Notes on the Bible and Genetics

Physical Anthropology, Blood Groups, DNA and Y chromosome
A Collation of Research

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Physical Anthropology, Blood Groups, DNA and Y chromosome. A Collation of Research

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- Craig White, *In Search of … the Origin of Nations*.
- Edward Wilson, *Sociobiology. The New Synthesis.*
- Francis Huxley, *Peoples of the World in Colour*.
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- https://www.bloodbook.com/world-abo.html (Racial and Ethnic Distribution of ABO Blood Types)
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- Mario Seiglie, "Adaptations. Designed by God, Not From Evolution," *Beyond Today*, March-April 2024, pp. 12-14.
- Nathaniel Jeanson, *Traced: Human DNA's Big Surprise.*
- Stephen Molnar, *Races, Types, & Ethnic Groups*.

Introduction

Disclaimer: This author is not a geneticist or specialist in the area of human biology and suchlike. Rather, he has an interest in demonstrating that the various peoples of mankind can be traced back to their forefathers in Genesis 10 and 49. My and cannot be accepted 100%. Future research and discoveries will no doubt add to all of humanity's body of knowledge in this area of investigation.

[NB: since writing this paper, the book *Traced: Human DNA's Big Surprise* by Nathaniel Jeanson was recommended to me and purchased in June 2024. It is helpful but still does not understand the difference between Y-Chromosome lineage and race and further information can be found in the **Postscript**. It was previously mentioned by Yair Davidiy, but I hadn't thought of reading it until mid-2024].

Writing a detailed paper explaining every aspect of genetics and racial/national identification would result in a large book. That is not necessary for the purpose of this exercise and who would read such a work anyhow? Laymen would understand a short article that simplifies and explains the major concepts and then ties this back to the Bible. Academics could not disagree with all of it as it utilises their own writings and resources. However, they would disagree with the outcomes, given its Biblical basis.

Using physical anthropological techniques and research into human biology, one finds that physical appearance is the most important determinant of race and national origin. Followed by blood groups, DNA etc. All this will be explained in the article at hand.

Visible traits are by far the most important identification and criteria for race and has *always* been regarded as such until recent times. But as leftist, neo-Marxist elements gradually took hold in universities and institutions of higher learning, this was forcibly changed to an idea that there is no such thing as race or distinct peoples and that it was merely a 'social construct.' This is basic to Marxist-Leninist ideology that the world must mix into one people which has infused itself into libertarianism, many so-called conservatives and even Creationists.

The Left rewrote the textbooks, denounced past research and reinterpreted the facts. Blood groups eclipsed physical appearance and then DNA was wrongly used for the same purpose. The same is true of recent Y chromosome research.

For instance, today geneticists look for all sorts of haplotypes (defined as a group of genes within an organism that was inherited together from a single parent") which may be found on the Y chromosome of those subjects they are analysing. Their theory is that a signature from a common ancestor may have been left in the DNA of living descendants. But that is just a trace, not necessarily a racial study[1] as shall be explored in this article.

[1] A world map of these haplogroups can be found at https://commons.princeton.edu/mg/y-haplogroups-of-the-world/

Because the Y chromosome is a tracer it may show a lineage, but that lineage may be only 1% or 10% of a racial type. It does not prove one's race – appearance does that.

The aim of this paper is not to reproduce the vast scientific studies on these subjects, but to summarise and understand some of what has been undertaken to date, synthesise my own research and produce a summary that is understandable. This area of study is so huge and sophisticated, that the average person would need to undertake a university degree in genetics to fully comprehend it all. Thankfully, so much research is available for free or has already been simplified for us that we can digest this for our own purposes.

Given the above, as Christians we need to ask the question: What does all this mean and how do we match all the modern research to the ancient Scriptures?

The response might be (as proposed by some): "It's uncertain if haplogroups functioned identically in pre-Flood humans, who had significantly longer lifespans and numerous other differences compared to modern humans. But only eight mitochondrial and Y-haplogroups persisted through the Flood? The number of generations that passed post-Flood before haplogroups stabilized as we observe them now, is unknown, as is the frequency and rapidity of mutations."

As we shall see, there are issues with genetic research. Although most scientists and researchers pretend that all is fixed and cannot be challenged, some do. Give it time and cracks emerge in the façade as other specialists research and question the orthodoxy.

Note for example:

> "The use of mitochondrial mtDNA to investigate human history is not without drawbacks. The rate of mtDNA mutation is not well known. A study by Parsons et al. (1997) found a rate 20 times higher than that calculated from other sources. In an article reviewing mtDNA research, Strauss (1999a) reports **that mtDNA mutation rates differ in some groups of animals, and can even vary dramatically in single lineages.** Although there are many agreements, some divergence dates for modern animals calculated from mtDNA do not match with what is known from the fossil record. There are suggestions from a few sources that paternal mtDNA can sometimes be inherited, which could affect analyses based on mtDNA.
>
> "In 1999 Awadalla et al. published a study suggesting that **mtDNA could sometimes be inherited from fathers.** If mtDNA is inherited only from mothers, the correlation between different mutations should not depend on how far apart on the genome they were. Instead, their measurements showed that mutations at distant sites on the mtDNA genome were less likely to be correlated than nearby mutations, suggesting that **mtDNA from mothers and fathers could sometimes get mixed.** However, there is no explanation so far as to how this recombination could be occurring, and the

> possibility that other phenomena could be causing this effect has not yet been disproved. If it occurs, mixing would mean that the dates from current mtDNA studies would be too old. If mixing is common enough, it could even mean that there was no mitochondrial Eve, because different parts of the mtDNA molecule would have different histories. (Awadalla et al. 1999, Strauss 1999b) Other studies, however, have contradicted these results and argued for strictly maternal mtDNA inheritance (Elson et al. 2001)." (*Mitochondrial "Eve" Theory*, www.freemaninstitute.com/RTGham.htm) [emphasis mine. Refer to the **Appendix. Y chromosomes and mitochondrial DNA – A new frontier of genetic ancestry**]

And

> "Despite your millions or more medieval ancestors, you inherit DNA from only a tiny fraction of them. So, we're sorry, you probably didn't inherit any DNA from Charlemagne or Edward I. For example, you have only about 2,000 genetic ancestors from the 12th century. In other words, your DNA sequence is a mosaic of approximately 2,000 "fragments," each tracing back to a single 12th-century person.
>
> Who are the medieval people whose DNA you inherited? **Each fragment of your DNA descends from a random line up your family tree** — father's mother's mother's father and so on — at each generation in the past, selecting at random one of two parents. The more lines in your family tree that reach a certain medieval person, the more likely you are to inherit DNA from that person…
>
> Here's an analogy. Going to a casino and rolling a roulette ball onto 24 does not mean 24 is your special number. Anyone else might have rolled 24 as well. Similarly, **sharing a DNA fragment with any one out of your millions of medieval genealogical ancestors does not mean any special relationship — beyond sharing a DNA fragment…**
>
> How far back in time does a DNA match still have genealogical meaning? For example, are DNA matches informative in the period between the late Middle Ages and the 17th century? **We don't know yet. Future research will be needed** to clarify this question, as well as deviations from the simple model of a single, freely mixing population.
>
> In the meantime, as scientists rapidly accumulate more and more historical genome sequences, keep the quirky behavior of human genealogies in mind when interpreting a DNA match." (*'You probably didn't inherit any DNA from Charlemagne': What it means when your DNA 'matches' a historic person's,* www.livescience.com/health/genetics/you-probably-didnt-inherit-any-dna-from-charlemagne-what-it-means-when-your-dna-matches-a-historic-persons by Harald Ringbauer & Shai Carmi, 2 April 2024) [emphasis mine]

And so it goes. Confusing? Yes, but sobering.

It is true that for males, because the haplotypes of males tend to mutate rather rapidly, this can lead to evidence that a common ancestor can be traced in the not too distant past.

> "One of the criticisms of the skeptics stems from the observation **that the data, however impressive, does not speak for itself; it has no intrinsic meaning but has to be interpreted in order to tell a story;** and geneticists do not realize the extent to which their interpretations read into the evidence more than is really there." (Steven Weitzman, *Can Genetics Solve the Mystery of the Lost Ten Tribes of Israel?* p. 12). [emphasis mine]

> "I am simplifying a lot of scientific and historiographical issues here, but I hope it is sufficient to suggest that the genetic research is not as unassailable as its publication in scientific journals might suggest. **Genetic history is a developing field, and perhaps someday, scientists will be able to resolve the ambiguities we have noted here.** But even then, the basic issue that the skeptics point to will not go away. Geneticists will always need to rely on non-genetic evidence to make any historical sense of the data—written texts, oral traditions, and interviews with people about who they are and where their ancestors come from. Without such evidence it is impossible to turn the testimony of DNA into a coherent account of the past, and that process means that there will also always be some degree of imagination involved in the construction of genetic history, just as is the case for historical accounts based on ancient texts or archaeological finds." (p. 15)[2] [emphasis mine]

Today there is very much a Marxist reinterpretation and fabrication of science. History and science are changed to suit radical ideology, whether it be about what is a male or female, climate change and such like.

I argue that we should look at physical attributes, physical anthropology, human biology, DNA, linguistics, archaeology, implements, animal migrations, traditions and even mythology to trace the migrations of various peoples listed in Genesis 10.

In other words, aligning science with Genesis 10 and use all we have in unison for the clearest picture to vindicate Genesis 10. Let us piece together the various clues and information, assembling it all together to develop a clarity of various national origins.

Below is an old article of how this all impacts interpretations of research:

[2] In some areas of science data is assembled and interpreted in a way that sometimes is derisively labelled "fake." Certainly, science can be manipulated, and other views slandered of which many scientists are aware. And no mercy is shown in the mainstream media which is supposed to seek for truth and permit open and honest debate – free speech, not shutting down or shouting down other viewpoints. See for example Arjun Walia, "Peer Reviewed: Science losing credibility as large amounts of research are shown to be false," *Alternative News*, 1 March 2017. Much is presented as absolutes – as facts that cannot be challenged. Yet over the years scientists admit to a limited audience that they do not have all the answers. For example, "Dr. Lieberman said that he and colleagues "are relentlessly optimistic that we have all the information we need to answer our big questions, but just haven't figured out the order in which to connect the dots." But the real problem, he added, with resignation tempering optimism, "is that the fossil record doesn't have enough dots."" (John Wilford, "Lost in a Million-Year Gap, Solid Clues to Human Origins," *New York Times*, 18 Sept 2007).

> "Genomes can differ in many other ways. Bits of DNA ranging from a few to many thousands, even millions, of bases can get lost, added, or turned around in an individual's genome. Such revisions can change the number of copies of a gene or piece of regulatory DNA or jam two genes together, changing the genes' products or shutting them down. This year marked a tipping point, as **researchers became aware that these changes, which can alter a genome in just a few generations, affect more bases than SNPs.**
> In one study, geneticists discovered 3600 so-called copy number variants among 95 individuals studied. Quite a few overlapped genes, including some implicated in our individuality--blood type, smell, hearing, taste, and metabolism, for example. Individual genomes differed in size by as many as 9 million bases. This fall, another group performed an extensive analysis using a technique, called paired-end mapping, that can quickly uncover even smaller structural variations. These differences matter. One survey concluded that in some populations almost 20% of differences in gene activity are due to copy-number variants; SNPs account for the rest. People with high-starch diets--such as in Japan--have extra copies of a gene for a starch-digesting protein compared with members of hunting-gathering societies. By scanning the genomes of autistic and healthy children and their parents for copy-number variation, other geneticists have found that newly appeared DNA alterations pose a risk for autism." (Elizabeth Pennisi, "Breakthrough of the Year," *Science*, 21 Dec 2007, p. 1843)[3] [emphasis mine]

In the first instance, one paper that explains DNA and genetics in simple terms for the layman is *From DNA to Genetic Genealogy. Everything you wanted to know but were afraid to ask* by Stephen Morse. You can find it with a simple search on the internet but is too long (28 pages) to include as an appendix at the rear of this article.

As he states:

> "Everything we need to know about genetealogy involves three basic concepts – genes, chromosomes, and DNA. The relation between them is simple: Traits are determined by GENES.

[3] See **"**Human Genes with Multiple Effects," *GRI Newsletter*, No. 46, July 2016:
JK PICKREL, T Berisa, JZ Liu, L Segurel, JY Tung, DA Hinds. 2016. Detection and interpretation of shared genetic influences on 42 human traits," *Nature Genetics* 48:709-717. doi:10.1038/ng.3570.
Additional commentary is found at http://www.the-scientist.com/
Summary. This study looked for gene variants (SNPs: single-nucleotide polymorphisms) that are linked to two or more human traits, by analyzing the results of 16 genome-wide studies and data from the company, 23andMe. Pairwise associations were analyzed for 42 traits, and 341 genetic loci were discovered to be linked to two or more traits. An example of their findings is that a nonsynonymous polymorphism in SH2B3 is associated with a number of autoimmune diseases, and traits in lipids, red blood cells and heart disease. This method may prove useful in epidemiological screening for genetic diseases.
Comment. Many genes have multiple effects, a condition known as **pleiotropy. A slight change in a gene may affect many traits at once**. This has important implications for theories of evolution based on natural selection. Selection for a particular mutation may be limited by the fact that the mutation has effects on traits other than the one under selection. Pleiotropy can prevent selection from favoring genetic mutations that negatively affect other traits." [emphasis mine]

Genes are located on CHROMOSOMES.
Chromosomes are composed of DNA." (p. 1)[4]

We will build upon this over the following pages.

[4] NB: A gene may even 'jump' changing or creating mutations: "A **transposable element** (**TE, transposon**, or **jumping gene**) is a nucleic acid sequence in DNA that can change its position within a genome, sometimes creating or reversing mutations and altering the cell's genetic identity and genome size. Transposition often results in duplication of the same genetic material. In the human genome, L1 and Alu elements are two examples. Barbara McClintock's discovery of them earned her a Nobel Prize in 1983. Its importance in personalized medicine is becoming increasingly relevant, as well as gaining more attention in data analytics given the difficulty of analysis in very high dimensional spaces." ("Transposable Element," *Wikipedia*).

Explaining Genetics, DNA and Y chromosome

We need to delve deeper into this area of research. Does DNA research help in identifying nations? Is this even possible? Can it also assist in allocating Y-Chromosomes to the nations listed in Genesis 10?

Definitions and Terms Used

Luigi Luca Cavalli-Sforza (1922-2018) was a famous Italian geneticist who, along with others, has written that race does not exist, claiming that distinct peoples identifiable by their physical appearances cannot be grouped together as a human type. Quite an extreme and globalist view which he and others can and do get away with due to their control of the narrative.

He is well known for works such as *The Genetics of Human Population* (1971), *The History and Geography of Human Genes* (1994), *Genes, Peoples, and Languages* (2000).[5]

His denial that there is *truly* tremendous and wonderful diversity of human-kind represents the thought processes and skewing of facts by the Left. Their control of the narrative via sympathisers in the media, their domination of the sciences in universities and infiltration of corporations and churches has led these once minority views to take hold and become an accepted truth. But is it true?

So, on one hand he and other proclaim the non-existence of human races, yet with the next breath he and his cohorts prove they exist via the accumulation of mammoth amounts of data pertaining to genetic differences. Alone, the physical appearances represent these deeper differences - and that there are sub-races or local races.

Before delving deeper into the subject, the following definitions should be grasped.

Races:
Distinct human peoples easily identified by skin colour and form/physiognomy and who can be grouped together. Something to be celebrated and not denied or be ashamed of which is the

[5] Of language, it is interesting that even this could exhibit inherited traits: "Differences between languages could be influenced by the gene groups that speak them, according to a study that marks the first case of a causal link between DNA variations and the features of language.
"The linguists who link two brain genes to "tonal" languages hope that future experiments will reveal the path by which these genes exert their influence on individual brains, illuminate the preferences of entire populations for language and, ultimately, shed light on the way specific languages evolve and change." (Roger Highfield, "Genes might help you learn Chinese," *Telegraph*, 29 May 2007) That we are 'wired up' differently, even in terms of language, is genetically affected in some way.
See also Grazyna Fosar and Franz Bludorf, Scientists Prove DNA Can Be Reprogrammed by Words and Frequencies, https://wakeup-world.com/, 12 July 2011: They found that the alkalines of our DNA follow a regular grammar and do have set rules just like our languages. So human languages did not appear coincidentally but are a reaection of our inherent DNA… All information is taken from the book *"Vernetzte Intelligenz"* von Grazyna Fosar und Franz Bludorf."
That is very interesting because language is a 'cultural transmitter' and protector as it helps in defining and maintaining national/ethnic identity. No doubt a reason for God's intervention at Babel (Gen 11:1-10).

way modern geneticists and physical anthropologists operate.

The average human, not impacted by the interpretations of certain scientists representing Marxist-Leninist thinking can easily determine racial differences. There is no need to be lied to or bullied and told what to think by a rowdy, controlling minority.

For example:

> "The Egyptians used skin color to depict the four human races known to them: Egyptians were reddish-brown, Asiatics (Syrians and others from the Levant including the Hebrews) were depicted pale white, Nubians (to the south) were black, and Libyans (to the north and west) were almost nearly white. It is important to note that these four races appear in the Book of Gates from the New Kingdom, seen in "many New Kingdom royal tombs. . . harmoniously coexisting in the afterlife." Wilkinson, *Symbol*, 123. So while the Egyptians considered these to be mostly enemies in the present life, they saw eternal life much differently." (L. Baker, "Sanctuary Colors through Egyptian Eyes," *Journal of the Adventist Theological Society,* Vol. 32, Nos. 1-2 (2021), footnote 32, p. 9)

On 12 April 2024, this author visited the Ramses & The Gold of the Pharaohs exhibition at the Australian Museum, Sydney. My eyes dwelt on the ancient inscriptions which proved that the ancients identified racial differences. A reality known to humans since time immemorial. One of several photographs below.

Figure 1. Asian [Middle Eastern], Nubian, Asian, Libyan peoples identified in ancient Egypt

In general, race refers to both a person's or a group of people's biological and cultural characteristics. It has been challenging to distinguish between the two aspects of race—pysical and cultural—because modern scientists have rejected the former for the latter. The idea that race is "merely a social construct" has been oversimplified in science over the last few decades. While there are biological variations throughout the world's populations, this may or may not be accurate depending on whatever aspect of individual variation is taken into account. Skin

colour is an easy and obvious illustration of a biological difference. There are many variations in skin pigmentation levels due to a strong genetic component.

Variations in the frequencies of DNA genetic markers provide unambiguous proof of this evolutionary process. Notably, all populations share alleles (defined as "one of two or more versions of a genetic sequence at a particular region on a chromosome. An individual inherits two alleles for each gene, one from each parent") that are present in one group, and the most common alleles in one community also tend to be the most common in others. These populational similarities highlight how recent human populations' common ancestry is!

A complex and nuanced subject, race is often oversimplified. But when we examine data, we are evaluating not only a person's race but also their genetic heritage. Your beliefs about politics, society, religion, or personal matters are not ingrained in your DNA. Rather, DNA is encoded with a four-letter code that accurately records every change made to it over the course of many generations. These alterations are distinct, personal, and complex, much like fingerprints.

