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11 DNA AND MOM

Haplogroups J and K Have Low Susceptibility to Parkinson's Disease

Confirming previous studies, a new article finds that K and its related haplogroup J—both common Jewish lineages—have a lower risk than other haplogroups for Parkinson's disease. D. Ghezzi et al., "Mitochondrial DNA haplogroup K Is Associated with a Lower Risk of Parkinson's Disease in Italians," *European Journal of Human Genetics* 13 (2005) 748-752.

April 14, 2005

Lineages of Indigenous Mexican Populations

Characterization of mtDNA Haplogroups in 14 Mexican Indigenous Populations

R. I. Peñaloza-Espinosa et al.

Human Biology 79/3 (Jun 2007) 313-20

Abstract. In this descriptive study we investigated the genetic structure of 513 Mexican indigenous subjects grouped in 14 populations (Mixteca-Alta, Mixteca-Baja, Otomi, Purpecha, Tzeltal, Tarahumara, Huichol, Nahua-Atocpan, Nahua-Xochimilco, Nahua-Zitlala, Nahua-Chilacachapa, Nahua-Ixhuatlancillo, Nahua-Necoxtla, and Nahua-Coyolillo) based on mtDNA haplogroups. These communities are geographically and culturally isolated; parents and grandparents were

born in the community. Our data show that 98.6% of the mtDNA was distributed in haplogroups A1, A2, B1, B2, C1, C2, D1, and D2. Haplotype X6 was present in the Tarahumara (1/53) and Huichol (3/15), and haplotype L was present in the Nahua-Coyolillo (3/38). The first two principal components accounted for 95.9% of the total variation in the sample. The mtDNA haplogroup frequencies in the Purpecha and Zitlala were intermediate to cluster 1 (Otomi, Nahua-Ixhuatlancillo, Nahua-Xochimilco, Mixteca-Baja, and Tzeltal) and cluster 2 (Nahua-Necoxtila, Nahua-Atocpan, and Nahua-Chilacachapa). The Huichol, Tarahumara, Mixteca-Alta, and Nahua-Coyolillo were separated from the rest of the populations. According to these findings, the distribution of mtDNA haplogroups found in Mexican indigenous groups is similar to other Amerindian haplogroups, except for the African haplogroup found in one population.

July 7, 2007

Another "Anomalous" Cherokee Descendant

When I first got my mitochondrial results about four years ago, I learned that I matched no one in the world! Indeed, I wondered if I might be from Mars. Why didn't I match someone?

Later, I discovered that my type U5b fell into the Cherokee "anomalous" category, which meant that my family stories of Cherokee descent were, as I knew, not just stories. And this was in a strict matrilineal fashion though these were not the stereotypical Native Americans envisaged by standard genetic testing and hidebound anthropologists.

My matrilineal line goes back to Elizabeth (Eliza) Ann Culver, who died Dec. 8, 1847, in Hancock County, Georgia. By a sleight of hand very common at the time, she was whitewashed and made into a Marylander like her presumed father Levin Ellis, but she was, as her mitochondrial DNA suggests, in reality probably a Lower Cherokee woman. The Elati language she spoke is now extinct, as are apparently most of the Elati clans. Witness my lack of matches anywhere.

Hoping to find a match as this study proceeds into Phase III!

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My Direct Female Line

Elizabeth Ann Ellis Culver born 1775 prob. in Lower Cherokee country in Georgia

Martha Matilda Culver Grace born 1807 in Georgia

Martha Roberta Grace Meares Brackin born Feb. 19, 1847, in Georgia

Mollie Brackin Box born 1867 in Georgia

Luta Mae Box Newberry born about 1890 in Newville, Henry County, Alabama

Nina Jo Newberry—my mother

My mother had Cherokee ancestry from both parents. She was French/Tuscarora from my grandfather, Anderson Colbert Newberry, who descends from French Prevatts who settled in Robeson County, N.C. and then intermarried with Tuscaroras and Cherokees.

February 12, 2010

On the Trail of Spider Woman

Thoughts about the origin of mitochondrial haplogroup B and Mother Earth symbolism among the Hopi, Zuni, Hohokam, Fremont Indians and others.

I got a holiday present from my wife of an unusual little book titled *On the Trail of Spider Woman: Petroglyphs, Pictographs, and Myths of the Southwest*, by Carol Patterson-Rudolph (Santa Fe: Ancient City Press, 1997). Putting this intriguing study together with a travel book by David Hatcher Childress, my son and I took a four-day road trip into the homeland of the Indians credited with having the first civilization in the Southwest, a settled town life marked by desert agriculture, canals, pottery, baskets, ballcourts, plazas and adobe pueblos, pithouses and kivas. Previous occupants of the area were non-sedentary hunter-gatherers considered to be "paleo-Indians."

