



THE PARKER DNA PROJECT

*Climbing the Parker Family Tree
with Tools of Technology*

In Memory of
Larry Wayne Parker
(1959–2021)

*A great supporter of this project
and of the Parker family.*

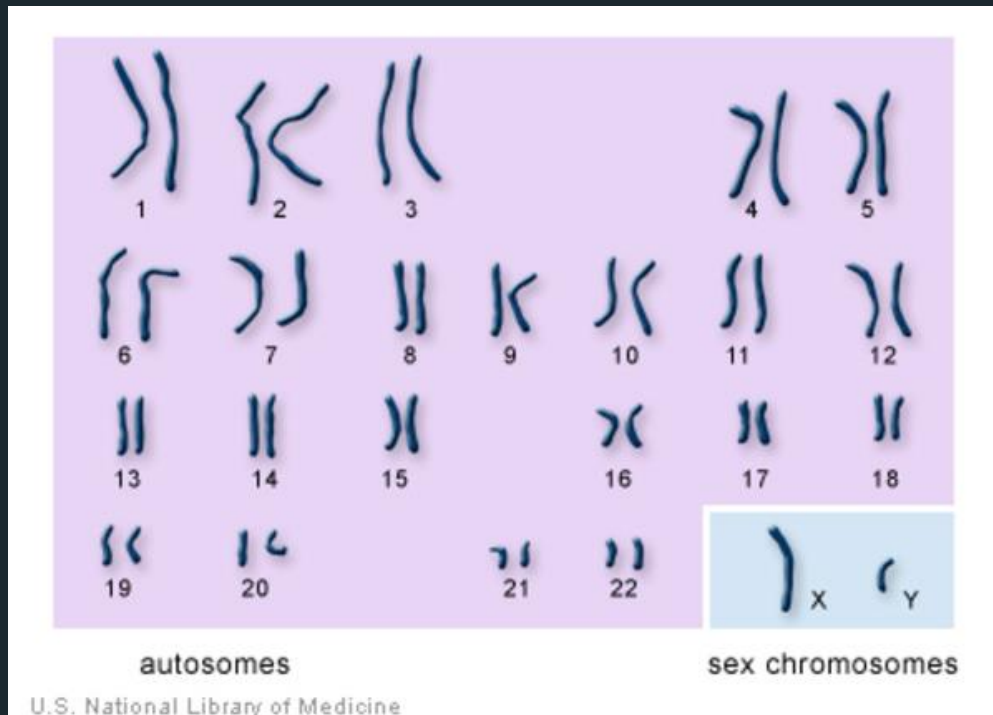


WHAT IS DNA?

- Complex molecule found in cells of all living things.
- Genetic code - blueprints for constructing proteins, building blocks of life.
- Each *trait* determined by *genes*, arranged on *chromosomes*, packages of DNA in long strands.



23 CHROMOSOMES



- Humans have 23 pairs of chromosomes – one of each pair from each parent.
- Parents received DNA from *their* parents – so our chromosomes contain DNA from long-ago ancestors.
- Pair of *sex chromosomes* – X-chromosome and Y-chromosome – determine biological sex – XX for females and XY for males.
- Other 22 chromosomes (non-sex chromosomes) are called *autosomes*.

THREE MAIN TYPES OF DNA GENEALOGY

Y-DNA – Study of paternal line (father-to-father) using Y-chromosome.

Autosomal – Study of all families in ancestry using autosomes (22 non-sex chromosomes).

mtDNA – Study of maternal line (mother-to-mother) using mitochondrial DNA. (Difficult.)