> "Cultural changes in political and social organisation - phenomena that are unique to human beings - may extend their reach **into patterns of genetic variation in ways yet to be discovered**" (Tian Zweng (et al), "Cultural hitchhiking and competition between patrilineal kin groups explain the post-Neolithic Y-chromosome bottleneck," nature.com (*Nature Communications*), Vol. 9, Article No. 2077 (2018)). [emphasis mine]

Also, see "Out-of-Africa Theory Contradicted by Israeli Fossil," by Jeffrey Tomkins, www.icg.org:

> "… both DNA sequence data and phenome (language data)also contradict a single line of descent from Africa. Given the fact that the out-of-Africa scenario does not work, even by evolutionary standards, a biblical perspective provides a much better interpretation of the data." (28 Feb 2022)

You can read the article in the **Appendix. The First Humans Out Of Africa Weren't Quite Who We Thought.**

It seems that every few months the theory is contested by new research.

Further, all sorts of species or sub-species have differences in appearance, physical capacity, mental capacity and propensity toward this or that disease. For example:

- Cavalier King Charles Spaniels typically exhibit a friendly demeanor, which is why they are often recommended as suitable pets for households with children by Australian veterinarians. However, nearly all Cavaliers suffer from mitral valve heart disease, and they commonly experience hip dysplasia.
- Beagles are scent-hounds that can become completely absorbed in a captivating scent, often leading to a lack of awareness of their surroundings, such as when crossing roads.
- Border Collies are renowned for their exceptional intelligence and herding instincts.
- American Pit Bull Terriers are frequently predisposed to displaying aggressive behavior.

One can discover the same for horses, cats, birds etc. How much more so for a higher order being – humans.

Physical anthropology:
Denying race is denying biology and facts. Brought to you by the same people that are teaching that male and female are a social construct. Yet science proves otherwise.[6]

Physical Anthropology encompasses several subfields, including Biological and Social Sciences, Paleontology (investigating the origin and evolution of humans), and genetics (analyzing the variation among modern human populations).

Human biology:
Human Biology is a comprehensive field of study that focuses specifically on the various aspects of the human organism. It encompasses a wide range of disciplines, including evolution, genetics, ecology, anatomy and physiology, development, anthropology, and nutrition. By delving deep into these areas, individuals gain a profound understanding of the human body and its functions. It is a subset of biology, which is a broader field that encompasses the study of all living organisms. It explores various disciplines such as biochemistry, microbiology, and ecology, and investigates life at different levels, from cells to body systems.

Sociobiology:
Sociobiology, aims to elucidate social behavior of both human and animal. It draws upon insights from various disciplines, including psychology, ethology, anthropology, evolution, zoology, archaeology, and population genetics. When studying human societies, sociobiology closely intersects with evolutionary anthropology, human behavioral ecology, evolutionary psychology, and sociology.

In its investigation, sociobiology explores a wide range of social behaviors, territorial conflicts, pack hunting, and the intricate social structures observed in hive societies of social insects.

Edward Wilson was probably the most prominent of all academics in researching this area of science. He was persecuted of course, falsely labelled a racist and picketed and shouted down at his lectures. The woke Left refused to listen to the truth. They prefer to force their minority will upon the majority by harassing moderates and conservatives, cancelling them and infiltrating political parties, governments and bureaucracies to promote their views. So much for democracy.

Articles about him appeared in the press after he died. Amazingly one was titled “It isn’t racist to believe in genetic differences,” *The Times*, 6 Jan 2022 by Daniel Finkelstein and “The ‘Modern-day-Darwin’ who fell victim to peers,” *The Australian* by Claire Lehmann.

Epigenetics:
There is much dispute about the term and it can be allocated to a number of functions. In this article it refers to the intricate interplay between our genetic makeup and the environment in

[6] See for example Micjhael Seldin, *UC Davis Study Finds Distinct Genetic Profiles*, University of California, 21 Sept 2006. And Nicholas Wade, “Gene Study Identifies 5 Main Human Populations,” *New York Times*, 20 Dec 2002.

shaping psychological development.[7] Epigenetics encompasses any influence on an organism's development that goes beyond the DNA sequence alone. This definition includes temporary modifications related to DNA repair or cell cycle phases, as well as more enduring changes that persist across multiple cell generations.

Genetics:
Mitochondrial DNA (mtDNA) and Y-chromosomal DNA (YDNA) are unable to definitively identify "ethnic groups." While they can track the migration of genetic populations through matrilineal and patrilineal lineages, they cannot accurately pinpoint tribes, nations, states, or other political entities. On the other hand, autosomal DNA, which combines contributions from both parents, does contain markers linked to major world regions. This enables us to estimate the percentage of our genome originating from specific areas such as Asia or Africa. However, further subdividing autosomal DNA beyond these broad regions remains probabilistic. For example, a specific marker may be found in 5% of Senegalese, 3% of Kenyans, 4% of Somalis, and 2% of Berbers. The results of a genetic genealogy test do not present a complete family tree or race. DNA alone cannot disclose a person's great-grandmother's identity or identify the exact Italian village from which their great-great-grandfather came. Genetic genealogy should be seen as a supplement to traditional genealogical research rather than a replacement.

DNA:
DNA, also known as deoxyribonucleic acid, is an essential molecule that contains the instructions required for the growth, survival, and reproduction of an organism. Found in almost all living beings, DNA is the main constituent of chromosomes. It plays a vital role as the carrier of genetic information, encoding the blueprint for cellular functions. In humans and many other organisms, DNA serves as the hereditary material. Interestingly, every cell in an individual's body contains the same DNA, highlighting its remarkable consistency.

We have much in common with chimpanzee DNA.[8] But not enough to have been part of the same evolutionary tree as claimed by athiests.

The applications of DNA, such as identity, paternity, and genealogy, are vast and varied. One key area is the study of human migration patterns and population studies, which involve markers in the non-coding region of the Y chromosome or mtDNA. Genealogy, on the other hand, uses markers in the non-coding region of the Y chromosome that change rapidly. Additionally, genetic testing for characteristics, such as diseases, focuses on markers within genes on specific chromosomes, providing valuable insights into disease-related traits.

But notice that marrow transplants and even blood transfusions may impact us:

> "Three months after his bone marrow transplant, Chris Long of Reno, Nev., learned that the DNA in his blood had changed. It had all been replaced by

[7] See for example Jessica Ayers, "What do genes have to do with psychology? They likely influence your behavior more than you realize," *The Conversation*, 24 July. https://theconversation.com/what-do-genes-have-to-do-with-psychology-they-likely-influence-your-behavior-more-than-you-realize-227036

[8] See Jeffrey Tomkins, "Comprehensive Analysis of Chimpanzee and Human Chromosomes Reveals Average DNA Similarity of 70%," *Answers Research Journal,* Vol. 6 (2013), pp. 63-69. And Don Batten, "The myth of 1%. Human and chimp DNA are very different," *Creation*, Vol. 36, No. 1 (Jan 2014), pp. 35-37.

> the DNA of his donor, a German man he had exchanged just a handful of messages with.
> "He'd been encouraged to test his blood by a colleague at the Sheriff's Office, where he worked. She had an inkling this might happen. It's the goal of the procedure, after all: Weak blood is replaced by healthy blood, and with it, the DNA it contains.
> **"But four years after his lifesaving procedure, it was not only Mr. Long's blood that was affected. Swabs of his lips and cheeks contained his DNA — but also that of his donor. Even more surprising to Mr. Long and other colleagues at the crime lab, all of the DNA in his semen belonged to his donor**. "I thought that it was pretty incredible that I can disappear and someone else can appear," he said."…
> "The average doctor does not need to know where a donor's DNA will present itself within a patient. That's because this type of chimerism is not likely to be harmful. Nor should it change a person. "Their brain and their personality should remain the same," said Andrew Rezvani, the medical director of the inpatient Blood & Marrow Transplant Unit at Stanford University Medical Center…
> "That's not to say that other forms of chimerism haven't created comparably confusing scenarios. Fraternal twins sometimes acquire each other's DNA in the womb; in at least one case that led to unfounded fears of infidelity when a man's child did not seem to be his. In another case, a mother nearly lost custody of her children after a DNA test." (Heather Murphy, "When a DNA Test Says You're a Younger Man, Who Lives 5,000 Miles Away," *The New York Times*, 7 Dec 2019) [emphasis mine]

There is much complexity to all of this and scientists are left scratching their heads – they do not know everything even though they try and portray that image. Notice:

> "Amit Kumar Acharya
> Doctor in Bachelor of Medicine and Bachelor of Surgery Degrees & Human Biology, All India Institute of Medical Sciences (AIIMS) (Graduate 2022).
> It is possible that historical mass changes in YDNA haplogroups could be a result of lateral DNA transfer, also known as horizontal **gene transfer. This occurs when DNA is transferred between organisms that are not parent and offspring, and can happen through mechanisms such as viral infection, transduction, or conjugation.** Studies have shown that this type of transfer can occur between different species, including between bacteria and higher organisms, and may have played a role in the evolution of certain genetic traits. However, more research is needed to understand the specific mechanisms and extent of lateral DNA transfer in different populations and haplogroups." (*Could historical mass changes in YDNA haplogroups be a result of substantive lateral (horizontal, heritable but not inherited) DNA transference?* - Quora) [emphasis mine]

To make matters even more curious, scientists are now talking about "jumping genes." An example would be a tick may take some blood from a snake which, of course, means DNA. In

turn that tick feeds on a cow and inserts the gene from the snake into it. Then this jumping gene "copies and pastes itself into the cow genome." (Liam Mannix, "Jumping for genes: DNA takes a ride," *Sydney Morning Herald*, 18 July 2018, p. 12). This supposedly accelerated the evolutionary process. At least, that is the excuse for denying creation. But this may help in understanding genes from different peoples and races transferring themselves over generations with little or no racial change resulting.[9]

Figure 2. Close up view of DNA strands

Haplogroups:
Here is a standard definition:

> "A haplotype is a group of alleles in an organism that are inherited together from a single parent, and a **haplogroup** (haploid from the Greek: ἁπλοῦς, *haploûs*, "onefold, simple" and English: group) is a group of similar haplotypes that share a common ancestor with a single-nucleotide polymorphism mutation…
> "In human genetics, the haplogroups most commonly studied are Y-chromosome (Y-DNA) haplogroups and mitochondrial DNA (mtDNA) haplogroups, each of which can be used to define genetic populations. Y-DNA is passed solely along the patrilineal line, from father to son, while mtDNA is passed down the matrilineal line, from mother to offspring of both sexes. Neither recombines, and thus Y-DNA and mtDNA change only by chance mutation at each generation with no intermixture between parents' genetic material." (https://en.wikipedia.org/wiki/Haplogroup, accessed 20 March 2024)

During the analysis of mtDNA samples across diverse populations, researchers have noted that individuals often form clusters known as haplogroups, distinguished by specific polymorphic nucleotides.

These haplogroups were initially delineated in the late 1980s and 1990s by grouping samples

[9] See also Lesley Pray, "Transposons: The Jumping Genes," *Nature Education*, Vol. 1, No. 1, 2008, p. 204.

with similar patterns revealed through the use of restriction enzymes to separate various mtDNA types from global populations (refer to Table 14.8). Subsequently, mitochondrial DNA haplogroups have been linked to HV1/HV2 polymorphisms and overall mtGenome variation. Haplogroups A, B, C, D, E, F, G, and M are commonly found in Asian populations, while the majority of Native Americans belong to haplogroups A, B, C, and D. Haplogroups L0, L1, L2, and L3 are prevalent in African populations, and haplogroups H, I, J, K, T, U, V, W, and X are typically associated with European populations.

Y-Chromosome:
Although Y-DNA and mtDNA can determine the connection between individuals, they do not provide an exact measure of the relationship. For example, an mtDNA test can verify if two women have a common maternal lineage, as indicated by conventional studies. Nevertheless, it cannot determine if these women are first cousins, third cousins, or even fifth cousins once removed.

Genetic genealogy relies on the inheritance patterns of sex chromosomes. While the X chromosome experiences some recombination within recent generations, the Y chromosome remains unchanged—it is consistently passed down intact from father to son. Fortunately, DNA is not always transmitted perfectly; occasional mutations occur. Considering the immense number of cells in our body (over ten trillion), mutations are likely to occur continuously. However, most single-cell mutations go unnoticed, except in sex cells (egg and sperm), where they can be inherited from parent to child. These mutations occasionally modify the Y chromosome passed from father to son, resulting in minor variations between the son's Y chromosome and the father's. These variations enable us to determine relatedness and evaluate the degree of closeness in the relationship.

How do we reconcile all this science with the Bible?

Notice this interesting titbit from Yair Davidiy, lost tribes of Israel scholar:

> “New Video.
> Yair Davidiy: Creationism and DNA
> https://www.youtube.com/watch?v=tPaz3w6ir1I
> Duration: 18.05 minutes
> The first man came into existence less than 6,000 years ago.
> It is possible to accept Evolutionary-type scientific beliefs and to still have faith in the Bible.
> Nevertheless this is not necessary since Evolution has not been proven.
> DNA findings as conventionally explained say that mankind existed before 200,000 years whereas the Bible says Adam was created in ca. 3760 BCE [more likely c3960 BC – ed].
> Dr. Nathaniel Jeanson has shown that the DNA "clock" has been deliberately wrongly computed and that the proper computation is consistent with the Chronology of the Bible.
> See: The Bible and Creationism.
> https://hebrewnations.com/articles/creatonism.html”

Yet scientist say that they can trace mankind to an 'Adam' sort of figure hundreds of thousands of years ago (see for example "Y-chromosomal Adam," *Wikipedia*, 19 Oct 2014).
What is the truth?

Y-DNA haplogroups are associated with important divisions within the phylogenetic tree of the Y-chromosome. Scientists commonly refer to the most recent common ancestor of the Y-chromosome (Y-MRCA) as Y-chromosomal Adam, who is the paternal ancestor from whom all present-day humans are descended. Y-MRCA represents the most recent male individual from whom every living human can trace an uninterrupted line of male ancestry. It is worth noting that the Y chromosomes of all living male humans can be directly traced back to this ancient ancestor!

Notice: The bulk of our genetic makeup is inherited from both of our parents. Human beings possess 23 pairs of chromosomes, with one set derived from the mother and one from the father. One of these pairs determines the sex of the offspring, consisting of the "X" chromosome, which is normal in size, and the considerably smaller "Y" chromosome. Despite its size, the Y chromosome still contains millions of nucleotides. In mammals, individuals with XX chromosomes are female, while those with XY chromosomes are male. However, this pattern is not universal across species; for instance, in birds, XX chromosomes denote males, and XY chromosomes denote females. In certain insect species, females are diploid (two complete sets of chromosomes), while males are haploid (single set of chromosomes). Interestingly, in plants, genetics do not dictate sex.

Each human parent contributes 23 chromosomes to the offspring, via egg and sperm. The egg always carries an X chromosome, while the sperm may contain either an X or a Y chromosome (barring abnormalities, which we'll discuss shortly). If the sperm carries an X chromosome, the resulting fertilized egg will have XX chromosomes, resulting in a female offspring. Conversely, if the sperm carries a Y chromosome, the fertilized egg will have XY chromosomes, resulting in a male offspring.

Therefore, the sex of the child is determined by the sperm cell in mammals. Occasionally, during the formation of eggs or sperm, errors can occur, resulting in the presence of more or fewer than 23 chromosomes. Such errors can affect any chromosome, including the sex chromosomes, leading to individuals who possess three or just one sex chromosome instead of the usual two.

Normally, if an individual is fertile and possesses a Y chromosome, that individual will be male. For example, as a male, I inherited my X chromosome from my mother and my Y chromosome from my father. Each of my parents also had two parents, thus I have two grandfathers. My paternal grandfather passed his Y chromosome to my father, who in turn passed it on to me. Similarly, my maternal grandfather contributed one of my mother's X chromosomes. There's a 50% probability that the X chromosome I carry originated from my maternal grandfather, but no possibility that I inherited his Y chromosome, as he passed that to my mother's brother, who I'm not descended from.

Although I have numerous male ancestors, it is thought that my Y chromosome can be traced back to just one of them through strict patrilineal descent. While I may have inherited genetic information from other male ancestors through the other 22 chromosomes, the Y chromosome

itself only originates from one source—my strict patrilineal ancestor. If two men share the same strict patrilineal ancestor, regardless of how distant, they will possess identical Y chromosomes. This chromosome is passed down through generations from fathers to sons, grandsons, and so forth, eventually becoming present in all living men.

Despite the biblical account of Noah suggesting that all existing Y chromosomes in men should be identical, they are not. This discrepancy forms just a part of the larger narrative, which I endeavor to comprehend and elucidate here.

A World of Human Diversity and Complexity

The prevailing notion that race lacks biological validity and is merely a questionable sociological construct suggests that racial distinctions are rooted in superstition. According to this perspective, there is no rational basis for preserving racial identities, and the replacement of one racial group by another entails no genetic loss. Furthermore, it implies that resistance to displacement, particularly among whites in Europe or America, is unfounded since they are essentially being replaced by individuals of their own race.

However, this perspective is fundamentally flawed. Races exhibit consistent breeding patterns across generations—individuals of one race cannot produce offspring of another race, and racial differences are noticeable even to young children. In contrast, scientists readily acknowledge biological distinctions between animal subspecies that are physically more similar to each other than members of different human races.

The primary motivation behind advocating such a view is often attributed to "anti-racism." Nonetheless, proponents of race denialism often rely on a biological fact articulated by Richard C. Lewontin of Harvard: the observation that there is greater genetic variation within human racial groups (approximately 85 percent) than between them (approximately 15 percent). While this finding is accurate and initially surprising to scientists, it has been subject to numerous misinterpretations. Some have erroneously asserted that because there is more genetic diversity within racial groups, whites are genetically closer to blacks than to other whites.

There are various perspectives on genetic diversity within and among different racial groups. Despite the diversity in human populations, many fundamental traits are universally shared among individuals. For instance, all humans possess common anatomical features such as two arms and legs, a heart with four chambers, and a single stomach. Additionally, processes like DNA replication, protein translation, and sensory information processing in the brain are universally observed. Consequently, the variations between races are relatively minor.

Similar patterns can be observed when comparing humans to other species. Approximately 98 percent of the chimpanzee genome shares similarities with the human genome, while humans overlap with mice in approximately 80 percent of their genes. Despite the variation within the human genome, the specific variations are unique to our species. The two percent difference between humans and chimps represents areas where there is no overlap between the two genomes, which accounts for the distinctions between the two species.

An individual's gametes, consisting of sperm and eggs, carry only half of their genome, resulting in genetic variation between them. It is possible for one of Peter's sperm to exhibit greater overall genetic similarity, including non-functional DNA, to one of John's sperm than to another of Peter's own sperm. However, this does not imply that Peter is more genetically similar to John than to himself, nor does it suggest that Peter's should be indifferent to whether John's sperm are involved in creating his child. The pertinent genetic information in comparing John and Peter lies in the segments of DNA that differentiate John from Peter, rather than in random genetic variations—much of which lack functional significance—that are present in all individuals.

Similarly, when assessing different population groups, the focus should be on the genetic elements that distinguish one group from another. If a species of wolf faces extinction, environmentalists wouldn't dismiss the concern by pointing out that there is more genetic variation within each wolf species than between them. Nor would they argue that the threatened species shares most of its genetic variation with other wolf species and even with dogs, therefore rendering the situation inconsequential. Extinction, whether of a species or a human race, results in the irreversible loss of unique characteristics and genetic information that set that group apart from all others.

