Genetic Genealogy and Libraries

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New Jersey State Library
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How I tried to improve online access to information on genetic genealogy

- I was prompted to put a resource guide on genetic genealogy together by a phone call I received from a patron who’d just gotten her and her father’s test results back. It turned out his father was not his biological father, and she was going to have to tell him. What should she do?
- Based on the number of news articles and consumer report comparisons about genetic genealogy and testing, I was pretty confident, I’d find what I was looking for.
- I was looking for online resources from reputable organizations: companies who offered tests, genealogy associations, colleges and universities, medical associations.
- I found some of the information I was looking for on company pages dealing with FAQ and troubleshooting but little else.
- I was hoping there would specifically be information/support for those who got unexpected results like my patron above. (There wasn’t.)
- Based on the information I found, I did not feel confident moving forward in building a resource guide.
What I currently have to work with

- 18,000 item Genealogy Collection, which is open to anyone who would like to come and research.
- Includes Primary Documents (City Directories and Newspapers) and published books
- Ancestry Library, HeritageQuest, and NewsBank
- We are set up to help researchers who are looking for people with names
- Many Researchers with New Jersey ancestors are disappointed by how few NJ records are available on Ancestry. You have to go (yes, physically go in many cases) to our next door neighbor the New Jersey State Archives to access many New Jersey records collections, including Birth, Marriage, and Death records.
More about State Library Resources

- The most heavily used part of our book collection are our family histories, which make up about a third of the collection.
- Family Histories are best looked up via the library catalog, where researchers can search remotely.
- State Library has over 1000 New Jersey city directories. These are great location tracking tools for non-census years. City Directories have their own catalog in .pdf format, which can be saved and downloaded.
- Genealogy and Newspaper Research Guides: Genealogy covers NJ Genealogy records and repositories. Newspaper has a complete list of our newspaper holdings online and link to Digital Historic Newspaper guide.
- If you come in person to the library, you can access electronic databases such as Ancestry and NewsBank
How I (a Librarian) can help patrons with Genetic Genealogy issues

- I can help patrons find FAQ resources or the technical services department of their testing company
- I can direct patrons to consumer reports and dozens of articles comparing various DNA tests, including those published on company websites
- Put patrons in touch with a professional genealogist
- If someone is interested in the science behind genetic genealogy, I can direct them to any scholarly articles, or company pages explaining what/how the tests work.
- If someone has a surprise result and needs to process/is unsure what to do and the ramifications, I can direct them to books about having difficult conversations or interpersonal relationships. I can also direct them to local therapists or a professional genealogists
What I (a Librarian) can’t do

• Advise patrons how to handle difficult news/surprises in their DNA results (this falls under medical/legal advice at a library)
• Help people set up/manage their profile on a company website
• Troubleshoot technical difficulties with particular sites or answer technical questions about sites
As a Reference Librarian, I can connect people with resources. In the realm of genetic genealogy, this includes: specific collection resources we have at the library (historical research resources, and possibly books to help with difficult family situations). I can’t provide technical services, research services, or advice or interpretation on genetic results.
The DNA of DNA Matches

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2) Y DNA: This tests your paternal line. This test works best for men seeking paternity answers.


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1) Autosomal: This tests a range of your DNA from both sides of your family, going back about 150-200 years.

2) Y DNA: This tests your paternal line. This test works best for men seeking paternity answers.

3) Mitochondrial DNA (mtDNA): This tests the mother’s line but is not considered genealogically informative and women are advised to use autosomal DNA testing.

Source: Adoption and DNA, “Recommended Tests,” accessed June 4, 2019 | https://adoptiondna.blogspot.com/p/recommended-tests.html?fbclid=IwAR2fIGBKwcUpleqazgN697L1KQdkcBQ1we1C10vYQ-TAXjeaEcwIoAeAGUK

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The DNA of DNA Matches

When you get your DNA results, you will see two things along with your matches.

• One is Shared DNA Segments
• The other is centiMorgans.
The DNA of DNA Matches

Shared DNA Segments

• This will show the number of segments that are identical between you and one of your matches.

• The longer the shared segments are, the more likely it was inherited from a common ancestor.

Source: MyHeritage
The DNA of DNA Matches

Shared DNA Segments
The DNA of DNA Matches

Shared DNA Segments

- All 22 pairs of chromosomes equal 7000 centiMorgans.
- Half come from each parent.
- When looking at matches, the relationships fall into ranges of centiMorgans, which are the distance measured between the SNPs in your chromosomes.

Source: MyHeritage
The DNA of DNA Matches

What are centiMorgans?

When you look at the DNA matches, you will see an estimate relationship, and a note of how much DNA you share with your match. This is measured in centiMorgans (cM), and the more cM you have in common, the closer the relationship.