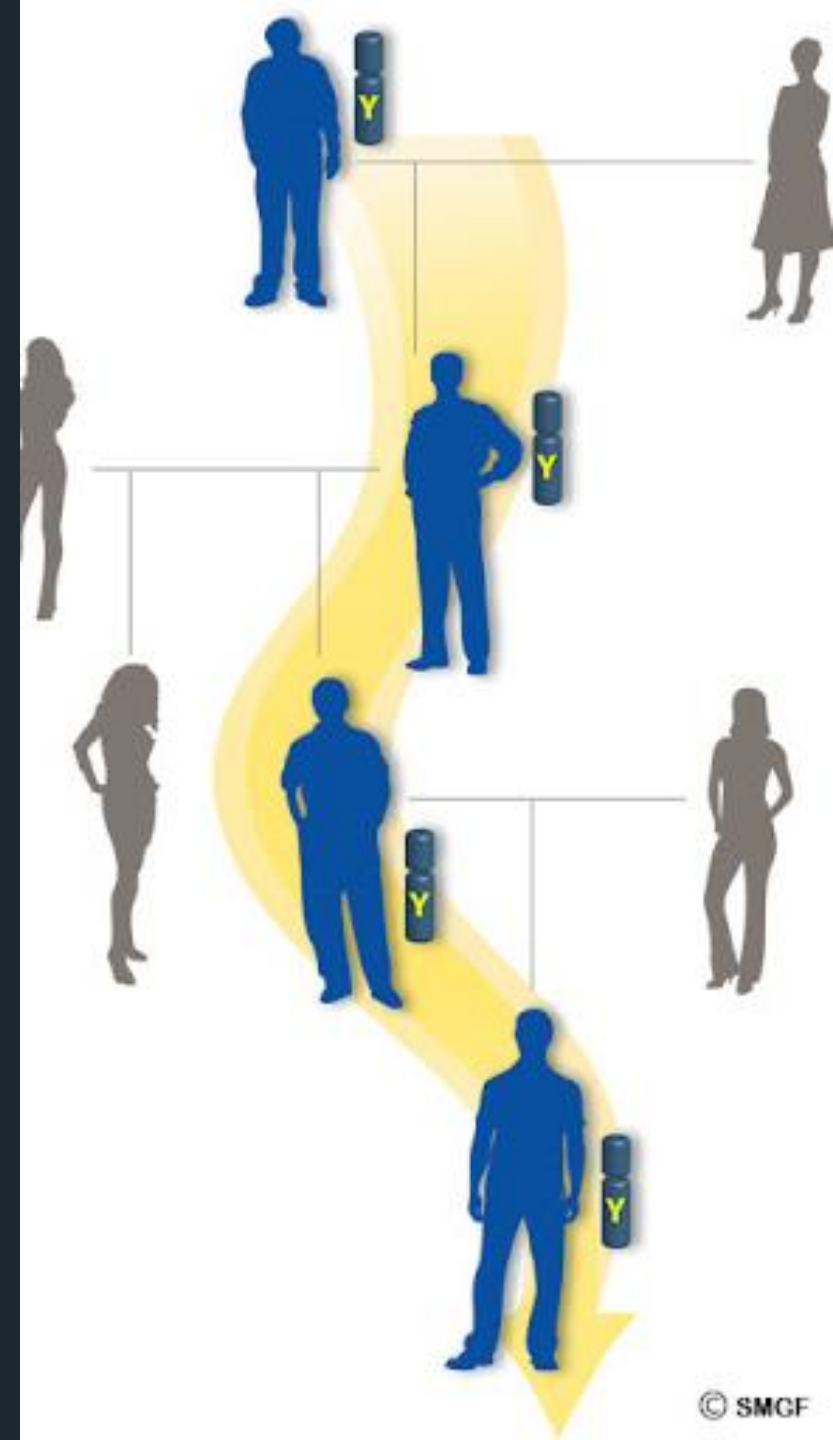
(This is what AncestryDNA, 23andme DNA Relatives, Family Tree DNA Family Finder, etc., do.)

INTERLUDE: WHAT WE KNEW ABOUT THE PARKER FAMILY

- Four known Parker siblings of Parker Cove:
 - William S. Parker (ca. 1799–1878) md. (1) Charity Skidmore (*née* Castleberry?), (2) Catherine Hardin.
 - Rhoda Parker (ca. 1804–aft. 1880) md. Elijah B. Castleberry.
 - John T. Parker (1808–1878) md. Mary C. Neeley.
 - Lewis Parker (1809–1879) md. Polly Ann Gentry.
- All born in Tennessee according to census, came to Lawrence County, Alabama, by 1850s. Parents are unknown.

