

3 DNA AND APPEARANCE

Six Generations of Cherokee Blood

Donald N. Yates

I wrote this article in 1996, before the advent of genetics in genealogy research. Since then I have determined through DNA analysis that my Native American genetic makeup is probably less than half the figure I arrived at purely with reconstructed genealogy and oral history. Obviously, a lot of those "fullbloods" were not full bloods, but mixed.

The interracial mixing in my family lines goes back further than I originally gauged. I estimate now that you have to go back to the generation of Cherokee born about 1750 to find the first 100 percent Native in my family tree. That is the generation of 6th great-grandparents, approximately the generation of Black Fox and Attakullakulla and Nancy Ward. Evidently, many of my Jewish ancestors exaggerated their admixture with the Indians. Still, a lot of the research hypothesis testing below can be of interest and, I hope, inspire others in their family searches.

As an interesting aside, I also found a tiny degree of East Asian genes. Perhaps Gavin Menzies is correct about the Chinese discovering America ...!

After about seven years of intensive genealogy research, I have established my known degree of Indian blood. I wanted to share the results with the Amerind list, since I know a lot of you are in the same boat. Some of you even have the identical lines and surnames and brick

walls. Probably few Indians today have had the opportunities I have had to investigate their family history. I feel anything further I may find will be a case of diminishing returns. I invite your discussion.

How far I have come since that day in 1993 when an older second cousin of mine told me a surprising story about my fullblood Cherokee great-grandmother Elisabeth Yates and first piqued my interest! That was my father's line. Lawden Yates died in 1978, without so much as telling a soul of his Indian blood. As you can see below, I have since determined that he was a minimum of a quarter blood, mixed Cherokee and Creek.

My mother was supposed to have all the Indian blood. She put it all on her maternal grandmother Shankles. I subsequently found out that there was just as much in Mother's paternal line, the Coopers. Does any of this sound familiar?

Wherever I looked, I found Cherokee. Generation after generation, Cherokee or part-Cherokee married Cherokee. Was this an accident? I do not think so.

My investigations suggested that I was the sixth generation since the last of the fullbloods born in the pre-Removal days before 1820. There is a saying that Cherokee elders and clan mothers plan to the seventh generation. Looks like they did—and are still doing—a good job!

In a crude way of reckoning, four out of 32 of my ggg-grandparents appear to have been fullblood Cherokee, making me one-eighth. I found only one ancestor proven to be non-Indian, Louis Graben, from Germany.

Besides Cherokee, which was the overwhelming element, there was a slight mixing with Creek, Cheraw (possible), Saponi (possible), Choctaw and Algonquian tribes such as Powhatan. Putting it all together, I estimate that I am about one-fourth American Indian by blood.

An obvious question is if there was a pattern of Cherokee or part-Cherokee marrying another Cherokee, how to account for it—particularly in cases where spouses might have concealed or even been unaware of their Indian blood? All lived in a predominantly white society in Georgia, Alabama and Tennessee; the chances of randomly marrying another part-Cherokee in the area were slim. It is true that in each generation, most siblings in any given family (Coopers excepted) seemed to marry non-Indians, so that Indian identification gradually disappeared in those lines.

Another factor that contributed to the dying out of Indian identity was moving away from the ancestral lands. The Coopers on the other hand appear to have consciously conserved their bloodline, as I have investigated all my great-grand-aunts and uncles' families. Only Coopers and Sizemores attempted to legally claim their Indian heritage. They filed numerous applications, for instance, in the Guion Miller process of 1906. All were rejected by the government.

A generalization I could make is that when the blood degree drops below one-fourth, there is a tendency no longer to identify as Indian, marry another Indian or raise your children with knowledge of the culture. One reason for the magic figure of one-fourth is that most of us do not interact with family members older than grandparents: typically, mixed bloods have one Indian grandparent and are thus one-fourth Indian. Grandpa or Grandma may or may not have "talked."

Of course, locale and Federal Indian policy have a lot to do with it. During generation one (pre-1820) when the official U.S., state and local government policy was extinction, the only Indians who survived off reservations kept a very low profile. Today, in generation six (Self-Determination), Indians are legally and openly asserting their own identity and culture. As long as the Indian wars lasted (until 1889), it was dangerous to be an Indian.

My Coopers survived because they lived in a "gray" backwoods area on Sand Mountain straddling county lines and state lines. Still, the government managed to repossess their land, in 1892.

Looks played a part, too. Some of the Blevins children were explicitly named Red, White and Black. My great-grandfather Henry Yates was half to three-quarters Indian and didn't look it or admit it. His brothers Josephus and George looked Cherokee to a T and their descendants preserved many of the family memories.

