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22 October 2020

Updated 5 November 2021

TO Bonnie Wilcoxon Ward

PREPARED BY Shannon Green, CG

SUBJECT Alta Jane Durst

RESEARCH GOAL Using documentary and DNA evidence, identify the father of Alta Jane Durst who married Benjamin Franklin Wilcoxon on 18 November 1883 in Mason County, West Virginia.

The starting point for this research is the client's tree.¹

RESTRICTIONS OR LIMITATIONS Forty hours, no travel, COVID-19's preventing onsite research, DNA data limited to client's results

¹ BonnieWWard, "Bonnie's Tree 2020," *Ancestry* (<https://www.ancestry.com/family-tree/tree/72277932/family> : accessed 1 Oct. 2020).

KEY RESOURCES USED

- *Ancestry* (<https://www.ancestry.com/>)
- *DNA Painter* (<https://dnainter.com/>)
- *FamilySearch* (<https://www.familysearch.org/en/>)
- *Find a Grave* (<https://www.findagrave.com/>)
- *Newspapers.com* (<https://www.newspapers.com/>)
- *West Virginia Department of Arts, Culture and History* (<https://wvculture.org/>)

SPELLING NOTE

Surname spellings vary: *Durst*, *Darst*, *Dust*, *Dirst* and *Wilcoxson*, *Wilcoxen*, *Wilcoxson*. *Durst* and *Wilcoxson* are used here, except in citations, where names appear as they do in the sources.

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Documentary Evidence

Alta Jane Durst was born on 29 June 1857 in Mason County, Virginia (today in West Virginia), to Celesta E. and David Durst, a Mason County farmer who reported the birth.² On 15 November 1883 at her father's home Alta Jane married Frank Wilcoxon of Jackson County, West Virginia. Although Alta Jane married at twenty-six, Frank reported her age as twenty-five years old at the time of her marriage but based on her birth record, she was actually twenty-six. Alta Jane may have told him she was a year younger than she was because Frank was only twenty-three at the time or he simply got her age wrong.³

Alta Jane and Frank had nine children: Clyde, James, Sheridan, Hoyt, Harry, Cynthia, John, Anna, and Ross. Between 1900 and 1910 the family moved from Mason County to Cherokee County,

² Mason County, Va., Register of Births & Deaths 1853–1879, p. 39, no. 20, Alta Jane Darst, 29 June 1857; *FamilySearch*, digital film 004234095, image 232.

³ Mason Co., W.Va., Marriage Record 11:424, Wilcoxon-Durst, 18 November 1883; *FamilySearch*, digital film 004227559, image 469.

Iowa.⁴ Alta Jane died there on 27 February 1927. On that occasion, her husband named her father as David Durst and gave her mother's maiden name as Blackburn.⁵

Table 1 summarizes documentary evidence relating to Alta Jane's parents' identities.

Table 1: Documentary evidence for Alta Jane Durst's Parents				
Year of Report	Record	Father's Name	Mother's Name	Informant
1857	Birth record ^a	David Darst	Celesta E. [Darst]	David Durst
1870	Census, relationships implied ^b	David Dirst	Elizabeth Dirst	Unknown
1880	Census, relationship stated ^c	David Durst	[David identified as widowed]	Unknown
1883	Marriage record ^d	David Durst. Marriage took place in his home, but no relationship specified.		Frank Wilcoxon
1927	Death certificate ^e	David Durst	[no given name] Blackburn	Frank Wilcoxon
<p>a. Mason Co., Va, Register of Births & Deaths 1853–1879, p. 39, no. 20, Alta Jane Darst, 29 June 1857; <i>FamilySearch</i>, digital film 004234095, image 232.</p> <p>b. 1870 U.S. census, Mason Co., W.Va., population schedule, Cologne, fol. 159v, dwelling/family 85, David Darst household; microfilm publication M593, roll 1692, National Archives and Records Administration, Washington, D.C. (NARA).</p> <p>c. 1880 U.S. census, Mason Co., W.Va., pop. sch., Cologne, enumeration district 92, p. 21, dwell. 182, fam. 189, David Durst household; NARA microfilm T9, roll 1408.</p> <p>d. Mason Co, W.Va, Marriage Record 11:424, Wilcoxon-Durst, 18 Nov. 1883; image, <i>FamilySearch</i>, digital film 004227559, image 469.</p> <p>e. Iowa, death certificate 18-1357 (1927), Alta Jane Wilcoxon; "Iowa, Death Records, 1920–1967"; image, <i>Ancestry</i> (https://www.ancestry.com/search/collections/61442/ : accessed 1 Oct. 2020).</p>				

David Durst appears consistently as Alta Jane's father. Reports of her mother's name vary but do not conflict. David Durst and "Miss Elizabeth Calista Blackburn" obtained a Mason County marriage license on 13 December 1855.⁶ They married three days later.⁷ The bride's name agrees

⁴ 1900 U.S. census, Mason Co., W.Va., population schedule, Cologne, enumeration district (ED) 52, sheet 15B, dwelling 289, family 292, Benjamin F. Wilcoxon household; microfilm publication T623, roll 1765, National Archives and Records Administration, Washington, D.C. (NARA). Also, 1910 U.S. census, Cherokee Co., Iowa, pop. sch., Cedar, ED 15, sheet 1B, dwell./fam. 13, B. F. Wilcoxon household; NARA microfilm T624, roll 396.

⁵ Iowa, death certificate 18-1357 (1927), Alta Jane Wilcoxon; image, *Ancestry* (<https://www.ancestry.com/search/collections/61442/> : accessed 1 Oct. 2020).

⁶ Mason Co., Va., Index to Marriage Record, vol. 2 (1851–1861): 7, Durst-Blackburn license, 13 Dec. 1855; *FamilySearch*, digital film 004227557, image 53.

