

DNA in Practice

Class 2: Uncovering Ancestral Origins

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Ethnicity Estimates

- Reference Panels used to determine your ethnicity
 - DNA samples from populations in a specific area
 - Each company has different sets of samples
- Algorithms used for assigning regions
 - May be put in a broader region
 - Labels may be confusing and not always accurate
- Timeframes
 - Usually about 500-1000 years ago
 - Ancestry and 23andMe may be within 500 years
- Overall, can be misleading or inaccurate
- May change over time.

Haplogroups

If you take a Y or mitochondrial DNA test you will be assigned a haplogroup. It is an ancient ancestral grouping which shows the migration path your ancient ancestors travelled when they left Africa.

Your Family Tree

- Evaluate your tree and identify your gaps or brick walls
- Yours should include through your earliest known ancestors
- Do you have all births, marriages and deaths?
- Locations where they occurred?
- All Locations where family lived and moved to?
- All children and siblings?

Working with your DNA matches

- DNA companies predict relationship based on centimorgans (cM) in common
- Look for people or surnames in common
- Look for locations in common
- Review shared matches of your matches
- Ask questions and be patient for answers
- Work together with your match and share information
- Always confirm with genealogical records
- May need to build out your match's tree and find more information

Triangulation

- At least three people must be a DNA match on the same segment of DNA.
- With successful triangulation, you can identify a common ancestor.
- Ancestry does not have a chromosome browser to perform triangulation. Other sites have this feature.
- Upload your Ancestry DNA results to one of the following web sites:
 - FamilyTree DNA - <https://www.familytreedna.com/autosomal-transfer>
 - MyHeritage - <https://www.myheritage.com/dna/upload>
 - GEDMatch - <https://www.gedmatch.com>

Organizing Your DNA Matches

- Ancestry – Custom Groups
- MyHeritage – Labels and Exporting Shared Segment Data
- Excel Spreadsheets
- American Ancestrees

DNA Consultations

- DNA consultations can be arranged with a genealogist via telephone or online (Zoom)
- Work with you on a research plan for your brick wall
- Learn how to use one of the many third-party tools to manage and analyze DNA
- Request a 1-hour DNA consultation at <https://shop.americanancestors.org/products/post-test-consultation>

Genetic Genealogy Resources

Websites

American Ancestrees - <https://www.americanancestors.org/tools/american-ancestrees>

DNA Painter - <https://www.dnainter.com>

GEDmatch - <https://www.gedmatch.com>

Genealogical DNA Analysis Tool - <https://www.getgmp.com>

International Society of Genetic Genealogists or ISOGG wiki: <http://www.isogg.org/wiki>

Shared cM Relationship Chart: <https://thegeneticgenealogist.com/2020/03/27/version-4-0-march-2020-update-to-the-shared-cm-project>

Shared cM Tool: <https://dnainter.com/tools/sharedcmv4>

Blogs

Blaine Bettinger: The Genetic Genealogist <http://thegeneticgenealogist.com/>

Debbie Parker Wayne: Deb's Delvings <http://debsdelvings.blogspot.com/>

Roberta Estes: DNAeXplained - Genetic Genealogy <http://dna-explained.com/>

Judy Russell: The Legal Genealogist <http://www.legalgenealogist.com/category/dna/>

Kitty cooper: Musings on genealogy and genetics <http://blog.kittycooper.com/>

Books and Articles

Angie Bush, *Genetic Genealogy Basics*. (Baltimore, Maryland: Genealogical Publishing Company, 2016).

Blaine Bettinger, *The Family Tree Guide to DNA Testing and Genetic Genealogy (2nd Edition)*. (Cincinnati, Family Tree Books, 2019).

Christopher Challender Child, *Using DNA in Genealogy*. (Boston, New England Historic Genealogical Society, 2014).

Colleen Fitzpatrick, *DNA and Genealogy*. (Fountain Valley, CA, Rice Book Press, 2005).

Debbie Parker Wayne, *Advanced Genetic Genealogy: Techniques and Case Studies*. (Cushing, Texas, Wayne Research, 2019)

Diahan Southard, *Your DNA Guide the Book: Step-by-Step Plans to Connect You with Your Family Using Your DNA* (United States, Your DNA Guide, 2020).