It was a custom for the carrier of certain traditions and stories to select one child or grandchild to pass them to. In some generations, none was qualified, and the tradition died. Stories were considered part of the possessions of a clan—living things that were treated with respect and honor. The Cooper tradition that we are descended from chiefs was passed from Isaac Cooper to his son Isaac, to Isaac's son William, to grandson Peter Cooper. Peter's wife, Lindy Sizemore, was the carrier of the Sizemore secrets. Much in Indian history hangs by a slender thread.

A final thought is that, perhaps, there really is something to "having Indian blood." I have a rare blood type (A negative), as does my wife. It is unlikely that a woman with A negative can have numerous children with a man of positive type (unless modern medicine intervenes with a drug like Rhogam). My wife and I do not have that problem. In a blood type study of indigenous people, A was the predominant type, though it represented less than 2 percent of the overall population. Certain groups like the reservation Cheyenne (Algonquian stock) and Amazonian Indians had 95 percent type A.

May 15, 2000

Idylls of the Caveman

Hominid Harems: Big Males, Small Females and Bodybuilding

Ann Gibbons

Science magazine

A study on page 1443 of the November 30, 2007, issue of *Science* finds that the males of an extinct species of hominid in South Africa took longer to grow up than females and got much larger, suggesting that top males of this australopithecine species invested energy in bodybuilding in order to possess a harem of females, much like silverback gorillas do today.

November 30, 2007

DNA and Emotions

Second Generation DNA Tests Reveal More Than Just Identity

A report on the front page of the April 20, 2008, *Washington Post* by Rick Weiss suggests that "second generation" forensic DNA tests, just like second generation ancestry tests, can do much more than just identify a person. They can yield information on someone's health and even their emotions.

The article's headline is "DNA Tests Offer Deeper Examination of the Accused."

April 20, 2008

Beachcomber Route Confirmed

Since Stephen Oppenheimer's *The Real Eve* suggested that the main out-of-Africa migration of humans proceeded across the mouth of the Gulf of Suez and around the coasts of Arabia, India and Southeast Asia (the "beachcomber route"), controversy has raged about the origin of Asians, whether they split off from the first out-of-Africa groups, sometimes called macro-haplogroup M, in the north central Asian highlands or the Middle East or elsewhere.

A massive project spearheaded by the Chinese has put that question to rest. The 40-institution HUGO Pan-Asian SNP Consortium "strongly concludes the southern route made a more important contribution to East and Southeast Asian populations than the northern route," says Li Jin, a population geneticist at Fudan University in Shanghai, China. Jin was one of the lead authors of a study reported in *Science*, vol. 326, no. 5959, p. 1470, "SNP Study Supports Southern Migration Route To Asia," by Dennis Normile.

DNA Consultants has always followed Oppenheimer's model of the settlement of Asia, but other companies, including the National Geographic Genographic Project with over 200,000 customers purchasing their product, inform their customers differently. Most human migration maps displayed by DNA companies and the news media show Asians splitting off from Europeans and Native Americans in the northern latitudes of Central Asia and do not depict a southern "beachcomber" route at all.

In July of this year, DNA Consultants discovered ethnic markers it released in its 18 Marker Ethnic Panel that prove a southern divide and origin for Asian populations as in the new study.

According to the *Science* report, "Anthropologists, ethnographers, and linguists have long struggled to understand the patchwork-quilt diversity of Asia. Indonesia alone claims some 300 ethnic groups; the Philippines has 180 native languages and dialects. Where did they all come from?"

The previously dominant theory of two major waves of migration from the Middle East must now yield to just one initial migration along the coastal route with populations moving north into East Asia from India and Southeast Asia.

The new study is vindication for the Chinese genetics community,

which has often been dismissed by geneticists. V. ... seminal paper ... European ... *American Journal of ...* the new findings ... very strong."

The study ... 73 population ... countries and ... executed, funded ... Liu, executive ... Researchers ...

Down on the

The success ... accomplished ... *Biology*, a ... common pit ... instance of a ...

Svante P. ... Anthropology ... sequencing ... unearthed in ... BBC, the ... Haplogroup ... before the ... to 7,000 years ... secrets of other ...

The article ... Human from ... Briggs, Mark ... Derevianko ...

The article ... humans (E ...

which has often been dismissed and rejected by European and American geneticists. Vincent Macaulay, co-author with Martin Richards of the seminal paper followed by most DNA testing companies, "Tracing European founder lineages in the Near Eastern mtDNA pool," in the *American Journal of Human Genetics*, 67, 1251-1276, when asked about the new findings admitted that the southern coastal route now "seems very strong," as quoted in *Science*.

