of reference throughout the rest of the text, a selection of Viking related events is listed below together with Some side-events during, before and after the Viking heydays, that roughly can be situated between the late 8th century (1,225 years ago) and the early 11th century (975 years ago).48,49,50,51,52
I-L38 specific ancient DNA (aDNA) references are shown in blue rows and Viking related fact in gray rows.

Year	Event
5600 BC	aDNA proto Y10705+ sample (I4971) was buried in Tiszaszőlős-Domaháza, Hungary53
2082 BC	aDNA L39+ sample (I0114) was burried in Esperstedt, Saxony-Anhalt, Germany54
1800 BC	Start Scandinavian Bronze Age
1647	**BC** Battle of Tollense, Germany, near the Baltic Sea
1600	**BC** Pictures of ships are engraved in Denmark, Sweden and Norway
1000	**BC** to 700 BC Lichtenstein clan lives in Förste, Niedersachsen, Germany55
500	**BC** to 800: Start Scandinavian Iron Age
1 to	400: Rise of a Scandinavian aristocracy of warriors
120	Cimbrians and Teutons emigrate from north Jutland
400	to 800: Development of the first Scandinavian kingdoms
425	to 500: Anglosaxon migrations from Denmark and Germany to England
500	Jordanes calls “Scandza” (Scandinavia) the “womb of nations”
528	King Hygelac of the Geats raids the lower Rhine area
750	Viking attack in Salme, Estonia (oldest archeological evidence of a Viking raid)
750	Swedes settle in Staraja Lodaga, Russia
768	Start reign Charlemagne
772	Saxon rebellion against the Franks
789	Norwegian Vikings plunder Portland in Dorsetshire, South-England
793	Vikings attack Lindisfarne, a tidal island off the northeast coast of England
795	Vikings attack on Scotland and Ireland; leading to the Viking kingdom of Dublin
799	Vikings plunder Aquitaine, southwest France
800	Charlemagne defends the coasts of the Francian empire
810	The Danish king Guđöđr attacks the Frisian coast
814	Death of Charlemagne, the Carolingian coastal defense weakens
820	Vikings attack Flanders and the mouth of the Seine
826	The Danish royal, Harald-Klak is baptized in Mainz, Germany
830	Rebellion of the grandsons of Charlemagne against their father, Louis the Pious
832	Vikings plunder Armagh, Ireland (trice in one month)
834	Vikings start plundering the Low Countries. The trade center Dorestad in Frisia is plundered for the first time - start of annual Viking raids in Western Europe
835	Vikings attack the island Sheppey in the Thames - start of annual raids in England
837	Vikings attack Domburg, Walcheren (a Dutch peninsula in the mouth of the Scheldt)
839	Dorestad, Frisia is conquered by the Vikings
839	Rus are part of a Byzantine embassy that visits the court of Louis the Pious in Mainz, Germany
838	The Rus arrive in Constantinople
841	Death of Louis the Pious. Lothar I installs Viking raiders in the mouth of the Scheldt in Flanders
842	Vikings attack Quentovic, a French trade center bordering the Channel

843 Vikings attack Nantes, France
844 Vikings attack Sevilla, Spain and are defeated
845 Rorik (Hroerekr) attacks Middle Francia the empire of Lotharius, grandson of Charlemagne
845 Vikings attack Hamburg, Germany; Ragnar attacks Paris, France
850 to 867: Rorik becomes duke of Frisia, the Danes rule Frisia.
850 to 860: Ásgeirr conducts raids along the Scheldt and later along the Seine and Loire
851 The "Dubh-gaill" (dark foreigners) arrive in Dublin, Ireland.
857 Vikings attack Utrecht, Netherlands and Paris, France
859 to 862: Vikings attack cities around the Mediterrean
860 Norwegian sailors discover Iceland
860 Vikings attack Constantinople (aka Byzantium or Istanbul)
861 Vikings attack Paris, France
862 Vikings attack Cologne, Germany
862 ca. Rurik rules over Novgorod, Russia; Askold and Tyr attacks Kiev, Ukraine
863 Vikings attack Xanten along the Lower Rhine, Germany
865 A Danish army invades England; Danes start to settle in England.
866 Vikings attack York in the north of England
870 Danes conquer East-Anglia
870 The county Orkney is founded by Rognvald of Møre
874 Norwegians start to colonize Iceland
874 to 914: A pause for Ireland; 40 years without Viking attacks
876 879: start Danish colonization of East-England (the later Danelaw)
877 Halfdan Ragnarsson sails the Firth of Tay in Northern Scotland.
878 English king Alfred I conquers the Viking army at Edington, as a result, the "Great Army" forms.
878 to 888: The Great Army raids the continent
879 Vikings set up winter quarters in Ghent, Flanders
880 The Great Army attacks Doornik, Flanders and Reims, France
881 The Great Army sails up the Rhine and plunders Cologne, Bonn, Neuss, Jülich, Andernach, Aachen, Prüm, …
882 The Battle of Remich marks the southernmost point of advance of the Great Army. Zutphen is raided
886 The Great Army attacks Paris, France
891 The Great Army defeated in Leuven, Belgium by the East-Francian king Arnulf
892 The Great Army leaves for England because of famine on the continent
900 Start Norwegian colony in NW England
902 The Irish chase away the Vikings from Dublin
907 Byzantine Empire negotiates a trade agreement with the Rus
911 As duke of Rouen (Normandy, France) Viking leader Rollo becomes a vassal of Charmes the Simple
914 936: Vikings occupy Bretagne, France
917 The Vikings reconquer Dublin
922 Ahmad Ibn Fadhlan travels through Russia and describes the Rus in Bolghar
948 First Scandinavian Bishoprics in Ribe, Århus and Sleeswijk
992 Danish and Norwegian Vikings raid England on an annual basis
1000 Icelanders convert to Christianity
1009 Vikings attack Utrecht, Netherlands
1013 King Sven of Denmark conquers England
1014 At the Battle of Clontarf, Irish high king Brian Boru conquers the Scandinavian alliance
1016 Danish King Cnut becomes King of England