Y-DNA GENEALOGY

- Y-chromosome is passed from father to son, whole and more-or-less intact.
- A man living today has the same Y-chromosome his father had, and his father had, and so on...
- He has the same Y-chromosome possessed by his male-line ancestor hundreds of years ago.
- Other men with the same paternal ancestry will have the same Y-chromosome.



SHORT TANDEM REPEAT (STR)

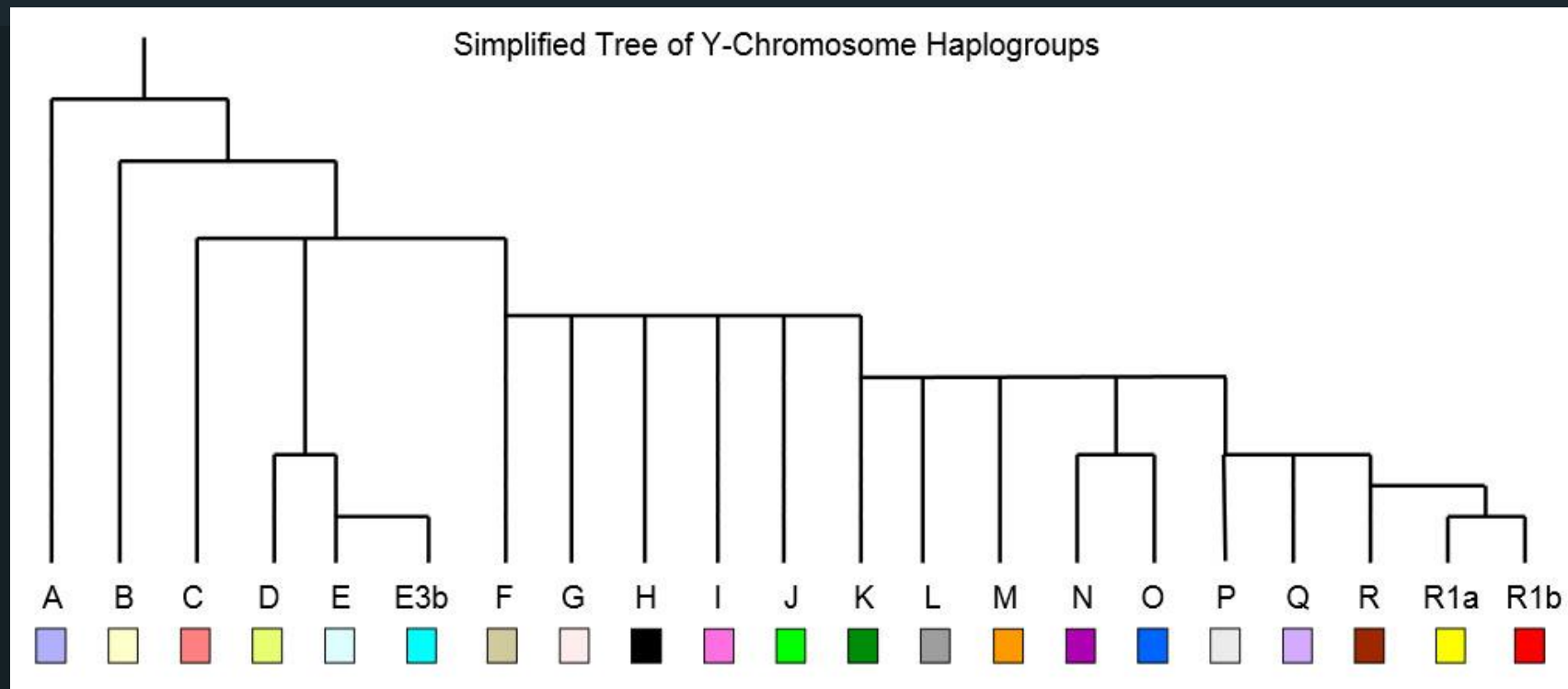
- Each column in chart - number of repeats at a marked location.
- Change in STRs is common - a finite chance of occurring at each generation.
- The change is passed down from father to son.
- Can be used to trace different branches of a family.
- Total number of differences in STRs between two men - Genetic Distance (GD).