We visited Painted Rock Petroglyph Site outside Gila Bend, in the middle of nowhere, and ended the trip in the barren sands outside Phoenix, where we began it, visiting the Hohokam Pima National

Archeological Monument, also known as Snaketown. The former is little seen, and the latter cannot be seen, because the Pima (now Gila River Indians) had the ballcourt and other ruins reburied by backhoes in the 1970s. The caretakers of this declared national treasure decided not to open it to anyone to view or visit because of its "sensitive" nature. There are no signs, no roads, nothing left above ground.

At Painted Rock, the first mystery we pondered was why it was called "painted" rock when there is no paint. Petroglyphs are produced by pecking away the dark desert varnish to make a negative image on the underlying lighter rock. We wondered if it had anything to do with the Paint People, or Phoenicians, Kanawah Indians of the East Coast or Cherokee and Saponi Paint Clans.

The second mystery was the abundance of snake imagery. Famously, snakes in Indian tradition stand for boats and water. We noticed a Corn Cross, the symbol of the Feathered Serpent or Quetzlcoatl religion, supposedly introduced into Mexico from both the East and the West by white, bearded strangers in ships, who brought rule by laws and numerous arts of civilization and banned human sacrifice.

The third thing we remarked upon were the many Great Goddess or Earth Mother or birthing/fertility symbols. Such places were probably shrines where women came to be blessed and get married and give birth. Sun Park in Hopiland has numerous hemispherical carvings about 2 inches wide where people ground out minerals to eat. These cupmarks or cupoles at petroglyph sites puzzled archeologists until an important article in a scholarly journal clarified their meaning as part of the worldwide phenomenon of pica (pronounced "pie-ka"), "the desire to ingest nonfood substances such as rock powder, clay, chalk, dirt, and other material by some humans, especially pregnant women" (Kevin L. Callahan, "Pica, Geophagy, and Rock-Art in the Eastern United States," in *The Rock-Art of Eastern North America*, ed. Carol Diaz-Granados and James R. Duncan, Tuscaloosa: U of Alabama P, 2004, p. 65).

In general, petroglyphs are neglected both by archeology and anthropology. Their study is a no man's land. Sun Park has a birthing cave and birthing stone. Canyon de Chelly has the most photographed Mother Earth rock formation in the world, Spider Rock, a chthonic monument discussed on page 83 of the Spider Woman book by Patterson-Rudolph.

Who Were the

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Who Were the Hohokam?

At Sun Park, there were clear images of horses, riders, people praying, spirals, axis mundi (center of the earth) symbols like the iron butterfly and cross, labyrinths, bilobed axes, irrigation plans, horned beasts, felines, palaces or villages and warriors with spears and shields. We searched in vain for anomalous depictions of whales, elephants and deep water fish, found at other similar sites, but the sun was sinking and we did not have time to make a thorough inspection of the motifs. As we returned to Third Mesa we did find a famous petroglyph of a whale at Old Oraibi.

The name Ho-ho-kam is usually explained as meaning "Those Who Are Departed," but such an etymology is more gloss than literal translation of its meaning and origin. Like many words in the Hopi, Zuni, Pima and Uto-Aztecan languages, it actually appears to be composed of South Semitic elements. In Ancient Egyptian, it means "Sea Peoples" or "Foreigners." The historic Sea Peoples who came from Asia Minor and points northerly once threatened to conquer the Egyptian empire. The Philistines and Phoenicians are related to them. They were remarkable for their feather bonnets and, like their relatives the Cretans (whose language also came from Asia Minor), for a long-protracted continuance of Mother Goddess worship down into the Bronze Age.

Haplogroup B is the signature lineage of certain Indians in North America. Its ultimate source is Southeast Asia (not Mongolia, as has been suggested for the other three classic Native American haplogroups A, C and D), whence it took multiple circum- or trans-Pacific migratory routes to the Americas (Eschleman et al. 2004). It has high frequencies in Polynesia, which was settled from Southeast Asia, and among the Western Indians of the U.S. such as the Hopi, Zuni (77%), Anasazi (78%), Yuman, and Jemez Pueblo (89%). It is also found in frequencies approaching 70% in the Cherokee and Chickasaw.

