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# Case Study Pinpointing the Stewart Paternal Ancestral Genetic Homeland

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#### INTRODUCTION

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

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

# Notes of caution!

- 1. Paternally inherited surnames were adopted in England after the arrival of the Normans in 1066AD. Surnames in England tend not to reflect a genealogical record of a surnames founding ancestor but denote either a person's profession e.g. Taylor, Thatcher, Smith, a notable feature e.g. Short, Brown, Wise, or the place where they lived e.g. Townsend, Hill, York. As a result English surnames often have multiple points of origin, and hence potentially a large number of unrelated founding Adams (each surname may have had multiple founding 'Adams').
- 2. Science has demonstrated that only 50% of individuals with a unique surname will be related to that surname's founding ancestor (the surname Adam), the other 50% of people will have an association that has arisen as a result of what are called 'non-paternal events,' usually a result of adoptions or infidelity.
- 3. Often people are looking for their DNA results to trace back to a specific area. One must remember that the results reflect one's ancestor's neighbours from around 1000 years ago. As a result if one's English ancestors were descended from Viking raiders or conquering Normans, then ones Y-DNA results will often reflect earlier continental European or Scandinavian origin. In Ireland for example, only 60% of those with Irish ancestry are related to the pre-Christian Celtic tribes. One must approach this process with an open mind!

#### INTERPRETING THE Y-DNA RESULTS

To identify a paternal ancestral genetic homeland one must first identify the surnames that continually appear as genetic matches. These recurring surnames are less likely to be a result of non-paternal events (adoptions/infidelity) and reflect the surname of a medieval ancestor's neighbour. Surnames that recur as genetic matches to test subject Stewart are listed in **Figure 1**.

	Y-DNA Test Results												
Test		37 Markers					25 Markers			Ysearch.org			
Subject	Haplogroup	exact	-1	-2	-3	-4	exact	-1	-2	Surname	Markers Compared	Genetic Distance	Frequency
										Radcliffe/Radcliff/Ratliff	36	6	11
										Walker	37	6	10
	l	1 '			'		'			Austin	37	6	8
										Taylor	36	6	8
										Brown	32	6	6
										Graves	37	3	6
										Reed/Reid	37	5	6
										White	32	6	6
										Burress/Burroughs	31	6	5
										Williams	32	5	5
									Austin(x10)	Bennett	30	6	4
									Bickerstaff(x5)1?	Holt	30	6	4
									Bottom/Bottoms(x5)1	Latham	37	2	4
									Brook/Brooke/Brooks(x10)1	Phillips	32	6	4
									Byram/Byrom(x4)1?	Powell	37	6	4
					Graves(x6)1	Sadler(x2)			Carpenter(x3)	Hamilton	32	5	3
Stewart	R-M269		-	Latham/Lathrem(x4)	Stewart(x3) <sup>1/2</sup>	Warburton(x1) <sup>3</sup>		Pemberton(x5)	Gilbreath(x3)	Martin	37	6	3
									Jones(x5)	Morgan	31	6	3
									Middlebrook(x9)1	Pemberton	37	6	3
									Pennington(x5)	Weaver	32	5	3
									Phillips(x7) <sup>1</sup>	Blackburn	37	6	2
									Reed/Reid(x5)	Clark	31	6	2
									Williams(x3)	Keen/Keene	32	3	2
										Kelly	32	6	2
										King	32	6	2
										Laurence/Lawrence	37	6	2
										Low/Lowe	37	5	2
										Olson	31	4	2
										Perkins	31	6	2
										Straight/Straitt	32	4	2
										Timm	31	6	2
										Warburton	37	4	2
										Weston	32	5	2

**Figure 1:** Mr Stewart's genetically recurring surname matches. Surnames are shown at the point at which they first appear as a genetic match e.g. the first match to an individual called Latham occurs at 35/37 markers, although not all Lathams may match at that level. In brackets are the numbers of individuals with each surname that appear as a genetic match. Coloured font denotes the ethnicity associated with each surname; **English, Scottish, Welsh,** black font indicates surnames with multiple possible ethnicities. <sup>1</sup>Multiple individuals recruited from the same close family and excluded from further analysis. <sup>2</sup>These surnames appear as a close genetic match at the 12 marker level and the shared ancestry may be coincidental. <sup>3</sup>These surnames appear as a genetic match in the ysearch.org database.

Upon commercial ancestral Y-DNA testing Mr Stewart was not a close genetic match to other Stewarts (who tested independently of him), which indicates that he is among the estimated 50% of individuals who after an estimated 1,000 years are not directly descended from their surnames founding ancestor (the Stewart-Adam; the first to take that surname), see **Figure 1**. Stewart is a notable Scottish surname, yet Mr Stewart's genetically recurring surname matches are overwhelmingly associated with England. These findings indicate that the test subjects association with the Stewart surname is the results of a non-paternal event that has occurred at some point in his paternal ancestry. The predominance of English surnames throughout Mr Stewart's genetic matches indicates that his paternal ancestry is associated with England.