All of this demonstates a huge range of human types or species. In fact, most nations are nowadays composed of so multiple ethnic groups, many or most still maintaining their identities. Iraq is one such example of diversity.

Below is an example of ethnic variation in the country of Iraq – notice that so many countries borders do not mean that all within those borders are the same peoples or race even if they speak the same language and have the same or similar social structures and cultures.

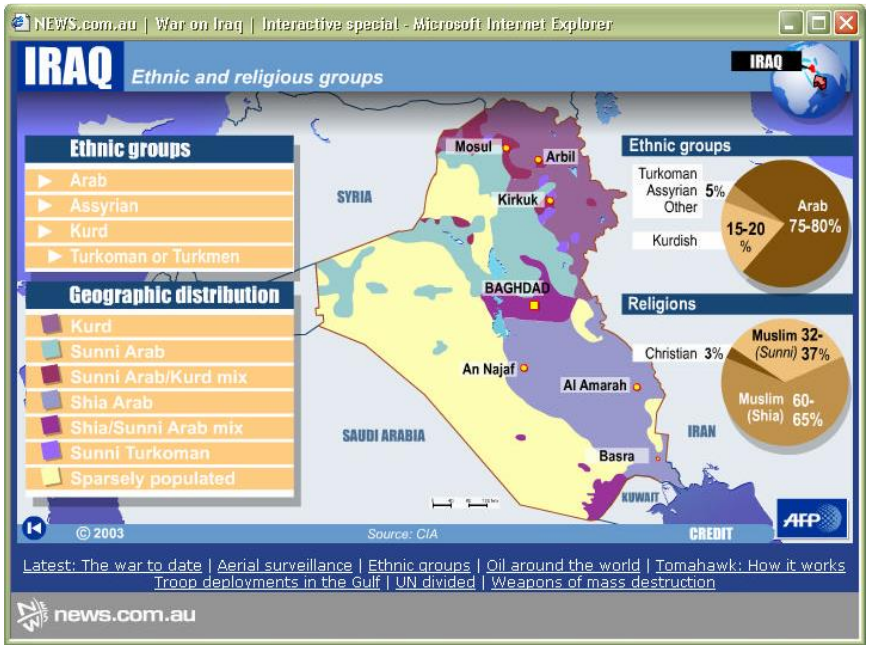

Figure 3. Example: The Complexity of Tribes in Iraq

How long have we heard that some people are naturally more intelligent or that "they are born

that way" with virtually being automatically able to learn certain subjects quickly (eg maths, languages). Upbringing and education together with opportunities certainly assist such a one. But there are those without the natural ability and supports who can do just as well as those more intelligent with determination, drive and even cunning. Or brutality in the workforce.

Though pooh-poohed by the Left for decades, the average person can see natural intelligence in others. As is often the case, science – when the research is presented truthfully and accepted humbly – comes to the rescue. Here is one such example:

In "Do genes determine intelligence?" *Unherd* (29 July 2021), wrote "conservatives and liberals are ignoring the realities of biology." Why is that? Because they all go to the same Leftwing universities. "Same think" is the order of the day!

> "**Razib Khan** is a geneticist. He has written for *The New York Times, India Today* and *Quillette*, and runs two weblogs, Gene Expression and Brown Pundits. His newsletter is *Razib Khan's Unsupervised Learning*
> Nearly 20 years ago, Steven Pinker's *The Blank Slate: The Modern Denial of Human Nature* attempted to nudge the West's intellectual elite beyond mid-century *tabula rasa* theories like Freudianism and Behaviourism. Though the book was a success for Pinker, its lessons were largely ignored. The world remained woefully and wilfully ignorant of basic biology…
> In 2006, geneticists applied the new technology to the study of heritability, generating relatedness scores from genomics for thousands of sibling pairs. They discovered that very heritable traits did indeed show more similarity in those siblings who were genomically more related. **Heritability was more than a statistical construct, it was a biophysical reality**." [emphasis mine]

Many or most peoples have maintained, to a high degree, their physical and racial identities, despite neo-Marxism and Woke ideologies and the forcing of mankind toward globalisation.

For example, an article appeared in the *American Journal of Human Genetics*, proving the racial continuity of Bronze Age Canaanites with modern-day Lebanese (see Marc Haber (et al), "Continuity and Mixture in the Last Five Millennia of Levantine History from Ancient Canaanite and Present Day Lebanese Genome Sequences," *American Journal of Human Genetics*, Vol. 101, pp. 274–82, 3 August, 2017).

There are also blood types. See for example "Race and Ethnic Blood Type Analysis," Bloodbook.com for a lot of details and interesting information.

> "These Y-SNP markers are used to sort human Y chromosomes into the various Haplogroups we hear so much about in the anthropological use of DNA testing. The most recent common male ancestor of two people who share the same Y-SNP test Haplogroup is many thousands, even 10's of thousands of years ago. **Thus Y-SNP testing, while interesting, is not of much use for traditional genealogical purposes, other than being able to tell you what large geographic area or continent of the world your ancient male Y chromosome ancestor originally is thought to have lived**." (Charles Kerchner,

> "An Overview and Discussion of Various DNA Mutation Rates and DNA Haplotype Mutation Rates," *Kerchner's DNA Testing and Genetic Genealogy Info and Resources Page,* 17 April 2008. www.kerchner.com/dna-info.htm) [emphasis mine]

So, your recent genealogy may not be revealed in knowing one's haplogroup.

Is this racism?

Ludicrously, the Woke/Globalist/Radical Left brigade are now afraid that science does, after all, prove that there are different races. For instance, an article appeared in www.news.com.au, "Experts concerned scientific advances are giving rise to neoracism," (15 Feb 2014) whatever that means to the radicals. The science proves all sorts of differences between peoples or races including genetic disposition toward certain diseases.[10]

How can this be assisting racism? Surely, such research would be good for mankind, leading toward further research that could help to contain diseases. They even try and equate this recent scientific proof with slavery and Nazism. Perhaps these ideologues are more concerned with their own fanaticism than helping mankind.[11]

For people who advocate scientific advancement, this sort of thinking reveals their true colours: their ideology does not match the science.

[10] In fact, there has been growing evidence for immune system differences between races: "The American Journal of Human Genetics study may help explain why some groups are more vulnerable to disease, and aid development of more tailored treatment." (*Immune System Differences Found*, www.bbc.co.uk, 29 Feb 2008)

[11] Perhaps some of them, are in part, influenced by their genetics. Science has uncovered that even our ideology could be partly inherited: "researchers found tantalizing hints that up to half of the variation in our attitudes toward issues and our voting practices can be traced to **a political psyche shaped by genetic traits. Even the intensity of our partisan passions may be partly inherited**…" (Robert Hotz, "The Biology of Ideology," *Science Journal*. *Wall Street Journal*, 4 Sept 2008, p. A10) [emphasis mine]

The Bible, Race and Nations

One thing that Christian creationists should understand is that scientists change direction from time-to-time – regularly. You see articles quite often with new research and revelations concerning just about everything. The basics may be fixed, but not the minutiae.

While there is fixed and finite Biblical truth, there is no fixed or finite scientific truth.

Given this, it is a pity that the Creation Science organisations (such as *Answers in Genesis*) have adopted leftist, neo-Marxist ideology when it comes to race. Ostensibly to appear 'cool' and non-racist. To compromise with the world and to be accepted – to look respectful.

How Y-Chromosome research might help

As we have seen, the Y-chromosome is inherited mainly from father to son, often (but not always) unchanged. As such, through males only - it follows the paternal line back in one's family tree.

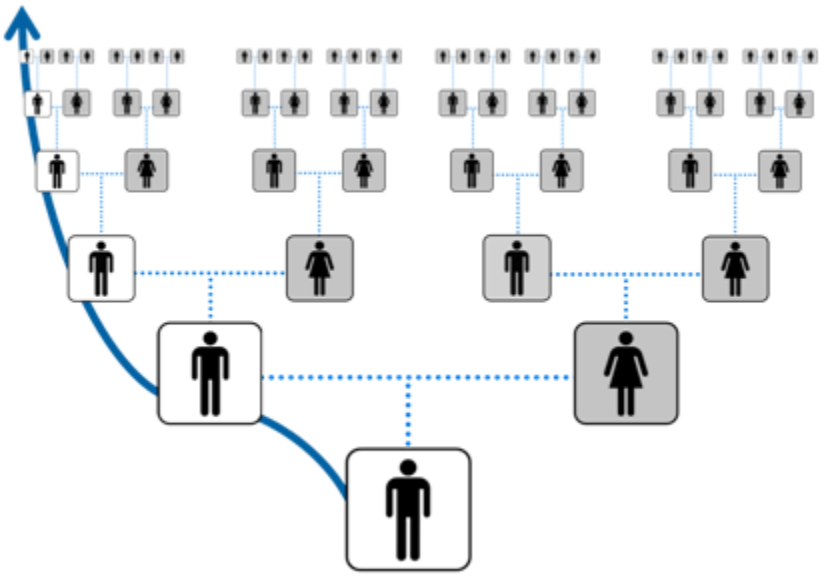

Figure 4. Y-Chromosome family tree

But all this scientific research faces many hurdles and challenges as, I think, you would have read thus far in this document. In all this research, so much else dovetails into the overall picture.

Here is one example:

Eg Sarah Knapton (Science Editor), "Europe was the birthplace of mankind, not Africa, scientists find," *The Telegraph*, 22 May 2017:

> "Habilis was generally accorded an important place as the first of the genus, preceding the more advanced Homo erectus and, ultimately, modern humans — Homo sapiens. But certainty has been elusive. A report

> last month in the journal Nature renewed debate over the habilis's place in human evolution…
>
> "Writing in the Annual Review of Anthropology in 2004, Dr. Anton and Carl C. Swisher III, a geologist at Rutgers University, concluded that the relationships among erectus and various possible nonerectus Homo groups in Africa "currently are quite muddled and require substantial revisitations."
>
> "Even if the mystery of the origins of the genus Homo is a sign of paleoanthropology's maturing reach into the deep past, it still leaves the redrawing of the human family tree very much a work in progress.
>
> "Daniel E. Lieberman, a paleoanthropologist at Harvard, said that filling in the tree matters to scientists, and not only out of innate curiosity about human ancestry.
>
> "At a basic level, one wants to know when and where transformations occurred so one can put them into their appropriate evolutionary context," Dr. Lieberman said.
>
> "He said that that could reveal the dietary and environmental causes of species change, leading eventually to modern humans with the ambition to find their origins.
>
> "Dr. Lieberman said that he and colleagues "are relentlessly optimistic that **we have all the information we need to answer our big questions, but just haven't figured out the order in which to connect the dots."**
>
> **"But the real problem, he added, with resignation tempering optimism, "is that the fossil record doesn't have enough dots**." (September 18, 2007 Lost in a Million-Year Gap, Solid Clues to Human Origins By John Wilford, http://www.nytimes.com/2007/09/18/) [Emphasis mine]

Even DNA forensics can be inaccurate yet is worshipped as something completely – 100% - accurate. This is not the case and honest scientists have exposed this. See *Unreliable Evidence? A Look at DNA Forensics* by Rebecca Taylor for one example. Here is another:

> "Sapolsky [author of *Behave: the Biology of Humans at our Best and Worst* is unafraid. He moves from religion to politics to race, describing how our brains have an instantaneous reaction to people of a different colour. Whatever our upbringing, education and beliefs, we are designed to divide the world into "them" and "us", even if we don't want or mean to…
> "Did you know that male monkeys instinctively prefer to play with "masculine toys" like trains, while the females prefer dolls? And that the reward hormones in our brains are at their happiest when we are in pursuit of a goal rather than when we accomplish it?

> "We behave the way we do because our genes and brains are pliable. They have been shaped by our personal experiences **but also by those of our ancestors** …" (Suzanne O'Sullivan, "Untangling the links between biology and behaviour," *Sydney Morning Herald*, 26 May 2017). [emphasis mine]

We should realise that the mtDNA and YDNA tests only show us that two people have a common ancestor up to 2000 years ago. While these two share identical portions of mtDNA and YDNA, they will still differ greatly. In other words, the common ancestor is detected by the tests, and that is about it.

For example, a test on a given Caucasian living in Britain, may show that in their maternal or paternal line there is a connection with someone from the Yoruba nation in Nigeria. That is what they have in common. But the race is different because the admixture was such a long time ago to be negligent. In fact, it doesn't show that the ancestor was even a member of the tribe, but picked up genes somewhere along the way, not necessarily in Nigeria.

Or if a Norwegian had a mtDNA "L" sequence. This would show that somewhere in his ancestral background there is a drop of sub-Saharan African heritage and vice versa. But so little, what is the point of making it into a big issue?[12] The only conclusion one can draw is that there was some admixture but the percentage of mixture is unknown from the Y-chromosome or mtDNA.

So, if test results showed that someone had 20% Korean markers, that does not mean that they are 20% Korean by appearance or any other racial feature. It merely shows that 20% of Korean markers were found; nor that 20% of their ancestry were Korean.

Given the above science, is not 100% accurate in this area and cannot put beyond doubt this or that conclusion or research results. The YDNA and mtDNA - your patrilineal and matrilineal ancestors contributed about 1/1000th of your genome – not much to be considered a racial test.

Mitochondria, the powerhouses of cells, have a direct impact on genetic mutations. They have the ability to integrate themselves into active genes, resulting in mutations. This phenomenon is especially noticeable in DNA that has been damaged by pollution or radiation, making it more susceptible to further damage from stray mitochondrial DNA. It is worth noting that genes that are frequently unzipped to produce proteins are particularly vulnerable to harm. (Source: Andy Coghlan, "The enemy within that targets genes," *New Scientist*, 18 September 2004, p. 11.)

> "Miria Richetti at the Pasteur Institute in Paris and her team identified 211 insertions of mitochondria DNA across the genome, 23 of them new, 80 percent were in genes but genes only make up 3 per cent of the genome. The targets are widely transcribed genes, probably because they have more double strand breaks, says Richetti"(ibid).

Thus the research is helpful, but not definitive.

[12] The issue is, of course, that if one is Woke or Politically Correct and wishes to believer that mankind is just one mix anyway, so keep on mixing (even encourage it) until one world race is produced.

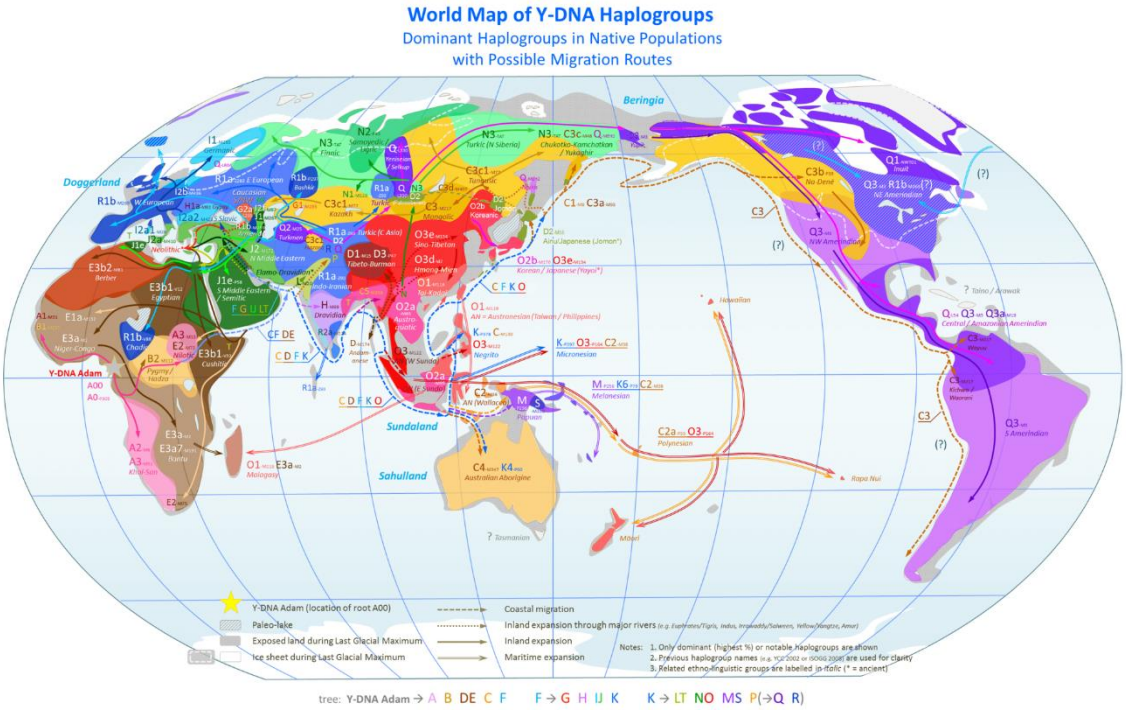

Figure 5. World Map of Y-DNA Haplogroups
https://en.wikipedia.org/wiki/Haplogroup

To the Third and Fourth Generations

Christians have heard of or read the Scriptures dealing with curses upon third and fourth generations such as Ex 34:7; Deut 5:9. Like many others, these Scriptures may be multi-layered with both obvious and hidden meanings. Duality is imbedded within the Word of God and it behoves us to take notice of the Scriptures and not constrain ourselves to a limited interpretation.

The basic thesis of this section is that it seems that we can pass on your character, attitude and physical aspects to your offspring via one's behaviours and eating habits – there appears to be a generational impact resulting from our actions and thoughts.

Rahel Wells attempts to understand this from a theological, rather than genetic, perspective:

> "One of the more challenging aspects of the covenant curses [of Deut 28] is that some curses seem to put the consequences on the children when it was their parents' fault for sinning. For instance, the wounds that God causes carry on to their offspring in Deut 28:59. However, **this might also be an example of epigenetics, or that the children partake in the sins of their parents,** not so much that God is punishing the innocent children for sins they did not commit (cf. Exod 34:7; Joshua 7). God makes clear in many other places in Scripture that he does not blame the children for the sins of their parents and vice versa (cf. Ezekiel 18; 33)." ("Christ in the Covenant Curses? Deuteronomy 28 and the Gospel," *Journal of the Adventist Theological Society,* Vol. 32, Nos. 1-2, 2021, p. 43) [emphasis mine]

Many would have already been aware that this is likely, and importantly a modern study has confirmed what many have suspected:

> "Eat poorly, and your body will remember—and possibly pass the consequences onto your kids. In the past several years, mounting evidence has shown that sperm can take note of a father's lifestyle decisions, and transfer this baggage to offspring. Today, in two complementary studies, scientists tell us how." (Katherine Wu, "Dad's Pass on More than Genetics in their Sperm," SmithsonianMag.com, 26 July 2018)

You can read the rest of the article online. But what I am trying to demonstrate is that the Scripture is true and accurate, thousands of years before its time. The Scriptures appear to be gelling with the laws of behavioural genetics.

According to researchers, the laws of behavioural genetics are as follows:

1. Human conduct is inherited.
2. The genetic effect outweighs the influence of growing up in the same family.
3. The impacts of genes on families do not explain a large amount of the diversity in complex human behavioral traits.
4. There are numerous genetic variants linked to a typical human behavioral attribute, but these variants only make up a very small portion of the total behavioral diversity.
5. All phenotypic interactions are mediated or confused by genetics to some extent.

Re no 1 above, it is now proven that identical twins grown up apart will be comparable in every conceivable way. In general, genetic similarity predicts behavioural and other phenotypic similarities across all human relationships, regardless of environmental circumstances. That is, identical twins are more similar than fraternal twins or complete siblings, who are more similar than half-siblings, who are more similar than first cousins, and so on indefinitely.

