

DNA and Genealogy: A Case Study

J. Michael Hunter and Ugo A. Perego unravel the mystery of Lindsey Flakewood Hunter

JAMES AND CALLIE Meador of Bedford County, Virginia found Mike Hunter's grandfather, Lindsey Flakewood Hunter, in an orphanage during the Great Depression of the 1930s. At that time, James was over 60 and Callie was in her late 50s. James, a widower, had several grown children, but he and Callie, his second wife, had none together. They had been married for about five years and apparently they were looking for an able-bodied boy to help at the farm. Grandpa Hunter was in his early teens at the time.

The early years of Lindsey Hunter's life — before the Meadors came around — were a mystery. When Mike Hunter started working on his family history in the late 1970s, his grandfather refused to answer questions about his childhood. The unanswered questions were soon replaced by stories that some family members gathered and perpetuated for years. One such story was that grandfather Lindsey was born to a Native American woman. When her Caucasian husband abandoned her in the 1920s, she was left with several small children and extremely limited resources to provide for them. Disdainful of her Native American status, the local authorities determined that the children should be placed in better homes. When they came to take the children away, the woman attempted to flee with her children by crossing an icy creek. She was stopped and put in jail, where she caught pneumonia and died. The authorities then divided the children and some were placed in orphanages. This is all that was known about Lindsey Hunter's past up to that point, and no one knew if the story was even true.

After Lindsey Hunter passed away in 1981, Mike set out to discover what he could about him.

He first decided to rely on public records. After requesting Lindsey Hunter's birth certificate, he was surprised to find that his grandfather was simply recorded as Lindsey Lloyd, born in Giles County, Virginia to a single woman named Nora Lee Lloyd. No race was listed for the mother or the child, providing no support to the Native American story.



Lindsey's parents were reported together. Because he was only 20 years old at that time, state laws in Virginia required parental consent for the marriage to take place. However, when that document was found, it indicated that both parents were already deceased and therefore a judge waived that requirement.

A marriage certificate was later



Lindsey Flakewood Hunter in two undated photographs.

Being born to a single mother could explain why Grandpa Lindsey ended up in an orphanage, but the finding brought up a new question — where did the Hunter surname come from?, as the child was not listed with that name.

Continuing with his family history research in the Bedford County courthouse, Mike discovered his grandfather's 1937 marriage certificate, which indicated that he was born in Giles County, Virginia in 1917 to Albert Hunter and Nora Lloyd. This was the first instance in which the names of

located in the Giles County Courthouse for Albert Hunter and Nora Lloyd. It reported that they were married in April of 1918, about seven months after Lindsey's birth. It appeared that Nora had been married previously to Alva Weis, but no children were born to that union. There was no reason to believe at that time that Albert was not the biological father of Lindsey, particularly since he was given the last name of Hunter. From the marriage certificate, an additional detail regarding Nora's ethnicity was given. Because it was illegal for mixed race couples to be

married in Virginia until 1967, the certificate stated the couple's race, which for Albert and Nora was listed as "white". This record, and the fact that Grandpa Lindsey did not carry any Native American resemblances, convinced Mike that the story he knew about his grandfather's childhood was not accurate.

In the 1920 census, Albert, Nora and their son Lindsey were listed as living in Giles County with the race again listed as "white".

Albert, a farmer, and Nora were in their late twenties at that time. But what happened during that decade that resulted in Lindsey ending up in an orphanage?

The next logical step was to search for the death certificates of Albert and Nora Hunter. While nothing was found for Albert, Nora was recorded as dying in 1927 of pneumonia — the same cause of death from the story that was perpetuated by the family about her. Much of the information on the certificate was answered "unknown", including information about her parents. No informant was listed, which would indicate that her husband had either already died, or was no longer with her at the time of her passing. It is also possible that the person filling out the certificate may have quickly scribbled in the information without asking for additional details. The genealogical trail for Lindsey Hunter ended, and it wasn't until a few years later that a new door unexpectedly opened.

Finding Long Lost Relatives

In 1985, four years after Lindsey Hunter died, a man claiming to be his brother made contact with Mike's family in Virginia. His name was Richard Hunter and he claimed that through genealogical research, he was able to find his brother's living descendants,

including his first cousin, Nora's niece. Mike's aunt and his younger sister accompanied the man back to Giles County to meet additional relatives. Soon after the visit took place, Mike's sister wrote a letter in which she stated that they were directed to an "old Indian woman who lived far back in the mountains". The woman's exact relationship to the family was not made clear, but apparently she knew a great deal about Nora,

carriages.