⁷ "West Virginia Marriages, 1854–1932," database, *FamilySearch* (<https://www.familysearch.org/search/collection/1708701> : accessed 20 Oct. 2020), David Durst and Elizabeth Blackburn, 16 Dec. 1855. This is a derivative record, but the image of the original is illegible: Mason Co., Va., marriage returns, p. 6, Durst-Blackburn (1855); *FamilySearch*, digital film 007499356, image 146.

with Alta Jane's birth record, where "Celesta" likely means "Calista," the 1870 census, and Alta Jane's death certificate, where her mother's maiden name is Blackburn. West Virginia did not document Elizabeth's death, but her gravestone refers to her as "Elizabeth C. wife of David Durst."⁸ She appears on the 1880 mortality schedule as "Elizabeth C. Darst" from widower David Durst's household 189, which includes his daughter Alta J. Durst, twenty-two.⁹

Documentary evidence identifies Alta Jane's parents as David Durst and Elizabeth Calista Blackburn. Does DNA evidence support concluding that David was Alta Jane's father?

DNA Study

METHODOLOGY

Alta Jane was the great-grandmother of Bonnie Ward Wilcoxon (test-taker A1).¹⁰ All information in this study is based on data available through Bonnie's autosomal DNA (atDNA) test results at *AncestryDNA*.¹¹ No contact occurred with other test takers regarding their DNA.

This study uses centimorgans—a measurement of shared atDNA—to support relationships as genetic. Everyone inherits 50 percent of their atDNA from each parent. It represents about 25 percent from each grandparent, roughly 12.5 percent from each great-grandparent, and so forth. Based on those approximations, different genetic relationships will share predictable ranges of centimorgans. If two people's amount of shared atDNA falls within the range of shared centimorgans for their documented relationship, then the atDNA is consistent with the relationship. Shared atDNA falling outside the range creates a conflict needing resolution.

This study uses genetic clusters, people who share atDNA with most or all the others in the cluster. Clustered test takers likely descend from the same ancestral couple. Combining genetic clusters with documentary evidence can lead to powerful conclusions: "if several members of a genetic network

⁸ *FindAGrave* (<https://www.findagrave.com/> : accessed 1 Oct. 2020), memorial 40777596, Elizabeth Celeste Blackburn Durst, Mount Hebron Cemetery (Mount Alto, Jackson Co., W.Va.); photograph by Donna White. For lack of civil death record, "Search Death Records..." *West Virginia Department of Arts, Culture and History* (http://www.wvculture.org/vrr/va_dcsearch.aspx : accessed 9 Feb. 2021), searches for surnames similar to Durst/Derst/Dust and "Elizabeth" in Mason Co. or Jackson Co., both with deaths in 1879 or 1880.

⁹ 1880 U.S. census, Mason Co., W.Va., mortality schedule, Cologne, family 189, Elizabeth C. Darst; image, *FamilySearch* (<https://www.fam.search.org/ark:/61903/3:1:3QHV-13RG-NCJK>). Also, 1880 U.S. census, Mason Co., W.Va., population schedule, Cologne, p. 231A, Enumeration District 92, pop. dwell. 182, family 189, David Durst household; microfilm publication T9, roll 1408, National Archives and Records Administration (NARA).

¹⁰ See appendix A for documentary evidence.

¹¹ All reported shared amounts of atDNA in this report are from *AncestryDNA* and are filtered using their Timber algorithm. To learn more, see JGRANKA, "Filtering DNA matches at AncestryDNA with Timber," blog post, 8 June 2015, *Ancestry* (<https://www.ancestry.com/corporate/blog/filtering-dna-matches-at-ancestrydna-with-timber/> : accessed 29 Oct. 2021).

group all descend from a known ancestor or ancestral couple, then it can be assumed that the other members of that group are also likely related through the same ancestral line.”¹²

All test takers in this study are documented descendants of David Durst. They are in two groups: Alta Jane Durst's descendants (group A) and Alta Jane's documented siblings' descendants (group B).

GROUP-A TEST TAKERS

The amount of shared atDNA among Group A test takers is consistent with their documented relationships.¹³

Eighteen of Alta Jane's documented descendants took atDNA tests. Four considerations reduce the group to seven test takers:

- Test takers who received atDNA from others in the study are eliminated. For example, children of tester-taker A2, their mother, were tested. If their father is unrelated to Alta Jane, they received from their mother any atDNA they share with Alta Jane's relatives.
- Because atDNA segments vary from sibling to sibling, testing different lines of descent provides more evidence.¹⁴ Testing separate lines also diminishes the possibility that the shared atDNA came from another shared ancestral line.
- People who share larger amounts of atDNA are typically more closely related to the most recent ancestral couple. Therefore, they are a better choice to include in the study. Where multiple descendants on a line of descent had atDNA test results, those with smaller amounts of shared atDNA are excluded. Their relationships, however, do not contradict those of the test takers with more shared atDNA.
- Where a line of descent includes multiple test takers, those generationally more distant from Alta Jane are excluded. Because the atDNA in each successive generation is roughly halved, those generationally closer to Alta Jane theoretically have more of her atDNA.

Figure 1 shows the relationships to test-taker A1 of the six other group-A test takers, the amounts of atDNA that each shares with her, and their respective lines of descent. The atDNA shared among Group A test takers confirms their genetic relationship to Alta Jane. However, the amount of shared atDNA among this group does not offer evidence to support their connection to David Durst, which is the focus of this study.