We believe Spider Woman is simply an aspect of the Stone Age Great Goddess worshiped by those who came from Southeast Asia through Polynesia and helped colonize the American Southwest. She is the same as the Earth Mother. As in other cultures, she was replaced by sky and sun deities and male hierarchies. But her religion seems to have persisted in the Hohokam, Cherokee and Hopi tribes in a similar fashion to the

survival of her cult in the Cretans, Phoenicians and Sea Peoples.

According to Hopi and other traditions, at the end of the last age, the Mother Goddess ceased to be the leader of the people in their wanderings and went back "under the sea" *to the east and west* whence she and they had emerged. We can only infer from this that Spider Woman, as she was called in Asia and the Pacific, and the Great Goddess, as she was known in the Old World of the Middle East, relinquished her role as supreme deity to the new male pantheons and withdrew across the Pacific and Atlantic Oceans to the distant origins of civilization outside the Americas. Ironically, her memory survived better among the Indian nations than in the war-torn empires and materialistic cultures that dominate world history elsewhere. Indian societies today exhibit rare examples of matriarchy as opposed to patriarchy.

December 31, 2010

Haplogroup N

In Europe, Asia Minor and American Southwest and Now in the Cherokee

Haplogroup N1a came to the fore in genetics literature when Wolfgang Haak et al.'s studies on 7,500-year-old skeletons in Central Europe revealed that 25 percent of the Neolithic European population might have belonged to this lineage. The skeletons were found to be members of the Linear Pottery Culture (LBK ware), which is credited with being the first farming culture in Central Europe.

The study was a major development in the debate on the origin of European populations, since Haak et al. argued that:

The discovery of mitochondrial type N1a in Central European Neolithic skeletons at a high frequency enabled us to answer the question of whether the modern population is maternally descended from the early farmers instead of addressing the traditional question of the origin of early European farmers.

Two competing scenarios exist for the spread of the Neolithic from the Near East to Europe:

- Demic diffusion (in which farming is brought by farmers), for example Renfrew's Neolithic Discontinuity Anatolian hypothesis
- Cultural diffusion (in which farming is spread by the passage of ideas), which is the assumption in Alinei's Paleolithic Continuity Theory.

The study's authors concluded: "Our finding lends weight to a proposed Paleolithic ancestry for modern Europeans."

N currently appears in only 0.18 to 0.2 percent of regional populations. It is widely distributed throughout Eurasia and Northern Africa and is divided into the European, Central Asian, and African/South Asian branches based on specific genetic markers. Exact origins and migration patterns of this haplogroup are still unknown and a subject of some debate.

Although not one of the classic Native American lineages (A, B, C, D, and X—Schurr), N has been identified in the ancient Southwest in the Fremont Culture centered in Utah. It is one of the Middle Eastern lineages that appear in the Cherokee and other Indians; see DNA Consultants Blog, "Anomalous Mitochondrial DNA Lineages in the Cherokee". Most investigators attribute this phenomenon to recent European admixture. But such haplotypes if only instanced in North America without exact Old World matches could just as well be considered Native American.

It has been suggested that N is also characteristic of the Sea Peoples, who may have traveled to the American Southwest in antiquity.

January 1, 2011

Haplogroup B and Water Clan Symbols

Native Hawaiians and Native Americans

In a previous post, "On the Trail of Spider Woman," we suggested that petroglyphs in Arizona and Utah with female goddess symbolism and birthing ceremonies were connected with the Hohokam ("Sea Peoples") and other Indians who followed in their wake, corresponding to archeology and anthropology's Basketmaker Culture. In this and a series of posts over the next few months, we will show pictures of "emergence" petroglyphs from Hawaii, New Guinea, California, Hopi, Zuni, Pima,

Papago, Fremont, Zuni, Mimbres, Palavayu and Eastern Woodlands cultural sites that support our thesis. We believe them to be the footsteps and stepping stones of female haplogroup B and its associated lineages.

Mitochondrial haplogroup B does not have as its dissemination center Mongolia or Siberia or Central Asia but Southeast Asia, specifically Taiwan and Indonesia, and is characteristic, in contrast with Indian groups emphasizing A, C and D, of the Pueblo Indians and some Southeastern Indians such as the Cherokee, Chickasaw and Choctaw. It entered the Americas in successive waves, some of them seaborne, over many millennia.

The first picture comes from the western coast of the island of Hawaii. It is considered one of the oldest religious shrines in the Hawaiian Islands. It shows a stick figure carved into a rock set in the ground. As we will see, this is a typical "emergence" figure marking the arrival of a people in a new phase of existence.

