

## Horace Ellison, Ancestry Composition

# Ancestry Composition

Your genome tells the unique story of your ancestry: where your ancestors lived, when they contributed to your family tree, and how their DNA was passed down to you through your parents. For more information about your results, see [Frequently Asked Questions](#).

HE

Horace Ellison 100%  
Sub-Saharan African 82.5%  
West African 76.0%  
Central & South African 3.7%  
Broadly Sub-Saharan African 2.8%  
European 15.7%  
Northwestern European 10.8%  
British & Irish 4.8%  
Broadly Northwestern European 6.1%  
Southern European 1.1%  
Broadly Southern European 1.1%  
Broadly European 3.7%  
East Asian & Native American 1.4%  
Southeast Asian 0.9%  
Native American 0.3%  
Broadly East Asian & Native American 0.1%  
Unassigned 0.5%

## Stories of Your Ancestors

**Sub-Saharan African** The genetic diversity of Sub-Saharan Africa reflects both the deep history of humans in the region and the recent migrations that have carried the diversity of western Africa to both southern and eastern Africa.

**West African** Expanding from Senegal to Nigeria, West Africa composes about a fifth of the African continent. West Africans have a long shared history, and were united by large empires such as the Ghana Empire, dating as far back as the eighth century AD. Other empires later succeeded, making Western Africa a region of strong common heritage.

**Central & South African** Central Africa extends from the Central African Republic at its north to Angola at its south. Southern Africa encompasses Namibia, South Africa, Botswana and Zimbabwe. While the majority of its population is now composed of Bantu peoples, Central Africa is also home to many Pygmy populations. Southern Africa was first peopled by Pygmies, San and Khoisan. These hunter-gatherer populations still live in this region today.

**European** Much of Europe was buried under miles of ice ten thousand years ago. As the glaciers receded over millennia, Neolithic farmers from the Near East joined Paleolithic hunter-gatherers to settle Europe.

**Northwestern European** Northwestern Europeans are represented by people from as far west as Ireland, as far north as Norway, as far east as Finland, and as far south as France. These countries

rim the North and Baltic Seas, and have been connected throughout much of history by those waters.

**British & Irish** When modern humans first arrived in the regions now known as Great Britain and Ireland tens of thousands of years ago, these two regions were physically joined to one another. Today the people of the islands of Great Britain and Ireland descend from Celtic, Saxon, and Viking ancestors.

**Southern European** Southern Europe, including the Iberian, Italian, and Balkan peninsulas as well as the island of Sardinia, is a region defined in great part by the Mediterranean Sea. The Mediterranean has provided transportation routes, keeping these regions connected.

**East Asian & Native American** The peoples of East Asia and the Americas have a shared genetic history. Their common ancestors left the Near East as early as 80,000 years ago, migrating across Asia. The ancestors of Native Americans began to cross into the Americas 12,000 to 15,000 years ago.

**Southeast Asian** Located at the South of China, Southeast Asia extends from Burma to Indonesia. Modern humans arrived in Southeastern Asia as early as 50,000 years ago, likely using a migration route along the coast of India. Today, Southeastern Asia is comprised of many ethnic groups.

**Native American** Native peoples of the Americas have contributed genetically to today's populations in North, Central, and South America. In North America, however, Native American ancestry tends to be five or more generations back, so that little DNA evidence of this ancestry remains.

**Unassigned** There is a wide range of human diversity out there and sometimes our algorithm is unable to assign a region of DNA to a specific population. As we collect more data and update our algorithm, we expect that the amount of unassigned ancestry seen by customers will decrease.

## Your Ancestry Timeline

How many generations ago was your most recent ancestor for each population?