# Y-DNA, SURNAMES AND LAND

Paternally inherited surnames first appeared about 1000 years ago at a time when the vast majority of people were involved in agriculture; hence many surnames appeared amongst farming communities whose descendants can often be found farming the lands where their ancestor lived when he first inherited his surname. However, the link with the land for many English surnames has disappeared due to the early industrial revolution and one must therefore examine early census data to determine where farmers with the surnames that appear in one's DNA results lived; identifying an area common to all, and reveal one's paternal ancestral genetic homeland.

As a rule the more genetic markers that one shares with another individual the more recent ones common paternal ancestor lived. Mr Stewart's Y-DNA results reveal that his closest and most frequent genetic matches are to individuals called Latham. This indicates that a 'Latham' was the source of Mr Stewart's Y chromosome. Census data reveals that there are 4 clusters of Latham farmers spread throughout England in 1841, see **Figure 2**. By plotting the location of each Latham farmer in 1841 it reveals at least 4 geographically distinct clusters of Lathams, see **Figure 3**. Given their geographical distance from one another, each Latham cluster represents a distinct and unrelated group of Lathams; one of which is the source of Mr Stewart's Y chromosome.

Each Latham group of farmers arose in a specific location surrounded by relatives who inherited other surnames; surnames which are subsequently revealed in one's commercial ancestral Y-DNA test results. Hence it is Mr Stewarts genetically recurring surname matches, as a snapshot of his ancestors neighbours from the time when paternally inherited surnames became common which will reveal where his paternal ancestral genetic homeland is to be found. The 1841 census reveals that farmers called Graves, Pemberton, Bickerstaff, Warburton, Bottom, Brook, Byram, Sadler, Pennington and Ratcliffe are overwhelmingly associated with the bordering 1841 UK Counties of Lancaster and Cheshire, see Figure 2.

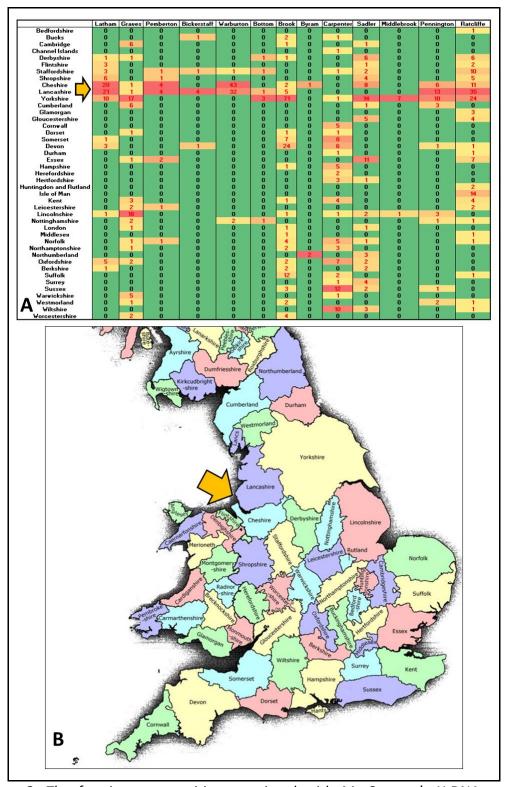
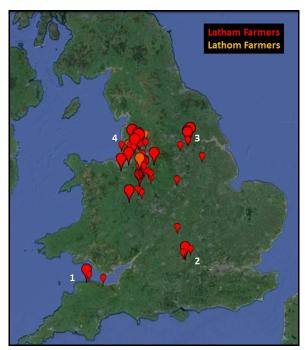


Figure 2: The farming communities associated with Mr Stewart's Y-DNA results reveal a paternal ancestral link with Lancashire and Cheshire. Census data reveals that Latham is an English surname and that Latham farmers are associated with at least 4 distinct geographical areas within England (Panel A). By examining the distribution of farmers in 1841 (orange arrow, Panel A) with the surnames that appear as Mr Stewart's closest and most frequent genetic matches it reveals a paternal ancestral link with the neighbouring 1841 Counties of Cheshire and Lancashire (orange arrow, Panel B).



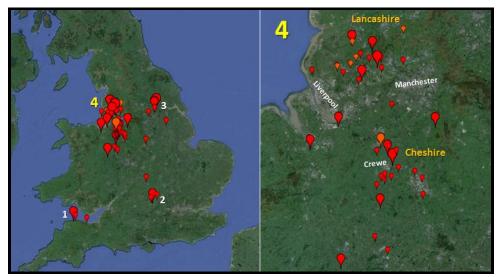
**Figure 3:** Distribution of Latham farmers in 1841. By plotting the location of Latham, Lathom and Lathem farmers in 1841 it reveals 4 distinct clusters associated with Devon(1), Oxfordshire(2), Yorkshire(3) and Cheshire/Lancashire(4). Mr Stewart's genetically recurring surname matches indicate that he shares common ancestry with the largest group of Lathams who are associated with Cheshire and Lancashire (4). Each pin has been placed in the parish where a farmer is recorded in 1841. Pin size is indicative of frequency.