The symbolism is of a female mother figure giving birth, her progeny here depicted by the tail-like extension coming from between her legs. There are thousands of variations of this tribal or clan mother iconography scattered over Asia and the Americas (but not apparently found in Europe or Africa).

The Hawaiians considered the western coast of the Big Island their place of emergence. According to their legends, their people came from the sea from the southwest and were noted for their ability to twist plants and fibers into ropes. Their capital was hence called Hilo (twisted, plaited).

On account of their subtlety in these arts they adopted the hula (twist) dance as their national dance. Its original purpose was as a fertility ritual to increase population. (Johannes C. Andersen, *Myths and Legends of the Polynesians*, Tokyo: Tuttle, 1969.) The main song sung during the enactment of the hula was called "The Water of Kane, or Waters of Life."

The Hawaiian Mother symbol seems to be connected with a certain clan. As is often the case, the head of the female figure is differentiated to show which clan. This one has horns and could represent a dragonfly. This insect recurs in American Indian petroglyphs where it is associated with the Water Clan and fertility rites.

To read the Hawaiian petroglyph properly we might say, "Here is the

spot where the Head Mother of the Water Clan emerged and gave birth to her people." It is likely (although no legends are preserved regarding its use) that women made offerings here to become fertile, attract husbands and be delivered of healthy children. In similar ceremonial sites, such figures mark an actual birthing stone where women squatted to give birth, attended by midwives and clan mothers.

To show the physical resemblance of the Hawaiian design to American Indian symbols we will reproduce thumbprints below from different traditions. They will be linked together and explicated in subsequent posts in this series.

January 14, 2011

Hidebound History

Her profession is her religion

Her sin her lifelessness

—Bob Dylan

Will the archeological establishment's obtuseness about the religion of the Great Goddess ever falter? In an article titled "Pieces of a Bronze Age Puzzle" in the current issue of *Archaeology Magazine* (Sept/Oct 2011, p. 15), Jessica Woodard discusses the "enigma" of thousands of broken Cycladic figurines from the tiny, uninhabited island of Keros near Naxos. Summarizing the decades long work of Cambridge archeologist Colin Renfrew, she dates the site to 2800 to 2300 BCE and (are you ready for this) speculates there was a lot of "social activity as well as ritual activity ... relating to beliefs about life, death, and perhaps the hereafter."

This is tantamount to saying that the deliberately broken figurines were broken by people, human beings who lived a long time ago, on purpose. But what kind of rituals and "beliefs"? The word "religion" is mentioned nowhere. Evidently, since archeologists profess no religion themselves they cannot detect it in any of the people whose graves and relics they dig up.

Greek mythology tells how Venus, the eldest of the Fates, was born at sea and stepped ashore on several islands, where her cult continued, notably at Cythera, Crete, Naxos and Cyprus. All the "enigmatic" broken

figures clearly relate to the worship of the Mother Goddess.

Marija Gimbutas covers the featureless face, arms crossed over breasts and other unmistakable signs of the Goddess or Magna Mater in her voluminous writings, including *The Language of the Goddess*. We suggest if Colin Renfrew cannot bring himself to read Gimbutas he at least dip into Pausanias, the second century C.E. author of a guidebook to Greece in 10 volumes. There he will find many descriptions of these votive offerings to the Goddess.

Archeologists may also want to acquire at least a bowing acquaintance with Riane Eisler's *The Chalice and the Blade*. Both Gimbutas and Eisler describe three invasions of the warriors of the steppes with their male gods following the year 3000 B.C.E. that spelled an end to the long period of female-based life-celebrating religion in the Middle East and Old Europe. Only the Minoans, Etruscans and certain other peoples from Asia Minor and the Greek Islands were able to retain the Mother Goddess in the new mostly male pantheon, which was focused more on death than rebirth.

The only puzzling part of the Keros Hoard is how archeologists could overlook its abundant testimony to the Mother Goddess religion.

August 15, 2011

Emergence Petroglyphs

Emergence petroglyphs as featured on previous blog posts about the Hopi, Sea Peoples, Hohokam, Fremont Indians and Cherokee ("Haplogroup B and Water Clan Symbols") have also turned up now in Patagonia in southern Chile, on the tip of the South American continent's Pacific Coast. They were identified in Hawaii already. These findings suggest the stick figure of a woman giving birth, or emergence petroglyph, is Pacific-wide and confined to that hemisphere, not instanced in Europe, the Middle East or Africa.