The study used samples from more than 1,900 individuals representing 73 populations and involved 93 researchers at 40 institutions in 11 countries and regions in Asia. It was "conceived by Asians in Asia and executed, funded, and completed by an Asian consortium," said Edison Liu, executive director of the Genome Institute of Singapore. Researchers screened each individual for more than 50,000 SNPs.

December 10, 2009

Down on the Don

The successful extraction of ancient DNA has been a rare accomplishment in genetic circles until recently. In the journal *Current Biology*, a German-Russian team details how it was possible to avoid the common pitfalls of contamination with modern human DNA in the instance of a 30,000 year-old hunter-gatherer's grave in Russia.

Svante Pääbo, from the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany, and colleagues used the latest DNA sequencing techniques to study genetic information from human remains unearthed in 1954 at Kostenki, Russia. According to a report by the BBC, the hunter-gatherer's mitochondrial DNA type was U2. Haplogroup U is seen as a predecessor dominant type among Europeans before the arrival of agriculture and Middle Eastern culture about 5,000 to 7,000 years ago. It is hoped the new expertise will help unlock the secrets of other examples of ancient DNA.

The article, "A Complete mtDNA Genome of an Early Modern Human from Kostenki, Russia," is by Johannes Krause, Adrian W. Briggs, Martin Kircher, Tomislav Maricic, Nicolas Zwyns, Anatoli Derevianko and Svante Pääbo.

The article says the recovery of DNA sequences from early modern humans (EMHs) could shed light on their interactions with archaic

groups such as Neanderthals and their relationships to current human populations. However, such experiments are highly problematic because present-day human DNA frequently contaminates bones.

For example, in a recent study of mitochondrial (mt) DNA from Neolithic European skeletons, sequence variants were only taken as authentic if they were absent or rare in the present population, whereas others had to be discounted as possible contamination. This limits analysis to EMH individuals carrying rare sequences and thus yields a biased view of the ancient gene pool.

Other approaches of identifying contaminating DNA, such as genotyping all individuals who have come into contact with a sample, restrict analyses to specimens where this is possible and do not exclude all possible sources of contamination.

By studying mtDNA in Neanderthal remains, where contamination and endogenous DNA can be distinguished by sequence, the researchers show that fragmentation patterns and nucleotide misincorporations can be used to gauge authenticity of ancient DNA sequences. They used these features to determine a complete mtDNA sequence from a 30,000-year-old EMH from the Kostenki 14 site.

January 6, 2010

It's All Around You

DNA Found to Extend in a Radius of 50 Miles

According to an Anishinabe elder, DNA has a well-known nonphysical or spiritual dimension. George Starr-Bresette provided three write-ups on some experiments measuring the effect of DNA in the environment.

Electric DNA and Our Living Universe

In Experiment 1 by Dr. Vladimir Poponin, a container was emptied of air, so the only thing left was electromagnetic field. Poponin measured the energy distribution inside the container and found it was completely random. Then, DNA was placed inside the container and the field distribution was remeasured. This time, the energy was organized in an ordered way aligned with the DNA. In other words, the "physical" DNA is connected to the "non-physical" energy field. After that, the DNA was

removed from the container, and the order was measured again. The field remained ordered, with the arrangement created by the DNA.

For Experiment 2 by the U.S. military, leukocytes (white blood cells) were collected for DNA from donors and placed into chambers so they could measure electrical changes. In this experiment, the donor was placed in one room and subjected video clips, which generated different emotions in the donor. The DNA was in a different room in the same building. Both the donor and the subject's DNA were monitored. As the donor exhibited emotional peaks or valleys (measured by electrical responses), the DNA exhibited the identical responses. The military wanted to see how far away they could separate the donor from his DNA and still get this effect. They stopped testing after they separated the DNA and the donor by 50 miles and still had the same result. The DNA and the donor had the same identical responses. It means that life everywhere communicates through the electromagnetic cosmic field.

With Experiment 3 by the Institute of Heart Math, human placental DNA (the most pristine form of DNA) was placed in a container from which they could measure changes. Twenty-eight vials of DNA were given (one each) to 28 trained researchers. Each researcher had been trained how to generate and "feel" feelings, and they each had strong emotions.

Starr-Bresette's only comment was, "This still just amazes me ... but some knew it all along!" DNA Consultants has known it since 2004, when the company's webmaster mentioned the Army study to office personnel.

September 23, 2010

In the Land of Thunder

Everyone probably has wondered at some time what makes Aboriginal Australians different from other people, where they came from and how old their ethnic type is. Well, wonder no more. In a groundbreaking article in *Science* magazine, first lead author Morten Rasmussen and 58 co-authors present their study, "An Aboriginal Australian Genome Reveals Separate Human Dispersals into Asia" (*Science* 334, 7 Oct. 2011, 94-98). Rasmussen is with the Feinstein Institute for Medical Research, Manhasset, New York.