| R-Z307 > DF98 Eng-PA-MD (Dutton/Warburton Group) | | | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 24 | 14 | 19 | 30 | 15-15-15-16 |
|--------------------------------------------------|----------------------------------------------------|------------|----|----|----|----|-------|----|----|----|----|----|----|----|------|----|----|----|----|----|----|-------------|
| MIN | | | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 24 | 14 | 19 | 30 | 15-15-15-16 |
| MAX | | | 13 | 24 | 14 | 12 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 31 | 15-16-16-17 |
| MODE | | | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 30 | 15-15-16-16 |
| 331088 | Richard Dutton, b. 1785 andd. 1857 | R-DF98 | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 30 | 15-15-15-16 |
| N49453 | William Dutton b. 1851 London | R-DF98 | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 30 | 15-15-16-17 |
| 316047 | John Dutton of Overton (PA) | R-DF98 | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 30 | 15-16-16-16 |
| 414284 | George Dutton, b.1745 Cheshire, d.1831 Flintshire | R-FGC13446 | 13 | 24 | 14 | 11 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 31 | 15-15-16-16 |
| 75848 | Thomas Dutton, b.1660, Cheshire UK; d.1717, MD USA | R-FGC13446 | 13 | 24 | 14 | 12 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 24 | 14 | 19 | 30 | 15-15-16-16 |
| 318507 | Thomas Dutton, b.1660 Cheshire UK; d.1717 Maryland | R-DF98 | 13 | 24 | 14 | 12 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 24 | 14 | 19 | 30 | 15-15-16-16 |
| 159028 | Thomas Dutton b.1660, Cheshire UK; d.1717, MD USA | R-DF98 | 13 | 24 | 14 | 12 | 11-14 | 12 | 12 | 12 | 13 | 13 | 29 | 17 | 9-10 | 11 | 11 | 25 | 14 | 19 | 30 | 15-15-16-16 |

Note last three rows of this table are men who descend from a common ancestor born ca. 1660; they show the same STR variations with each other in comparison to the other men in the group (all men in the group presumably have a common ancestor who lived ca. 1066). (This is Dutton family, for example.)

SINGLE NUCLEOTIDE POLYMORPHISM (SNP)

- SNPs (pronounced *snips*) are by comparison much rarer, occurring only over period of hundreds or thousands or years.
- Handed down to all descendants of man who had variation – men who have a particular SNP grouped into *haplogroups*.
- Used to trace whole population groups across global migrations.
- “Trunk” haplogroups (below) associated with different population groups, parts of the world.