The question is, after creation, were human behaviours that imprinted on future generations part of the way human conduct imprinted and generated? Is this how national traits were developed?

> "Calling for a paradigm shift in the field of clinical psychology, Theodore Beauchaine and colleagues make the case in a new paper that "the current under-appreciation of biological processes in prevention and intervention research is striking"…
> **"Biology and environment work in combination.** Beauchaine and colleagues note that biological and environmental factors often interact in powerful ways. For example, their study of teenage girls who committed self-injury found that for girls with low levels of peripheral serotonin, negative relationships with their mothers played no role in self-harming behavior. In contrast, girls with high peripheral serotonin levels were at risk for self-harm only when they had very negative relationships with their mothers.
> These findings and similar ones reported by other scientists, the researchers

say, reveal that "for many forms of psychopathology, neither biological vulnerabilities nor high-risk environments are sufficient in isolation to explain etiology; their combined effects must be considered."

"Environmental factors affect biology. The researchers note that life experiences affect the brain through processes including epigenetic effects (nonstructural changes to genes in response to environment) and plasticity (the ability of the brain to modify its structure and function in response to experience). The brain's ability to adapt to its environment declines over time, they note, saying that this underscores the urgency of providing preventive and intervention programs early in life for children at the highest risk for psychopathology." ("Clinical psychologists give short shrift to biology's crucial role in behaviour, researchers say," www.crimetimes.org/09a/w09ap7.htm)[13]

See the entire article in the **Appendix. Clinical Psychology vs Biology.**

"**Extreme and traumatic events can change a person -- and often, years later, even affect their children.** Researchers of the University of Zurich and ETH Zurich have now unmasked a piece in the puzzle of how the inheritance of traumas may be mediated.

"The phenomenon has long been known in psychology: traumatic experiences can induce behavioural disorders that are passed down from one generation to the next. **It is only recently that scientists have begun to understand the physiological processes underlying hereditary trauma**. "There are diseases such as bipolar disorder, that run in families but can't be traced back to a particular gene," explains Isabelle Mansuy, professor at ETH Zurich and the University of Zurich. With her research group at the Brain Research Institute of the University of Zurich, she has been studying the molecular processes involved in non-genetic inheritance of behavioural symptoms induced by traumatic experiences in early life.

"Mansuy and her team have succeeded in identifying a key component of these processes: short RNA molecules. These RNAs are synthetized from genetic information (DNA) by enzymes that read specific sections of the DNA (genes) and use them as template to produce corresponding RNAs. Other enzymes then trim these RNAs into mature forms. Cells naturally contain a large number of different short RNA molecules called microRNAs. They have regulatory functions, such as controlling how many copies of a particular protein are made.

"Small RNAs with a huge impact

The researchers studied the number and kind of microRNAs expressed by adult mice exposed to traumatic conditions in early life and compared them with non-traumatized mice. They discovered that traumatic stress alters the amount of several microRNAs in the blood, brain and sperm -- while some microRNAs were produced in excess, others were lower than in the

[13] All this is well and good so long as we don't find excuses for a criminal's actions. They may have tendencies, but these tendencies are not necessarily overpowering or possess/force one to do this or that. Genetic inheritance is not an excuse for not taking personal responsibility for one's actions.

> corresponding tissues or cells of control animals. These alterations resulted in misregulation of cellular processes normally controlled by these microRNAs." (*ScienceDaily*, 13 April 2014, "Hereditary trauma: Inheritance of traumas and how they may be mediated," www.sciencedaily.com/releases/2014/04/140413135953.htm)[14] [emphasis mine]

Take for example this study undertaken at the University of Cambridge

> "**Evidence has been building in recent years that our diet, our habits or traumatic experiences can have consequences for the health of our children** -- and even our grandchildren. The explanation that has gained most currency for how this occurs is so-called 'epigenetic inheritance' -- patterns of chemical 'marks' on or around our DNA that are hypothesized to be passed down the generations. New research suggests this mechanism of non-genetic inheritance is likely to be very rare." ("Studies raise questions over how epigenetic information is inherited," *Science Daily*, 29 Oct 2018 www.sciencedaily.com/releases/2018/10/181029230458.htm) [15] [emphasis mine]

> "If you have diabetes, or cancer or even heart problems, maybe you should blame it on your dad's behavior or environment. Or even your grandfather's. That's because, in recent years, scientists have shown that, before his offspring are even conceived, a father's life experiences involving food, drugs, exposure to toxic products and even stress can affect the development and health not only of his children, but even of his grandchildren."
> (McGill University, Environmental memories transmitted from a father to his grandchildren, *Science Dail*y, 8 Oct 2015 www.sciencedaily.com/releases/2015/10/151008142622.htm)[16] [emphasis mine]

Christians may be interested in the following article which highlights the importance of epigenetics to them is "Epigenetics—Inheriting More Than Genes," *www.answersingenesis.org*, 24 Jan 2021 by Georgia Purdom:

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[14]Even snails can experience this! See Laura Lauth, "US scientists transfer memory from one snail to another by transplanting RNA," *ABC News*, 15 May 2018.
See the documentary *The Ghost in Your Genes*, BBC TV, 3 Nov 2005 (Nigel Paterson, Director) available on the internet.

[15] See also Mary Pember, "Trauma may be woven into DNA of Indian Americans," *Indian Country Today Media Network*, 28 May 2015.

[16] "This has turned the traditional belief that life is about nature versus nurture on its head. What this really means is that nature (our genes) is intimately intertwined with nurture (our environment), **and these epigenetic changes have deep roots in the choices of our grandparents, and in those of their grandparents**. The emergence of epigenetics has provided us with two gifts. One is a forewarning that the way we live today does have significant consequences for our children, our grandchildren, and beyond. And the second gift is one of empowerment. Regardless of what took place two generations before us, we still have tremendous power to modify our own gene expression with every thought, every mouthful, and every physical movement we choose to engage in. Our genes are waiting for direction from us. My advice? Go for the apple."(Pamela Peeke, "You Are What Your Grandparent's Ate," *Maria's Farm Country Kitchen*, 14 Nov 2013). [emphasis mine]
See also Dan Hurley, "Grandma's Experiences Leave a Mark on Your Genes," DiscoverMagazine.com, 25 June 2015.

> "Epigenetic markers, how your parents' diet may affect you, and the problem it poses for evolutionists.
> "All our lives, we've heard that our physical makeup is determined by our genes, not environment. But the science of epigenetics is forcing scientists to rethink their assumptions.
> You're probably familiar with the phrase, "You are what you eat." But did you know that you are also what your mother and grandmother ate? The budding science of epigenetics shows that our physical makeup is about much more than inheriting our mother's eyes or our father's smile…
> "Tagalongs to Our Genetic Code Our DNA includes additional components, which may sometimes be passed from parent to child at the same time as the genetic code. First are molecules attached to the DNA, called methylation marks, that turn genes on and off. Second are balls of proteins composed of histones, which the DNA wraps around. Histones and a portion of these proteins, called his-tone tails, regulate how the DNA is folded (and thus what is turned on or off)…
> The food you eat and other aspects of your environment can change these tagalongs. Then they can be passed down to your children and even your grandchildren, affecting the genes that are turned on."[17]

Can Memories be passed down the Generations?

Consider this: if one's physical appearance (especially face), mental attributes, talents, propensity to particular diseases and sicknesses can be carried down the generations, then why not memories? After all, our genes 'remember' the aforementioned. In a remarkable article "Scientists have found that memories might be passed down through generations in our DNA" http://earthweareone.com/scientistshavefoundthatmemoriesmaybepasseddownthrough-generationsinourdna/ 30 May 2014, we find that:

> "New research from Emory University School of Medicine, in Atlanta, has shown that it is possible for some information to be inherited biologically through chemical changes that occur in DNA. During the tests they learned that mice can pass on learned information about traumatic or stressful experiences – in this case a fear of the smell of cherry blossom – to subsequent generations.
> According to the Telegraph, Dr Brian Dias, from the department of psychiatry at Emory University, said: "From a translational perspective, our results allow us to appreciate how the experiences of a parent, before even conceiving offspring, markedly influence both structure and function in the nervous system of subsequent generations.
> "Such a phenomenon may contribute to the etiology and potential intergenerational transmission of risk for neuropsychiatric disorders such as phobias, anxiety and post-traumatic stress disorder."
> This suggests that experiences are somehow transferred from the brain into

[17] See also "Research shows histones play an important role in epigenetic inheritance," www.scott.net, 8 Oct 2015.

> the genome, allowing them to be passed on to later generations.
> The researchers now hope to carry out further work to understand how the information comes to be stored on the DNA in the first place.
> They also want to explore whether similar effects can be seen in the genes of humans.
> **Professor Marcus Pembrey, a paediatric geneticist at University College London, said the work provided "compelling evidence" for the biological transmission of memory.**
> He added: "It addresses constitutional fearfulness that is highly relevant to phobias, anxiety and post-traumatic stress disorders, plus the controversial subject of transmission of the 'memory' of ancestral experience down the generations".
> "It is high time public health researchers took human transgenerational responses seriously. "I suspect we will not understand the rise in neuropsychiatric disorders or obesity, diabetes and metabolic disruptions generally without taking a multigenerational approach."
> Professor Wolf Reik, head of epigenetics at the Babraham Institute in Cambridge, said, however, further work was needed before such results could be applied to humans.
> He said: "These types of results are encouraging as they suggest that transgenerational inheritance exists and is mediated by epigenetics, but more careful mechanistic study of animal models is needed before extrapolating such findings to humans."
> **May our DNA Carrying also spiritual and cosmic memories passed down in genes from our ancestors ?**
> Research link - www.nature.com/neuro/journal/v17/n1/full/nn.3594.html
> Source: UTAOT)[18] [emphasis mine]

For many years some churches believed - like so many in society used to - that you could sort of 'imprint' character (to some degree) on future generations by one's behaviour. There was a lot of research on this over the decades which was later 'pooh-poohed' by the liberal-left academic Del Ratzsch in *The Battle of Beginnings*, the establishment and their media allies. But,

> "Science is a complicated, historically shifting play among nature, theories and a host of often-unstated nonempirical principles that shape our thinking evaluating, theorizing and even perceiving. Since that parts are so interwoven, changes in one part frequently have consequences for the content and contours of other parts. Parts do change over time - theories are replaced, shaping principles alter, and so forth. And sometimes entire systems involving all three components are overturned and replaced by others" (p. 128).

An interesting piece by Eben Harrell should be referred to at this point:

[18] See also Brian Dias & Kerry Ressler, "Parental olfactory experience influences behavior and neural structure in subsequent generations," *Nature Neuroscience*, Vol. 17, 2014, pp. 89-96.

> "In an intriguing review in the July 2 edition of the journal *Science,* published online Thursday, Ruud Custers and Henk Aarts of Utrecht University in The Netherlands lay out the mounting evidence of the power of what they term the *unconscious will.* "People often act in order to realize desired outcomes and they assume that consciousness drives that behavior. But the field now challenges the idea that there is only a conscious will. Our actions are very often initiated even though we are unaware of what we are seeking, or why," Custers says…
> For his part, Custers says that it is true that our conscious selves are sometimes voyagers on a vessel of which they have little control, but he does not see this as a cause for helplessness. "We have to trust that our unconscious sense of what we want and what is good for us is strong, and will lead us largely in the right direction." ("Think You're Operating on Free Will Think Again," Time.com, 2 July 2010 www.time.com/time/printout/0,8816,2000994,00.html)

How much more so with inherited traits.

But to be clear: one's inherited attributes do not overwhelm one and this can never be used as an excuse for any negativities or criminal activities. It is not some sort of invisible force that overwhelms one or possesses one, but it does seem to tug or pull at one in a certain direction. A sort of propensity to this or that behaviour. Yet one can still make decisions that can change the propensity. In other words, though these pull and tug at us, in the end we have far more capacity at making decisions and choosing what to do – we have free moral agency. Animals have less capacity to do so – much less. See Scriptures that support this position such as Deut 16:15-20; Eccl 8:11; Phil 2:12; IIPet 1:10; Jams 1:13-14.

Perhaps the mental imprint of the founders of the nations of Genesis X was so powerful, as to affect the behaviours of their descendants for centuries. In other words, unresisted propensity may exert a powerful influence. Hence national characteristics originate this way, at least in part? For example, some admixture may dilute or change the propensity in some way and this will take an enormous amount of research and vast resources to prove or disprove.

In a header to their article on epigenetics, *Vision* magazine had this statement: "Science is revealing how our environment and behavior from conception to old age affect not only us but also future generations. The Ripple Effect."

> "In 1942 developmental biologist Conrad Waddington coined the term *epigenetics* to describe what were at the time unknown factors overriding the genes (*epi-* means "over" or "atop"). He and others postulated that there must be a system regulating gene expression. Variations in the turning on and off of genes would result in individualized characteristics in everything from **cell differentiation to social behavior**.
> But while the label may highlight a possibility, it does not answer the question of how the system might actually operate. How do we, and our cells, know what to do? Is it ***nature*****, a genetic program that simply plays out in a**

predetermined way? Or is it somehow a matter of *nurture*, the result of unrecognized feedback links between the living system and its environment? Today we have terms like *methylation* and *histone modification* to describe the ways in which the genome is chemically marked, but we do not yet understand the full picture of how cells not only sense but record, retain and erase these cues. Recent research using bee colonies has linked these types of changes with the behavior of individual bees. Beyond that interesting finding, researchers also discovered that the epigenetic tags are transient, changing as bees move from job to job within the hive…

"SINS OF THE FATHERS

Although the introduction of a nonrandom component to evolution is disruptive, the instructive nature of epigenetic programming appears indisputable. In *The Epigenetics Revolution*, virologist Nessa Carey explores many examples of epigenetics in action. In her chapter titled "The Sins of the Fathers," Carey alludes to the Third Commandment's warning regarding the transgenerational fallout of our choices and life events ("I, the LORD your God, am a jealous God, visiting the iniquity of the fathers upon the children to the third and fourth generations . . ." [Exodus 20:5]). To illustrate a possible epigenetic meaning to this warning, Carey discusses the Dutch Hunger Winter, which occurred when Germany set up blockades in 1944–45. "Some of the strongest evidence for transgenerational inheritance in humans comes from the survivors" of that ordeal, she writes, adding that because record-keeping was so good, not only the victims of the famine but also their children and their grandchildren could be monitored…

One investigator, biologist Michael K. Skinner, notes: "In contrast to the genetic control of cellular activity, the epigenetic cascade of events is responsive to environmental factors and can directly impact the genetic cascade of events."

Psychologist Frances A. Champagne writes, "There is emerging evidence that changes in gene expression both within the brain and in peripheral tissues are associated with differences in the quality of the early environment and that these developmental effects are maintained by epigenetic mechanisms that control the activity of genes involved in disease risk and behavioral variation."

A team of German investigators further found that household stress affected a baby's stress programming: **"This is the first demonstration that gestational exposure to psychological stressors can have a lasting impact" on the baby's genetic expression.** The researchers report that if a mother experiences IPV, or intimate partner violence, during pregnancy, the child will show it in the status of a particular gene during adolescence. They report, "As these sustained epigenetic modifications are established *in utero*, we consider this to be a plausible mechanism by which prenatal stress may program adult psychosocial function."

"BREAKING THE CHAIN

Evidence is growing to confirm that the impact of one generation on the

> **next goes deeper than the imparting of social or cultural habits. The impact is also biological.** While not genetic in the classic sense of changing one's DNA code directly, the signs of what is now called "transgenerational epigenetic programming and inheritance" are being more clearly discerned and reported day by day. It's not just about crickets. Our bodies and minds are molded by their interaction with the world *as well as* by the experience of our parents, passed down to us genetically, socially and epigenetically. There is much more to who we are and how we behave than the playback of our genetic sequence…
>
> Developmental psychologist David S. Moore adds, "Since 'how we are'—human nature—can be understood from a developmental systems perspective to result from interactions between factors *all of which we [as adults] can conceivably manipulate,* we are ultimately responsible for our own nature." This parallels the ancient edict to "choose life" (Deuteronomy 30:19–20) and participate in the benefits promised to those who change. No one need be trapped in the past; there is a reward that extends across the generations for those who willingly break away from the ways of life that separate humankind from the Creator (Exodus 20:6; Isaiah 59).
>
> **Our growing understanding of the epigenetic systems that orchestrate human growth and development shows that we are in many previously unrecognized ways "preprogrammed" at birth for certain behaviors or proclivities. But this programming is in flux. We can choose to change our thinking and behavioral patterns, and these changes appear to feed back into us in ways that can reprogram us and our future children biologically. From this perspective, we can be encouraged that the detrimental presets that can lead us astray in our relationships can be healed.**
>
> The idea of a form of inheritance operating outside our DNA code has been an unexpected revelation. But it should not come as a surprise; after all, if the Creator designed the cricket with a mechanism to protect its children, why would He not do the same for us?" (Dan Cloer, "The Ripple Effect," *Vision*, Fall 2012, online). [emphasis mine]

Another article is by Jonathan Davis ("Can Trauma be Passed on through our DNA?" 3 March 2016 http://upliftconnect.com/intergenerational%ADtrauma/1/16). The article states that we should be "learning to release trauma before we pass it on to the next generation… thanks to the emerging feld of epigenetics, science is discovering that trauma is being passed down to future generations through more than simply learned behaviours."

The Seventh-day Adventist newsletter, *Geoscience Newsletter* (No. 37, April 2014, p. 2) contained a short piece on the subject:

But despite the passing interest in the subject by various groups, apparently none of them have delved deeply into this fascinating and crucial topic.

To the Third and Fourth Generations

Dias BG, Ressler KJ. 2014. Parental olfactory experience influences behavior and neural structure in subsequent generations. Nature Neuroscience *17:89-96.*

Summary. When a parent is subjected to a trauma, their offspring may exhibit increased sensitivity to the source of the trauma. The genetic basis of this is unknown. In this study, when mice were presented with a specific odor (acetophenone) and then given an electrical shock, their offspring showed increased sensitivity to the odor, but not to other odors. DNA studies revealed that the gene which detects acetophenone (Olfr151) had reduced methylation of CpG base pairs in the offspring. This would increase the activity of the gene, and may explain how an environmental factor experienced by parents may affect the heredity of their offspring.

Comment. The new field of epigenetics is concerned with how changes may occur in inherited traits without changes in the DNA sequence. This exciting new field may help reveal the mechanism by which human children can be affected by the behavior of the parents, even before conception.

I stated previously that these influences do not, of course possess you or force you to do anything. They simply influence you or provide an "urging" of sorts to operate in a certain way. You are not helpless to change and I might add, not all these influences are bad. Some are good or a mixture of good/positive and bad/negative.

It is almost as if these inbuilt influences "drag" you in a certain direction because inside your mind are forces or energies that pertain to certain behaviours or characteristics that you are born with. See Rom 7:15-23.

These come from you parents and even distant forefathers.