In the abstract, they write:

We present an Aboriginal Australian genomic sequence obtained from a 100-year-old lock of hair donated by an Aboriginal man from southern Western Australia in the early 20th century. We detect no evidence of European admixture and estimate contamination levels to be below 0.5 percent. We show that Aboriginal Australians are descendants of an early human dispersal into eastern Asia, possibly 62,000 to 75,000 years ago. This dispersal is separate from the one that gave rise to modern Asians 25,000 to 38,000 years ago. We also find evidence of gene flow between populations of the two dispersal waves prior to the divergence of Native Americans from modern Asian ancestors. Our findings support the hypothesis that present-day Aboriginal Australians descend from the earliest humans to occupy Australia, likely representing one of the oldest continuous populations outside Africa.

This study of Aboriginals will be cited as a landmark case in genetics because the authors took especial care to disarm any criticism concerning possible admixture and contamination, achieved a stupendous rate of success in sequencing DNA sites and used smart comparators to verify their model of what makes Aboriginals different, including Neanderthals, Denisovans, Andamanese, Filipinos, Indians, Papua New Guineans and Melanesians.

First sentence explains the genetic history of Aboriginal Australians is contentious but highly important for understanding the evolution of modern humans. Some mysteries pointed out about Aboriginal Australian DNA by the authors include:

—The Aboriginal population contains a lot of diversity, including specimens of most of the world's haplogroups, male and female.

—Related populations suggested are hunter-gatherers from Nepal and the Philippines, Great Andamanese and Onge from the Andaman Islands, Highland Papua New Guineans and certain peoples from India.

—It was previously unclear whether Aboriginals resulted from a single dispersal out of Africa or multiple-dispersal model.

—The role of hybridization with other archaic peoples was also not clear.

The authors confirm that "before European contact occurred, Aboriginal Australian and PNG Highlands ancestors had been genetically isolated from other populations (except possibly each other) since at least 15,000 to 30,000 years B.P." Also, "our results favor the multiple-dispersal model in which the ancestors of Aboriginal Australian and related populations split from the Eurasian population before Asian and Europeans split from each other" (97). "We find that the European and Asian populations split from each other only 25,000 to 38,000 years B.P., in agreement with previous estimates."

The new study finds that Aborigines have an amount of admixture with Neanderthals and Denisovans comparable to Europeans and Asians, although they have more Denisovan DNA than other people. "This admixture may have occurred in Melanesia or, alternative, in Eurasia during the early migration wave" (97).

In sum, the Aborigines are part of the same first-out-of-Africa branch of the human tree as Europeans and Asians, their ancestors splitting 62,000 to 75,000 years ago from Africans, and leaving relic related populations in the Highlands of Papua New Guinea and the Philippines. A second expansion wave through India, Indo-China and Southeast Asia replaced the original stock, while the Aborigines became stranded and isolated in Australia about 50,000 years ago.

"This means that Aboriginal Australians likely have one of the oldest continuous population histories outside sub-Saharan Africa today" (98).

Properly positioning Australian Aborigines in the expansion of humans out of Africa opens the way to connecting the dots for all the other prehistoric peoples. The migration map presented by Rasmussen et al. should be carefully studied for clues about the origins of Asians and Native Americans, to begin with.

October 8, 2011

Angel Du Pree commented on Nov. 15, 2013: Back in the seventies I took an anthropology course at the University of Florida. One of the professors had postulated that the Australian aborigines may have had ancestry with the Ainu people off the coast of Japan. Though the Ainu are light skinned he pointed out the fact that both tend to have a similar

head shape, notably their foreheads. He showed us a map of ocean currents and one of them led directly from the Ainu down to Australia. Has this been totally debunked? Have there been any genetic comparisons done?

Nat Turner commented on Feb. 15, 2014: A great, intelligent and mystical people, greatly not understood and abused by latecomers, the links between Australia and the surrounds have long been clear, even before the "proof" by DNA. What has not been discussed widely or taken into consideration is the so-called Aborigines along with the very early inhabitants of India, were both actually preceded by "pygmies" and in both cases these "pygmies" were still extant, at least till recently. They, like the pygmies of Africa, represent the first of humanity, and they remained even in Europe way into historical times. The Greeks pictured them with their protuberant bellies as their gods on pottery, the Vatican documents them as far away as Greenland under the name Skraelings, the Japanese Ainu, entering Japan, sight them as "earth spiders & pit dwellers" under the name Koro-pok-guru. When Pharaoh Seti I wanted to see the "Sacred Dance", ie. heavenly movements, he sent southward to the land of Punt, for a pygmy to perform. The descendants of the first men, even those who were known as the "Gods" are to be found still in pockets across Africa, Asia and elsewhere. The Australian Aborigines. The Dravidians, the Africans represent the first of man. They must be especially cherished as they purvey the secrets of man's inception.