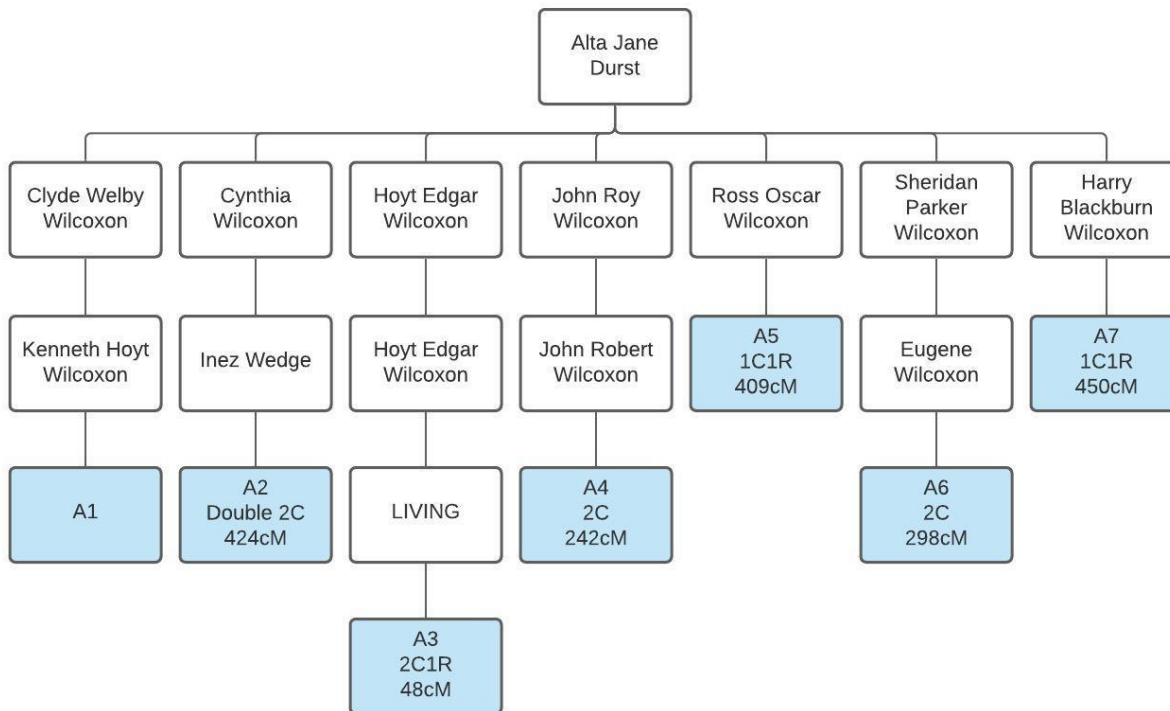
¹² Paul Woodbury, “Connecting the Dots—Introduction to Auto Clusters at MyHeritageDNA,” webinar and syllabus, *Legacy Family Tree Webinars* (<https://familytreewebinars.com/> : posted 14 July 2020).

¹³ For amount of shared cM, “DNA Matches,” for test taker A1, *AncestryDNA* (<https://www.ancestry.com/dna> : accessed 12 Oct 2020). For range of shared cM, Blaine Bettinger, “The Shared cM Project 4.0 tool v4 beta,” *DNA Painter* (www.dnainter.com : accessed 7 Oct 2020).

¹⁴ This refers to a concept called coverage. To learn about it, see Paul Woodbury, “Covering Your Bases: Introduction to Autosomal DNA Coverage,” *Legacy Tree Genealogists* (<https://www.legacytree.com/blog/introduction-autosomal-dna-coverage> : accessed 22 Mar. 2021).

Figure 1: Relationship Chart for Group A

For documentation, see Appendix A.

**GROUP-B TEST TAKERS**

Three group-B test takers descend from Alta Jane's father, David Durst, through two of his documented children with Elizabeth Blackburn.¹⁵ After Elizabeth's death, David married Kate Pruden. They had three children, Alta Jane's half siblings.¹⁶ Two group-B test takers descend from two of those half siblings. The four considerations for selecting group-A test takers guided selection of the five group-B test takers.

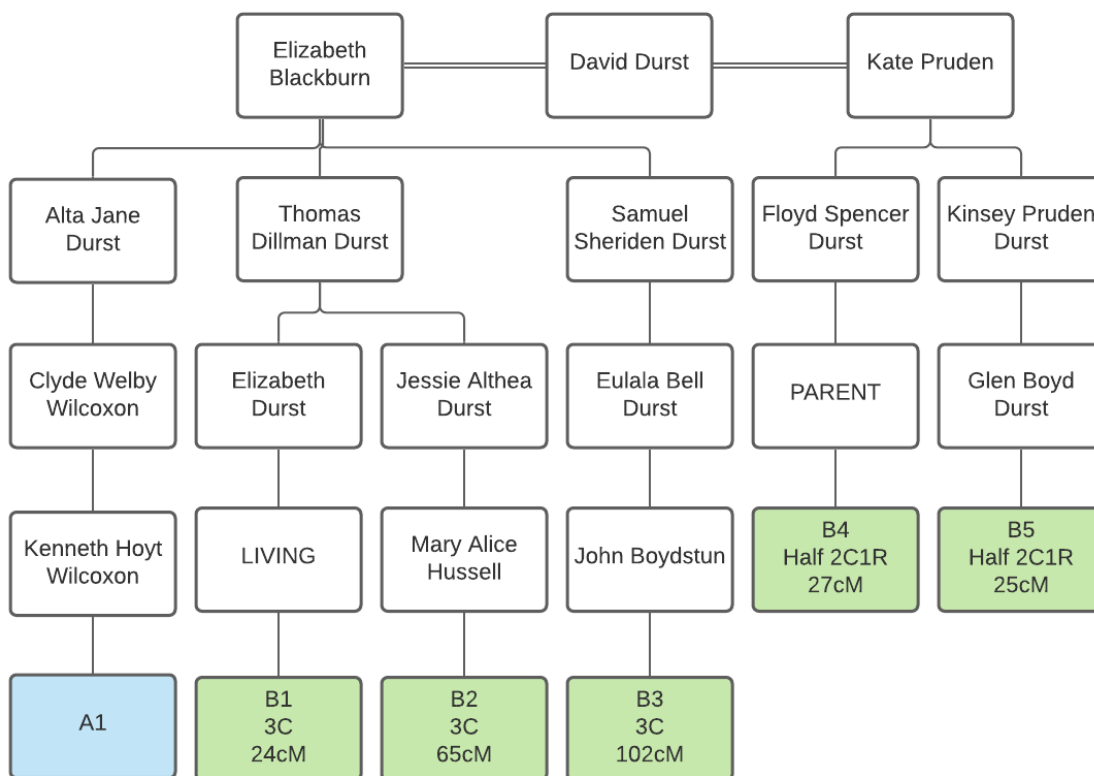
Figure 2 shows the documented relationships of five group-B test takers, their relationships to test-taker A1, and the total centimorgans each shares with test-taker A1.