In this regard one article worth a read is "Culture etched on our DNA more than previously known, research suggests," *CBS News*, 11 Jan 2017 by Shanika Gunaratna:

> "Common ancestry, common culture, common environment — all these factors contribute to the genomes of individuals of the same ethnic groups.
> Now, for the first time, researchers say they have quantified the non-genetic aspects of race and identity for individuals of the same ethnic group.
> In a study published in the academic journal eLife, researchers examined DNA methylation — fingerprints of DNA that can be inherited or altered by life experience and shape how our genes are expressed —among 573 Mexican and Puerto Rican children. DNA methylation reflects individual circumstances — for instance, PTSD stemming from traumatic experiences, air pollution from environmental conditions, after effects from maternal smoking, etc.
> They identified 916 differences in methylation associated with Mexican or Puerto Rican ethnicity. Looking at that pool, the researchers identified that only three-quarters of the differences between the two ethnic groups could be explained by genetic ancestry.
> "This led the researchers to theorize that a large fraction, one quarter, of the DNA fingerprints likely reflect biological signatures of environmental, social

> or cultural differences between the ethnic groups.
> Different racial and ethnic groups tend to follow different diets, live in neighborhoods with varying levels of poverty and pollution, and are more or less likely to smoke. DNA methylation can reflect these subtle cultural and environmental differences.
> "Dr. Esteban Burchard, a physican-scientist and professor at UC San Francisco, supervised the study, which was 20 years in the making.
> "It furthers our understanding of the whole concept of race ethnicity," Dr. Burchard, who collaborated with Dr. Joshua Galanter and Noah Zaitlen, said. "It tells me there's something biological to race. It tells me that we have a lot more work to do. **Twenty-five percent of what we see is not due to biological differences, but things associated with the idea of race and ethnicity."**
> The new research supports the theory that viewing race and ethnicity as social constructs on one hand, and genetic ancestry as a biological construct on the other hand, is way too simple a framework.
> "Looking forward, Dr. Burchard said his team needs to explore whether these findings apply to other populations besides those studied.
> Scientists and health care professionals have increasingly considered both genetic ancestry and racial and ethnic identification to diagnose health problems and treat disease.[19]
> **"The research suggests that abandoning considerations of race and ethnicity in medicine — as some academics, who view race and ethnicity as social constructs, suggest — would be a grave mistake, and that these lenses carry valuable insights for more precise and culturally specific medicine.**
> The future of medicine, Dr. Burchard argued, carefully considers genetic ancestry, race, ethnicity and culture all at the same time. He published research back in 2011 showing how far the medical research establishment is from factoring in the nuances of race and ethnicity. That 2011 research showed that 94 percent of study participants in modern genetic studies are white, Dr. Buchard said.
> "We study whites a lot, and then we try to generalize that to Sri Lankans, blacks, Asians, and other racial groups. **That's not just socially unjust, it's bad science and bad medicine," Dr. Burchard said**."
> (www.cbsnews.com/news/culture-etched-onto-our-dna-more-than-previously-known-research-says/) [emphasis mine]

Here is further evidence as conveyed by Esther Lanhuis:

> "Mouse studies show tiny intercellular pods convey to sperm a legacy of a father's hard knocks in life.
> "A stressed-out and traumatized father can leave scars in his children. New research suggests this happens because sperm "learn" paternal experiences via a mysterious mode of intercellular communication in which small blebs break off one cell and fuse with another.
> "Carrying proteins, lipids and nucleic acids, these particles ejected from a cell

[19] See for example "How genetics affect our life choices," *StarsInsider*, www.msn.com, 2023.

> act like a postal system that extends to all parts of the body, releasing little packages known as extracellular vesicles. Their contents seem carefully chosen. "The cargo inside the vesicle determines not just where it came from but where it's going and what it's doing when it gets there," says Tracy Bale, a neurobiologist at the University of Maryland School of Medicine.
> Preliminary research Bale and others, announced this week at the annual meeting of the Society for Neuroscience in San Diego, shows how extracellular vesicles can regulate brain circuits and help diagnose neurodegenerative diseases—in addition to altering sperm to disrupt the brain health of resulting offspring." ("How Dad's Stresses Get Passed Along to Offspring," *www.scientificamerican.com*, 8 Nov 2018)

Collective National Memory?

While I am no fan of Velikovsky's radical historical ideas, he does challenge the status quo and he raises some very interesting points. For example, in his *Mankind in Amnesia,* he speaks of the collective unconscious mind: a sort of invisible membrane which unites nations and causes them to act in unison. He wonders whether

> "A collective mind is a product merely of some process akin to telepathy, or whether it may also link consecutive generations." (Immanuel Velikovsky, *Mankind in Amnesia*, p. 18)

One famous psychoanalyst thinks that "this collective unconscious does not develop individually, but is inherited. It consists of pre-existent forms, the archetypes" (Carl Jung, *The Archetypes and the Collective Unconscious,* p. 43). Another states that

> " ... as a species, all humans share some common memories and experiences, and that **these jointly owned racial treasures are stored away in the collective unconscious** … that all of our unconscious life (our dreams, our impulses, our mythologies, our artistic creativity etc) mirrors the world of pure archetypes, drawing its psychic energy from them and diffusing their patterns throughout our personalities and behaviour" (Danah Zohar, *Through the Time Barrier*, p. 108).[20] [emphasis mine]

Velikovsky also labels inherited unconscious memory as a racial memory - an 'instinct' that causes national actions in the wake of various stimuli such as crises. Allow him to explain:

> "The existence of a racial memory does not mean that an impression absorbed by one generation can be remembered by the following ones, but that impressions, especially traumatic and repetitious impressions, experienced by many of the forebears, may become a permanent though unconscious mneme or mneme complex, providing adequate responses in

[20] See also Paul Colinvaux's *The Fate of Nations* (1980).

suitable situations." (Immanuel Velikovsky, *Mankind in Amnesia*, p. 108) [21]

Thus a nation's collective mind and character, its actions and thoughts, has been shaped by generations of experience and reactions to various stimuli and kept within the racial memory of nations. Over time, behavioural patterns emerge which become deeply ingrained due to repetitive activities. This, in turn, becomes a characteristic (ie character or national personality that is set). This national character is then carried through the generations via the collective genes and sub-consciousness of the nation.

One therefore wonders if national symbols are also remembered and then recalled and displayed via such a fashion over centuries. These symbols could be restored due to certain events or stimuli?

For example, could some ancient national and tribal symbols find their way in this fashion into their modern national descendants?

Here is another one: Clara Moskowitz, "Cultural differences alter brain's hard-wiring. New research finds that social perspective influences how we see the world," MNSBC.com, 18 Jan 2008, www.msnbc.msn.com/id/22729220/ :

> "It's no secret culture influences your food preferences and taste in music. But now scientists say it impacts the hard-wiring of your brain.
> **"New research shows that people from different cultures use their brains differently to solve basic perceptual tasks**.
> Neuroscientists Trey Hedden and John Gabrieli of MIT's McGovern Institute for Brain Research asked Americans and East Asians to solve basic shape puzzles while in a functional magnetic resonance imaging (fMRI) scanner. They found that both groups could successfully complete the tasks, but American brains had to work harder at relative judgments, while East Asian brains found absolute judgments more challenging.
> "Previous psychology research has shown that American culture focuses on the individual and values independence, while East Asian culture is more community-focused and emphasizes seeing people and objects in context. This study provides the first neurological evidence that these cultural differences extend to brain activity patterns." [emphasis mine]

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[21] In an article "Memory: where are the keys?" published in *The Australian,* 9 September 1998, we find the following interesting statement: "LeDoux reckons that the difficulty in overwriting established neural circuits is one reason why phobias are so difficult to cure. Even after apparently succesful treatment, fearful memories lurk deep within the brain. When the victim of a phobia comes under stress, that stress somehow reactivates the old pathways and the terrifying memories come to life once again."
See also Richard Gray, "Phobias may be memories passed down in genes from ancestors," www.telegraph.co.uk, 1 Dec 2013.
It should not be a surprise, therefore, if there are national memories and phobias, well entrenched within our brains and racial memories. That even if time is spent in re-educating a nation in a new way (eg democracy), the old ways will be restored when the appropriate stresses come upon the people. Modern psychology and science cannot undo thousands of years of human experience and ingraining, especially if the characteristics reflects that of their forefather as listed in Genesis 10.

That is why racial, national and tribal characteristics are real and not to be ignored. Unfortunately the woke crowd do just that. They do not want to know that there are racial, national and male/female differences driven by pure genetics. They prefer to cancel anyone with the facts or truth.

What about British-Israelism?

Identifying the native peoples of the British-Isles and Northwest Europe as the direct genetic descendants of ancient Israel is known as 'British-Israelism' and sometimes as 'Anglo-Israelism.'

One argument against this doctrine is that DNA and Y-Chromosome research supposedly disproves the doctrine. However, there are Biblical, prophetic, anthropological, historical and tribal name proofs.

In addition, wouldn't the movement of these Israelites have led them to leave a small genetic trail behind, in mixed peoples thousands of miles from their current homelands? This is logical and seems to what has occurred. For instance,

> "… when teams of geneticists led by Professor Bryan Sykes took DNA samples in the Celtic regions of Britain they discovered ancestries in the Caucasus, which lay within ancient Scythia, and Mediterranean Europe" (R. Hutchinson, "Book review: The Highland Clans, by Alistair Moffat," *The Scotsman*, 26 April 26, 2010. http://news.scotsman.com/features/Book-review-The-Highland-Clans.6223804.jp).

The 'Lost' Tribes of Israel and research

There is concrete physical evidence that backs up the claim for the Israelitish origin of the British. Furthermore, the haplotype evidence reveals differences between the British population and those who remained on the European continent.

If you read the literature carefully, you will find that there is considerable complexity to this research and diversity of opinions. For example:

> "As recently discussed by Barbujani and Chikhi, the origin(s) of modern European ancestors remains a controversial issue. Other major population events, including the multiple epidemics during the Middle Ages, may also have resulted in genetic bottlenecks contributing to current differences in European population structure." (Michael Seldin (et al), "European Population Substructure: Clustering of Northern and Southern Populations," *PLOS Genetics*, Vol. 2, Issue 9 (Sept 2006), p. 1348)

There are those that assume that DNA and Y-Chromosome 'evidence' proves that the Anglo-Saxon-Keltic-Nordic people's Y-DNA Haplogroups are dissimilar to the Jews and do not show a common origin/father. The rest are so mixed eg I have always maintained that the Sephardic Jews are a mixed people and not original racial Judahites at all but are converts to the Jewish religion. See for instance *The Non-Jewish Origins of the Sephardic Jews* by Paul Wexler. Similarly with the Yemenite Jews.

This DNA research is still a rather young science and there will be a lot of changes to its over time.

All it currently does is show that there may have been a common father. So, people with a few percentages of similar bloodline can be shown to have a common father. Doesn't make sense, does it? Because along the way, other bloodlines are often picked up, confusing the issue.

Notice what Jon Entine has found out in his book, *Abraham's Children: Race, Identity, and the DNA of the Chosen People*:

> "Genetic drift can work in reverse, serendipitously reducing or eliminating genes, blurring the story told by our DNA by erasing evidence of certain lineages or how evolution unfolded. That's exactly what has happened to Jews. Remember the blood studies that seemed to show Jews were of mixed ancestry? It turns out that Jews began to resemble European gentiles in blood type and other physical traits purely by the chance spread of a few genes, not by mixing in large numbers with their host populations." (p. 45)
>
> "… our phenotype-traits, including our physical makeup, blood type, etc.-often tells a different story than the genes themselves-the genotype." (p. 45)
>
> "The rest of the human genome, almost 98 percent, contains what geneticists had long thought was junk (but is not)-genetic detritus left behind during the billions of years in which single-cell organisms evolved into modern humans. Scientists have likened this genetic material, which they sometimes call the "dark matter" of the human genome, to a discarded heap of outdated books with the relevant wisdom incorporated in newer, revised volumes squeezed into the most usable 2 to 3 percent." (p. 46)[22]

The fact is that there are DNA links between all peoples but the closeness of that depends on race of course. So, the darker Jews would have *some* similarity to Anglo-Kelts, but the Yemenite Jews are Arabs that adopted Judaism (see Daniele Fallin (et al), "Genomewide Linkage Scan for Schizophrenia Susceptibility Loci among Ashkenazi Jewish Families Shows Evidence of Linkage on Chromosome 10q22," *The American Journal of Human Genetics*, Vol. 73, 2003, pp. 601-11).

In this case, haplogroups study is helpful but due to mutations and gene drift and because it is an imperfect science driven by political correctness, it is not completely trustworthy! It is helpful though, but one shouldn't depend on it at this time.[23]

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[22] Entine further wrote: "Since the first humans walked the earth, more and more random mutations have been introduced into each subsequent generation. However, these markers were not easy to locate. Evolutionary mistakes often overwrote each other. A polymorphism-one of the forms of a gene caused by a mutation-that might have served as a marker sometimes split and recombined in a later mixing. Then again. And again. Instead of a set of informative snapshots emblazoned with a genetic date, we were left with what amounted to scrambled composite pictures, degraded from many generations of copying, much as repeated photocopying degrades a document. The shuffling was so complete that markers created hundreds, thousands, or millions of years ago were lost in the vast sea of genes in the nucleus … obstacle was not a dearth of markers, but too many unreadable ones." (p. 47)

[23] In addition to mutations, there are adaptations such as the Moken tribe in Thailand who can now see underwater to the same degree as dolphins. See Jason Ford, "Which ethnicity that most people are unaware of is the most fascinating?" www.quora.com, 19 Dec 2019. Another are the Baju people who, through mutation, have become much better divers than most other peoples: "The Bajau, these people have a genetic mutation allowing them to live in the sea!" *The Daily Digest*, 25 Feb. https://thedailydigest.com/en

I have seen many books and articles trying to make out that American Indians, Ethiopians, Burmese etc are lost tribes of Israel. But their physical look and appearance, genetics and DNA is just like all the other peoples around.

An article "Where are The Ten Lost Tribes of Israel? *www.geni.com* lists the usual, false suspects:

- Bedul, Jordan
- Bene Israel, India
- Beta Israel, Ethiopia
- Chiang Min, China
- Igbo, Nigeria
- Japanese
- Kurds, Turkey
- Lemba, southern Africa,
- Pashtuns, Afghanistan
- And others.

Refer also to the article published on the British-Israel World Federation's website at **Appendix. A Statement from the British-Israel World Federation. And the Appendix. Comments by Yair Davidiy.**

Some are trying to use Y chromosome research to trace national origins, but are turning it into a red herring that has raised its head time and again. The Y chromosome is merely a tracer as we have seen, indicating male parentage over the generations. It does not indicate one's entire racial make-up.

One article critical of the British-Israel claim that the peoples of Northwest Europe are the direct genetic descendants of Israel is "A Foundation of Sand. Part VIII," *Silenced* website, 18 Dec 2013). The author fails to understand even basic DNA and haplogroups methodology and is an example of the futile attempts to deny this doctrine.

For example, as the Arabs are 3/4 Hamitic and only 1/4 Abrahamic (as demonstrated in chapter 3 of my book, *In Search of … the Origin of Nations*), wouldn't one expect them to show little connection to Anglo-Kelts? That is indeed the case. They have diverged racially.

See the article "The Y Chromosome in the Study of Human Evolution, Migration and Prehistory," Science Spectra, No. 14, 1998 by Neil Bradman and Mark Thomas. www.ucl.ac.uk/tcga/ScienceSpectra-pages/SciSpect-14-98.html.

The article by Bradman and Thomas includes the following table:

For further information on adaptation from a Biblical perspective, read the article "Adaptations. Designed by God, Not From Evolution," *Beyond Today*, March-April 2024, pp. 12-14 by Mario Seiglie.

Before the flood: the generations of Adam according to the book of Genesis

Name	Date of birth from Creation	Date of death from Creation
Adam	0	930
Seth*	130	1042
Enosh	235	1140
Kenan	325	1235
Mahalalel	395	1290
Jared	460	1422
Enoch†	622	987
Methuselah	687	1656
Lamech	874	1651
Noah	1056	2006
Shem, Ham, Japheth	1556	?

* How did Seth feel, outliving his great, great, great-grandson Enoch by 55 years?

† And how about Enoch, sensing himself slipping away earlier than his father, grandfather, and great-grandfather?

Figure 6. Before the flood: the generations of Adam according to the book of Genesis

Genesis, chapter 5, records "the generations of Adam": Adam begat Seth, Seth begat Enosh, Enosh begat Kenan... down to Noah of the flood (Table above).

In contemporary genetic terminology, the narrative can be interpreted as such: "Adam transmitted his Y chromosome (Figure 1) to Seth, who then passed it on to Enosh. Enosh carried on this genetic line by passing his Y chromosome to Kenan, and the cycle continued until Noah was born, inheriting a copy of Adam's Y chromosome. The Y chromosome is inherited paternally, found in males but not in females. Interestingly, the Y chromosome that a father passes down to his son remains relatively stable."

Nevertheless, there are occasional variations known as polymorphisms that occur. Consequently, we delve into the significance of deciphering these alterations in the Y chromosome as they are transmitted across generations, which can greatly contribute to our comprehension of human history. The investigation of disparities in the Y chromosome is still in its nascent phase; until recently, only a handful of polymorphisms had been identified, and even now, the number of described ones remains relatively low. Studies that document the prevalence of various combinations of polymorphisms, referred to as haplotypes, are infrequent.

Now, if one had a small amount of Semitic blood (like the Bantu Lemba residing in southern

Africa), this merely means that they have some Semitic blood (perhaps 5% or so).[24] That does NOT mean that they primarily derive from Ishmael or Jews, but have a few of his genes. That is all, and obviously they are not Judahites or even Arabs.

Let me explain: some today are working backwards. They assume that *all* the people called Jews are the original Judah. In fact, some are mixed. Some look like Palestinians (as a Jewish friend of mine pointed out); some like Poles; some this and some that – dependent upon where they originated and which peoples they mixed with. Many of the Jews today have picked up many other genes along the way as to make them difficult to identify as a single race.

If we work forward from Noah -> Shem -> Arphaxad -> Abraham etc and look at how fair-skinned the Near East was at that time, and the culture these people emerged from, one must conclude the early Israelites and predecessors were White. Read about this in the chapter on Arphaxad and Aram my book *In Search of … the Origin of Nations*.

By working forward and using deductive reasoning, history, tribal names etc we can prove who the Israelites are. Assuming that today's Jews (many now mixed) are all Israel and working backwards does not bring one to the truth of the matter.

If one were to work through all the nations of Genesis 10, we would find that all the light-skinned northern Europeans descend from Arphaxad – people who misunderstand the Y chromosome work backwards by assuming that all the Jews are Israel, rather than some are a mixed group with some Israelitish genes.

Others try and use evidence that is Y-DNA haplogroup based. Let us take a look.

Y-DNA Haplogroups:

- Y-DNA haplogroups are representative of significant divisions within the Y-chromosome phylogenetic tree.
- Haplogroup R1b1: This particular haplogroup is commonly observed in individuals of 'white' English and American descent, with a notable presence in Western Europe and certain regions of Eastern Europe.
- Haplogroups J1, J2, and E1b1b: These haplogroups are linked to ancestral origins in the Arabian Peninsula, Southern Europe, and North Africa. They are identified among various populations such as Ashkenazi Jews, Arab Bedouins, Uygurs, and Uzbeks.

Similarly, the contention posits that the genetic disparities observed in these haplogroups imply that there is no direct ancestral connection between 'white' English and Americans and Jews. Likewise, the haplogroups of modern Germans do not establish a direct lineage to the modern claimants to be neo-Assyrians.