February 5, 2011

The Eternal Female

Among the explosive stories in Sam Kean's excellent "biography" of DNA, *The Violinist's Thumb* (Little, Brown, 2012), is a chapter on what makes mammals mammals. The short answer is a placenta, and Kean begins by discussing a rare case of mother and daughter coming down with a hereditary form of leukemia, a sort of "simultaneous cancer."

The chapter is titled "Love and Atavisms," and it zeroes in on the role of the major histocompatibility complex in the origin of mammals and selection of sex partners. MHC is the factor that makes some potential mates smell better than others to females (through pheromones). In one experiment, women were given T-shirts males slept in to smell, and they identified the "wildest" smelling as the most attractive. Same smelling T-shirts were spurned, perhaps for the same reason members of our own nuclear family are not sexy-seeming to us. (In places with little genetic variety, like Utah, it was shown that pheromone sensors were inoperative.)

"In humans, MHC is located on the shorter arm of chromosome six (p. 169)." In the case of the infant born with her mother's congenital proneness to leukemia, the cancer cells had deleted her MHC. She developed acute lymphoblastic leukemia, eventually being successfully treated for it, although her mother died of it in the same time frame.

"We don't think of cancer as a transmissible disease," Kean writes. "Twins can nevertheless pass cancer to each other in the womb; transplanted organs can pass cancer to the organ recipient; and mothers can indeed pass cancer to their unborn children, despite the defenses of the placenta (p. 176)."

But now comes the truly amazing revelation.

"Other scientists have painstakingly determined that most, if not all, of us harbor thousands of clandestine cells from our mothers, stowaways from our fetal days that burrowed into our vital organs. Every mother has almost certainly secreted away a few memento cells from each of her children inside her, too.

Such discoveries are opening up fascinating new facets of our biology; as one scientist wondered, "What constitutes our psychological self if our brains are not entirely our own? More personally, these findings show that even after the death of a mother or child, cells from one can live on

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in the other. It's another facet of the mother-child connection that makes mammals special." (pp. 176-77) Thus, female DNA lives on down the ages, while male DNA shows a fragile character and is doomed to experience dead ends. Siblings may get different "clandestine" cells from the same mother and develop different heteroplasmies, accounting, in part, for their different personalities, abilities and family traits.

August 10, 2012

Were Solutreans in Ancient America Egyptians?

Yes, according to Bill Tiffée, whose article on Solutreans in America will appear in volume 29 of the series Epigraphic Society Occasional Papers. Titled "Were Ancient Egyptians the Solutreans Who First Settled America?" the new study, he says, "looks at the possibility that the Solutreans who first settled America were from Egypt, and that the genetic marker X is found in the highest concentrations among the Druze (who migrated from Egypt 1,000 years ago) and the descendants of the Moundbuilder Native groups including the Sioux and Algonquin and possibly the Cherokee."

We have previously suggested that the Cherokee incorporate both Greek and Egyptian DNA. Chapter 3 of Donald Yates' new book *Old World Roots of the Cherokee* is devoted to the DNA story of the so-called "anomalous" Cherokee lines, including haplogroups T and X.

Several prominent scholars have argued that Europeans known to archeologists as the Solutreans of France and Spain around 18,000 years ago were the first to settle the Americas. Tiffée examines the similarities between Solutrean and Clovis or Paleo-Indian stone technology and reconstructs the Solutrean culture in Egypt beginning 24,000 years ago (p. 119). He links ancient Egyptians with genetic marker E-M78, mitochondrial haplogroup X, Tula and the Spiro Complex mounds in Oklahoma, among other North American sites. He also discusses the Great Flood of about 10,000 years ago, the legends surrounding Osiris and the rise of agriculture in southern Turkey (Gobekli Tepe).

"Perhaps," he concludes, "Egyptologists need to rethink their paradigms of ancient Egypt. And perhaps modern Native American descendants of the Moundbuilders, the Algonquin groups, Sioux,

Cherokee, Chickasaw (and other Native cultures closely related to mound-building) need to reconsider where their most ancient ancestors came from (129)."

In DNA Consultants' Cherokee DNA study, "Anomalous Mitochondrial DNA Lineages in the Cherokee," as well as numerous blog posts since 2009, it was reported that haplogroups U, T, K, J, N, X and L are found in Cherokee descendants in frequencies mirroring those of Egypt.