### Generation

- 1**  
1910
- 2**  
1880
- 3**  
1850
- 4**  
1820
- 5**  
1790
- 6**  
1760
- 7**  
1730
- 8**  
1700

8+

1670

3 - 5

West African

4 - 7

British & Irish

6 - 8+

Central & South African

6 - 8+

Southeast Asian

6 - 8+

Native American

Learn more about how to interpret this result

How to interpret this result

- This module uses your Ancestry Composition results to estimate the generation range where you are likely to have had a single relative who descended from a single population.
- These results may be helpful for learning about your genealogy, in figuring out from which ancestors a particular ancestry may have been inherited, or for piecing together the history of their likely migrations.
- For technical details on how this feature works, [read our white paper](#).

## Your Ancestry Composition Chromosome Painting

These are your chromosomes; we've painted them with your Ancestry Composition results. The first 22 are called autosomes and come in pairs of two, each represented by one of the colored horizontal lines in the graphic below. Chromosomes have different lengths, and are named 1 through 22, when sorted by size (scientists are not very creative). Lastly, we also look at ancestry on your X chromosome: two copies like the autosomes if you are female, and only one copy if you're male (that you got from mom).

**Horace Ellison**

**100%**

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**Unassigned 0.5%**

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**No Data Available --**

Genotype data is not available for these regions because their genetic sequence is highly repetitive, and therefore not readily tested via current genotyping technology.

Broad regional assignments: Sometimes a piece of DNA matches a regional population but cannot be assigned to a more specific population. In such a case we assign the DNA "broadly" to that regional population rather than a specific one.

## Do more with your Ancestry Composition results.

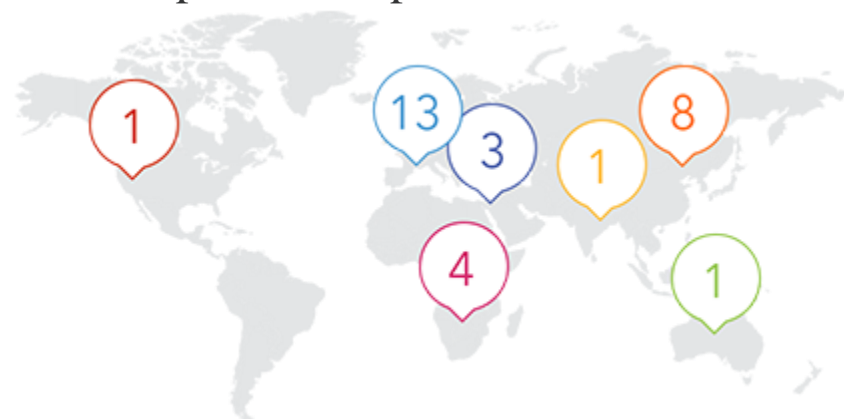
Contribute to research and help us understand patterns of genetic variation around the world.

Learn more about the reference populations we use to determine your result.

Join the discussion with other 23andMe customers interested in Ancestry Composition results.

## Scientific Details

We determine your Ancestry Composition by comparing your DNA to public and private reference data.



### Middle East and North African

Middle Eastern, North African, Broadly Middle Eastern and North African

#### European

Southern European, Italian, Balkan, Sardinian, Iberian, Northwestern European, British and Irish, French and German, Scandinavian, Finnish, Ashkenazi, Eastern European, Broadly European

#### Sub-Saharan African

West African, East African, Central and South African, Broadly Sub-Saharan African

### Native American

Broadly Native American

### Oceanian

Broadly Oceanian

### East Asian

Japanese, Korean, Yakut, Mongolian, Chinese, Southeast Asian, Broadly East Asian, Broadly East Asian & Native American

### South Asian

Broadly South Asian

To determine your Ancestry Composition, we use an algorithm that looks at short, non-overlapping segments of your DNA. We compare each segment of your DNA to reference DNA sequences. We have defined 31 ancestry populations from around the world using reference

datasets that include over 10,000 individuals with known ancestry. When a segment of your DNA matches the reference DNA from a specific population with a high degree of certainty, the segment is assigned to that population. Sometimes the segment matches reference DNA from several populations, in which case it is assigned to a broad ancestry (e.g. Northwestern European). The results of all of these assignments are then tallied across your genome to determine your Ancestry Composition. [Read more about how we assign your DNA to different ancestries](#)

This table shows the number of reference individuals used to define each broad ancestry population. The reference datasets are made up of over 10,000 people, including publicly available data from the [Human Genome Diversity Project](#), [HapMap](#), and the [1000 Genomes project](#), as well as a large number of 23andMe customers who have consented to participate in research.