1042 End of the Danish rule of England
1061 to 1091: Vikings conquer Sicily
1066 Battle of Hastings: Normandian duke William the Conqueror becomes King of England
1098 Magnus Barefoot settles Norwegian authority on Scottish Isles
1103 Lund becomes the first Scandinavian archbishopric
1107 The Norwegian king Sigurd II leads a crusade to the Holy Land **...**

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In the long run the strategy of the Carolingians to Christianize the Vikings worked; in time the pagan Scandinavians were absorbed into the Christian world ...
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Chapter Four
Ancestors of James Forrester of Tollpark

FT Report 2: Chapter 4 Part 3

Summary

Ancestors of James Forrester of Tollpark

We have established, by both conventional genealogy research and DNA tests, that this Forrester family is descended from the 15th century Forresters of Torwood, Stirlingshire, Scotland.

Initially we established via a Sasine record, that my 2nd G-Grandfather, Susan's 4th G-Grandfather, James Forrester of Tollpark was the natural or illegitimate son of William Forrester of Parkhead, Cumbernauld. This same record also indicated that William had a brother named Adam.

A subsequent search for the parents of William and Adam Forrester in the Old Parish Records, (OPR) located Alexander Forrester, born 1712 and his wife Helen Crawford, born 1716 both in Dunipace, Stirlingshire. The couple had thirteen children, eleven of whom survived into adulthood. William was born in 1744 in Denny, Stirlingshire and Adam in 1757. Other OPR records determined that Alexander's parents were James Forrester and his wife Marion Ure in Dunipace.

Then we created a series of hypotheses, that James Forrester of Tollpark's Great Grandfather was James Forrester born 1687 in Stirling, Scotland, and he was the husband of Marion Ure. From a book by Colin Forrester we were able to trace this James Forrester's ancestors back to the 15th century Forresters of Torwood, Dunipace, Stirlingshire via the Forresters of Garden, Kippen, Stirlingshire. While we were reasonably sure that our hypothesis was true, we needed more confirmation and that is where DNA came into the picture.

Our autosomal DNA tests initially resulted in locating Neil Forrester from New Jersey USA who turned out to be a 5th cousin and descended from our ancestors, Alexander Forrester and Helen Crawford both born in the second decade of the 1700s. My Y-DNA tests resulted in 7 positive matches, 3 Forresters including Neil, 3 Fosters and a Brown. The paper trails of the three Forresters traced back to the Forrester of Torwood by different routes. The Fosters appeared to trace back to the Fosters of Northumberland via Northern Ireland. The Y-DNA matches inferred that we all had similar haplotypes or similar DNA mutations leading to us being classed in the same group or in DNA terms, 'Haplogroup',labelled I-BY14048. (See Part 2 for explanations of DNA and DNA terminology).

It turned out that our haplogroup, descended from one of the earliest European haplogroups consists of less than 4% of the European population and less than one seventieth of major European haplogroup population with about the same ratio being applied to the Forresters, Fosters etc. particularly of Britain which explains why I have only 7 positive Y-DNA matches out of many thousand subjects tested to date.