As the visit to Giles County was coming to an end, Mike's sister learned an interesting detail regarding Grandpa Lindsey's paternity. It appeared that Albert Hunter was not Lindsey's biological father, but that Nora conceived him out of wedlock, with a man remembered only as Mr. Bailey, during the time between her first and second marriages. All at once, a new anecdote was added to the family history of Mike and his family.

Certainly, the sudden visit of Richard Hunter, followed by the trip to Giles County, provided valuable insights about the early life of Grandpa Lindsey and his parents, partially confirming an old family tale about the life of his mother Nora, but casting additional doubts about his birth. Unfortunately, there was not much that could be done in 1985 to verify the claim about his biological paternity, since DNA testing for genealogical

| Locus | Allele | Frequency | Locus | Allele | Frequency |
|----------|--------|-----------|------------|-------------|-----------|
| DYS19 | 15 | 23.47% | DYS448 | 19 | 44.70% |
| DYS385 | 13,16 | 1.48% | DYS449 | 28 | 14.50% |
| DYS388 | 15 | 3.51% | DYS452 | 31 | 27.68% |
| DYS389I | 12 | 20.48% | DYS454 | 11 | 92.42% |
| DYS389II | 28 | 55.06% | DYS455 | 11 | 86.47% |
| DYS390 | 24 | 37.29% | DYS456 | 13 | 1.87% |
| DYS391 | 10 | 54.96% | DYS458 | 16 | 24.27% |
| DYS392 | 11 | 40.16% | DYS459 | 8,9 | 17.05% |
| DYS393 | 12 | 8.75% | DYS460 | 11 | 54.47% |
| DYS426 | 11 | 43.46% | DYS461 | 10 | 1.13% |
| DYS437 | 16 | 14.24% | DYS462 | 11 | 55.20% |
| DYS438 | 9 | 3.97% | DYS463 | 22 | 12.51% |
| DYS439 | 13 | 12.46% | DYS464 | 13,15,15,18 | 0.31% |
| DYS441 | 15 | 25.10% | YGATAC4 | 21 | 20.23% |
| DYS442 | 17 | 57.25% | GGAAT1B07 | 11 | 37.75% |
| DYS444 | 11 | 8.67% | YCAII | 19,20 | 2.76% |
| DYS445 | 11 | 18.83% | Y-GATA-A10 | 14 | 29.83% |
| DYS446 | 13 | 51.88% | GATA-H4.1 | 20 | 37.74% |
| DYS447 | 29 | 0.32% | | | |

Inferred Y chromosome signature for Lindsey Flakewood Hunter.

Lindsey's mother.

The woman explained that Nora indeed had Native American origins and that she had five children with Albert Hunter, including Lindsey. Albert eventually left the family and pneumonia killed three of Nora's children, which were survived by two brothers: Lindsey and Richard (just as told for generations in the family story). Nora did not have the means to take care of what was left of her family and local authorities concluded the children should be taken from her and placed elsewhere. The details about Nora trying to run away, going to jail and then dying of pneumonia were also confirmed during that visit. Grandpa Lindsey was eventually sent to an orphanage and his younger brother Richard, who was just two years old, was taken in by the county's deputy sheriff, whose wife had suffered a series of mis-

purposes was not yet available.

Another 23 years went by before Mike was introduced to the concept of genetic genealogy and learned more facts about his family history.