The Face That Launched a Thousand Ships

DNA Consultants announced in 2012 a new generation of autosomal markers that can help in identifying ancestral lines. In its fall newsletter to customers, the company gave a preview of Rare Genes from History, rare alleles that its research has tied to specific populations in world history. The novel marker discoveries are powered by the autosomal DNA database atDNA, currently in version 4.0A, with 400 populations and more than 115,000 subjects.

The first rare value characterized, the Helen Gene, occurs at a frequency of only 1 in 10,000 people worldwide but is relatively common in Cypriots and other Mediterranean populations. It is 15 times

more common in Jews than Asians and is not even reported in many African, Chinese and Indonesian populations. The rare marker is believed to have originated in Africa (along with all other alleles in the human genome) but to have experienced a boost from carriers in ancient Anatolia and the Middle East, spreading to other population centers. The Helen Gene is named for the "face that launched a thousand ships," because its approximate center of diffusion includes ancient Troy, site of one of the world's oldest civilizations and longest wars, as sung by Homer and verified by the excavations of Heinrich Schliemann. Notable appearances are in island populations such as Cyprus, the Balearic Islands and the British Isles.

Models of history tested in the database have linked the Helen Gene with Greeks (often referred to as Hellenes), Italians, Turks, Sephardic Jews, certain North Africans, Celtic migrations, the Rom (Gypsy) people and modern-day Melungeons, though nowhere does its occurrence climb higher than 1 in 500 people, or 0.2 percent.

"These are all extremely rare genes," said Donald Yates, principal investigator. "But because they are so rare their trail on the map of history is very, very clear."

The lineup of new autosomal markers in the first phase of development is as follows:

1. The Helen Gene
2. The Scythian Gene
3. The Kilimanjaro Gene
4. The Thuya Gene
5. The Akhenaten Gene
6. The King Tut Gene
7. The Egyptian Gene
8. The Cochise Gene
9. The First Peoples Gene
10. The Lake Baikal Gene

For descriptions, DNA Consultants' website www.dnaconsultants.com has a section titled Rare Genes in History.

Five of the new products are African (three come from studies of the Amarna mummies in Egypt), two are Eurasian and three are Native

American.

The classic DNA study by the Supreme Council of Antiquities in Cairo, Egypt, is: Hawass Z, Gad YZ, Ismail S, et al. "Ancestry and Pathology in King Tutankhamun's Family." *JAMA*. 2010;303(7):638-647. The feat has also been showcased on Discovery Channel.

August 26, 2012

Out of Asia

"All the lights in the House of the High Priests of American Anthropology are out; all the doors and windows are shut and securely fastened (they do not sleep with their windows open for fear that a new idea might fly in); we have rung the bell of Reason, we have banged on the door with Logic, we have thrown the gravel of Evidence against their windows; but the only sign of life in the house is an occasional snore of Dogma. We are very much afraid that no one is going to come down and let us into the warm, musty halls where the venerable old ideas are nailed to the walls."

These biting words were penned by Harold Sterling Gladwin in *Men out of Asia*, the famous archeologist's most popular, nontechnical work. Published in 1947, Gladwin's book presented a maverick view of the peopling of the Americas identifying five migrations of diverse races including Negritoes and Austronesians. Heretically, he placed the first migration as early as 25,000 years ago and argued that the earliest colonists in the New World were Australoid.

The reaction of his colleagues in the anthropological establishment was stony silence shading off into humps and pshaws of injured pride, for Gladwin illustrated "Men out of Asia" with campy cartoons by Campbell Grant making fun of the sacred keepers of knowledge at the Peabody Museum at Harvard, Carnegie Foundation and Smithsonian Institution. In one, the dean of Southwest and Maya archeology Alfred V. Kidder is depicted as Dr. Phuddy Duddy sitting in academic robes atop a whistle sounding the alarm of illogical chronology. In another, a bespectacled Gladwin and his tweedy friend Professor Earnest Hooton of Harvard are shown in the academic doghouse "by request."

The Establishment is still uncomfortable about Gladwin, who died in

1983 after a distinguished career of more than 60 years. Although willing to praise his meticulous fieldwork on the Hohokam at Snaketown and exacting methodologies developed at the research center he founded at Gila Pueblo outside Globe, Arizona, academicians do not know quite what to say about his conclusions and hypotheses, which grew more adamant toward the end.