June 19, 2012

Real People's DNA Stories: James Shoemaker

Bible Studies, DNA Tests, Mother's Nursing-Home Confessions Lead to New Life

Until he took an autosomal ancestry test, James T. Shoemaker had little concept of his heritage. He assumed he was just an average white European American like his Appalachian neighbors.

Although raised in a Pentecostal Church, Shoemaker always felt a strong pull toward Jewish culture. So, last year, he went to his doctor and asked for a DNA test. "I wanted to see if there were any Jewish lines in my ancestry," he said.

He ended up taking a DNA Fingerprint Plus, a complete analysis of one's genetic ancestry that includes ethnic markers and megapopulation admixture matches.

Fast forward from that first eye-opener, and, today, the 53-year-old Waynesboro, Pa., resident is halfway through a conversion process to Judaism at B'nai Abraham, a Reform congregation in Hagerstown, Md., where he is being mentored by youngish Rabbi Ari Plost.

"I got all three ancestral markers for Jewish I, II and III," Shoemaker recalls, "so I went to see my mother, Jacqueline Rose, at the nursing home in Hagerstown, and she admitted, 'Well, yeah, my parents, uh, they were both Jewish.'"

It was the first he had heard of it. "Mom never said a word about having Jewish ancestors. It turned my life around."

The fact that he got a "double dose" of Jewish alleles in his marker results confirmed the truth of his mother's admission that both she and

his father came from Jewish families.

Shoemaker next took a Premium Male DNA Ancestry Test to determine whether his father's Y chromosome line was perhaps Jewish. The results were delivered to him in mid-November.

His particular haplotype did indeed match several other Jewish men, including those with the surnames Brown, Hendrix, Shepard, Getz, Phillips, Lewetag and Sequeira. "The subject's specific male haplotype (surname line) probably came from Southwest Germany or the Low Lands, to judge from the modal matches and patterns of distribution," according to the report.

As for the surname itself, the Surname History section (included in every Premium Male report, cost \$325), had some valuable clues for Shoemaker's genealogy.

"Shoemaker is probably a translation of the Dutch or German equivalent Schuhmacher or Shumacher meaning "shoemaker." It is noted as a Jewish family name in Southwest Germany and the Saarland in France, including Lörrach in Baden (Lars Menk, *A Dictionary of German Jewish Surnames*, Bergenfield: Avotaynu, 2005, pp. 673-74). It could also come from Schuster, a more common Jewish German surname (p. 675)."

A Mason since 1990, and flirting at one time with Messianic Judaism, Shoemaker feels as though his earlier attempts to connect with his Jewish heritage were blind and unguided without the hard testimony of DNA.

"All these things I've been interested in with my studies and religious life now fall into place," he said. "I'm finding out why."

What lies in the future? This Pesach, Shoemaker will have an official bar mitzvah, complete with ritual bath and reading from the Torah. He then plans to attend Hebrew Union College in Cincinnati. "What I am really looking forward to," he says, "is making *aliyah* to the Land of Israel."

November 16, 2013

The Junk Bonds of Genetics

The tripartite Asian Model of the peopling of the Americas through "Beringia" was re-asserted with "the most comprehensive survey of genetic diversity in Native Americans so far" in a study published in *Nature* this week, "Reconstructing Native American Population History,"

by Harvard's David Reich et al. If ever there was a blue chip study, this is it. Only it is more like junk bonds in which no one should put stock.

If you read the fine print of this new issue from the Ivy League anthropological establishment, you may discover:

- Although the authors claim to go beyond examining single loci on the mitochondrial genome or Y chromosome and to analyze instead 364,470 SNPs, they are still stuck on the same biased samples. In one of their feats of prestidigitation, they statistically filter out "West-Eurasian-related and sub-Saharan African related ancestry in many Native Americans" (p. 371). They ignore anything that does not support their preconceived conclusions.
- Anthropologists have always insisted on the Bering Land bridge. Geneticists start with anthropologists' assumptions and test their model. Guess what? After enough manipulations you can make it work!
- Whole genome sequencing was adopted because it has become most economical, but half the samples were just adopted into the new study after doctoring the pre-existing data. These biased data (Pima, Inuit etc.) were not reliable when they were collected (as far back as the 1990s), and have only been improved through statistical voodoo. The new Indians' samples (heavily geared to Mexico, Central America and northern South America) were probably subjected to SNP investigation out of interest in biodiversity and possible medical applications anyway. The motives of investigators who mostly belong to medical faculties are tainted.