¹⁵ 1880 U.S. census, Mason Co., W.Va., pop. sch., Cologne, p. 231A, Enumeration District 92, pop. dwell. 182, fam. 189, David Durst household; NARA microfilm publication T9, roll 1408.

¹⁶ Jackson Co., W.Va., Marriage Record 2-B:210, Durst-"Prudence," 28 Aug. 1887; image, *FamilySearch*, digital film 004226775, image 388. For children, 1900 U.S. census, Mason Co., W.Va., pop. sch., Cologne, ED 52, sheet 15A, dwell. 276, fam. 279, David Durst household.

Figure 2: Relationship Chart for Test-taker A1 to Group-B Test Takers

For documentation, see appendix B. Test-taker B4 is an only child, whose parent has been anonymized.



DNA ANALYSIS

Three characteristics of the sample minimize the risk of misattributing atDNA matches to the wrong ancestor:

- Twelve test takers in twelve lines of descent who share atDNA likely descend from one ancestral couple.
- All twelve test takers have documented descents from David Durst.¹⁷
- Evaluation of test-takers A1's and B3's pedigrees show no common ancestor through David Durst's generation. Test-taker B3's pedigree shows only one great-grandparent, a son of David Durst, born in West Virginia, the expected location of the shared DNA. See appendixes C and D.

¹⁷ See appendix A.

DNA analysis techniques like segment analysis and triangulation are not possible for this study. *Ancestry* does not provide the data required to conduct those analyses.

Table 2 shows centimorgans that test-taker A1 shares with each group-B test taker. It also shows the average amount of shared centimorgans and the range of shared centimorgans for each relationship.

Test Taker	Documented Relationship to A1^a	Shared cM with A1^b	Average shared cM for Relationship^c	Range of shared cM for Relationship^d
B1	3C	24	73	0–234
B2	3C	65	73	0–234
B3	3C	102	73	0–234
B4	Half 2C1R	27	66	0–190
B5	Half 2C1R	25	66	0–190

a. For documented relationships, see figure 2 and appendix B.
b. For amount of shared centimorgans, “DNA Matches,” for test taker A1, *Ancestry* (<https://www.ancestry.com/dna> : accessed 12 Oct. 2020).
c. For average shared centimorgans, Blaine Bettinger, “The Shared cM Project 4.0 tool v4 beta,” at Jonny Pearl, *DNA Painter* (www.dnainter.com : accessed 7 Oct. 2020).
d. For range of shared centimorgans, *ibid.*

Table 2 shows that each documented relationship falls within the shared-cM range for that relationship. Some results are lower than average, but none would be considered outliers.¹⁸

Group-B test takers, besides sharing atDNA with test-taker A1, share atDNA with the other group A test takers. Table 3 shows the results of 35 pairwise comparisons of each group-A test taker with each group-B test takers. Twenty-seven pairs share at least 20 cM of atDNA with each other, showing that the test takers form a genetic cluster.

This genetic cluster was manually created by examining shared matches. For example, the shared match list for A1 with B1 includes test-takers A2, A4, A5, A7. *Ancestry* does not specify those shared amounts except that they are above a 20-cM threshold. Not listed are A3 and A6. If they share any atDNA, it is below the 20 cM threshold.¹⁹

¹⁸ For more information on interpreting these results, see Debbie Parker Wayne, “DNA Painter’s Shared cM Tool — Ranges, Probabilities, and Histograms,” blog posting, 11 Sep. 2021, *Deb’s Delvings in Genealogy* (<http://debsdelvings.blogspot.com/2021/09/dna-painters-shared-cm-tool-ranges.html> : accessed 29 Oct. 2021).

¹⁹ Leah Larkin, “Quick Tip: Shared Matches at AncestryDNA,” blog posting, 30 Jan. 2019, *The DNA Geek* (<https://thednageek.com/quick-tip-shared-matches-at-ancestrydna/> : accessed 23 Oct. 2020).

Group-A Test Takers	Group-B Test Takers and the Respective Child of David Durst who is the Test-taker's Ancestor				
	B1 Thomas Durst	B2 Thomas Durst	B3 Samuel Durst	B4 Floyd Durst	B5 Kinsey Durst
A1	Yes 3C	Yes 3C	Yes 3C	Yes Half 2C1R	Yes Half 2C1R
A2	Yes 3C	Yes 3C	Yes 3C	Yes Half 2C1R	Yes Half 2C1R
A3	No 3C1R	Yes 3C1R	Yes 3C1R	No Half 2C2R	No Half 2C2R
A4	Yes 3C	Yes 3C	Yes 3C	No Half 2C1R	No Half 2C1R
A5	Yes 2C1R	Yes 2C1R	Yes 2C1R	Yes Half 2C	Yes Half 2C
A6	No 3C	No 3C	Yes 3C	No Half 2C1R	Yes Half 2C1R
A7	Yes 2C1R	Yes 2C1R	Yes 2C1R	Yes Half 2C	Yes Half 2C

a. "DNA Matches" for test taker A1, *Ancestry* (<https://www.ancestry.com/dna> : accessed 1 Oct. 2020), utilizing shared match lists. "Yes" designates pairs sharing 20 or more cM of atDNA, and "No" designates pairs sharing less than 20 cM, including 0 cM.

All group-A test takers share atDNA with some, but not all, group-B test takers. The amounts of shared atDNA are consistent with the documented relationships, including relationships where amounts of shared atDNA can extend down to 0 cM.²⁰ Group-A and group-B test takers have a common ancestor.

Conclusion

Reliable documentary sources say Alta Jane's father was David Durst. Seven atDNA test-takers, including the client, represent seven lines of descent from Alta Jane. Their amounts of atDNA shared with the client are consistent with their documented relationships. Five other test takers, representing four of David Durst's other children, share amounts of atDNA with the client consistent with their documented relationships. The twelve test takers form a genetic cluster, indicating a common ancestor. The shared atDNA can be attributed only to David.

This project's goal is met. The integration of documentary and genetic evidence shows that David Durst was Alta Jane Durst's biological father. No evidence conflicts with that conclusion.