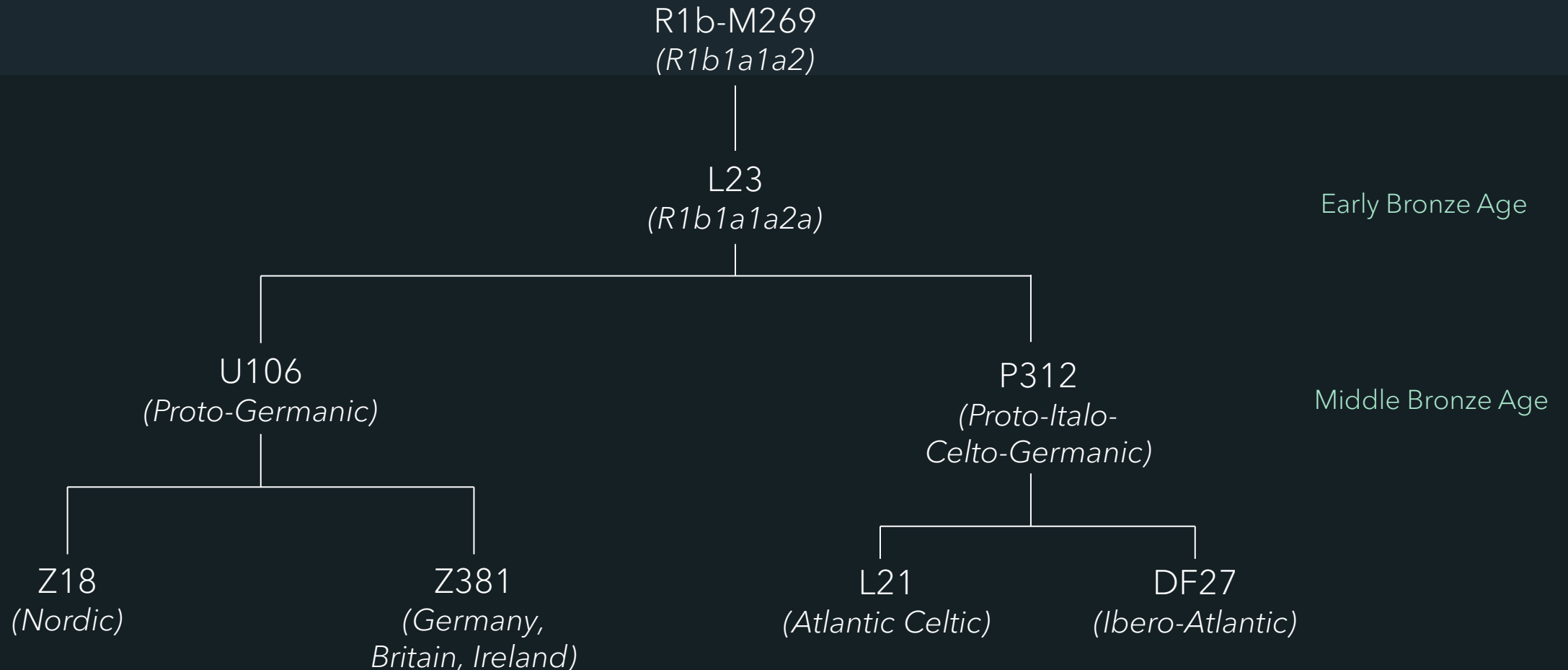
Y-DNA HAPLOGROUPS IN EUROPE

*The vast majority of men of
Western European descent are
in "trunk" haplogroup R1b.*



Y-DNA SUBCLADES

- Each "trunk" haplogroup is divided into many subclades by additional SNPs ...



WITHOUT FURTHER ADO ...
THE PARKER FAMILY



PARKER Y-DNA PROJECT

- In February 2021, members of the Parker Family Lawrence County, Alabama group on Facebook got the idea to organize to do Y-DNA research on different Lawrence County Parker paternal lines.
- There were several objectives:
 1. *Prove or disprove common hypotheses about Parker ancestry circulated online (e.g. John Parker and Elizabeth Carroll as parents of Parker Cove Parkers)*
 2. *Establish with DNA that the Parker Cove brothers were actually brothers.*
 3. *Connect definitively to a Parker family ancestral line and hopefully determine true parentage of Parker Cove Parkers.*
- We ordered three Y-DNA tests for descendants of William D., John T., and Lewis Parker ...