The destroying angel of unorthodox theories, Stephen Williams of the Peabody Museum, can only think that Gladwin succumbed to his "whimsies" and grew soft-headed in his old age. "I have always regarded 'Men Out of Asia'," Williams scoffs in *Fantastic Archeology* (p. 229), "as a sort of 'hyper-diffusionist' spoof."

We wonder whether the laddies in Harvard Yard and Castle on the Mall do not protest too much.

In a similar high-toned snipe, Williams dismisses the author of *Pale Ink* with its discussions of ancient records of Chinese explorations in America as "a sweet old lady (p. 185)." Louis Leakey, who believed on the basis of the Calico Early Man excavations he organized in California that humans occupied North America as long ago as 400,000 years, comes in for like treatment. Williams implies that Leakey was senile and hurried in his judgment (p. 303).

If a controversial interpretation of the archeological record cannot be debunked as lacking "soil truth" or the hard-won verities of the dig and thus being nothing but "armchair archeology," then one must resort to that time-honored device of the Ivy League sneer. For instance, Jeffrey Goodman's controversial *American Genesis* "mimics a scientific book very well" (p. 303), but it cannot possibly be taken seriously because, well, you know, no person in his right mind subscribes to a North American or Asian origin for humans! In addition to coming from a homely, unpatrician Western background, Goodman was also part Native American, which helped make him a pariah.

But to the happily hidebound Dr. Phuddy Duddys, we say in the words of Blake:

"Mock on, Mock on, Voltaire, Rousseau;
Mock on, Mock on, 'tis all in vain.
You throw the sand against the wind,
And the wind blows it back again."

DONALD N. YATES and TERESA A. YATES

The winds of change may have the last laugh.

September 7, 2012

Our Horizontal Ethnic Identities

Andrew Solomon in *Far from the Tree* makes a distinction between vertical and horizontal inheritance or identity. Vertical inheritance is determined by the DNA you receive from your parents. Horizontal inheritance kicks in as we identify laterally with others who are not necessarily related to us. Horizontal identities thus supplement vertical ones imposed on us or expected of us by our parents.

Solomon's startling proposition is that diversity is what unites us all. He writes about families coping with deafness, dwarfism, Down syndrome, autism, schizophrenia, multiple severe disabilities, with children who are prodigies, who are conceived in rape, who become criminals, who are transgender. Many born into such situations forge bonds of common culture with peers that take them farther from the family tree into surrogate families.

We have witnessed this phenomenon with ancestry tests. One sibling will be more oriented toward Native American or Romani or Jewish than another even though both have the same DNA inheritance from their parents. Similarly, one sibling will readily accept an unusual ancestry (such as Melungeon) while another adamantly denies it. The sibling who embraces the offbeat identity often experiences the same sort of "coming out" anxiety as a gay or gifted person. The horizontal inheritance derived from friends and support groups becomes more important than blood ties.

Amazon.com Review of *Far from the Tree*, by Andrew Solomon

Amazon Best Books of the Month, November 2012: Anyone who's ever said (or heard or thought) the adage "chip off the old block" might burrow into Andrew Solomon's tome about the ways in which children are different from their parents—and what such differences do to our conventional ideas about family. Ruminative, personal, and reportorial all at once, Solomon—who won a National Book Award for his treatise on depression, *The Noonday Demon*—begins by describing his own

experience as the gay son of heterosexual parents, then goes on to investigate the worlds of deaf children of hearing parents, dwarves born into "normal" families, and so on. His observations and conclusions are complex and not easily summarized, with one exception: The chapter on children of law-abiding parents who become criminals. Solomon rightly points out that this is a very different situation indeed: "to be or produce a schizophrenic ... is generally deemed a misfortune," he writes. "To ... produce a criminal is often deemed a failure." Still, parents must cope with or not, accept or not, the deeds or behaviors or syndromes of their offspring. How they do or do not do that makes for fascinating and disturbing reading.—Sara Nelson

November 9, 2012

The Quest for King Arthur

Tintagel or Trevena (in Cornish: *Tre war Venydh* meaning "village on a mountain") is a civil parish and village situated on the Atlantic coast of Cornwall, England, United Kingdom. The population of the parish is 1,820 people, and the area of the parish is 4,281 acres (17.32 km²), as cited in Wikipedia. The village and nearby Tintagel Castle are associated with the legends surrounding King Arthur and the knights of the Round Table. The village has, in recent times, become attractive to tourists and day-trippers from many parts of the world and is one of the most-visited places in Britain.