²⁰ Blaine Bettinger, "The Shared cM Project 4.0 tool v4 beta," at Jonny Perl, *DNA Painter* (www.dnainter.com : accessed 7 Oct. 2020).

Appendix A: Documentation for Figure 1

BONNIE WARD WILCOXON (A1)

- Bonnie Wilcoxon Ward to Kenneth Hoyt Wilcoxon: Bonnie identified her father as Kenneth Hoyt Wilcoxon.
- Kenneth Hoyt Wilcoxon to Clyde Welby Wilcoxon: Maryland, death certificate (1995), Kenneth H. Wilcoxon; Division of Vital Records, Baltimore.
- Clyde Welby Wilcoxon to Alta Jane Durst: Mason Co., W.Va., Register of Births: 1880–1903; Second District,” p. 582, no. 8, Clyde W. Wilcoxon, 22 Aug. 1884; *FamilySearch*, digital film 004234096, image 468. Also, Iowa, death certificate 18-134 (1951), “Clyde ~~Welby~~ Welby Wilcoxon”; Division of Vital Statistics, Des Moines. The record identifies Alta Jane’s maiden name as “Surst.” For Alta Jane’s maiden name, see Mason Co., Marriage Record 11:424, Wilcoxon-Durst, 18 Nov. 1883.

A2

- A2 to Inez Wedge: [Redacted for publication for educational purposes]
- Inez Wedge to Cynthia Wilcoxon: Iowa, Return of Marriage to District Court 1937, 3:28, Witte-Wedge, 17 Aug. 1937; image, *Ancestry* (<https://www.ancestry.com/search/collections/8823/> : accessed 9 Oct. 2020).
- Cynthia Wilcoxon to Alta Jane Durst: Mason Co., Register of Births: 1880–1903; Second District, p. 814, no. 168, Syntha [Cynthia] E. Wilcoxon 14 June 1893; *FamilySearch*, digital film 004234096, image 547.

A3

- A3 to LIVING to Hoyt Edgar Wilcoxon: [Redacted for publication for educational purposes]
- Hoyt Edgar Wilcoxon Jr. to Hoyt Edgard Wilcoxon Sr: 1940 U.S. census, Denver Co., Colo., pop. sch., Denver, ED 16-182, sheet 61A, Hoyt E Wilcoxon household; NARA microfilm T627, roll 489.
- Hoyt Edgar Wilcoxon to Alta Jane Durst: West Virginia, delayed birth certificate 31355 (1890), Hoyt Edgar Wilcoxon; digital image, *West Virginia Department of Arts, Culture and History*.

A4

- A4 to John Robert Wilcoxon: A4 self-identifies as the child of John Robert Wilcoxon, [Redacted for publication for educational purposes]
- John Robert Wilcoxon to John Roy Wilcoxon: Minnesota, death certificate 2288007943 (1988), John Robert Wilcoxon Sr; image, Steve Karlson, “Master Family Tree,” *Ancestry* (<https://www.ancestry.com/family-tree/tree/22773269> : accessed 9 Oct. 2020), for John Robert (Bob) Wilcoxon.
- John Roy Wilcoxon to Alta Jane Durst: Minnesota, death certificate 012050 (1967), John Roy Wilcoxon; image, Steve Karlson, “Master Family Tree,” *Ancestry*, for John Roy Wilcoxon.

A5

- A5 to Ross Oscar Wilcoxon: A5 self-identifies as the child of Ross Oscar Wilcoxon, [Redacted for publication for educational purposes]
- Ross Oscar Wilcoxon to Alta Jane Durst: Minnesota, death certificate 9476 (1946), Ross Wilcoxon; image, Steve Karlson, "Master Family Tree," *Ancestry*, for Ross Oscar Wilcoxon.

A6

- A6 to Eugene Wilcoxon: [Redacted for publication for educational purposes]
- Eugene Wilcoxon to Sheridan Parker Wilcoxon: Obituary of Sheridan Wilcoxon, *Independent-Record* (Helena, Mont.), 19 June 1949, p. 16, col. 5; image, *Newspapers.com* (<http://www.newspapers.com> : accessed 9 Oct. 2020).
- Sheridan Parker Wilcoxon to Alta Jane Durst: Montana, death certificate 937 (1949), Sheridan Wilcoxon; image, *Ancestry* (<https://www.ancestry.com/search/collections/5437/> : accessed 9 Oct. 2020).

A7

- A7 to Harry Blackburn Wilcoxon: A7 self-identifies as the child of Harry Blackburn Wilcoxon, [Redacted for publication for educational purposes]
- Harry Blackburn Wilcoxon to Alta Jane Durst: 1900 U.S. census, Mason Co., W.Va., pop. sch., Cologne, ED 52, sheet 15B, pop. sch., dwell. 289, fam. 292, Harry B Wilcoxon.

Appendix B: Documentation for Figure 2

B1

- B1 to LIVING: [Redacted for publication for educational purposes]
- LIVING to Elizabeth Durst: [Redacted for publication for educational purposes]
- Elizabeth Durst to Thomas Durst: Mason Co., Register of Births: 1880–1903; Second District, p. 734, no. 35, Elizabeth Durst, 10 Aug. 1890; *FamilySearch*, digital film 004234096, image 516.
- Thomas Durst to David Durst: Mason Co., Register of Births & Deaths 1853–1879, p. 69, no. 49, Thomas Dellman Durst, 9 Oct. 1859; *FamilySearch*, digital film 004234095, image 252.

B2

- B2 to Mary Alice Hussell: B2 self-identifies as the child of Mary Alice Hussell, [Redacted for publication for educational purposes]
- Mary Alice Hussell to Jessie Althea Durst: 1930 U.S. census, Jackson Co., W.Va., pop. sch., Union, ED 11, sheet 15B, dwell. 330, fam. 335, Otis Hussell household; NARA microfilm T626, roll 2535. Also, Meigs Co., Ohio, Marriages 16:24, Hussell-Durst, 4 Nov. 1924; image, *FamilySearch* (<https://www.familysearch.org/ark:/61903/3:1:9392-BLKC-P> : accessed 3 Oct. 2021).
- Jessie Althea Durst to Thomas Durst: Mason Co., Register of Births: 1880–1903; Second District, p. 1024, no. 8, Jessie H. Durst, 7 Dec. 1893; *FamilySearch*, digital film 004234096, image 615.
- Thomas Durst to David Durst: Mason Co., West Virginia, Register of Births & Deaths 1853–1879, p. 69, no. 49, Thomas Dellman Durst (1859); *FamilySearch*, digital film 004234095, image 252.