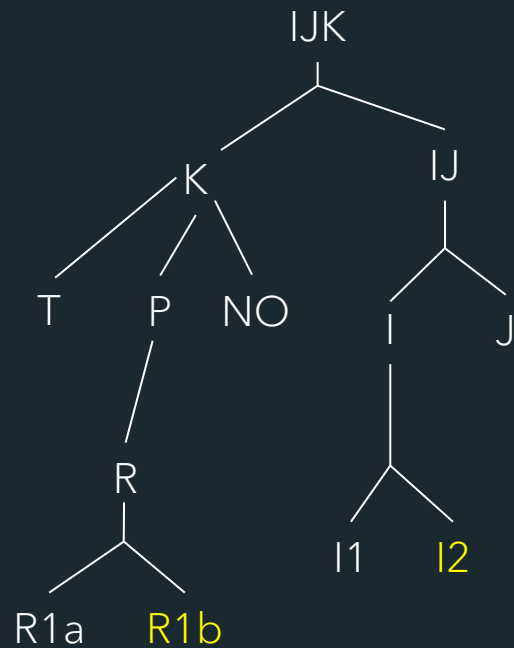
OUR TESTERS

Tester #1 - John T. Parker > Lewis C. Parker
> William Henry Parker > Lewis Thomas
Parker > Willard Burt Parker > *Tester #1*

Tester #2 - Lewis Parker > William Campbell
Parker > William Arch Parker > William H.
Parker > Melvin D. Parker > *Tester #2*

Tester #3 - William S. Parker > Jefferson
Cleveland Parker > William Hamby Parker >
Albert Green Parker > Rayburn Everett
Parker > Albert Ray Parker > *Tester #3*

OBJECTIVE #1:
DISPROVING
COMMON
HYPOTHESES



We are definitely not the descendants of John Parker (b. ca. 1772 in North Carolina, d. 1851 in Kentucky) who married Elizabeth Carroll - as Ancestry in particular "recommends".

Male-line descendants of this John Parker previously tested - **Their line is in "trunk" haplogroup I2**, specifically subclade I2a2 > I-M223 > I-Z161 > I-L801, found predominantly in Germanic countries.

When our Parkers' Y-DNA tests came back - **They are definitively in "trunk" haplogroup R1b**, specifically subclade R-U106 > R-Z381 > R-Z301, also predominantly found in Germanic countries.

These two paternal lines have not shared a common male ancestor in *thousands of years*.

OBJECTIVE #2: ESTABLISHING COMMON ANCESTRY

- Two of our Y-DNA tests came back as matches to each other, and also matched with a third man who had previously tested: The descendants of John T. Parker and Lewis Parker definitively have the same Y-DNA and those ancestors most likely had the same father.
- Tester #3, the descendant of William S. Parker – is not a match for the other two brothers.
- There are two possible explanations ...
 1. A non-paternity event (e.g. adoption or non-marital paternity) somewhere along the line.
 2. They were never brothers to begin with???

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------------------------|--------|----|----|----|----|-------|----|----|----|----|----|----|----|------|----|----|----|----|----|----|-------------|-----|----|-------|-------|----|----|----|-------|-------|----|----|
| Lewis Parker b. 1809 TN, d. 1879 Lawrence Co. Ala. | R-M269 | 13 | 23 | 14 | 10 | 11-14 | 12 | 12 | 12 | 12 | 13 | 28 | 17 | 9-10 | 11 | 11 | 26 | 15 | 19 | 29 | 15-15-16 | -17 | 11 | 11 | 19-22 | 16 | 14 | 17 | 17 | 36-38 | 12 | 12 |
| John T. Parker b. 1807 TN d. 1878 AL | R-M269 | 13 | 23 | 14 | 10 | 11-14 | 12 | 12 | 12 | 12 | 13 | 28 | 17 | 9-10 | 11 | 11 | 26 | 15 | 19 | 29 | 15-15-17-17 | 11 | 11 | 19-22 | 16 | 14 | 18 | 17 | 36-38 | 12 | 12 | |
| John T. Parker b. 1807 TN, d. 1878 Lawrence AL | R-M269 | 13 | 23 | 14 | 10 | 11-14 | 12 | 12 | 12 | 12 | 13 | 28 | 17 | 9-10 | 11 | 11 | 26 | 15 | 19 | 29 | 15-15-17-17 | 11 | 11 | 19-22 | 16 | 14 | 19 | 17 | 36-38 | 12 | 12 | |
| William Parker b. 1799 TN, d. 1878 Lawrence AL | R-M269 | 13 | 24 | 14 | 9 | 13-15 | 12 | 12 | 12 | 14 | 13 | 32 | 17 | 9-10 | 11 | 11 | 25 | 15 | 19 | 30 | 14-16-17-18 | 11 | 11 | 19-23 | 16 | 15 | 19 | 15 | 35-36 | 12 | 12 | |

The fourth row, the William Parker descendant, shows a Genetic Distance (GD) of more than 20 from the other Parker men – indicating he does not share a common paternal ancestor with the others for many centuries.