It is commonly assumed that Jacob, as mentioned in the biblical narrative, could have belonged to either J1, J2, or E1b1b haplogroups. Nevertheless, there is also a possibility that Jacob's

[24] An interesting article about blood groups from a creationist viewpoint can be found online at www.icr.org/article/3647/ Daniel Criswell, "ABO Blood Groups and Human Origins," *Institute for Creation Research*, 1 Feb 2008.

descendants intermingled with other prevalent haplogroups in the region.

It should be realised and accepted that contributions to racial ancestry goes beyond haplogroups.

> "Cultural changes in political and social organisation - phenomena that are unique to human beings - may extend their reach into patterns of genetic variation in ways yet to be discovered" (Tian Chen Zweng, Alan J. Aw & Marcus W. Feldman, *Cultural hitchhiking and competition between patrilineal kin groups explain the post-Neolithic Y-chromosome bottleneck*, nature.com/articles/s41467-018-04375-6).

Yet some still attempt to claim that DNA research disproves Israelitish heritage in or links to northwest Europe. But as one author concedes that when

> "dealing with European population palaeogenetics, no one can evade question of the limitations that are intrinsic to the field of aDNA" (Marie-France Deguilloux & Fanny Mendisco, "Ancient DNA: A Window to the Past of Europe," *Human Heredity*, Vol. 76, Nos. 3-4, 2013, p. 122).

That being said, scientific research confirms that "a demic diffusion spanning the entire European continent from the Levant" with differences between "Eastern Europe" and "the West" (P. Malaspina, et al. *Human Y-chromosomal Networks and Pattern of Gene Flow in Europe, West Asia and North Africa. In: Archaeogenetics: DNA and the population prehistory of Europe,* p. 165).

Notice also the following:

> **"Atlantic Modal Haplotype #3** The most common variant of the Atlantic Modal Haplotype in the YHRD database has DYS389, values of 13 and 29, and DYS385a,b values of 11 and 14. This haplotype differs by one step upward on the most quickly mutating marker. This haplotype is very interesting, from the perspective of the YHRD database, because most of the top frequencies are not in Europe but in the United States. Of the top twenty, twelve are among U.S. populations. Two are Hispanic samples, three are African-American (most likely of Anglo-American origin), and the rest are European American. These samples seem to congregate in areas of the U.S. settled by French, Scottish, English, Irish and German immigrants. That accords with the Western European origin of AMH. Southern Ireland and London, England appear among the top ten European frequencies, along with four separate locales in The Netherlands. Although "Border Reiver" descendants would most likely have acquired this haplotype through British "Celtic" ancestry, the multiple hits in The Netherlands suggest that an Anglo-Saxon origin is also quite possible. (Haplogroup R1b (Atlantic Modal Haplotype)." (http://freepages.genealogy.rootsweb.ancestry.com/~gallgaedhil/haplo_r1b_amh_13_29.htm)

One journalist, Steve Olson, who specialises in writing about science noted:

> "One need go back only a couple of millennia to connect everyone alive today to a common pool of ancestors…
> "Being descended from someone doesn't necessarily mean that you have any DNA from that person…The amount of DNA each of us gets from any one of our 1,024 ancestors ten generations back is minuscule—and we might not get any DNA from that person, given the way the chromosomes rearrange themselves every generation."" (Steve Olson, *Mapping Human History: Genes, Race, and Our Common Origins*, p. 47.)

Here is another interesting observation.

There are so many dangers and hidden consequences for modern technologies such as vitro fertilization, blood transfusions and even bone marrow transplants. Scientists are now finding that in many cases associated with the aforementioned, that the "foreign" DNA that enters the recipients body may continue in their body throughout their life.

> "Shared DNA can lead to two different eye pigmentations, two separate blood types, simultaneous male and female body parts, and autoimmune issues. The phenomenon concerns criminologists because shared DNA makes criminal identification and paternity determinations less reliable…
> "In a December 7, 2019, *New York Times* article titled, "When a DNA Test Says You're a Younger Man, Who Lives 5,000 Miles Away," Heather Murphy tells the story of a man with leukemia who, after a bone marrow transplant, found that his donor's DNA traveled to unexpected parts of his body. A crime lab is now studying the case…
> "Fraternal twin chimeras can create confusing scenarios when they acquire each other's DNA in the womb. In at least one case, that led to unfounded fears of infidelity when a man's child did not seem to be his. In another case, a mother nearly lost custody of her children after a DNA test." (Martin Collins, "Why the DNA you carry is not yours," *CGG.org*, 14 Dec 2019)

So, through different means, racial DNA can transfer, leading to false identifications and measures based upon blood tests and not all the other, much more important measures for race or nations.

Interesting Postings

Having scoured so many articles and websites, I come across interesting ideas that I thought would be helpful and of interest to the reader and include them below.

Postings in *New Chronology* digest:

> **"Re: Y-chromosome DNA, a new approach to ancient history**
> From: Robert Porter
> Date: Mon, 23 May 2022 02:39:41 PDT
> Hi all

There is a new book, N. Jeanson, *Traced: Human DNA's Big Surprise*, Master Books, Arizona, 2021. It describes the author's research into Y-chromosome DNA in modern people. Y-chromosomes are only found in men and are inherited through the male line; in contrast mitochondrial DNA is passed down through the female line. The Y-chromosome DNA of hundreds of living people from around the world has been analysed and is available to researchers. It enables tracing of someone's ancestry back to a common male ancestor, many generations previously, of another modern person. **Apparently, Y-chromosome DNA randomly mutates in about three places every generation, so by counting changes you can approximately know how many generations ago two people's ancestors branched off.** Bear in mind that this is not my subject, so apologies for any mistakes!

Jeanson, a fundamentalist Christian (like myself) but with a PhD from Harvard in cell biology, attempts to trace what happened to Ancient Egyptians, Persians, Chinese, etc, etc. **He ends up with a common ancestor of all males at about 2500 BC - that would be Noah!** The only snag that I can see is that some African groups (especially haplogroups A and B) have an apparently much longer series of changes (eg. Pl.51). Jeanson suggests a faster rate of mutation in the Y-chromosome DNA of these people groups, something that he hopes will soon be tested for (p. 70).

Some of Jeanson's conclusions about how ancient people groups migrated and conquered other groups are similar to a secular best seller, D. Reich, *Who we Are and How We Got Here: Ancient DNA and the New Science of the Human Past*, New York, 2018. Reich uses, not modern, but ancient DNA from anywhere in the genome, only occasionally mentioning Y-chromosome DNA, and he assumes much longer timescales. That there may be a problem with his theories is perhaps indicated by his fig.28b (p.239) which uses Y-chromosome DNA and shows a highly odd graph of population size from 150,000 years ago to the present. After growing rapidly from at about 50,000 years ago, human population suddenly shrinks drastically at about 5000 years ago (perhaps Jeanson's Noah point?) before expanding again. No sudden shrinkage of population is shown in Reich's graph of population size based on mitochondrial DNA (fig.28a).

This is a new science which may take some time to settle down.

Bob" [emphasis mine]

Another wrote:

"Re: Y-chromosome DNA, a new approach to ancient history
From: Bernard Newgrosh
Date: Sun, 05 Jun 2022 15:37:03 PDT
Greetings, Bob!

Very interesting material. The Reich volume contains some insights into the error range (and therefore of the possible inaccuracy) of dating by DNA, especially on the assumption of only a certain number of mutations on the Y chromosome per generation. Look at what he says on p. 236 about the O'Donnells, supposedly originating from a common ancestor who lived "around fifteen hundred years ago". He goes on to state that if the legendary Niall (the ancestor) ever existed he would have "lived at about the right time to match the Y-chromosome ancestor". We have to take his word for it because he matches a stated figure of 1500 years BP with "about the right time". Is this the scientific method in action, I ask?

When discussing the impact of Genghis Khan (died 1227), the Y lineage in question can be dated to "thirteen hundred to seven hundred years ago". **This is supposed to be a match - but only at one end of the date range.**

I look at his assumptions and doubt. Again, over Genghis Khan, it is highly unlikely that this spread of a particular Star Cluster on a Y chromosome can be traced to this man. Indeed, the fact that there is such a large date range (to 1300 BP) suggests the "one man" lived earlier. Why not assume that Genghis was like others of his ilk. When he made a conquest and moved on he would like to leave the reins of power in the hands of someone trusted. If not a son, try a brother, a cousin, an uncle. Why not assume Genghis came from a rather inbred clan or was one of a large family high in the social hierarchy. Which would mean that many others in his family or clan would possess the same Star Cluster Y chromosome.

The Y chromosome graph on p. 239 (Figure 28b) shows a male population attenuation at approximately 5000 BP but it appears to be a worldwide phenomenon (hard to tell if it affects Africa). His graph explains that this "corresponds to the dawn of the Bronze Age - a period of the first highly socially stratified societies - when some males succeeded in accumulating wealth and making an extraordinary contribution [genetic] to the next generation." But the attenuation affects the entire world population and the ancient world did not enter the Bronze Age and highly socially stratified societies at even approximately the same time. Yes, it is a time period coinciding (to the best of our knowledge) with the "secondary products revolution" (Sherratt, see p. 237) but I am fairly certain wool garments were produced earlier (the spinning wheel and spindle whorls are found in the Neolithic), the "greatly increased human mobility" Reich writes about overlooks the much earlier Atlantic megalith builders and their seafaring prowess, the domestication of the horse occurred during the Neolithic period as also the invention of the wheel and as for the invention of bronze, well, this came far later to the Americas but their graph also shows the Y chromosome attenuation c.5000 BP. Much more likely that the phenomenon was due to a particularly successful invader in a breakdown of the previous stable relationship between settled and nomadic peoples (James Scott, Against the

> Grain).
>
> As for the Jeanson results, certainly they look very much like Reich's Figure 28b. And if the attenuation at c.5000 BP did not affect Africans then, yes, Jeanson would have been able to trace their DNA much further back. The most likely explanation for his inability to trace other population groups further back is lack of access to the material used by Reich for this graph.
>
> With very best wishes,
> Bernard" [emphasis mine]

These piqued my interest and drew my attention to the various views and debates 'out there' on this area of science.

We need to move on from the orthodoxy and Woke elites and accept scientific fact, not dilute or ignore it and not to continue a narrative that is contrary to thousands of years of human experience and knowledge.

As David Reich wrote in the *New York Times*:

> "The orthodoxy goes further, holding that we should be anxious about any research into genetic differences among populations. The concern is that such research, no matter how well-intentioned, is located on a slippery slope that leads to the kinds of pseudoscientific arguments about biological difference that were used in the past to try to justify the slave trade, the eugenics movement and the Nazis' murder of six million Jews.
> I have deep sympathy for the concern that genetic discoveries could be misused to justify racism. But as a geneticist I also know that it is simply no longer possible to ignore average genetic differences among "races."
> Groundbreaking advances in DNA sequencing technology have been made over the last two decades. These advances enable us to measure with exquisite accuracy what fraction of an individual's genetic ancestry traces back to, say, West Africa 500 years ago — before the mixing in the Americas of the West African and European gene pools that were almost completely isolated for the last 70,000 years. With the help of these tools, we are learning that while race may be a social construct, differences in genetic ancestry that happen to correlate to many of today's racial constructs are real.
> Recent genetic studies have demonstrated differences across populations not just in the genetic determinants of simple traits such as skin color, but also in more complex traits like bodily dimensions and susceptibility to diseases. For example, we now know that genetic factors help explain why northern Europeans are taller on average than southern Europeans, why multiple sclerosis is more common in European-Americans than in African-Americans, and why the reverse is true for end-stage kidney disease…

It is important to face whatever science will reveal without prejudging the outcome and with the confidence that we can be mature enough to handle any findings. Arguing that no substantial differences among human populations are possible will only invite the racist misuse of genetics that we wish to avoid." ("How Genetics is Changing our understanding of 'Race'," *Opinion, New York Times*, 23 May 2018).

Conclusions

I read somewhere that

> "In Order To Be Born, You Needed: 2 parents
> 4 grandparents
> 8 great-grandparents
> 16 second great-grandparents
> 32 third great-grandparents
> 64 fourth great-grandparents
> 128 fifth great-grandparents
> 256 sixth great-grandparents
> 512 seventh great-grandparents
> 1,024 eighth great-grandparents
> 2,048 ninth great-grandparents
> For you to be born today from 12 previous generations, you needed a total of 4,094 ancestors over the last 400 years."

If only man would use God's Word as their basis or foundation in research and understanding science. If only scientists would be completely honest with the data and quit interpreting their findings in accordance with their political and atheistic agendas.

Race or distinctive peoples are real. It is true. And it is an expression of God's creative capacity – a God of diversity Who has developed or brought about the various peoples of the world. Now isn't that wonderful?

The woke/globalist/neo-Marxist brigade don't think so. They are attempting to fuse all the peoples of the world into a single, homogenous race.

Racial and national differences are complex and not as simple as today's neo-Marxist and Woke researchers state. They are trying to fool society with their 'interpretations' of research data. They are being deceitful to suit their ideological bent and globalist agenda rather than embracing a world of lovely diversity. I refer the reader to the item by Aaron Brown:

> "Instead of doing the hard work of gathering data to test hypotheses, researchers take the easy path of generating numbers to support their preconceptions or to claim statistical significance. They cloak this practice in fancy-sounding words like "imputation," "ecological inference," "contextualization," and "synthetic control."
>
> "They're actually just making stuff up." ("Academics Use Imaginary Data in Their Research," *Reason*, https://reason.com/video/2024/05/07/academics-use-imaginary-data-in-their-research/)

Denying mankind's terrific diversity and pretending that there are hardly any differences is an offence to God's creative capacity. There is no way that race is a social construct or something

recently concocted by the British Empire.

Why will they not accept scientific fact and stop fiddling the figures and facts like the do with climate change, gender and such like?[25]

Human Racial Types do exist

Racial identification is not racist or a false construct! It is real and good.

Despite being a tremendous force for advancement, science has historically been abused. Scientific knowledge has been used for bad intentions throughout history, from the gloomy days of slavery to the unsettling period of eugenics, and even more recently with euthanasia and abortion. Although stopping this kind of misuse is a worthy goal, it is nonetheless a difficult task. Truth-seeking science must never waver, and scientists must never stop speaking up when their findings are misapplied for nefarious purposes.

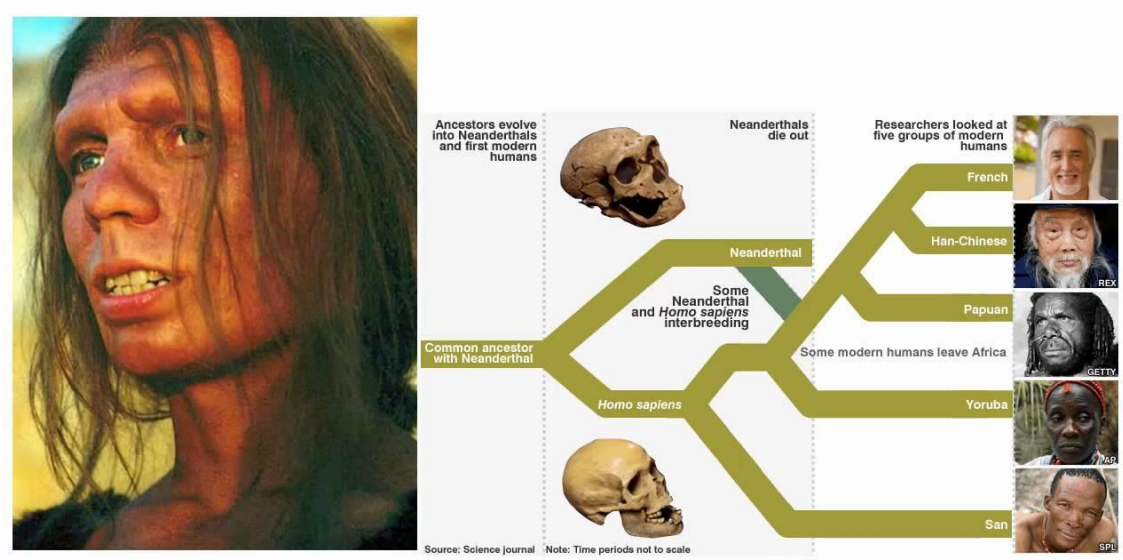
Man struggles to find the answers. Research, of course, should continue. But without the Bible as the basis, the conclusions can be incorrect. Take for example the arguments and scientific formulae used in Joseph Chang's paper "Recent Common Ancestors of all Present-Day Individuals," 12 June 1998 (Department of Statistics, Yale University) published in *Advances in Applied Probability*, Volume 31, Issue 4, December 1999, pp. 1002-26. And many more such papers available on the internet.

When specialists come across proof that we are all related and that our first ancestor existed only a few thousand years ago, it speaks volumes. Refer to an extract from the article in the **Appendix. Pedigrees for all Humanity**.

The study of anthropology has encountered ideological difficulties, especially in identifying variations between ordinary groups. Amidst all of this, tracing the origins of humans back to Africa has received a lot of attention. Africa has an outstanding archaeological record that reveals important historical events like the appearance of hominids that resemble our current form (having features like a prominent chin, round skull, vertical forehead, and flatter face) and the use of stone tools.

Nevertheless, the prevailing evolutionary theory, shaped by anti-racist beliefs, suggests that Africa served as the cognitive hub approximately 50,000 to 100,000 years in the past. This perspective asserts that intelligent Africans gradually dispersed and supplanted ancient human groups globally, such as Neanderthals.

[25] At least with the 'climate change' science there are alternative voices of the highest scientific and research order willing to speak out and challenge the narrative. But with the barrage of attacks upon the belief in racial diversity, many scientists (both creationists and evolutionary), they are frightened into keeping their views strictly private. The consequences of publishing something contrary to the narrative results in losing jobs, police investigations or persecution from the media.



Green, R. E., J. Krause, et al. (2010). "A Draft Sequence of the Neandertal Genome." Science 328(5979): 710-722. (this is still a bit controversial... we don't have high quality Neanderthal genetic data yet)

Figure 7. How evolutionary anthropologists view human origins

All this demonstrates that race is not just colour or 'Skin deep' – it is rather complex as I have written before. After all, God as Creator developed all the diverse peoples of mankind for His glory.

Being a Creator, His creation is complex and beautiful, not simple and race differences are complex too. Can't we just appreciate diversity instead of forging ahead with unnatural globalisation? But the Marxist way is to simplify everything down to the same level – to "make all in common" by distorting reality and promulgating this as fact.

Recognizing the reality of racial distinctions is tantamount to acknowledging the rich tapestry of humanity. Desiring to safeguard one's community is an affirmation of the value of human diversity. In order for our planet to thrive with its array of cultures and marvels, proponents of globalism must begin to recognize the inherent legitimacy of diverse populations. This entitlement to shield one's community from annihilation, to uphold one's cultural heritage against the tide of foreign influences, and to maintain one's distinct national identity against globalist encroachment represents a profoundly ethical imperative.

Can we harmonise Genesis with Science?

Some have gallantly attempted to align Y-chromosome DNA with the nations as listed in Genesis 10. And, as has been explained previously, they are only partially correct. This is particularly due to the lack of knowledge of what constitutes a race and lack of understanding of mutations, gene flow and other issues raised earlier in this article. Let alone that this is still a new-ish and evolving science and that there is a long way to go in its advancement, interpretation and use.

One such paper is *The Genesis 10 Table of Nations and Y-Chromosomal DNA* by Richard Aschmann. He is on to something, and his paper is useful, but until he understands that the

peoples of the Middle East are largely descendants of Ham and not Shem; and that the people of central, northern and eastern Europe are Shemites, the paper falls sadly short of its potential.