Source: MyHeritage

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The DNA of DNA Matches

**Relationship Ranges in cM**

You can use the following range of average values as a reference for the length of shared segments between you and your relatives:

Identical twin: 7000cM
Parents: 3350 - 3600 cM
Full siblings: 2300 - 2900cM
Grandparents and aunts/uncles: 1300 - 2200cM
First cousins: 600 - 1200cM

Source: MyHeritage
DNA Testing Companies

Four DNA tests with genealogical tie-ins:

1) Ancestry DNA: Uses autosomal testing
2) MyHeritage DNA: Uses autosomal testing
3) 23andme.com: Uses autosomal testing
4) Family Tree DNA: Use mtDNA and Y DNA tests.
Picking the Right DNA Test

• Reasons for picking particular tests:
  1) Pricing
Picking the Right DNA Test

• Reasons for picking particular tests:
  1) Pricing
  2) Connection to genealogical resources
Picking the Right DNA Test

- Reasons for picking particular tests:
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  3) Autosomal vs. Y and mtDNA testing
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  5) High-end technical examination of DNA
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- For more info look at this comparison chart:
  https://bit.ly/2QMhik0
Finding Family

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Finding Family

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• You can search your matches for common surnames or common geographical locations.
Finding Locations

- You might know that you are from a particular country of origin, but the test results alone tend to give a larger area, not town-level matches.
- You can search your matches to see who is from the same town as your ancestors.
- If your matches have public trees, you can look at their trees to see which towns their ancestors came from.
Finding Birth Families

Thanks to DNA, adoptees have been able to locate their birth families.

This has also led to some unintended surprises for people who are discovering unknown siblings, or “nonpaternal events.”

Meaning, your father is not who you thought he was.
Finding Birth Families

You can build a mirror tree based on what you do know about your DNA matches and how they are related to you. In general, second-cousin matches are much easier to trace than third- or fourth-cousin matches.

To figure out your family tree, you need to understand who the common ancestor is.

If you are first cousins, your common ancestor is one of your two pairs of grandparents.
If you are second cousins, your common ancestor is one of your four pairs of great-grandparents.
Finding Birth Families

In the case of both of my birth families (maternal and paternal), I figured out my connections by researching the ancestry of my second-cousin matches.

Having second-cousin matches meant that finding my birth parents’ parents and grandparents would be easier since they would be in vital records and census records available to the public.

Finding a great-grandparent in the last 150 years is not as hard as it might seem.
Building a Mirror Tree

- Birth Great-Grandparents
  - Birth Great Uncle
    - First Cousin Once Remove
      - Second Cousin
  - Birth Grandfather
    - Birth Father
      - Me
Building a Mirror Tree

- Birth Great-Grandparents
  - Birth Great Uncle
    - Palma Pampalone
      - Carol A
  - Birth Grandfather
    - Birth Father
      - Me
Building a Mirror Tree
Building a Mirror Tree

Carmelo Pampalone & Angelina ADRAGNO

Vito Pampalone  Birth Grandfather

Palma Pampalone  Birth Father

Carol A  Me
Building a Mirror Tree

1910 Census

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Building a Mirror Tree

1910 Census

Carmelo Pampalone & Angelina ADRAGNO

Vito Pampalone  Michael Pampalone

Palma Pampalone  Unknown

Carol A  Me

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Building a Mirror Tree

1930
Building a Mirror Tree
Building a Mirror Tree
Building a Mirror Tree

1940

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Michael</td>
<td>36</td>
<td>Italy</td>
</tr>
<tr>
<td>Helen</td>
<td>28</td>
<td>New York</td>
</tr>
<tr>
<td>Carmine</td>
<td>6</td>
<td>New York</td>
</tr>
<tr>
<td>Anthony</td>
<td>2</td>
<td>New York</td>
</tr>
</tbody>
</table>
Building a Mirror Tree

Carmelo Pampalone & Angelina ADRAGNO

Vito Pampalone
Palma Pampalone
Carol A

Michael Pampalone & Helen Turonick
Unknown
Carmine
Anthony
Me

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Building a Mirror Tree

Building a Mirror Tree

![Family Tree Diagram]

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**Resources**

- As a librarian you might not get a lot of genealogy and family history questions, but there are many free resources available to you.

- Consider doing even a little research into your own family history to understand how databases work, and how genealogical records help DNA results connect people to their matches using the paper trail.

- If general or specific genealogy is of interest to you, you can follow a podcast and listen to it in the car, or subscribe to a Facebook group.
Resources

Genealogy Databases

- Ancestry and MyHeritage both have library editions.
- HeritageQuest is a library-based product available through ProQuest.
- Newspapers.com has a library edition available via ProQuest.
- Look at which Historical Newspaper collections are available in your library’s set of databases.
- Newspaper articles and birth/death/marriage notices often have information you will not find in the official vital records.
- FamilySearch is a major free database. See Cyndi’s List (cyndislist.com) for more information on free genealogy databases.
Resources

Magazines, Journals, and Blogs

- Take a look at Cyndi’s List (cyndislist.com/magazines) for links to journals, magazines, blogs, newsletters, and mailing lists, plus information about PERSI—the Periodical Source Index for genealogy.

Genealogy Podcasts

- Genealogy Gems hosted by Lisa Louise Cooke.
- The Genealogy Guys and Genealogy Connections hosted by Drew Smith and George Morgan.
- Family Tree Magazine (most recent episode from March 2019)
- DNA Today
Resources

Facebook DNA Groups
- AncestryDNA Matching
- DNA Detectives (affiliated with Cece Moore)
- DNA Surprise Support Group
- DNA Testing Adviser

Facebook Genealogy Groups
- Genealogy Squad—created a group of genealogy and DNA experts.
- Random Acts of Genealogical Kindness
- Genealogical Translations
- Also, search Facebook for the words Genealogy and the name of a locale or ethnic group to find people with similar research interests.
The End

Thank You! We’re happy to answer any questions.

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