B3

- B3 to John Boydston: B3 self-identifies as the child of John Boydston, [Redacted for publication for educational purposes]
- John Boydston to Eulala Bell Durst: 1930 U.S. census, Pueblo Co., Colo., pop. sch., Pueblo, p. 185, ED 35, sheet 9A, dwell. 220, fam. 240, John L Boyston; NARA microfilm T626, roll 249.
- Eulala Bell Durst to Samuel Durst: 1910 U.S. census, Cimarron Co., Okla., pop. sch., Willowbar Twp., p. 351, ED 109, sheet 11A, dwell. 327, fam. 327, Samuel S Durst household; NARA microfilm T624, roll 1247. Also, Obituary of Emmett Leonard Boydston, *Daily Sentinel* (Grand Junction, Colo.), 10 Jan. 1993, p. 10, col. 1; image, *Newspapers.com*.
- Samuel Durst to David Durst: 1880 U.S. census, Mason Co., W.Va., pop. sch., Cologne, p. 231A, ED 92, dwell. 182, fam. 189, David Durst household.

B4

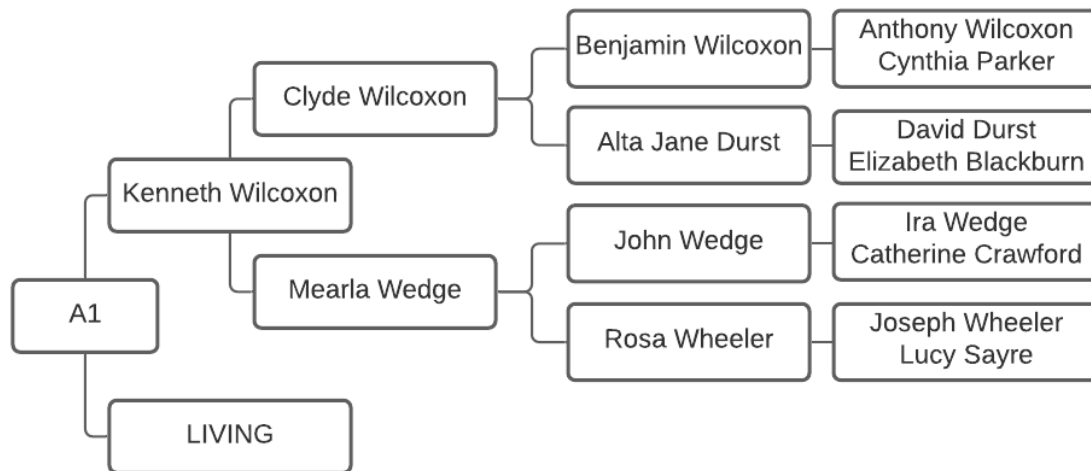
- B4 is an only child whose parent also is anonymized. B4 to PARENT: [Redacted for publication for educational purposes]
- PARENT to Floyd Spencer Durst: [Redacted for publication for educational purposes]

- Floyd Spencer Durst to David Durst: Mason Co., Register Births: 1880–1903; Second District,” p. 682, no. 40, Floyd Spencer Durst, 9 Sept. 1888; *FamilySearch*, digital film 004234096, image 499.

B5

- B5 to Glen Boyd Durst: B5 self-identifies as the child of Glen Boyd Durst, [Redacted for publication for educational purposes]
- Glen Boyd Durst to Kinsey Pruden Durst: 1920 U.S. census, Mason Co., W.Va., pop. sch., Cologne, ED 80, sheet 4B, dwell. [blank], fam. [blank], Kinsy Durst household; NARA microfilm T625, roll 1962.
- Kinsey Pruden Durst to David Durst: 1900 U.S. census, Mason Co., W.Va., pop. sch., Cologne, ED 52, sheet 15A, dwell. 276, fam. 279, David Durst household.

Appendix C: Pedigree evaluation for test taker A1



For A1 to Kenneth Wilcoxon and LIVING:

- Client self-identified her parents. Client's mother has tested at *AncestryDNA* and doesn't share atDNA with any group-A or group-B test taker. Therefore, the match is on A1's father's side.

For Kenneth Wilcoxon to Clyde Wilcoxon and Mearla Wedge:

- Maryland, death certificate (1995), Kenneth H. Wilcoxon; Division of Vital Records, Baltimore.
- Monona Co., Iowa, Birth Records 3:217, Kenneth Hoyt Wilcoxon, 21 Aug. 1912; image, *FamilySearch* digital film 004320007, image 181.

For Clyde Wilcoxon to Benjamin Wilcoxon and Alta Jane Durst:

- Mason Co., Register of Births: 1880–1903; Second District," p. 582, no. 8, Clyde W. Wilcoxen, 2 Aug. 1884.
- Clyde Welby Wilcoxen, SS no. 483-18-1304, 8 Nov. 1949, Application for Account Number (Form SS-5); Social Security Administration, Baltimore, Md.

For Mearla Wedge to John Wedge and Rosa Wheeler:

- Mearla Wedge Wilcoxen, SS no. 480-58-5832, 2 July 1963, Form SS-5.
- Jackson Co., unnumbered register of births, p. 243, Mearla Wedge, 1 Mar. 1888; *West Virginia Department of Arts, Culture and History*.

For Benjamin Wilcoxon to Anthony Wilcoxon and Cynthia Parker:

- Mason Co., Register of Births & Deaths 1853-1879, p. 77, no. 244, B. F. Wilcoxen, 14 Dec. 1859; *FamilySearch*, digital film 004234095, image 256.
- Mason County History Book Committee, *History of Mason County, West Virginia, 1987* (Salem, W.Va.: Walsworth, 1987), 376.