Here's the conclusion:

Our analyses show that the great majority of Native American populations—from Canada to the southern tip of Chile—derive their ancestry from a homogeneous "First American" ancestral population, presumably the one that crossed the Bering Strait more than 15,000 years ago. We also document at least two additional streams of Asian gene flow into America, allowing us to reject the view that all present-day Native Americans stem from a single

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migration wave, and supporting the more-complex scenarios proposed by some other studies. In particular, the three distinct Asian lineages we detect—"First American", "Eskimo-Aleut" and a separate one in the Na-Dene-speaking Chipewyan—are consistent with a three-wave model proposed mostly on the basis of dental morphology and a controversial interpretation of the linguistic data.

So, we're back to Greenberg and other discredited believers in the linguistic explanation of human diversity, something they used to call racism. Maybe that's because culturally inferior American Indians make such great subjects for grant getting in the first place. Especially if they are safely dead, on a reservation, or far away and helpless and completely extraneous to our society.

August 19, 2012

Haplogroup T among the Cherokee

A Surprising Middle Eastern Component

Haplogroup T (named Tara by Bryan Sykes in *The Seven Daughters of Eve*) is usually not seen as a Native American lineage. But it is discussed as such in Donald Yates' *Old World Roots of the Cherokee*, where it takes its rightful place among other Middle Eastern haplogroups like U, J and X. Moreover, several geneticists have drawn attention to its prevalence in New World Jewish and crypto-Jewish populations.

The following comes from Chapter 3, "DNA," pp. 55-57, and discusses some living examples of "Taras" who verified their Native American genealogies with a DNA test from DNA Consultants in 2007-2009, as reported in "Anomalous Mitochondrial DNA Lineages in the Cherokee":

Maternal lineage T arose in Mesopotamia approximately 10,000 to 12,000 years ago. It spread northward through the Caucasus and west from Anatolia into Europe. It shares a common source with haplogroup J in the parent haplogroup JT. Ancient people bearing haplogroup T and J are viewed by geneticists as some of the first farmers, introducing agriculture to Europe with the Neolithic Revolution. Europe's previous substrate emphasized older haplogroups U and N. The T lineage includes

about 10% of modern Europeans. The closer one goes to its origin in the Fertile Crescent the more prevalent it is.

All T's in the Cherokee project are unmatched in Old World populations. They do, however, in some cases, match each other. Such kinship indicates we are looking at members of the same definite group, with the same set of clan mothers as their ancestors. So let us briefly introduce some of these descendants of Middle Eastern-originating Cherokee lines.

Jonlyn L. Roberts, had a puzzling, but typical genealogy that led her to embark on a lifelong quest for answers. Her mother, Zella, was adopted by the George and Mary Hand family of Hand County, South Dakota, in 1901. Little information was passed down, but piecing together clues from her childhood, Roberts believes that her mother's original family might have come from the Red Lake Ojibwe Indian Reservation or one of the North or South Dakota reservations. At any rate, her mtDNA haplotype is a unique form of T, one with certain distinctive variations in common with others in the study.

Another T in the study fully matched four other people, all born in the United States. One of these noted their ancestor as being Birdie Burns, born 1889 in Arkansas, the daughter of Alice Cook, a Cherokee.

Gail Lynn Dean (T) is the wife of another participant, whose type belongs to anomalous U. Both she and her husband claim Cherokee ancestries.

T participant Linda Burckhalter is the great-great-granddaughter of Sully Firebush, the daughter of a Cherokee chief. Sully married Solomon Sutton, stowaway son of a London merchant, in what would seem to be another variation of "Jewish trader marries chief's daughter."

Two cases of T represent descent in separate lines from the historically documented Gentry sisters, Elizabeth and Nancy, daughters of Tyree Gentry, who moved to Arkansas in 1817. The tested descendants are aunts or cousins of Patrick Pynes, a non-registered Cherokee and professor of American Indian studies. Learning of the results of the study, Pynes commented, "The possible connections to Egyptian heritage among these Cherokee descendants are especially interesting. We have a photograph of one of the women in this T* line (a granddaughter of Nancy Gentry, I think), and she is wearing an Ankh necklace. We all thought that was kind of strange. As far as I know, the Gentrys were

Methodist Episcopalians.”

Three participants with T previously unknown to each other, and living in different parts of the country, turn out to be very close cousins descended from the same Cherokee ancestress. Their mitochondrial mutations exactly and fully match. Two claim Melungeon ancestry—a Yates male-linked cousin of the author and a relative of Phyllis Starnes (U, matching the author’s). The third has adoption in the family, so the female ancestry is unknown.