We have previously discussed North African genetics in Britain—for instance, in a blog post on "When Wales Was Jewish." The present article focuses on Tintagel, the fabled home of King Arthur and Mark of Cornwall. It is inspired by the mention of Gormund, the Irish "King of the Africans" in Welsh bardic literature, who was, we submit, a Vandal of the fifth or sixth century.

In British myth and historical tradition, not only Ireland but also Cornwall is the stronghold of "Africans." Mark, the king of Cornwall in Arthurian legend and jealous husband of Isoud or Isolt of Ireland, is portrayed in the Tristan romances as dark-complexioned, rich and of fiery southern temperament. Mark or Marcus is a favored name among Jews, particularly English Jews, in memory, perhaps, of the soldier in Roman Britain who was proclaimed emperor by the army there sometime

in 406, in the last death rattle of imperial rule. His sister is Elizabeth (another Jewish name), and his royal residence is fixed in Tintagel on the north coast of the Cornish peninsula facing Ireland. This site's chief fame in medieval literature was as the castle of King Mark in the immensely popular cycle devoted to Cornwall.

A series of excavations began in Tintagel in 1933, uncovering a forgotten chapter in southwest Britain's prehistory. According to O.J. Padel, "the area of Tintagel headland teems with fragments of pottery of a type manufactured in the Mediterranean area (mainly in North Africa and Asia Minor); these fragments are dated between the mid fifth century and the late sixth)."

This researcher at the department of Welsh history at University College of Wales, Aberystwyth, goes on to say: "The importance of Tintagel as a find-site for this pottery cannot be overemphasized. Since being identified there, it has been found to occur at other sites within Dark-Age western Britain and Ireland, including other sites in Cornwall and Devon, Cadbury-south-west Ireland, and as far north as the Scottish Highlands. ... Being imported from so far away, this pottery represents expensive, luxury, goods."

Arthur's Name Arabic?

The origin of the name Arthur has been endlessly debated. It is almost certainly not Celtic, neither from a P nor from a Q dialect, and cannot be traced further back than post-Roman times. The center of gravity for its appearance is the sixth century. In 1998, archeological excavations at sixth-century Tintagel brought to light a find subsequently dubbed the Arthur Stone, mentioning the name Artognou, claimed to be cognate. Although the reading is questionable perhaps this inscription and milieu are on the right track.

Arthur's name has become something of a grail quest for modern researchers. Other theories derive the name from Artorius (Roman or Messapic), Arnthur (Etruscan), Arcturus (the "bear star") or Arto-uiros in Brittonic ("bear man").

Perhaps the Gordian knot of the difficulty can be cut if we consider that many of the names in early Welsh history have Arabic and North African roots. Camlann, for instance, the site of Arthur's final deadly

battle with the usurper Mordred, has resisted all efforts to etymologize or locate it. This unidentified place in England has a name that is supposed to mean Crooked Glenn. It may be a corruption of the common Arabic place-name Khamilah, "area of dense trees, low or depressed area with good pasturage." Camelot, the fabled capital city of the Round Table, appears to be little more than the plural of the same term.

Arthur's father is Uthr Pendragon, the epithet following his name meaning Chief, or Head, of the Warriors, or Dragons. Now Arthur's son is Amr, a pre-Islamic tribal name that is meaningless in any Brythonic language. Ar- is a common prefix in Arabic and North African naming conventions, meaning "the." Ar-Rumi, for example, the name of an early Arab poet means "the Greek." Ar-Rahman is "the Most Gracious," Ar-Rabi, "the Master," and Ar-Rashid "the Right-Minded." Many of these are traditional names of God's servants in pre-Islamic religion. If we take Arthur's name as Semitic or Arabic or Kufic Arabic it may be a corruption of his father's name: Ar-Uthr. As to what Uthr might have meant originally, however, we will not venture an opinion here.

April 29, 2013

African Walkabout

It's well-known that scientists believe we all came out of Africa some 200,000 years ago. But some of these first ancestors of ours also returned before Europeans even got there. The migration path went both ways. This is a resounding discovery. Erika Check Hayden in her recent *Nature* article, "African Genes Tracked Back" says this "reverse" or two-step migration meant that these ancestors carried "... genes from the rest of the world [which] were carried back to southern Africa, long before European colonizers arrived." The findings are from a flurry of research enabled by better tools to survey African genomes, Hayden says.

But what does this finding mean? It means that we have not well understood until now the rich diversity of African genetics until superior DNA ancestry testing was used. Hayden quotes Luca Pagani, a geneticist at the Wellcome Trust Sanger Institute near Cambridge, U.K., who says, "Until now, we have been applying tools designed specifically for non-African people to African people." Hayden also quotes Carina Schlebusch, a geneticist at Uppsala University in Sweden, as saying,

"It's a really exciting time for African genetics."