DNA and Genealogy

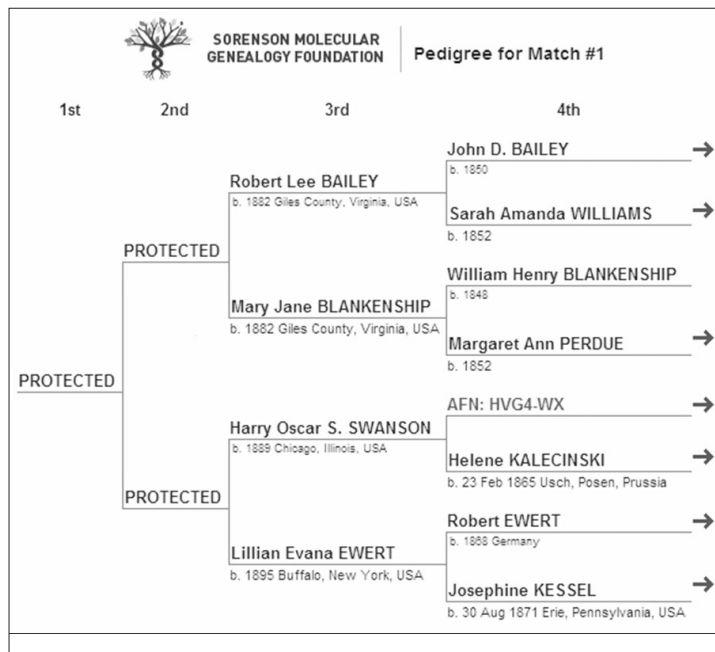
During the past decade, new advances in the field of science and technology have made DNA testing for ancestral research an affordable option to many genealogists. It is estimated that nearly one million people worldwide have used DNA testing to knock down family history brickwalls and learn more about their past. The genetic material found in our cells is literally a record of our personal history and, among other things, it contains bits of information that can tell us something about our ancestry. Two specific tests are particularly useful in assisting genealogists with family

history research: the Y chromosome (Ycs) analysis to trace paternal lines and the mitochondrial DNA (mtDNA) analysis to trace maternal lines.

In 2008, Mike was introduced for the first time to the concept of genetic genealogy through a project involving the Sorenson Molecular Genealogy Foundation of Salt Lake City, Utah, www.SMGF.org. Starting in 1999, this non-profit organization has been building the largest database of correlated genealogical and genetic data. At that time, Mike was advised to open a free account with GeneTree, www.GeneTree.com, a DNA-enabled family history-sharing website designed to help people understand where their personal histories belong within the greater human genetic story, and to have his DNA tested with them. In less than a month, GeneTree.com analyzed Mike's DNA and a genetic report that included his Ycs and mtDNA profiles was uploaded to his secure account on GeneTree.com.

Together with a number of cutting-edge applications for the interpretation of personal DNA data, GeneTree.com also provides a link to the large SMGF database, where it is possible to search for possible genetic "cousins". The current size of the SMGF database includes more than 30,000 Ycs and nearly 63,000 mtDNA profiles linked to more than 6.7 million ancestors. Mike's natural expectation was to utilize his Ycs profile, which was also Lindsey Hunter's inferred genetic signature, to identify individuals sharing his same paternal line and hopefully shed additional light about his grandfather's birth. Mike was disappointed that he did not find any exact or close matches when searching the SMGF database (14 distinct lineages in the SMGF database do carry the surname

"Hunter"). However, he did find a single perfect match (43 out of 43 markers) reporting a paternal line with the last name "Bailey" from ...Giles County, Virginia! This unexpected new genetic evidence clearly substantiated the story about Lindsey Hunter not being the biological son of the man that raised him, but of Mr. Bailey, as learned during the visit to Giles County more than 20 years ago.



Family tree for the Bailey line found in the SMGF database.

Although the particulars surrounding Lindsey's birth were known to Albert Hunter and his wife Nora, for whatever reason, this important piece of family history information was not passed to their posterity. However, the genetic legacy of Mike Hunter's ancestors, as found in his DNA, and the opportunity to compare it with thousands of other profiles in the large SMGF database, revealed the true history of his paternal lineage in a way that could not have been done otherwise.

The combination of oral histories and traditional genealogical records provided Mike with greater insights into the life of his grandfather Lindsey Flakewood Hunter, who was in an orphanage under mysterious circumstances when he was in his early teens. Nevertheless, it was only through the analysis of the Ycs that Mike

was able to shed additional light on the possible biological origin of his paternal ancestry. Here we see how traditional genealogical research, together with the recently developed field of genetic genealogy, can work synergistically toward a greater understanding of the complex lives of our ancestors. Thanks to the information available in the Sorenson Molecular Genealogy Foundation database about the Bailey lineage from Giles County, Virginia, Mike Hunter and his relatives now have a new lead to follow and a new branch to add to their family tree. Is this the end of the story? Could there be more that DNA may reveal? Mike is now working to obtain a DNA sample from Richard Hunter, presumably Lindsey's half brother. If the two men's only biological link was through their mother, the Ycs profile of Mike Hunter should be significantly different from that of his great uncle, Richard, thus confirming that they belong to separate paternal lineages.

Additionally, Richard would be the last living descendant carrying his mother's mtDNA signature and the ultimate proof about Nora Lloyd's supposed Native American heritage.

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