

**DNA Update – Catherine Pillard**

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Last spring, I wrote an update regarding the identity of Catherine Pillard.<sup>1</sup> The mystery of her origins has been the subject of much research and controversy since at least 2008.<sup>2</sup> The genealogical records listed her as a *Fille du Roi* from La Rochelle, France, while the mtDNA data from her matrilineal descendants suggested Native American origins. How could a European woman belong to mtDNA Haplogroup A, which is found only in Asian and Native American populations?

I reported on Dr. Jacques Beaugrand's latest research which revealed that the Pillard mtDNA haplogroup has been analyzed as **A10**, which has never been found in ancient New World populations. As far as Haplogroup A is concerned, all samples up to now confirm that only individuals with variants of Haplogroup A2 (also found in Siberia) crossed the Bering Straits.<sup>3</sup>

Haplogroup A10 is **extremely rare** in both ancient and modern populations. A recent report from Russian archaeologists clarifies its origin and where it has been found today.<sup>4</sup> They report on ten Bronze Age (about 4<sup>th</sup> millennium B.C. until about the 14<sup>th</sup> to the 8<sup>th</sup> century B.C.) skeletons from West Siberia, which they excavated and which tested as mtDNA Haplogroup A10\* and A10a.<sup>5</sup> Although this area has long been known as a place where Bronze Age populations from the East and the West mixed, these skeletons showed unexplained physical traits suggesting they descended from an ancient indigenous people – the population that was there long before these migrations into the area. The mtDNA results confirmed their suspicions since mtDNA Haplogroup A10 is an ancient variant (probably originating in the Late Pleistocene, which ended about 11,700 years ago), and its current distribution puts it in the center of West Siberia, a likely origin point for its known modern distribution.

Another curious find of late was the **only** occurrence of Haplogroup A10 identified (so far) in Europe – it's from the Italian Alps.<sup>6</sup> Pilipenko *et al.* consider it “phylogeographically unexplained” (which is geek speak for “we haven't a clue how it got there). As Dr. Beaugrand has noted, its special interest for followers of the Catherine Pillard story is that **the values for both HVR 1 and HVR 2 are exactly the same for the modern Italian Alps sample as it is for the matrilineal descendants of Catherine Pillard**, which means they are very closely-related populations.

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<sup>1</sup> Susan Colby, “DNA Updates of Interest”, *Michigan's Habitant Heritage (MHH)*, April 2014, #2, 104-105.

<sup>2</sup> Raymond F. Lussier, Thomas King-McMahon, Johan Robitaille, “Catherine Pillard A King's Daughter, of Algonquin-Siberian origin, born in France about 1651 ... What is wrong with this picture?”, *MHH*, April 2008, Vol. 29, #2, 53-65. Suzette Leclair, Gail Moreau-DesHarnais, Johan Robitaille, “Catherine Pillard, Native of La Rochelle. In search of the Truth,” *MHH*, April 2009, #2, 53-64.

<sup>3</sup> Pierre-Jacques Beaugrand, blog, <http://ggdna.blogspot.com/>

<sup>4</sup> Aleksandr S. Pilipenko, Rostislav O. Trapezov, Anton A. Zhuraviev, Vyacheslav I. Molodin, Aida G. Romaschenko, “MtDNA Haplogroup A10 Lineages in Bronze Age Samples That Ancient Autochthonous Human Groups Contributed to the Specificity of the Indigenous West Siberian Population”, *PLOS ONE*, May 7, 2015, 1-16.

<sup>5</sup> The mtDNA Haplogroup A10\* represents the ancient founder of the A10 clan. According to Pilipenko *et al.* (fn.4), it diverged at least 5500-6000 years ago from the Haplogroup A tree, but actually closer to 8,000 years ago. Haplogroup A10a is a variant. Matrilineal descendants of Catherine Pillard have these values for HVR 1: 16223T, 16227C, 16290T, 16311C, 16319A, and 16519C. Four of the Haplogroup A10\* Bronze Age samples were exactly the same as above but lacked the mutation 16519C. See Table 3 in Pilipenko *et al.* for other variants. Nearly all present-day examples of Haplogroup A10 are found in modern Ugric, Samoyed and Turkic-speaking groups from Central Northern Eurasia.

<sup>6</sup> V. Coia, I. Boschi, F. Trombetta, F. Cavulli, F. Montinaro, G. Destro-Bisol *et al.*, “Evidence of high genetic variation among linguistically diverse populations on a micro-geographic scale: a case study of the Italian Alps,” *Journal of Human Genetics*, 2012, 57: 254-260.

Somehow, as far as we can tell at this time, women with mtDNA A10 were transported or travelled from West Siberia to just two locations in Europe and no locations in between or on the way. One explanation could be raids by Huns, Tatars, or other nomadic warriors from the East known to have been in both the Italian Alps and in France; for example, the Huns who were in the Alps in AD 422 and in Chalons, France, in 451. Recall how Geneviève was declared a saint for diverting the Huns from Paris.

This is an exciting prospect but other explanations are possible. Perhaps one or more related women came to one of these European locations from West Siberia and later her descendants migrated to the other location. Or there may have been women with this haplotype along the way from West Siberia to Europe and between Italy and France, but their female lines died out. Since Haplogroup A10 is so rare and testing is hit and miss (especially in France), there may be more lines out there yet to be discovered that would help clarify this. We'll be on the watch for additional bearers of Haplogroup A10 in Europe.

In any case, this latest report out of Russia clearly shows a West Siberian origin for a European ancestor, rather than an eastern trek across the Bering Straits for a Native American ancestor. As much as we (her descendants) hoped for Native American roots, the mtDNA still reveals an exotic heritage for Catherine Pillard to capture our imaginations. I, for one, choose to see our many-greats grandmother as a black-haired beauty settling into the Italian Alps with her younger daughters as her eldest daughter and the Huns press on to France.