DNA Tests 55:Y-DNA Haplogroup percentages by region

Region/ Haplogroup	I1	I2a1	I2a2[1]	R1a	R1b	G	J2	J1	E1b	T	Q	Sample size
England	14	2.5	4.5	4.5	67	1.5	3.5	0	2	0.5	0.5	> 5000
Ireland	6	1	5	2.5	81	1	1	0	2	0	0	> 5000
Scotland	9	1	4	8.5	72.5	0.5	2	0	1.5	0.5	0.5	> 5000
Wales	12	1	3	1	74	2.5	0.5	0	4	1	0	411

Source: http://www.eupedia.com/genetics/britain_ireland_dna.shtml

1. ***Haplogroup I-BY14048(Roy Forrester) and I-BY14026 (Gerald Foster) are subclads of I2a2.***

The percentages shown in the above table equally apply the the Forresters in the United Kindom and Ireland. That is most Forrestesr tested will be assigned to haplogroup R1b and its subclads, such as Nathan Forrister auther of many of the tutorials in this chapter.

What the above implies is that out of every 100 Forresters in Scotland there are fewer than 4% assigned to haplogroup I-BY14048 if they took the appropriate SNP test.

Our DNA consultant Nathan Forrister was able to confirm via our DNA tests that we are indeed descended from the Forresters of Torwood.

The paper trail of my Foster matches appear lead back to the Northumberland Fosters via Northern Ireland, however it is quite possible that they actually came from Scotland to Ulster (Ulster Scots or as in the USA, Scotch Irish) not Northumberland. The FTdna's Foster project features descendants of a Reginald Foster. Various articles and at least one book indicate that Reginald was a descendant of the Fosters of Northumberland and that his haplogroup was I-BY14026. My Foster matches have received a predicted haplogroup assignment of I-M170 but because they share my haplotype they would if they undertook the appropriate test would be assigned to I-BY14048.

Historically there are a number different groups of Forresters in Scotland, the two main groups being The Forresters of Stirlingshire and the Forresters of Costorphine, Edinburgh. Our DNA and paper trails indicate that we are descended from the Forresters of Stirlingshire, however we have not yet ascertained whether there is a genetic relationship between those two Forrester groups. The Armorial Shields of the Forestesr/Forsters/Fosters of Bamburg, Northumberlandand and the Forresters of Scotland share similar designs indicating a familial relationship. So the question remains, do the Corstorphine Forresters share our haplogroup or some other.

Figure 9: Some Scottish & English Forrester Armorial Bearings

The question is, from where did the Forresters of Scotland originate? There is a body of opinion which holds that the Scottish Forresters are descended from the pre Roman Celtic population of Britain including Druids and Picts. The argument presented is that a Marnin Forestarius or Marnin the Forrester who on or about 1200 CE owned property on church lands in Dunipace, Scotland and is believed to have been a Celtic Druid, was the progenitor of the Scottish Forresters. Others suggest that Foresters arrived in England from the Europe during the 1st millennium CE, some with the 1066 Norman conquest of England where at least one Forester, Richardus Forestarius or Richard the Forester, later Sir Richard Forester was granted lands on the Scottish English border country. Also Britain was invaded and occupied by the Saxon, Jutes and Angles during the 1st millennium AD. The I-L38 haplogroup, our common paternal ancestor clad's passage through time was via the river Rhine from its source to its mouth on the North Sea then across to Britain.

There is some DNA evidence (Autosomal Admixture calculations) that some of our ancestry may be of Viking stock If so when and how they became integrated with this Forrester Family is still an open question.

The above armorial bearings represent the Forrester families by name in the United Kingdome and Ireland and not by haplogroup. For example the Forresters of Scotand and eslswhere will be split amongst several haplogroups roughly by the percentages illustrated in the previous table.

Regardless of where this Forrester family originated, the combination of standard genealogy research, in combination with genetic research is a powerfull weapon in determining our ancient ancestors. Their are many hypothesis surrounding the reason(s) why our haplogroup exists today at such low percentages, currently there are only three of us registered in haplogroup I-BY14048, as the popularity of DNA testing increases with time more people with their own paper trails will undoubtedly test positive at SNP BY14048 or its equivalents that reason may be explained, expanding our knowledge of our ancient ancestor's origins. It is also likely that eventually the currently 26 equivelant SNPs will eventually form more branching lines in our haplotree both upstream and downstream of I-BY14048.

I would add a word of caution. Although Genetic Science is one of the mainstream science tracks in use today, genetic research for genealogy began to intensify relatively recently coincident with the pricing of genealogy DNA testing becoming more reasonable, consequently new discoveries are being uncovered every day with the base lines constantly changing. Unfortunately advertising hype tends to indicate that once the DNA test(s) are complete, identifying currently unknown ancestors is simple. Quite the contrary, it requires hours of persistent hard work, combining genealogy standard research with genetic research to come to any sort of reasonable conclusion, especially knowing that as new knowledge comes to light ones conclusions may be changed completely. Genetics should be regarded as one more valuable tool in genealogy research and not a means to an end, perhaps one day?.

List of Illustrations

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