For Alta Jane Durst to David Durst and Elizabeth Blackburn (additional sources in text):

- Mason Co., Register of Births & Deaths 1853–1879, p. 39, no. 20, Alta Jane Darst, 29 June 1857; *FamilySearch*, digital film 004234095, image 232.
- Iowa, death certificate 18-1357 (1927), Alta Jane Wilcoxson.

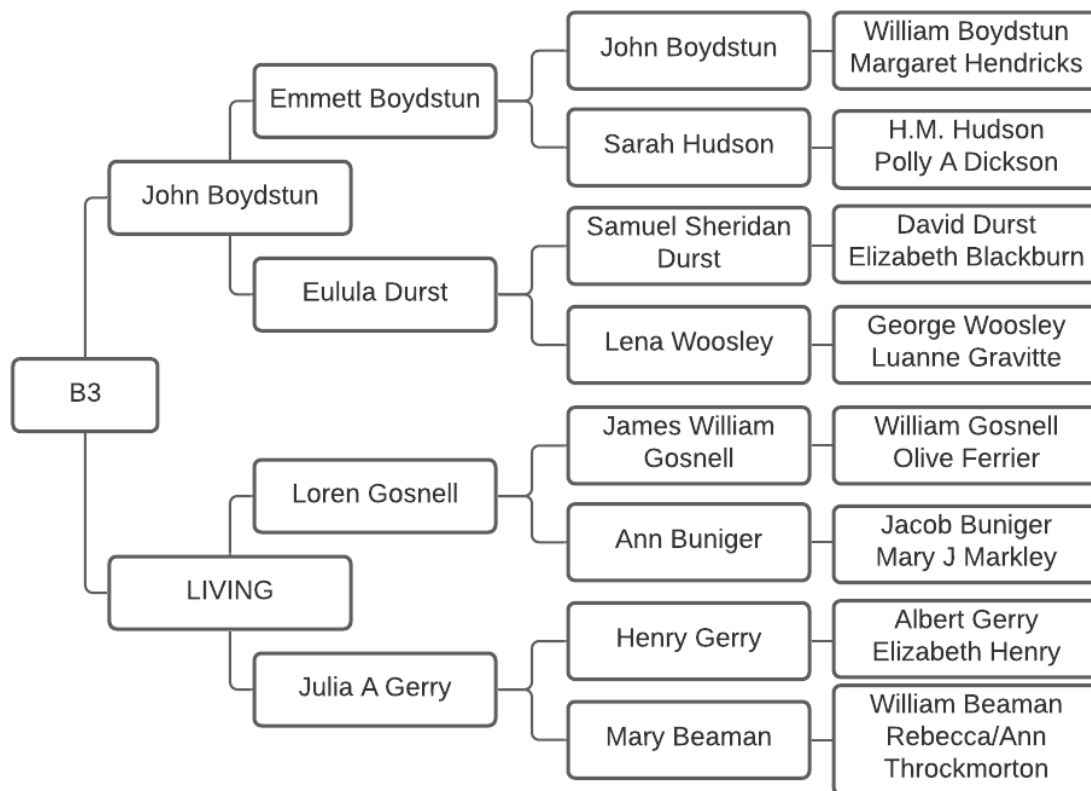
For John Wedge to Ira Wedge and Catherine Crawford:

- West Virginia, death certificate 15638 (1935), John Ira Wedge; *West Virginia Department of Arts, Culture and History*.
- 1870 U.S. census, Jackson Co., W.Va., pop. sch., Union, p. 385, dwell. 97, fam. 98, John L. Crawford and Ira Wedge household; NARA microfilm M593, roll 1689, implies John Wedge's father is Ira.

For Rosa Wheeler to Joseph Wheeler and Lucy Sayre:

- Jackson Co., unnumbered register of births, p. 303, Rosa G. Wheeler, 17 June 1867; digital image, *West Virginia Department of Arts, Culture and History*.
- Mason Co., deaths 1916–1937, p. 181, no. 2, Rose Wedge, 1 Feb. 1923; digital image, *West Virginia Department of Arts, Culture and History*.
- Jackson Co., marriage record 1-B:220, Wheeler-Sayre; County Court, Ripley, W.Va.; image, *FamilySearch* digital film 004226774, image 226.

Appendix D: Pedigree evaluation for test taker B3



For B3 to John Boydstun and LIVING:

- B3 self-identifies as the child of John Boydstun and LIVING, [Redacted for publication for educational purposes]
- Obituary of John Leonard Boydstun, *Daily Sentinel*, 22 Mar. 1998, p. 37, col. 3; image, *Newspapers.com*.

For John Boydstun to Emmet Boydstun and Eulula Durst:

- Obituary of Emmett Leonard Boydstun, *Daily Sentinel*, 10 Jan. 1993, p. 10, col. 1; image, *Newspapers.com*.
- 1930 U.S. census, Pueblo Co., Colo., pop. sch., Pueblo, p. 185, ED 35, sheet 9A, dwell. 220, fam. 240, John L Boyston; NARA microfilm T626, roll 249.

For Emmett Boydstun to John Boydstun and Sarah Hudson:

- Obituary of Emmett Leonard Boydstun, *Daily Sentinel*, 10 Jan. 1993, p. 10, col. 1.
- 1910 U.S. census, Lincoln Co., Okla., pop. sch., North Creek, ED 92, sheet 6A, dwell. 6, fam. 104, Emmet Boydstun; NARA microfilm T624, roll 1259.

For John Boydston to William Boydston and Margaret Hendricks:

- 1880 U.S. census, Johnson Co., Tex., pop. sch., Precinct 7, fol. 384r, ED 87, dwell. 42, fam. 46, W^m Boydstone household; NARA microfilm T9, roll 1313. Both adults were born in Kentucky, not a known birth location for any of A1's ancestors. William's wife, Jane, likely was Margaret J. Hendricks, whom he married in 1859: "Illinois, County Marriage Records, 1800–1940," database, *Ancestry* (<https://www.ancestry.com/search/collections/61370/> : accessed 13 May 2021), Boydstrum-Hendricks entry. Her obituary, not naming surviving children, implies she was William's only wife: obituary of Margaret J Hendricks, *Arcadia Times* (Arcadia, Kans.), 21 May 1908, p. 3, col. 4; image, *Newspapers.com*.

