

Digging Deeper into Your DNA: Exploring Roots in the Distant Past with MyHeritage's Ancient Origins

Speaker: Gal Zrihen

Introduction

- DNA testing can reveal your family story beyond recent history, reaching back thousands of years to uncover your ancient origins.
- MyHeritage DNA testing offers two main features: DNA matches and Ethnicity Reports.
- Ethnicity Reports have evolved significantly and now include the Ethnicity Estimate, Genetic Groups, and Ancient Origins.

Ethnicity Estimate V2.5

- The Ethnicity Estimate provides a percentage breakdown of your ethnic makeup from different populations worldwide.
- MyHeritage recently launched an improved model, V2.5, which offers more accurate results and greater resolution than the previous V95 model.
- V2.5 uses a new algorithm and a larger, more diverse reference panel.
- Updates include more detailed breakdowns for Scandinavian (Swedish, Norwegian, Danish) and North and West European (Germanic, French, Dutch) ethnicities.
- The new model also provides increased resolution for Asian ethnicities (20 total) and new ethnicities from Africa, North, Central, and South America, the Middle East, and Oceania.
- MyHeritage's V2.5 can distinguish between 15 different Jewish ethnicities.
- To update to V2.5, go to your ethnicity results page on MyHeritage.com or the mobile app and click on the update prompt.
- You can easily switch between the old and new models to compare results.
- The updated results include a refreshed Spinning Globe video with new and original tunes for each ethnicity.

Genetic Groups

- Genetic Groups provide further detail to your Ethnicity Estimate by pinpointing your origins to specific geographic regions.
- These groups are created by clustering DNA results and analyzing family tree data to identify connections and migration patterns.
- There are 2,114 Genetic Groups, each with a unique story.

Ancient Origins

- Ancient Origins complements the Ethnicity Estimate by tracing your heritage back up to 10,000 years, revealing ancient populations from which you descend.

- It uses developments in archaeogenetics, the study of ancient DNA, to analyze samples from archaeological sites.
- The Ancient Origins report is generated using principal component analysis (PCA), which measures genetic distances and clusters ancient populations.
- To access Ancient Origins, go to your DNA results on MyHeritage and select "Ancient Origins" from the left menu or the DNA navigation menu.
- You will need a Complete or Omni subscription to generate the reports.

Ancient Origins Reports

- **Ancient Origins Breakdown:** Shows the breakdown of your ancient populations across different historical eras (Bronze Age, Iron Age, Roman Age, Middle Ages).
 - You can tailor the model to a specific origin or choose "Global" to see results from all regions.
 - A slider allows you to explore how your breakdown changes through different historical eras.
 - Each population includes a description, geographical region, links to research articles, and AI-generated avatars that provide context on the civilization's lifestyle and traditions.
 - A genetic fit score indicates how closely your DNA matches the breakdown.
- **Hunter-Gatherer and Farmer Breakdown:** Shows the percentage of your DNA that traces back to early hunter-gatherer and farmer populations.
 - It includes descriptions of the groups and links to research papers.
- **Genetic Similarities:** Compares your DNA to all ancient reference samples and populations, showing the top 50 most similar to you.
 - It includes a genetic fit and details about the samples and populations, such as modern populations genetically closest to the ancient group, date and location of samples, and YDNA and MTDNA haplogroups.
 - Dual and triple origins views show combinations of two or three ancient populations that are most similar to you.
- **Genetic Distance Maps:** Visualize your genetic proximity to different ancient populations.
 - Points on the plot represent different populations or samples, clustered by genetic similarity, with your position shown as a black point.
 - You can focus on specific regions or view a global map.
- **Sample Database:** A reference encyclopedia with a list of all ancient DNA samples and populations used in the reports.
 - You can filter the database by sample type or location.
 - Details include date and location of the population, closest modern and ancient populations, and reference samples used.
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Accessing Ancient Origins

- Ancient Origins is available on the MyHeritage website and the MyHeritage mobile app.
- A Complete or Omni subscription is required to access the reports, which also provides access to other advanced DNA features, family tree tools, historical records, and AI tools.