NON-PATERNITY EVENT?

- A break could have occurred at any generation between William S. Parker and the tester ...
- An "obvious" break: Tester #3's grandfather Rayburn Parker was born out of wedlock, but Rayburn's mother claimed the father was Albert Green Parker - maybe it wasn't?

William S. Parker
(c. 1799-1878)

Jefferson
Cleveland Parker
(1853-1908)

William Hamby
Parker
(1874-1951)

Albert Green
Parker
(1910-1974)

? | ?
Rayburn Everett
Parker
(1933-2009)

BUT WAIT... AUTOSOMAL DNA TO THE RESCUE

- A.C.G., a granddaughter of Albert Green Parker, shows a close 2nd-cousin-range relationship with Tester #3 – 220 centiMorgans (~6% half-identical DNA).
- If Rayburn Parker were *not* son of Albert Parker, these two should have *no* relationship.
- So the non-paternity event must have been further up the tree – if not with William Parker himself.



Shared autosomal DNA between A.C.G. and Tester #3.

A POSSIBILITY

- The tested Y-DNA from the William S. Parker line matches men with surname *Daniel* instead of men named *Parker*.
- Is it possible William S. Parker was a half-brother to the other Parker siblings, perhaps born to the same mother but from a prior marriage – later adopted by her second husband, Mr. Parker?
- This would explain discrepant Y-DNA but autosomal matches between descendants of William Parker and descendants of other Parker siblings.

MORE TESTING IS NEEDED

- More testing is needed to solve this problem.
- 1. We need more direct-male-line descendants of William S. Parker, ideally from other sons of William (Joe B. Parker or William Henry Parker) to do Y-DNA tests.
- 2. We need more Parker descendants – of *any* Parker – to do autosomal DNA testing (AncestryDNA, Family Finder, 23andme, etc.) – and share the results with us.
- 3. If you have done a DNA test, you can do a free autosomal transfer from Ancestry, 23andme, or others to Family Tree DNA where we are managing this project:
<https://help.familytreedna.com/hc/en-us/articles/4402392808463-Autosomal-DNA-Transfers-Guide>

OBJECTIVE #3: FINDING PARKER ANCESTRY

- A surprise: Parker Y-DNA does match with men named *Parker*, but also matches with even more men named *Park(e)* or *Parks*.
- In particular, many of these men trace their ancestry to Roger Parke, born 1648 in Lancashire, England, a Quaker who immigrated to New Jersey in 1682.
- Not certain that we descend from this man – other British immigrants from the same family may have come to America – but it is very probable we do.

Y-DNA TiP Report

In comparing Y-DNA 67 marker results, the probability that [redacted] **Park** and [redacted] **Parker** shared a common ancestor within the last...

| COMPARISON CHART | |
|------------------|------------|
| Generations | Percentage |
| 8 | 74.37% |
| 12 | 96.34% |
| 16 | 99.52% |

If we suppose 30-year generations, there are about 5 generations between John T. Parker (b. 1807) and Roger Parke (b. 1648) + 6 generations from tester to John T. Parker.

$1807 - 1648 = 158 \div 30 = 5 + 6 = 11$ generations
~94% probability that Roger Parke is our ancestor (per statistical estimates)

PARK(E)-PARKER ANCESTRY

- We are probably looking at a name change, from *Park(e)* to *Parker*, within 4–6 generations before our Parker Cove Parkers.
- Roger Parke Sr. had two documented sons, John Parke (1677–1703) and Roger Parke Jr. (1684–1755). John Parke went to Hampshire County, Virginia (now West Virginia) – probably a good bet he is our ancestor (based on migration patterns).
- Four documented sons of John Parke; two sons killed in French and Indian War:
George Parke d. 1757, killed by Indians;
John Parke Jr. d. 1758 at Fort Duquesne, fighting under Col. George Washington.
(There is no apparent relation between Roger Parke and the Parke family of Daniel Parke Custis, Martha Custis Washington's first husband)
- Several of John Parke Jr.'s children went to North Carolina and Kentucky – this may be our trail. It gets us closer ...