## The Lathams of Lancashire

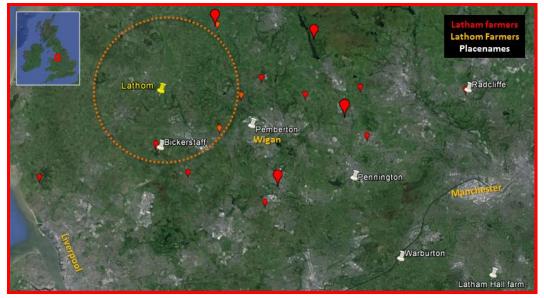
A closer examination of the distribution of Latham and Lathom farmers in Cheshire and Lancashire reveals 2 distinct clusters, see **Figure 4**. Since paternally inherited surnames arose among groups of related males living in close proximity to one another; one could examine where the Latham, Graves, Pemberton, Bickerstaff, Warburton, Bottom, Brook, Byram, Sadler, Pennington and Ratcliffe farmers lived within Lancashire and Cheshire and reveal whether Mr Stewart is descended from the Cheshire or Lancashire Lathams. However, the surnames Pemberton, Pennington and Warburton are particularly interesting as they are locational surnames that refer to people from a particular town (town is often shortened to – ton in a surname). The villages or towns of Pemberton, Pennington and Warburton are located in Lancashire, and lie between the modern Cities of Liverpool and Manchester, where in the surrounding area one also finds the villages of Bickerstaff and Radcliffe, see **Figure 5**. To the northeast of Bickerstaff one finds the village of Lathom from which the Lathams or Lathoms of Lancashire take their surname, see **Figure 5**.

Mr Stewart's paternal ancestral genetic homeland is centred upon the village of Lathom in Lancashire, see **Figure 5**. In 1841 Lathom and Latham farmers could still be found in the surrounding parishes. It was in this area that Mr Stewart's direct male ancestor lived when paternally inherited surnames became common an estimated 1000 years ago. His ancestors inherited surnames which are overwhelmingly locational in nature and refer to the ancient Lancashire villages associated with this

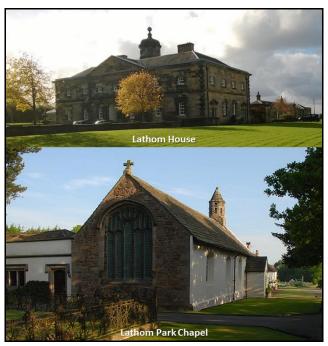
area including Lathom, Bickerstaff, Pennington, Warburton, Ratcliff and Pemberton. His ancestors lived in an area that was colonised by a succession of Vikings, Anglo-Saxons, and Normans, the last of whom adopted 'de Lathom' as their surname. The Stanley family inherited the lands through marriage to the Norman Lathoms, and are historically associated with what remains of Lathom House and Chapel, see **Figure 6**.



**Figure 4:** The Lathams of Lancashire and Cheshire. A closer inspection of the distribution of Latham and Lathom farmers within Cheshire and Lancashire reveals 2 distinct clusters; one lies to the northeast of Liverpool in Lancashire, and the other is centred upon Crewe in Cheshire.



**Figure 5:** Mr Stewart's Paternal Ancestral Genetic Homeland. Mr Stewart's paternal ancestral genetic homeland is centred upon the village of Lathom which lies east of Wigan town. It is in this area that Mr Stewart's ancestors lived when paternally inherited surnames first appeared in England. His ancestors took the location surname of Lathom and lived surrounded by male relative who took other locational surnames like Bickerstaff, Pemberton, Pennington, Warburton and Ratcliffe. An examination of the surrounding area reveals the villages that gave rise to these surnames.



**Figure 6:** The remains of Latham House and Chapel. The remains of Lathom House are located on the site of the ancient manor of Lathom. Lathom Chapel was built in about 1500 and is historically associated with the Stanley family.

# **Ancient Briton, Viking, Anglo-Saxon, or Norman?**

Mr Stewart belongs to the R-M269 haplogroup which is common throughout Western Europe. The predominance of English and neighbouring-Welsh surnames throughout his Y-DNA results would indicate that his ancestors were ancient Britons rather than more recently arrived Vikings, Anglo-Saxons or Normans.

## **Confirming the Paternal Ancestral Genetic Homeland**

To confirm the area east of Wigan town in Lancashire as Mr Stewart's paternal ancestral genetic homeland will require Y-DNA testing of Latham or Lathom farmers who currently live in that area.

Contact me tyronebowes@gmail.com for a free consultation on your Y-DNA results

If you think you may be related to this branch of the Stewarts you can contact Craig (Craig.smith@nytimes.com)

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