### Reference populations

Ancestry Composition Populations	23andMe Customers	Public Data*	Total Individuals
<b>East Asian and Native American</b>			
<b>Native American</b> (Colombian, Karitiana, Maya, Pima, Surui), <b>East Asian, Japanese, Korean</b> (South Korean), <b>Yakut, Mongolian</b> (Daur, Hezhen, Mongolian, Oroqen, Tu, Xibo), <b>Chinese</b> (Chinese, Han, Hong Kongese, Taiwanese), <b>Southeast Asian</b> (Burmese, Cambodian, Indonesian, Lao, Malaysian, Filipino, Thai, Vietnamese)	808	560	1368
<b>European</b>			
<b>Southern European, Italian</b> (Italian, Northern Italian, Tuscan), <b>Balkan</b> (Albanian, Bosnian and Herzegovinian, Bulgarian, Croatian, Greek, Macedonian, Maltese, Montenegrin, Romanian, Serbian), <b>Sardinian, Iberian</b> (France Basque, Portuguese, Spanish), <b>Northwestern European, British and Irish</b> (Irish, United Kingdom), <b>French and German</b> (Austrian, French, German, Belgian, Dutch, Swiss), <b>Scandinavian</b> (Danish, Norwegian, Swedish), <b>Finnish, Ashkenazi, Eastern European</b> (Belarusians, Czechs, Hungarians, Polish, Russian, Slovak, Slovene, Ukrainian)	6421	421	6842
<b>Middle Eastern and North African</b>			
<b>Middle Eastern</b> (Armenian, Azerbaijani, Cypriot, Georgian, Druze, Iranian, Iraqi, Lebanese, Turkish, Syrian), <b>North African</b> (Algerian, Bahrani, Bedouin, Egyptian, Jordanian, Kuwaiti, Moroccan, Mozabite, Palestinian, Saudi Arabian, Tunisian, Emirati, Yemeni)	550	176	726
<b>Oceanian</b>			
<b>Broadly Oceanian</b> (Nan Melanesian, Palauan, Tongan)	3	36	39
<b>South Asian</b>	207	615	822

## Ancestry Composition Populations

23andMe Public Customers Data\* Total Individuals

**Broadly South Asian** (Afghan, Balochi, Bangladeshi, Brahui, Burusho, Hazara, Indian, Kalash, Makrani, Nepalese, Pakistani, Pathan, Sindhi, Sri Lankan, Uygur)

### Sub-Saharan African

**West African** (Bantu, Cameroonian, Ghanian, Ivorian, Liberian, Luhya, Mandenka, Nigerian, Sierra Leonean, Yoruba), **East African** (Eritrean, Ethiopian, Maasai, Somali), **Central and South African** (Biaka Pygmies, Mbuti Pygmies, San)

228 393 621

\* Public Reference Set includes HGDP, 1000 Genomes, HapMap3

## Ancestry Composition Raw Data

Genomic coordinates (NCBI Build 37) for your Ancestry Composition results are available in CSV format.

This report predicts the ancestral origin of different parts of your DNA by comparing them to reference populations. Each prediction is also linked to our confidence that the call is correct. By default, Ancestry Composition requires that our confidence in a prediction be greater than 50%. Select a different confidence level to make your Ancestry Composition more conservative.

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Select Confidence Level

[Download Raw Data](#)

## Change Log

Your report may occasionally be updated based on new information. This Change Log describes updates and revisions to this report.

Date	Change
June 27, 2017	Your genetic results were first available from 23andMe.
Oct. 21, 2015	Ancestry Composition report created.

Horace Ellison's Report, printed on 2017-11-11 UTC