

Combining DNA and Traditional Research –

In-Depth Case Studies

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Genes & Genealogy

DNA has become an essential tool in the genealogist's toolbox but it needs to be thought about as a special record set to add to all of the other record sets at our disposal. The only way to get the absolute most out of DNA testing is by combining it with traditional genealogical research methods. The DNA data alone cannot tell you how your matches relate to you – research into your ancestry and the ancestry of your matches is required to identify those connections so developing your traditional genealogical skillset is just as important for DNA success as understanding DNA results. This presentation aims to show just how much can be achieved when DNA and traditional research methods are combined.

Set Yourself Up To Succeed!

- First and foremost build your own tree out as far, wide and deep as possible – pay particular attention to not only your direct ancestors but also your collateral lines (the lines of the siblings of your direct ancestors) as it is mainly from those relatives that the cousins on your match list will descend. The more collateral lines you work forward to modern times, the easier it will be to spot where new matches may fit into your tree.
- Once you have a robust tree for reference, make the different systems on the testing sites work for you by attaching/linking your tree to your DNA results. If you are uncomfortable attaching your full tree, create a bare bones skeleton direct ancestors tree with basic information and attach that instead.
 - a. MyHeritage: Upload your tree for Theory of Relativity Hints and Smart Matches
 - b. Ancestry: link trees to results for Common Ancestor Hints & ThruLines
 - c. FTDNA: Upload your tree and use the Linked Relationships tool to add confirmed relations in order to populate the paternal and maternal buckets
 - d. 23andMe: Link a FamilySearch Tree to your test and encourage others to do the same

Verifying Lines

The most important things to do in order to verify lines are as follows:

- Once again build your tree as far, wide and deep as possible – if your third cousin tests neither of you can identify the connection if one or both of you don't know the names of your shared 2nd great grandparents

- Investigate shared matches – they are the key to working out most connections. The more matches you work out, the more valuable finding those you've already identified in the shared match lists of others becomes
- Build out the trees of your matches: you just need a starting point! Even tiny trees can be a goldmine if you're willing to put in the work to expand them. Many will have minimal trees, wrong trees, no tree at all or linked trees that don't have the tester as the home person – take whatever clues you can and build your own tree out for them to identify the connection
- Don't forget to contact your matches; many won't respond and that can get disheartening but equally some will respond and provide information to make the link
- Test as many older generation relatives as you can to both help with narrowing matches down and to give you more of your ancestors' DNA to work with and therefore more chances of verifying ancestors. If you don't have older generation relatives to test then test your peers i.e. half-siblings, first cousins, 2nd cousins etc
- Treat the features provided by the companies (ThruLines, Common Ancestor Hints, Theory of Relativity) as clues! Don't take them as fact; always spend time verifying them and seek out documentary evidence to prove or disprove the genealogical links

No Tree Case Study

- Always check the profile of a match/manager as it may yield additional clues that could help identify them
 - a.** MyHeritage: often the age and location of the match is listed and this can be hugely helpful
 - b.** Ancestry: again age and location may be listed in the profile page and there may even be a written bio/paragraph
 - c.** 23andMe: age and location may be displayed and occasionally ancestral surnames may be enough to help identify and build a tree
 - d.** FTDNA/GEDMatch: Email addresses are listed and it's always worth googling these as they may lead to an identification
- If the match/manager has a particularly common name you may be out of luck but if not do some internet sleuthing! Google the name/username, search for them on social media (Facebook, Twitter, Instagram etc), try electoral registers and search for obituaries (some matches may have passed but it's more likely their parents/grandparents have and you may find them listed as a loved one on an obituary which can help you piece together their ancestry).
- Once you have been able to identify the match and their parents/grandparents then treat it just like any other case and build that tree out as far as you can to find the link
- Don't bypass matches with no tree or matches who don't respond; if they share a decent amount of DNA with you it's always worth trying to identify them however you can and

even if they never reply you may be able to work out the connection and make use of the match going forward