In my book, *In Search of … the Origin of Nations,* I make the following comment:

> "The balanced, God-ordained way is that of maintaining human bio-diversity - we should be proud of our ethnic heritage and thank God continually for our part in the race in which we have been placed. I praise God continually for all the wonderfully different nations He has created and pray that He will intervene to stop the elimination of ethnic diversity.
>
> Like Professor Coon, anthropologist, John Beddoe, also, wishes that mankind maintain its diversity:
>
> "Let us hope, then, that blue eyes, as well as brown eyes, will continue to beam on our descendants, and that heads will never come to be framed all upon one and the same pattern". [Carlton Coon, *Living Races of Mankind*, pp. 19-20]
>
> I also hope that mankind will maintain its bio-diversity. I know that it will; God will see to it. For we all have such a wonderful destiny when we realise our destined role in God's family of nations!" (p. 435)

So, with all the excitement surrounding the Y-Chromosome research, how helpful is it to actually identifying and tracing races and peoples? The answer is "Only partially useful at this time."

Finally, the presence of various racial groups contributes to the abundance of cultural diversity globally. Cultural distinctions stem from racial variations, resulting in diverse cultures characterized by unique strengths, weaknesses, and attributes. These cultures represent invaluable assets in a vibrant world, assets that thrive only in an environment of diversity rather than in a homogenized global community. Every ethnic group possesses the entitlement to preserve its distinct cultural heritage and identity.

Appendix. The First Humans Out Of Africa Weren't Quite Who We Thought

The First Humans Out of Africa Weren't Quite Who We Thought
Story by Carly Cassella

The human family tree is a tangle of twisted branches. Parting the foliage to disentangle the stem of our own species is not so easy.

The classic out-of-Africa hypothesis suggests that *Homo sapiens* evolved from a distinct lineage of early human that evolved around 150,000 years ago before setting off to spread through Europe and beyond.

But there is another story. A genomic study led by researchers at McGill University and the University of California-Davis suggests our family history isn't a single straight line tracing back through a slowly changing population, but a web connecting a diversity of families stretching across the African continent.

The findings support a multiregional hypothesis, which argues that before our species left Africa for Europe, there was continuous gene flow between at least two different populations.

"At different times, people who embraced the classic model of a single origin for *Homo sapiens* suggested that humans first emerged in either East or Southern Africa," explains population geneticist Brenna Henn from the University of California Davis.

"But it has been difficult to reconcile these theories with the limited fossil and archaeological records of human occupation from sites as far afield as Morocco, Ethiopia, and South Africa which show that Homo sapiens were to be found living across the continent as far back as at least 300,000 years ago."

The oldest fossils in Africa that resemble our own species were found in Morocco, Ethiopia, and southern Africa. But it's not clear which of these regions hosts the true cradle of humankind.

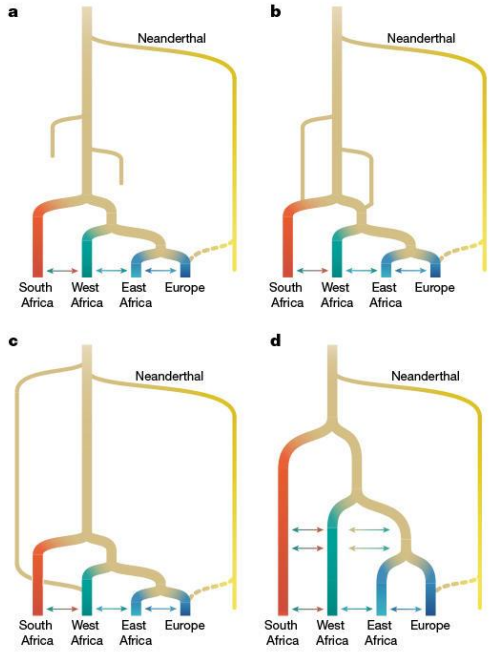
Some researchers argue that's because we've been thinking about our human origins all wrong. Maybe the stem of our species is actually a braid of branches, created when a patchwork of co-existing populations migrate and mix.

The models included newly sequenced whole genomes from 44 Nama individuals who have historically lived in the region of Kuboes shown here, on the border of South Africa and Namibia. (Brenna Henn/UC Davis) © Provided by ScienceAlert

Genetic data seem to support that idea. Comparing the genomes of 290 modern-day people in South Africa, Sierra Leone, Ethiopia, and Eurasia, researchers found evidence of high gene flow between their ancestors in eastern and western Africa.

They included genetic data from British individuals, to represent gene-flow back into Africa through colonial invasion, and a well-studied ancient Neanderthal genome from Croatia to account for genes from Neanderthals mixing with humans outside Africa.

Under a model of continuous migration, there could be two main lineages responsible for the genomes of those living in Africa today. These lineages represent distinct populations of early humans living in different parts of Africa around 400,000 years ago.



Conceptual models of early human history in Africa. a) Recent expansion, b) Recent expansion with regional persistence, c) Archaic admixture, d) African multiregional (Ragsdale et al., Nature , 2023)© Provided by ScienceAlert

Models suggest after evolving independently for a stretch of time on opposing sides of the continent, the two populations might have merged, ultimately fracturing into subpopulations that persisted from 120,000 years ago.

"Shifts in wet and dry conditions across the African continent between 140 ka and 100 ka may have promoted these merger events between divergent stems," researchers write.

This intertwined lineage, they say, could have been the one to leave Africa for Europe around 50,000 years ago.

Although, that's not exactly what the genomic data suggested. Compared to the genomes of those with European ancestry, models predict that the first humans in Africa left for Europe 10,000 years after they should have.

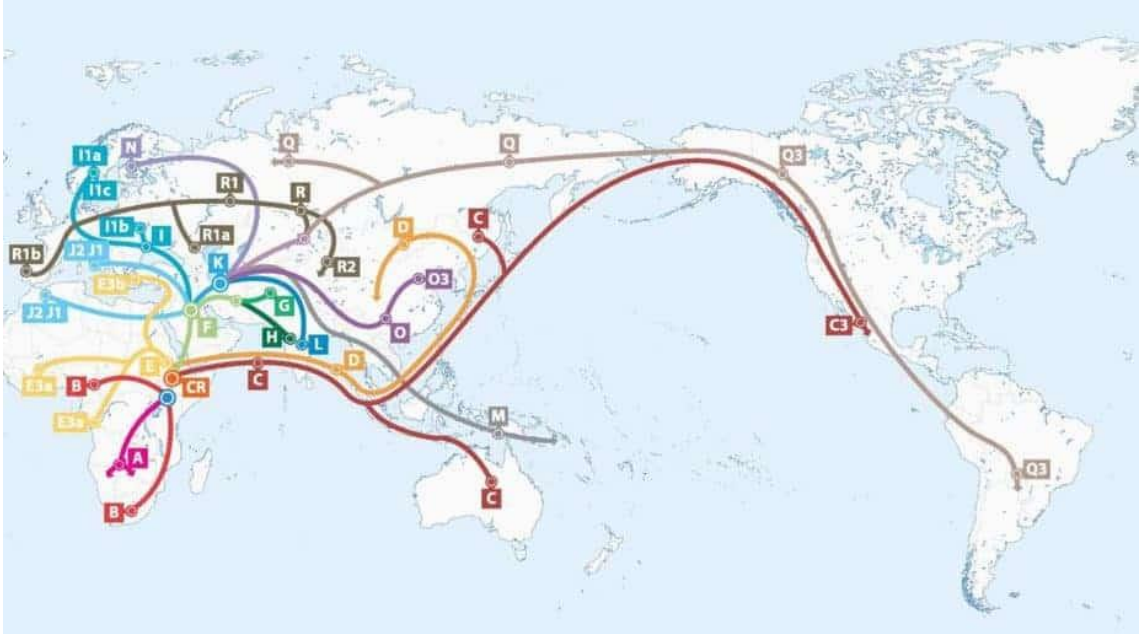
Recent studies, however, suggest there may have been multiple waves of migration from Africa to Europe.

Given the sparse fossil record for this time, genomic sequencing has become an incredible tool for scientists retracing the steps of our ancestors.

The more genetic data experts read, the more complicated their story and ours becomes.
The study was published in *Nature*.

Appendix. Y chromosomes and mitochondrial DNA – A new frontier of genetic ancestry

Y chromosomes and mitochondrial DNA – A new frontier of genetic ancestry
Science By Ankeeta Shah, B.A.
https://nebula.org/blog/ancestry-y-chromosome-mitochondrial-dna/



In his famous 1859 book *On the Origin of Species*, Charles Darwin described the Tree of Life, noting that evolutionary descent has "sometimes been represented by a great tree." Generations of scientists have been connecting branches between species with a combination of morphological and genetic data. The focus has narrowed over time to the study of connections within species, such as modern humans, rather than between species. To this end, researchers study different types of genetic material such as autosomal DNA (22 pairs of non-sex chromosomes), sex chromosomes (Y chromosome and X chromosome) and mitochondrial DNA.
What can our genetic code tell us about where we come from? How are we connected to one another?

The Origin of Modern Humans
The origin of *Homo sapiens,* otherwise known as modern humans*,* has been an ongoing topic of debate in the field of evolutionary biology since the 19th century. Broadly speaking, two competing hypotheses have been proposed.
The **"out of Africa" hypothesis** suggests that modern humans evolved from their most likely recent common ancestor, *Homo erectus,* in Africa approximately 200,000 years ago. Subsequently, modern humans migrated out of Africa to populate the rest of the world and replaced all other human species, such as Neanderthals and *Homo erectus*.

In contrast, the **"multiregional" hypothesis** suggests that human populations migrated out of Africa to other regions of the world and, over time, each population evolved into modern humans in parallel, with some mixing, or interbreeding, taking place between local populations. Currently, there is more genetic evidence supporting the "out of Africa" hypothesis. Specifically, the sequencing of female **mitochondrial DNA (mtDNA)** and the male **Y-chromosomes (Y-DNA)** has highlighted that the greatest patterns of genetic diversity are within Africa. As Pulitzer Prize winner Siddhartha Mukherjee writes in his book *The Gene: An Intimate History*, "Given our rather brief tenure on earth as a species, we are much more alike than unlike each other." We all share a common African root.

Just as height, facial features, and mannerisms are often shared by related individuals, so is genetic variation. You can think of evolution like a timer, ticking through genetic variants. These genetic variants can be identified by sequencing. These genetic variants can help individuals reconstruct connections between species or human family lineages. Moreover, as more genetic variation is introduced into the population, the greater the *genetic diversity* within a population. MacArthur Fellow Allan Wilson demonstrated experimental evidence for this concept, known as the "molecular clock," which allows scientists to estimate the age of species by using the number of genetic variants as a proxy.

Mitochondrial DNA (mtDNA)

In the 1980s, Wilson and others showed that modern humans can trace their lineages to a single human female who existed in Africa around 200,000 years ago. She was given the title "Mitochondrial Eve." The mitochondrial function is to produce energy in a process called oxidative phosphorylation. Mitochondria are therefore referred to as the powerhouses of our cells. Mitochondria also have their own small genomes which are distinct from the genetic material on the 46 human chromosomes found within the nucleus of a cell (nuclear DNA). Mitochondrial DNA (mtDNA) is passed down exclusively from mother to child because mtDNA in sperm cells is lost during fertilization. This means that everyone inherits mtDNA from their mothers. This also includes mitochondrial diseases which are always maternally inherited. The group of mtDNA mutations or genetic variants, known as a haplotype, tend to be inherited together. Therefore, one can use mtDNA to deeply trace back his or her maternal line. Furthermore, full sequencing of mtDNA can also help find relatives and construct a family tree.

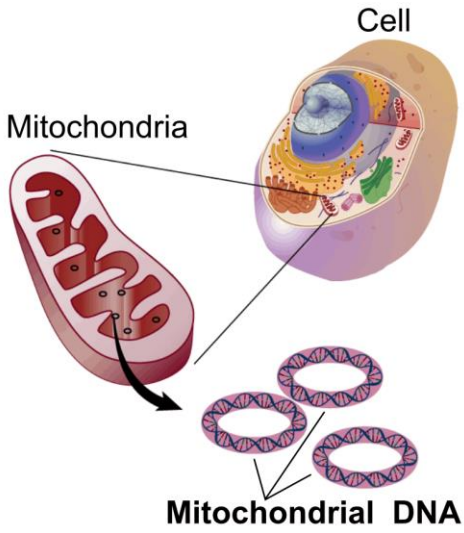


Figure 1. Mitochondria have their own genetic material.

Y Chromosomes (Y-DNA)

Later studies that genotyped Y chromosomes (sometimes abbreviated as yDNA, Y-CHR or Y-DNA) led to the identification of Mitochondrial Eve's counterpart, Y-chromosomal Adam, also from Africa. Only males carry Y chromosomes — females have two X chromosomes and males have one X and one Y. And, unlike the 22 pairs of autosomes, or non-sex chromosomes, Y chromosomes do not recombine, or swap DNA, with another chromosome. Therefore, all the genetic information contained on the Y chromosome is passed from father to son. This has led to a unique evolution of the Y chromosome that differentiates it from the X chromosome and the autosomes. The Y chromosome is the smallest chromosome containing a bit over 57 million base pairs. However, there are important genes on the Y chromosome including the SRY gene which is responsible for sex determination between males and females.

The Difference Between Ancestry and Race

In her book *The Social Life of DNA,* sociologist Alondra Nelson recalls watching the *Roots* miniseries as a child in the 1970s. Around this time, many African Americans were interested in learning about their African origins. This series told the story of author and journalist Alex Haley, who reconstructed his family's genealogy, which traced back to the Gambia. In the past, genealogists used oral history archives to reconstruct family histories. However, it was only after the sequencing of the human genome in 2003 that even more individuals became captivated by DNA-based genetic testing kits, a new way to find one's roots. Early direct-to-consumer genetic ancestry tests were created by FamilyTreeDNA in 2000 and African Ancestry in 2004.

Genetic ancestry testing is a way for individuals to learn their genealogy, or family history, using genetic information. This is possible because your genome carries a "signature" of your ancestry. As described above, the examination of genetic variants that are passed down over generations provides scientific clues about who you are related to and where your ancestors might have come from.

Genetic ancestry is different from what we call **race**. Race is a cultural and social construct rather than something that is biologically determined. It is important to remember that human beings are 99.9% genetically identical, and we are all descendants of early humans who lived in Africa. That is also where the roots of our Y chromosomes and mitochondrial DNA converge. Unfortunately, misrepresentations of many scientific discoveries surrounding ancestry have often reinforced racism. While we believe that learning about how your genome encodes information your ancestry is incredibly important, we understand that many individuals are worried about genetic discrimination, for example, on the basis of race. This is why at Nebula Genomics, we are building the first privacy-focused personal genomics service, allowing you to have full control over your data.

Deep Ancestry Analysis with Nebula Genomics

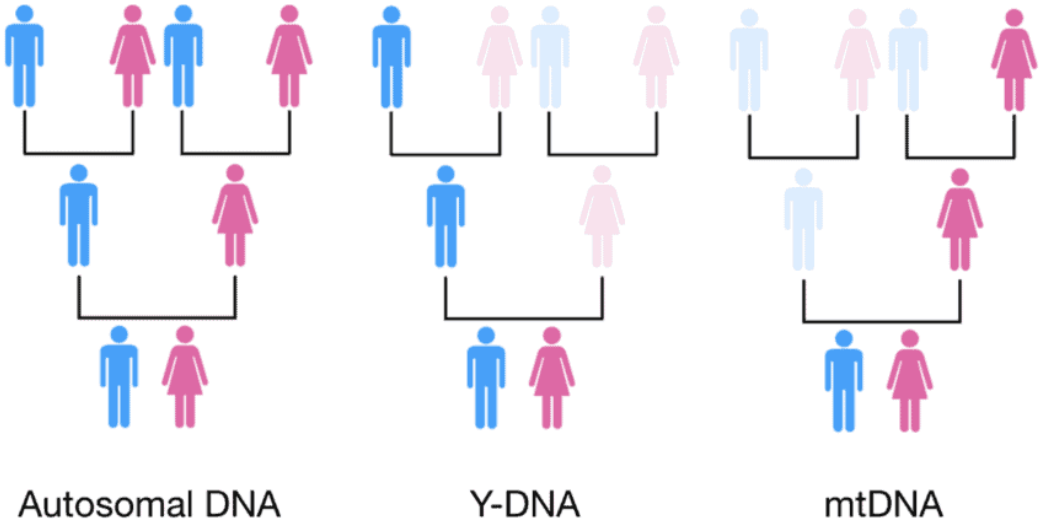


Figure 2. Autosomal DNA, Y chromosomes, and mitochondrial DNA are inherited differently.

At Nebula Genomics, our goal is to empower our customers to have the option to go beyond genetic tests that are offered by companies like 23andMe and AncestryDNA and unlock more information about themselves.

Most genetic ancestry tests examine the 22 pairs of non-sex chromosomes, otherwise known as autosomes or **autosomal DNA**. Individuals inherit 50% of their autosomal DNA from each of their parents. Although autosomal DNA provides information about close relatives and ancestry percentage estimates, it is often difficult to trace one's ancestral lineage much further back in time. This is because before a parent passes down DNA to their children, the pairs of homologous chromosomes go through a series of random exchanges of DNA fragments. This process is known as recombination. This means that the farther back in time you go, the less DNA you share with your ancestors. In contrast, sequencing mtDNA and Y-DNA can allow one to learn about deep ancestral lineages because mtDNA and Y-DNA do not undergo recombination before they are passed down from parent to child.

Today, next-generation DNA sequencing can be used to determine every base of mtDNA and Y-DNA. This generates a much more complete picture of their evolutionary history. Furthermore, because mtDNA tends to mutate rapidly, genotyping-based DNA tests that work well for autosomal DNA, fail to capture the genetic variation of mitochondrial genomes. Full sequencing of Y-DNA and mtDNA has become the new frontier of genetic ancestry.

Appendix. Clinical Psychology vs Biology.

There is indeed, at least in part, a biological basis for human social behaviour and the inheritance of traits from our forefathers - clear back to Genesis 10.

http://www.crimetimes.org/09a/w09ap7.htm

Clinical Psychologists Give Short Shrift to
Biology's Crucial Role in Behavior, Researchers Say

Calling for a paradigm shift in the field of clinical psychology, Theodore Beauchaine and colleagues make the case in a new paper that "the current under-appreciation of biological processes in prevention and intervention research is striking."
The researchers note that most clinical psychology programs offer little or no training in the biological foundations of behavior, and that articles on this topic are rare in the field's journals. "Perhaps of more importance," they say, "neuroscientific principles are almost completely absent from current theoretical formulations of prevention and intervention."
The researchers outline a number of reasons why an understanding of biological influences on behavior is key to designing effective preventive or treatment programs. Among them:

- **Biological risk markers help identify people at highest risk for problems.** While blanket prevention programs are costly and often inefficient, the researchers note, identifying biomarkers that place people at greater risk can help clinicians focus on individuals most likely to need and benefit from early intervention.
- **Heritable effects on behavior increase over the life span.** For example, the researchers note, heritability plays an increasing role across the life span for eating disorders in females and antisocial behavior in males. "Furthermore," they note, "although environmental factors contribute strongly to the initiation of smoking and drinking, behavioral genetics studies indicate that both smoking maintenance and heavy drinking are accounted for primarily by heritable effects." This may explain, the researchers say, why the effects of early intervention programs focusing on environmental factors erode over time.
- **An understanding of genetic vulnerabilities provides greater insight into co-morbid disorders.** The researchers note that individuals often receive multiple diagnoses (for example, ADHD, conduct disorder, antisocial personality disorder, and substance use disorder) for problems likely to stem from a common underlying biological vulnerability. Targeting this vulnerability, they say, could allow clinicians to address symptoms of multiple diagnoses and help protect against future problems. As an illustration, they note, "In the case of externalizing disorders, in addition to being treated for specific diagnostic syndromes such as conduct disorder, enrollees should also be taught strategies for coping with impulsivity, because this broad behavioral predisposition confers vulnerability to other externalizing disorders."
- Moreover, the researchers say, biological influences help explain why many people have a combination of seemingly very different disorders. For instance, they note, symptoms of both conduct disorder and depression—which appear on the surface to have few

similarities—are linked to reduced activity in dopamine-mediated brain structures involved in motivation. Similarly, depression and antisocial behavior appear to share a common heritable vulnerability.