A case of rare T5, Cheryl, took not only the mitochondrial test but also our CoDIS-marker-based ethnic population test, DNA Fingerprint, to validate “Cherokee or Jewish ancestry” from her mother. The results of the DNA Fingerprint Test show Ashkenazi Jewish in the No. 1 position, followed by assorted American Indian matches. Cheryl says that she is exploring returning to Judaism, but that in the remote Texas town where her family lives there are few avenues or resources to pursue.

As tabulated in Appendix A, our small survey shows a great deal of diversity and relatedness. It includes more than a few participants who discovered they share the same Cherokee ancestry, maybe even the same clan. Unlike a random sample of the U.S. population, they exhibit a mix that turns the conventional numbers on their head. Haplogroup H, instead of an expected 50% dominant position, is one of the smallest, with only 7.7%. Haplogroup U, an older lineage representing the Stone Age colonization of Europe before the ascendancy of H, contributes 25% of the total number. Haplogroup X, marked by an exiguous presence elsewhere, attains a frequency in the Cherokee more than tenfold that of Eurasia or rest of Native America.

Yet the most startling statistic concerns T haplotypes now verified in the Cherokee. At 27%, they constitute the leading anomalous haplogroup not corresponding to the types A, B, C, or D. Several of them evidently stem from the same Cherokee family or clan, although they have been scattered from their original home by historical circumstances. So much consistency in the findings reinforces the conclusion that this is an accurate cross-section of a population, not a random collection of DNA test subjects. No such mix could result from post-1492 European gene flow into the Cherokee Nation. To dismiss the evidence as admixture would mean that there was a large influx of Middle Eastern-born women selectively marrying Cherokee men in historical times, something not

even suggested by historical records. Mitochondrial DNA can only come from mothers; it cannot be imported into a country by men.

If not from Siberia, Mongolia or Asia, where do our anomalous, non-Amerindian-appearing lineages come from? The level of haplogroup T in the Cherokee mirrors the percentage for Egypt, one of the only countries where T attains a major showing among the other types. In Egypt, T is three times what it is in Europe. Haplogroup U in our sample is about the same as the Middle East in general. Its frequency is similar to that of Turkey and Greece.

September 14, 2012

Christie Hill-Troglin commented on 15-Nov-2013

My third great-grandmother (via my paternal lineage) is Sully Firebrush. I would love to have any additional information that you would be willing to share.

Barry Vann commented on 24-Jan-2014

Hi, I am one of the folks whose family on both my mom and dad's sides insist that there was a Cherokee ancestor. On my maternal side, my grandmother claimed her maternal grandmother drew some sort of an Indian claim (presumably a cash payment) in the 1920s. Her married name was Mary Crisp, and she lived in Graham County, North Carolina. Our mtDNA is T2e, and my autosomal results (FTDNA and Geno 2) tell me that I am 17% Middle Eastern. I have no known connection to the Middle East. Is it possible that Middle East can be confused for Native American? Thanks, Barry

My Grandfather Was a Cherokee

My Cherokee grandfather told me we had Cherokee Indian ancestry when I was just a child. We were sitting on the front porch in Alabama eating corn pone and watching fireflies.

Many have a family history of American Indian ancestry but have been unable to trace this in their genealogy. Can Native American DNA testing confirm Native American heritage? It can though there are several

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scenarios and DNA testing options. DNA testing for Native American ancestry is an innovative science but not magic, and there are different advantages and limitations with various methods.

For instance, if one is fairly certain that one's maternal line is American Indian, then a mitochondrial DNA test can be taken to test this line. The maternal line of ancestry follows the mother's line of ancestry (one's mother, and her mother, and her mother, and hers, and so on). What could one discover with those DNA testing results? One could discover if the Eve, the origin of one's maternal line, is American Indian. This is an excellent method and one of the most common types of DNA testing for American Indian ancestry because it can delve into deep ancestry. If one has a family history of the maternal line being American Indian, this is the test to find out if that is the case. However, it will not work if one's American Indian ancestry skips from the maternal to the paternal line. In other words, if one's mother had American Indian ancestry but received this ancestry from her father.

If that is the situation, or if one is not sure, there are other DNA testing options as well. Autosomal DNA testing based on forensic science can test genetic markers on both the mother's and the father's side. However, the test is not able to tell whether American Indian ancestry is from the mother's or father's side.

May 8, 2013