It also explains a mystery. It means that some African groups that were previously thought to be genetically isolated actually "... carry 1-5% of non-African DNA" according to population geneticists at Harvard Medical School in Boston, Mass., who examined the individual genetic variations of some 1,000 individuals (Hayden). And their DNA testing results? This admixture explains why some Africans carry non-African genes. In fact, some carry a lot of them. For instance, the male Y-DNA haplotype R1b1 which is the most common haplotype among Western Europeans is also found among some Africans. Miguel Gonzalez et al. in their 2012 article, "The Genetic Landscape of Equatorial Guinea," in the *European Journal of Human Genetics* says that the human Y- DNA chromosomes R1b1 though "very common in Europe are usually a rare occurrence in Africa," but there have been some "... recently published studies that have reported high frequencies of this haplogroup" in parts of Africa. One wondered why until now.

Hayden isn't the first to propose the idea of an ancient trip from Africa and then back again. There have been genetic clues before this, she says. Gonzalez extrapolates from his R1b1 data "that this represents a 'back-to-Africa' migration during prehistoric times." And Hammer et al. in the article, "Out of Africa and Back In," in the *Oxford Journal of Evolution* postulate that there was more than one African ancestral migration path.

Now that we have determined from these DNA testing results that this migratory path is more multifaceted than previously thought, how are we to think about it? What else can we extrapolate from this? Are we to really think people walked from Africa to other lands and then back again?

September 6, 2013

Raymond commented on Nov. 16, 2013: "It is interesting how much discussion occurs regarding "back migration" and a lack of discussion regarding the "Arab Slave Trade" which brought millions of Europeans to N. Africa as slaves and concubines. (Collusion?) Also, there were many Greek, Roman, Circassian, and other Mamlukes (Arabic for slave) in N. Africa that contributed to the genetic makeup. Their descendants are still found in Berber tribes such as the Kabyle, Rif, etc. Some of these same groups even ruled Egypt for some time, erecting statues of

themselves that are mistaken for ancient Egyptian artwork.

Most are familiar with the Zanj (African slaves) but are unfamiliar with the rest of those same documents mentioning the "European" women that were slaves in the harems. This provides a better explanation of European mtDNA in N. Africa than "back migration" from thousands of years ago. Unfortunately, we are only considering works from people during a time of immense racial prejudice as valid references leading to useless debates, conjecture, and falsification of history.

DNA doesn't lie. People's rendering of history only confuses the DNA results. For example, how is it that Native American DNA is found in Africa and Europe? Could it be that Native Americans were taken as slaves to those places, or taken there centuries later in military campaigns? Are Native Americans descended from East Indians who migrated over a "land bridge" (NA's deny this) or did some East Indians intermarry with them when they were brought over as slaves in the 1600s (documented) or came with the Hessian Army (self admissions by the same in the 1800s; documented) and married into some of the tribes? DNA only proves the relation, not the "how" they are related.

Mona Lisa's Smile

Who posed for the Mona Lisa? Mona Lisa's enigmatic smile still stares from the past at onlookers in the Louvre. Her smile has cast a spell on us for centuries, but we are still trying to find the mysterious model.

Now, we are looking to DNA and digging up the dead for help.

According to Carol Kurvilla, in her *New York Times* article, "Researchers Dig for Traces of Mona Lisa's DNA," many art experts believe that Lisa Gherardini Del Giocondo, a neighbor of Leonardo Da Vinci, was the real Mona Lisa. Researchers have opened up the family tomb in search of a DNA match with Gherardini's son, Piero. They are trying to match Piero's DNA to one of the three women dug up at the Saint Orsola convent and then create a digital image from the skull of the woman. If they can find a match, they can find the real Mona Lisa.

According to Alan Boyle, in his NBC article, "'Mona Lisa' Skeleton and Her Kins Remains Are Due for DNA Testing," some experts believe her husband commissioned the painting between 1503 and 1506 to

DONALD N. YATES and TERESA A. YATES

celebrate the birth of their second child. After her husband's death, Lisa joined the convent where Italian researchers are hunting through bones for clues.

Boyle says it is a two-part process. First, they are doing carbon 14 tests on three skeletons to determine if they match the time she lived. Then, they are confirming the DNA from the remains of the silk merchant.

However, a bioarcheologist at the University of West Florida says the bones are in poor condition and doubts if anything of value will be found.

If that is the case, will DNA ever uncover the mystery of Mona Lisa's smile?

September 13, 2013

Update: As of Sept. 24, 2015, DNA is still sought for the real Mona Lisa model, according to a recent CBS news article, "Science Can't Prove Bones in Florence are Possible Mona Lisa Model."