- **Biological factors affect treatment response.** For example, the researchers say, people who are naturally impulsive and sensation-seeking tend to abuse drugs or alcohol for their reward properties, while people who are anxious tend to use them for their calming effects. Early evidence indicates that alcohol treatment programs that target specific personality traits like these, which are largely inborn, may yield better results than programs that offer a single approach for all participants.
- **Biology moderates the effects of environment.** As a case in point, the researchers cite respiratory sinus arrhythmia (RSA), a measure of parasympathetic-linked cardiac activity that is approximately 50 percent heritable. High RSA, they say, "consistently predicts strong emotion regulation capabilities in both children and adults and protects children from developing psychopathology in high risk environments." Conversely, they say, children with low RSA are especially vulnerable to developing psychological problems in adverse environments. Such biological differences, they note, could help clinicians spot the children who are most at risk from environmental adversity.
- **Biology and environment work in combination.** Beauchaine and colleagues note that biological and environmental factors often interact in powerful ways. For example, their study of teenage girls who committed self-injury found that for girls with low levels of peripheral serotonin, negative relationships with their mothers played no role in self-harming behavior. In contrast, girls with high peripheral serotonin levels were at risk for self-harm only when they had very negative relationships with their mothers. These findings and similar ones reported by other scientists, the researchers say, reveal that "for many forms of psychopathology, neither biological vulnerabilities nor high-risk environments are sufficient in isolation to explain etiology; their combined effects must be considered."
- **Environmental factors affect biology.** The researchers note that life experiences affect the brain through processes including epigenetic effects (nonstructural changes to genes in response to environment) and plasticity (the ability of the brain to modify its structure and function in response to experience). The brain's ability to adapt to its environment declines over time, they note, saying that this underscores the urgency of providing preventive and intervention programs early in life for children at the highest risk for psychopathology.
- **Early neural development affects later brain development and function.** Beauchaine and colleagues note that hereditary and environmental effects interact to shape the neural pathways that affect behavior. For example, they note, prenatal exposure to stimulants may alter dopamine activity, leading to sensation-seeking behaviors in childhood. These behaviors, in turn, place children at high risk for further disruptions to neural development; substance abuse, for instance, can cause deleterious changes in dopamine activity.

Early intervention programs for biologically vulnerable children, the researchers say, could stop this cycle by providing protective environments and teaching strategies to enhance attention,

self-regulation, and other skills impacted by altered brain development.[26]
The researchers conclude, "[C]linical psychology is often slow to respond to paradigm shifts that affect other areas of science much earlier…. It is our hope that the promise of neuroscience will extend to prevention research and practice in the years ahead, and that more at-risk children will benefit as a result."

"Ten good reasons to consider biological processes in prevention and intervention research," Theodore P. Beauchaine, Emily Neuhaus, Sharon L. Brenner, and Lisa Gatzke-Kopp, *Development and Psychopathology,* Vol. 20, 2008, pp. 745-74.

[26] So much of our natural talents and 'gifts' may be inherited and passed on over generations. See Madeleine King, "Maths and reading skills found to be 75% genetic," *www.sbs.com,* 15 March 2016.

Appendix. Extract from "Patrilineal Clans of the East and West: R1a and R1b"

"Patrilineal Clans of the East and West: R1a and R1b," *www.faithandheritge.com*, by Hengest, 29 May 2017.

"The study of the human genome continues to be a fertile ground for new information about ourselves. A particularly interesting and rapidly growing field is that of Y-DNA and mtDNA. One of the first things that makes these particular pieces of DNA so interesting is that they do not recombine each generation. The way most DNA works is through a case of recombination, generation after generation – 50% from your father and 50% from your mother. Y-DNA is carried only in the Y chromosome (the male sex chromosome), and is therefore passed unshuffled with a man's mother's DNA directly from your father, creating a link through time with your paternal line. Women, on the other hand, do not have an exclusive sex chromosome to create such a link. This is where mitochondria come in. Mitochondria are organelles within cells that convert the food you eat into energy that your cells can use. In human reproduction, after the sperm fertilizes the egg, the male mitochondria is destroyed, meaning that every human carries the mitochondrial DNA of their mother. Men simply do not pass on the mtDNA of their mother, while women do, creating the same sort of multigenerational link with our maternal line.

As more data was gathered on living populations and their frequencies of Y-DNA and mtDNA, a human family tree has begun to emerge. One of the interesting tidbits that has emerged is that all humans can trace their Y-DNA lineage back to one man and one woman. This was a major blow to the idea that the separate races emerged from their own proto-human or primate-like ancestors, as we could reasonably expect that at least some of their Y-DNA or mtDNA would still be around. One other point of interest as well, especially to the Christian, is the fact that the Y-DNA Adam is much younger than the mtDNA Eve, based on mutations. Basically, men have a more recent common paternal ancestor, while women have to reach further back in time to reach a common genetic ancestor with all the women of the world. What makes this so interesting is that, according to the biblical account, men in fact do have a more recent common ancestor via Noah and his sons, whereas women could theoretically go all the way back to Eve to have a common ancestor based on the wives that Noah's sons chose."

Appendix. Extract from Pedigrees for all Humanity

NB: scientists seem to have stumbled across something very important, but do they have the humility to accept the Biblical truth?

"Pedigrees for all humanity," *Nature*, Vol. 431, 30 Sept 2004, pp. 518-66 by Joturn Hein:

"Simulations based on a model of human population history and geography find that an individual that is the genealogical ancestor of all living humans existed just a few thousand years ago.

Writing on page 562 of this issue, Rohde, Olson and Chang address a simple but fascinating question:
how far back in time must we go to find an individual who was the ancestor of all present-day humans? After a little consideration, the existence of such an individual (the 'universal ancestor' or, as the authors put it, our 'most recent common ancestor') should not surprise: I have two parents, four grandparents, and the growth in the population of my ancestors is close to exponential as I trace them back in time. This is true for anybody's ancestors, and there must soon be an overlap between the ancestors of two or more randomly chosen individuals (Fig.1).

In simplified models, which assume random mating, the average number of generations back to a universal common ancestor has been estimated2–4 to be around log2*n*, where *n* is the population size. So if, for instance, the present-day population were to consist of 1,000 people, the average number of generations back to the universal ancestor would be log2(1,000) — about 10 generations. For populations of size 106, or the present human population of size 6_109, it would be 20 or 33 generations, corresponding to 500 or a bit more than 800 years, respectively (assuming a generation time of 25 years). This is surprisingly recent."

Appendix. A Statement from the British-Israel World Federation

The Israel Identity Haplogroup Issue
Martin Lightfoot
https://www.britishisrael.co.uk/showart.php?id=46

Martin Lightfoot is to chair a working party to address the claim that there is an inconsistency of modern genetic findings with British-Israel teaching.

Preliminary discussion has already taken place with other identity organizations and we are grateful to Yair Davidiy for his input.

The large variety of haplogroup markers in the Middle East as illustrated in JD McDonalds 2005 research map (http://www.scs.uiuc.edu/~mcdonald/WorldHaplogroupsMaps.pdf) corroborates the biblical account of Assyrian invasions that removed almost the entire population of the Northern Kingdom of Israel and a very large proportion of the Kingdom of Judah replacing them with various peoples from a whole range of conquered provinces (II *Kings* 17:24).

The shape of Abraham, Isaac and Jacob's "Y" chromosome is not known. Was it an "R" group, i.e. that of Western Europeans many of whom according to Milton (*History Of Britain* - 1670 Book 3 Para. 41-43) and Turner (*The History of the Anglo Saxons* – 1852 - Vol.1 p.82) are known to have migrated particularly from the Black Sea region of the Middle East?

> *"Y-DNA Haplogroup R is perhaps the most prominent Y-DNA lineage on Earth today. It is the pre-eminent Y haplogroup in Europe, the U.S. and India"* (http://www.genebase.com/tutorial/item.php?tuId=11).

The promise to Ephraim and Manasseh the birthright tribes of Israel is:

> *"he (Manasseh) also shall be great: but truly his younger brother (Ephraim) … shall become a multitude of nations*. (*Genesis* 48:19).

The haplogroups "J1 & J2" largely associated with Jews could have developed from R1b simply by loss of the extra DNA information that distinguishes J from R. Furthermore, the Jews who are largely from the tribes of Judah, Benjamin and Levi (*Ezra* 1:5) have been separated for some 3,000 years from the Ten Tribes.

The length of separation together with inevitable foreign infusion on both sides, environmental influences, genetic drift, etc, is more than enough to explain any differences that may exist between the two bodies.

Moreover, some combination can occur between the Y and X chromosomes.

The Stanford School of Medicine (www.thetech.org/genetics/ask.php?id=295) suggests that the "Y" chromosome not only recombines with up to 5% of the "X", it also recombines with its own "Y" duplicate DNA.

The male DNA (Y chromosome) of Jews is close to that of groups who have dwelt in the Middle East for an extended period such as the Kurds, Turks, Armenians and to a lesser degree Arabs. This however should be explained by geographical provenance. The Jews were in the Middle East for much longer than the Tribes deported into Assyria who then embarked on migration routes away from the Middle East.

There is a need to evidence that the progression from one haplogroup to another is most likely to have gone from a "developed" haplogroup (such as R or N) by losing DNA information. This does accord with decades of scientific research into both observed and artificially induced mutations which demonstrates that mutations involve a loss of DNA information.

Finally, Israel identity researchers have continually contended that the Anglo Saxon / Cymri-Celtic / Norman peoples are largely of common stock. This is now demonstrated by current haplogroup data as seen on JD McDonalds (2005) research map."

Appendix. Comments by Yair Davidiy

BAMAD-171
Brit-Am Anthropology and DNA Update

https://hebrewnations.com/features/2bamad/bamad-171.html

Modern methods of chronology within whose context the DNA changes take place are unreliable. What you received was a report concerning lineal DNA Changes transmitted by heredity. This relates to heredity over generations BUT there was an initial beginning where the DNA changed altogether from something else. First of all this is not our field. It is not what we are trained to cope with. Nevertheless since it involves matters pertaining to Brit-Am understanding we are obliged to deal with it.

We understand DNA Genetic Markers to be transmitted both linearly and horizontally. Linearly the Transmission takes place through heredity, from the parent to the offspring. Horizontally it spreads from one subject to another in the life of the subject. This is similar to the spreading of a virus. See the literature on DNA Tranposon. In the short term nearly all long lasting changes are linear. In the long run the overwhelming majority are horizontal. Horizontal changes take place at crucial moments that may last for a few months or gradually over centuries. This means that at least theoretically one DNA haplogroup of a group of people or major portions of it may take over that of another and displace it. See: BAMAD no. 170 https://hebrewnations.com/features/2bamad/bamad170.html #4. 45% of the human genome is transposable elements (can be attributed to external SOURCES ACQUIRED NOT BY WAY OF HEREDITY!) See: DNA Can Change! New DNA Revelation! DNA can change quickly and dramatically! https://hebrewnations.com/articles/race/transpos.html

Using present methods (which are wrong) of dating ages and lineal DNA doctrines (which have limited applicability only) that it all comes down be heredity they have trouble sorting things out. They do not know what different types of DNA are doing together in different places and where they all came from if one descended from another. They also admit that the evidence does not contradict the possibility that Ancient European Peoples came from the area of Israel. Our understanding is similar to that of SOME CREATIONISTS the Almighty created them all at once with their differences. See below: Quote:

Why does a eurocentrist make the baseless claim that Y DNA Haplogroup E1b1b is more related to Haplogroup R1b and J1 than to its older brother E1b1a who came from the same father E1b1? - Related writer, historian2y It's funny for you to charge Eurocentrism when principal movements of R1b, J1, and E1b1b were in Asia or on the Asian fringe of Europe. R1b was very clearly Asian in origin, coming from east of the Caspian Sea. J1 came from the west coast of the Caspian. Eurocentrism is not involved. Most agree that E1b1b originated on the African side of the Red Sea, but it was near the Red Sea, and the descendant clades quickly crossed the Red Sea and developed on the Arabian Peninsula and in the Levant, where it became the dominant haplogroup of the Natufians. There was then back-migration into Africa, and various descendant clades were associated with the Afro-Asiatic language family, which, as the name implies, spread

in both Africa and Asia. Any attempt to limit it to just one of those continents is just silly. In the Middle East, E1b1b, J1, and R1b were all well-established before the Neolithic Revolution and they tended to migrate together with the movement of Neolithic farmers from the Fertile Crescent, which, again, is not in Europe. That is why the three are often discussed together. It'snot a conspiracy, it's a simple matter of what happened.

End Quote.
Genetic Markers move from one ethnic group to another by either the two groups physically intermixing OR in the same way as viruses are transposed and sometimes transmitted to whole populations or good portions of them. This may happen frequently or only once in a while when there is a biological need for it. In the same way as certain fish acquired an anti-freeze gene from other breeds of fish without copulating with them so too do human populations change their genetic markers en masse. These markers may be associated with physical traits that a human group suddenly has need of. GENETIC TRANSPOSON in the Biological World happens all the time.

Transposons: The Jumping Genes By: Leslie A. Pray, Ph.D. 2008 Nature Education https://www.nature.com/scitable/topicpage/transposons-the-jumping-genes-518/ Extract: Transposable elements (TEs), also known as "jumping genes," are DNA sequences that move from one location on the genome to another. These elements were first identified more than 50 years ago by geneticist Barbara McClintock of Cold Spring Harbor Laboratory in New York. Biologists were initially skeptical of McClintock's discovery. Over the next several decades, however, it became apparent that not only do TEs "jump," but they are also found in almost all organisms (both prokaryotes and eukaryotes) and typically in large numbers. For example, TEs make up approximately 50% of the human genome and up to 90% of the maize genome (SanMiguel, 1996).The Death of Darwin. The Theory of Evolution is now Redundant!https://hebrewnations.com/articles/race/darwindead.htmlExtract:The Sea Raven (fish) is found in the northwest Atlantic and north Pacific Oceans. Some species of it live icy waters and possess a gene that gives them anti-freeze capabilities. The North Atlantic herring now lives in the same regions but formerly was to be found more to the south. Stone stage the herring had to change its spawning (breeding) grounds to more colder waters. It lacked the necessary gene for this. A biological message was sent to the sea raven who began to excrete the anti-freeze gene into the sea whence the herring picked it up or in some other way the transfer was made. At all events almost overnight all of the herring acquired it. Later the smelt (a type of sardine) in its turn needed to change its domicile to cooler oceans. It too acquired the necessary gene but this time via the herring.

Did Most Europeans have the same female Ancestors? Comparative StudyBiol Chem Hoppe Seyler. 1994 Dec;375(12):837-40.Mitochondrial DNA sequences from Switzerland reveal striking homogeneity of European populations I Pult 1, A Sajantila, J Simanainen, O Georgiev, W Schaffner, S Paabo Affiliations expand PMID: 7710701 Abstract

Mitochondrial DNA sequences from 74 Swiss individuals were compared to sequences from British and Finish populations. We found that the nucleotide sequence differences between these populations are almost as low as those within the populations. This is in contrast to three African populations, which display substantial differences between each other. The homogeneity of the mitochondrial gene pool in Europe suggests a recent common ancestry for European populations. This may reflect the arrival of anatomically modern humans about

40,000-30,000 years ago or, alternatively, the spread of agriculturalists about 10,000-6,000 years ago. Taking into account the estimated rate of evolution of the mitochondrial control region, the data favor the former explanation.

Postscript

Jeanson, N. T. (2022). *Traced: DNA's Big Surprise*. Master Books, Green Forest, AZ.

Much of what he wrote dovetails in with my book on the Origin of Nations, but there are differences as he doesn't understand that Y chromosome doesn't necessarily = race.

While he doesn't trace all modern nations to Genesis 10, what he wrote is helpful.

It also confirms what I wrote: Y chromosome etc is just a tracer of an ancestor on the Dad's side. Before humans knew about genetics, DNA and Y chromosome they identified races/peoples by physical appearance.

But today's evolutionary and neo-Marxist/Globalist academics want to deny the reality of race and distort the facts to try and convince us that race is a social construct. They are lying.

We are only at the beginning of all this research - there is an enormous amount more be undertaken, which takes time - especially with matching the research to the nations of Genesis 10 and that is going to be awfully difficult. Society's knowledge and recognition of racial and national differences has always been and will always be the criteria for racial recognition. We don't need scientists to misinform us or Y chromosome which is a tracer, though useful.

Here are some pertinent quotes from the book:

"By definition, scientific ideas must be open to change and even to direct disproof. Uncertainty, rather than certainty, is the rule of science." (p. 13)

"Linguistic heritage and cultural heritage naturally direct our choices in mates." (p. 20)

People normally marry within their ethnic type (p. 20)

Egyptians depicted different races (p. 35)

"… ancient Egyptians appear to have had features more in common with modern Arabs than with modern sub-Saharan Africans." (p. 35)

"The Khoisan … look more at home in East Asia – among the Chinese." (p. 36)

Around 11.5 million Africans were taken slaves by the Muslims (p. 39)

Ethnicity results don't always agree between different testing companies such as AncestryDNA etc (p. 43)

"… the most popular genetic tests do not analyze your entire DNA sequence … Currently, the scientific community possesses the complete DNA sequences from fewer than one million individuals …" (p. 44)

"For example, even though I'm of German descent, some of my DNA will be identical to that of an African. Yet the specific DNA that I share with an African, I might *not* share with another German …" (p. 45)

"The genetic contribution of each ancestor drops by half each generation. Therefore, the genetic signals of my ancestors become very hard to detect beyond just a few generations… The DNA signal from my ancestors dops off exponentially each generation." This is known as "signal dilution" (p. 45)

"One ethnic group can blend into another, dominate the second group's family tree, and leave hardly a visible trace. All this is possible via small differences in reproductive rates between the two groups." (p. 46)

"… despite millennia of Asian [ie Middle Eastern] rule, Egyptians are still dominantly African." (p. 60)

He asks if the Scandinavians have a homeland in Central Asia - -"The Huns did. Perhaps the Germanics did as well." (p. 85)

Genetic studies demonstrate that "Arab Muslims were a population of mixed lineages." (p. 97)

"… the ancient Persian lineage has been lost" (p. 102) – where did they go to, or were they bred out?

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Notes on the Bible and Genetics

Physical Anthropology, Blood Groups, DNA and Y chromosome
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