SOME Y-DNA MATCHES

| Tester Surname | Genetic Distance | Earliest Known Paternal Ancestor |
|----------------|------------------|-----------------------------------------------------------|
| Parker | 1 | Phillip Washington Parker, d. 1863 |
| Park | 2 | Roger Parke > John > John > Ebenezer |
| Parker | 2 | Hezekiah V. Parker, b. 1810 Bledsoe TN |
| Park | 3 | Roger Parke > John > John > Moses |
| Park | 3 | Roger Parke > Roger > Nathan > Charles |
| Parks | 3 | Samuel Parks, b. 1759 NC, d. 1846 IL |
| Park | 3 | Roger Parke > Roger > Jonah > Rodger M. |
| Parks | 3 | Samuel Parks, b. 1759 NC, d. 1846 IL |
| Parks | 3 | Roger Parke > Roger > Nathan > Joseph > James b. 1794 NC. |
| Parke | 4 | Roger Parke > Roger > Joseph > Joseph |

More men named Parker we match with at only 12 markers - i.e. not very good matches, but do show some kinship.

WHERE TO GO FROM HERE?

- DNA matches do seem to confirm our guess – We appear to be more closely kin to the descendants of John Parke who went to West Virginia than to other lines.
- Research the descendants of Roger Parke > John Parke, especially those who went to Kentucky – research down.
- Research other Parker lines we match with, find common connections – research up.
- Need to document the origins of our Parker Cove Parkers as precisely as possible – find them in early records, then look for their parents.

NAILING DOWN OUR PARKERS

- John T. Parker apparently married Mary C. Neeley in 1828 in Limestone County, Ala.; William S. Parker married Charity Skidmore in Morgan County in 1829 – is this right guy? Rhoda Parker married Elijah Castleberry in 1830 in Morgan County. Where was Lewis?
- John T. and William Parker and Rhoda Castleberry were in Parker Cove, Lawrence County, by 1840 census. Lewis Parker listed on 1840 census in Marshall County, Ala., appears to be our guy. Lewis's older children, until 1833, were born in Tennessee ... he came to Ala. later?
- This makes it appear less likely that the Parker parents were in Limestone County – but where in Tennessee were they from? Where were our Parkers born?

MORE TESTING IS NEEDED!

- Would like to upgrade one of our Y-DNA tests to the [Big-Y 700](#) test, an advanced Y-DNA test that should help us narrow down our paternal ancestry – but it is quite expensive (\$340 to upgrade). Larry Parker was interested in this – would be fitting to upgrade his test. Donations to [Parker DNA project general fund](#) or [GoFundMe](#) would be appreciated.
- Need more Y-DNA testing on William Parker line (other male lines).
- Autosomal DNA testing (Ancestry, 23andme, Family Finder, etc.) will help too – Do a DNA test and share your results with us to help us triangulate matches.
- [Autosomal Transfers Guide](#)
- [Sharing Ancestry DNA Results](#) – Share your Ancestry DNA Results with me (Ancestry user jtrichardson280)
- [Parker of Lawrence County, Ala. DNA Project](#)

MORE INFORMATION ON PARK(E) FAMILY

- Dr. Roger Parke Sr.
<https://minerdescent.com/2010/05/19/roger-parkes-sr/>
- Park (Parks-Parke) Origins
<https://birkey.org/articles/park-parke/a-look-at-the-english-quarter-of-the-family/>
- Roger Parke Family Tree
<https://birkey.org/family-tree/getperson.php?personID=1897&tree=1>
- Researched and prepared by Joseph T. Richardson (joseph.t.richardson@gmail.com)