Unknown Parentage Case Study

- My number one rule above all others when trying to solve a mystery: follow the DNA and put what it tells you first! If you have clues from adoption papers or family stories etc they could be very helpful but equally they could lead you down the wrong path as there's always a chance they are incorrect. Only by following the DNA matches and identifying common ancestors via shared matches and extensive tree-building will you get to the truth; if it matches up with what you've been told that's added evidence but if it doesn't follow what the DNA is telling you as it should lead you in the right direction
- Fish in all the ponds! This can be crucial for trying to solve a mystery: you simply don't know where your best "big fish" matches may choose to test and if you're not in all of the different databases then you may miss the vital match that could solve your case
- If one side (almost always the maternal side) is known make sure you build this out as far as possible to help with eliminating matches on that side
- Also think about target testing close relatives on the known side if it's clear the parents came from a similar background and it's difficult to differentiate between maternal and paternal matches on the match lists
- Once you have identified matches on the mystery line investigate their shared matches, build trees on a master tree and try to identify sets of common ancestors
- Once you have one set of common ancestors build forward to their children and then build out the trees of any spouses at the next generation level as if you can find DNA matches to one spouse in particular that can narrow your search down considerably
- Once you have narrowed things down to the time period of the birth in question it's all about looking for someone who was in the right place at the right time and there may be a number of options that will have to be considered
- Target testing will likely be required at this point to get a definitive answer – you may get lucky with your first targeted test or it may take several especially if there are many possible lines to eliminate
- If Y-DNA is applicable to the case (males only) then it's worth testing to see if it could throw up a clue but always be aware that any disconnect in previous generations would result in the unknown father having a different surname as was the case here

NPE Case Study

- When you take a DNA test there is always the possibility that you will find out you have an NPE (not the parent expected) situation on one of your lines or that you will match highly with a previously unknown close relative
- Not everyone will be able to verify all the lines of their tree and it's best not to jump to conclusions when we find we can't verify a line; if there is a particular close line you have

zero matches to, though, then it's only natural to become suspicious. Keep an open mind as it might just be that the right people have yet to test but equally you could be looking at an NPE and you have to decide if you want to pursue that possibility.

- If you find that not only do you have no matches to a particular line of your tree but you have high matches that all point to a set of common ancestors you don't have on your tree then the likelihood of an NPE situation is very high
- If you have found matches to verify three of your four grandparents but nothing for the fourth or you've found matches to verify six of your eight great grandparents but nothing for the other two and you want to find out if you do have an NPE situation then the best thing to do is to try to target test the oldest generation relatives you can who descend from those lines to see if they match you
- By both verifying you don't share DNA with relatives you would expect to (2C or closer) and by identifying common ancestors between mystery matches that can only pertain to the line you can't verify you will be able to get to the bottom of the NPE
- Remember outliers exist and ranges of cMs can be very wide – it's important to keep an open mind about all potential relationships as once in a blue moon even the least likely will end up being the correct answer (in most cases the higher percentage probabilities will contain the answer and testing enough of the right people is the best way to truly clear up what's going on but on very rare occasions you may find the improbable is the only answer that makes any sense both in the traditional sense and the DNA sense)

SUMMING UP

It takes work to get the most out of DNA testing for genealogical purposes – while it's perfectly possible to check in and out of your DNA matches and find new easy connections to pick off every so often, if you want to truly supercharge what you get out of your DNA results then you have to put time and commitment into it. There are lots of extra things you can do like chromosome mapping, clustering, working with segment data etc but at the end of the day working out most DNA matches comes down to investigating shared matches and tree-building; lots and lots of tree-building! If you never bypass a match no matter how scant the information provided and you develop the skills to search for living people as well as build trees back in time then you will be successful in making connection and solving mysteries with DNA.

If you enjoyed my webinar and would like to hear more I also have a less advanced presentation in the library entitled "DNA Is Dynamite: How To Ignite Your Ancestral Research". You can watch it here:

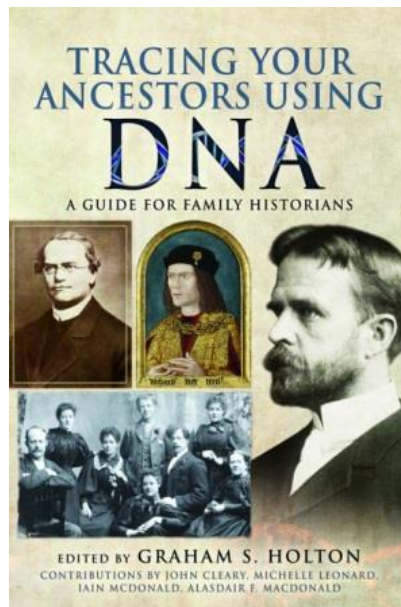
https://familytreewebinars.com/download.php?webinar_id=838

Additionally if you would like to learn about third party tools you can watch my webinar on those here:

https://familytreewebinars.com/download.php?webinar_id=978

Finally I have co-authored a brand new book on DNA testing and it's now available to purchase!
“[Tracing Your Ancestors Using DNA: A Guide For Family Historians](#)” published by Pen & Sword

Books:



It's available both in paperback and Kindle format.

As the official genetic genealogist of #AncestryHour I am on hand most weeks to answer #DNA queries during #AncestryHour's live Twitter chats each Tuesday evening 7-8pm (GMT)

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