For Sarah Hudson, born in 1871–72 to H. M. Hudson and Polly A. Dickson:

- 1880 U.S. census, Tarrant Co., Tex., pop. sch., Precinct 7, p. 217A, ED 98, dwell. 108, fam. 112, H. M. Hudson household; NARA microfilm T9, roll 1328. H. M. Hudson and Polly Ann Dickson married in 1868: Lamar Co., Tex., marriage record 4:196, Hudson–Dickson, 1868 [day and month left blank]; image, *FamilySearch* digital film 005016993, image 352.
- 1920 U.S. census, Lincoln Co., Okla., pop. sch., North Creek, ED 114, sheet 4B, dwell. 16, fam. 74, Sarah Boydston; NARA microfilm T625, roll 1469. Her parents were born in Texas, not a known birth location of any of A1's ancestors.

For Eulula Durst to Samuel Sheridan Durst and Lena Woosley:

- Obituary of Mrs. Lena Durst, *Pantagraph* (Bloomington, Ill.), 14 Sept. 1958, p. 31, col. 7 ; image, *Newspapers.com*.
- 1910 U.S. census, Cimarron Co., Okla., pop. sch., Willowbar Twp., ED 109, sheet 11A, dwell. 327, fam. 327, Eulala Bell Durst.

For Samuel Durst to David Durst and Elizabeth Blackburn:

- **Samuel Durst is the only great-grandparent of B3 who was born in West Virginia, the target location of the shared DNA.**
- 1880 U.S. census, Mason Co., W.Va., pop. sch., Cologne, p. 231A, ED 92, dwell. 182, fam. 189, David Durst household.

For Lena Woosley to George Woosley and Luanne Gravitte:

- Obituary of Mrs. Lena Durst, *Pantagraph*, 14 Sept. 1958, p. 31, col. 7.

For LIVING to Loren Gosnell and Julia A Gerry:

- [Redacted for publication for educational purposes].
- Obituary of Loren J. Gosnell, *Daily Sentinel*, 13 June 1989, p. 8, col. 6; image, *Newspapers.com*.
- Obituary of Julia A. Gosnell, *Daily Sentinel*, 3 Nov. 1993, p. 10, col. 4; image, *Newspapers.com*.

For Loren Gosnell to James Gosnell and Ann Buniger:

- Obituary of Loren J. Gosnell, *Daily Sentinel*, 13 June 1989, p. 8, col. 6; image, *Newspapers.com*.
- "J. W. Gosnell, Hunter, Dies Early Sunday," *Daily Sentinel*, 4 May 1942, p. 8, col. 8; image, *Newspapers.com*.
- 1910 U.S. census, Mesa Co., Colo., pop. sch., Collbran, ED 90, sheet 6A, dwell. 89, fam. 92, J. William Gosnell household; NARA microfilm T624, roll 122.

For James William Gosnell to William Gosnell and Olive Ferrier:

- 1880 U.S. census, McLeod Co., Minn., pop. sch., Acoma, p. 4C, ED 76, dwell. 159, fam. 171, William Gosnell household; NARA microfilm T9, roll 625. James William Gosnell not yet born, but William and Olive Gosnell listed as head of household and wife.

- “Died While Speaking,” *Grand Junction News* (Colo.), 5 Jan. 1895, p. 4, col. 3; image, *Newspapers.com*. Shows W.S. Gosnell died after moving family from Minnesota to Colorado.
- 1900 U.S. census, Mesa Co., Colo., pop. sch., Fruita, p. 83A, ED 73, dwell./fam. 181, Olive Gosnell household; NARA microfilm T623, roll 126, shows [James] William as son of Olive Gosnell, widow.

For Ann Buniger to Jacob Buniger and Mary Jane “Jennie” Markley:

- Obituary of Mrs. Anna B. Schultz, *Daily Sentinel*, 10 May 1977, p. 12, col. 6 ; image, *Newspapers.com*.
- Obituary of Jacob Buniger, *Daily Sentinel*, 11 Apr. 1947, p. 2, col. 4 ; image, *Newspapers.com*.

For Julia Ann Gerry to Henry Gerry and Mary Jane Beaman:

- Obituary of Julia A Gosnell, *Daily Sentinel*, 3 Nov. 1993, p. 10, col. 4; image, *Newspapers.com*.
- 1910 U.S. census, Mesa Co., Colo., pop. sch., Loma, ED 85, sheet 21B, dwell. 83, fam. 87, Henry A. Gerry household; NARA microfilm T624, roll 122.

For Henry Gerry to Albert Gerry and Elizabeth Henry:

- Nevada, death certificate, no. 1046 (1928), H. A. Gerry; image, *Ancestry* (<https://www.ancestry.com/search/collections/60974/> : accessed 13 May 2021).
- 1880 U.S. census, Defiance Co., Ohio, pop. sch., Milford, p. 215A, ED 239, dwell. 288, fam. 295, Albert Gerry household; NARA microfilm T9, roll 1011. Son Henry was eighteen. For his mother, Defiance Co., Ohio, marriages 1:227, Gerry-Henry (1855); *FamilySearch*, digital film 1977639, image 323.

For Mary Beaman to William Beaman and Rebecca/Ann Throckmorton:

- Obituary of Mary (Beaman) Gerry, *Daily Sentinel*, 11 Apr. 1955, p. 4, col. 5; image, *Newspapers.com*, for her brother Sherman Beaman. His parents were William Beaman and Ann Throckmorton: Idaho, death certificate 2243 (1955), William Sherman Beaman; image, *Ancestry* (<https://www.ancestry.com/search/collections/60566/> : accessed 13 May 2021).
- 1870 U.S. census, Polk Co., Iowa, pop. sch., Des Moines, Ward 7, p. 37, dwell. 302, fam. 297, W^m Beaman household, for implied daughter Mary; NARA microfilm M593, roll 415. Polk County is consistent with Mary Jane's obituary, and the preceding household is the Throckmorton family.