#### Neanderthal and His Biblical Identity

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#### 1.0 Abstract

The discovery of Neanderthal, and the subsequent extraction of his mitochondrial DNA (mtDNA) has been the center of much speculation and many hypotheses in both the Christian and secular communities. The heart of the mystery for Christian scientists is: how could Neanderthal develop 210 mitochondrial DNA mutations so quickly, have so little genetic diversity, live in so many diverse nations without interbreeding with other humans, and disappear without leaving a historical or genetic trace? This paper presents another hypothesis that couples the Bible with Neanderthal DNA evidence and is simply stated: Neanderthal is pre-flood man. This hypothesis is supported by the fact that Neanderthal had very little genetic diversity; the fact that his genetic signature coincides with the Biblical history of mankind; the fact that Neanderthal's genetic diversity, small as it was, was passed on broadly to modern man through Noah's three daughters-in law, and, finally, the evidence that Neanderthal did not possess the mutations which shortened life span from 900 plus years to less than 120. Accepting Neanderthal as pre-flood man sheds much light on, actually solves, the following mysteries:

- 1. How did Neanderthal go extinct?
- 2. Why is there no evidence of pre-flood man?
- 3. Why is Neanderthal genetically distinct from modern man?
- 4. Why do we have his (Neanderthal) mutations, but he doesn't have ours (modern man)?
- 5. Why did Neanderthal not interbreed with modern man?
- 6. Why are Neanderthal's remains found in so many divers locations?
- 7. Why is Neanderthal physiologically and anatomically superior?
- 8. Where does Neanderthal fit in post-flood Bible genealogy?

There is one mystery that remains and that is, why has Neanderthal not been recognized for who he is?

### 2.0 Background

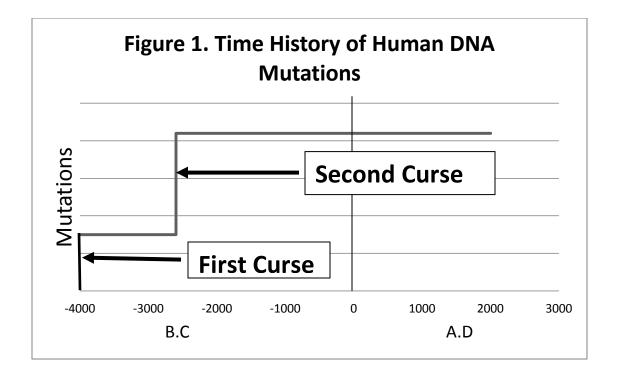
### 2.1 Biblical Model

The following Biblical truths are relevant:

- 1. On day six everything God created was "very good" including man. (Genesis 1:31)
- 2. Adam and Eve sinned sometime after day six; they received the first curse and became mortal. (Genesis 2:17)
- 3. Humanity became increasingly wicked; God was sorry He made mankind and decided to destroy them all. (Genesis 6:6-7)
- 4. Noah found favor with God and was spared from the destruction. God also spared Noah's wife, 3 sons, and 3 daughters-in-law. (Genesis 6:8,18)
- 5. Just before the flood, God decreed a reduction of lifespan from 900+ years to approximately 120 years. This will be referred to as the second curse. (Genesis 6:3, Genesis 11)

### 2.2 Application of Biblical Model

The Biblical model states everything was very good in the beginning and as a result of sin there were two distinct curses. These curses affected both lifespan and quality of life. It is reasonable to assume that these curses were expressed by means of DNA mutations. DNA is considered to be a language and it follows that God would use it as an instrument of control, much like our modern voice control systems. This would result in an explosion of DNA mutations at the time of each curse. The Bible model is presented in Figure 1 "Time History of Human DNA Mutations."



In the beginning, 4000 B.C., there were no human genetic mutations. After the first curse, there was a sudden explosion of genetic mutations, some of which gave us mortality; these cannot be identified since they are in everyone and there is no variation. However, there also were those mutations which varied from individual to individual, for example, genetic disease. These mutations resided in pre-flood man and passed on to modern man.

Then, just before the flood, in 2400 B.C., came the second curse. This would also be apparent in a sudden explosion of mutations. These mutations would be in the entire genome, but most certainly in the mitochondrial genome due to the close connection between mitochondria and lifespan (Masoro, E., 2011).

## 2.3 Mitochondrial DNA (mtDNA)

Mitochondrial DNA has been sequenced since the 1970s and is especially useful for genealogical purposes. Then in the mid 1990s, methods were developed to sequence the mitochondria of ancient man. Since the Bible clearly documents ancient genealogy, including lifespan, mitochondrial DNA is the perfect tool for analyzing and confirming the Biblical history of man.

#### 2.4 Mitochondrial DNA Database

Many human mitochondrial DNA sequences are available: 10s of thousands of modern human sequences and, as of late, some sequences of ancient man (Neanderthal and Cro-Magnon). Only 3 Cro-Magnon subjects were found, but they turned out to be uninteresting; they are all typically European. Neanderthal, on the other hand, is very interesting in that he is so similar to modern man, yet so distinct. This research is based on sixteen Neanderthal sequences, seven of which were the full 16565 nucleotide genomes. Appendix 1 summarizes the Neanderthal subjects and data used in this investigation.

# 2.5 Genetic Reference Sequence

In order to fittingly analyze mitochondrial DNA of ancient man, it is expedient to choose the reference sequence closest to Adam and Eve. Since Cro-Magnon mtDNA is so similar to modern man, the obvious choice is Neanderthal. We choose, arbitrarily, one Neanderthal (GenBank NC\_011137) which was found in Croatia and sequenced in 2009. We defined this sequence as the Nearest Adam Reference Sequence (NARS). Again, the assumption made is that this is the most ancient human sequenced and that he, Neanderthal, should be the closest available human to Adam and Eve.

Most secular mtDNA analysis is conducted using the revised Cambridge Reference Sequence (rCRS). This reference sequence is that of the first human to be sequenced (GenBank NC012920). He/she have remained anonymous, but this individual is identified as haplogroup H, typically European. Appendix 2 presents the differences between the Nearest Adam Reference Sequence (NARS) and the revised Cambridge Reference Sequence (rCRS) in the mtDNA D-loop. The comparison of the entire mtDNA genome is available upon request.

#### 2.6 Neanderthal Physiology

The Bible is clear that pre-flood man lived 900+ years. In order for this to be true, pre-flood man's physiology had to be superior to ours. Neanderthal had better bone structure (Lewin, R. 2005), better muscle tone (Lewin, R. 2005), better occlusion (Cuozzo, J. 1998 p.75), stronger teeth (Cuozzo, J. 1998 p.222) and larger brain cavity (Marcia S. Ponce de León 2008). There is also evidence that Neanderthal lived long lives, significantly longer that modern man. (Cuozzo, J. 1998 p.209)

#### 2.7 Neanderthal and Caves

Observational evidence can be unreliable and misleading, particularity concerning this case where post-flood man has had access to the Neanderthal caves for thousands of years. These recorded observations are also subject to preconceived ideas and bias, but are a matter of interest; and, do support the hypothesis that Neanderthal is pre-flood man. However, the strong support for the subject hypothesis rests on DNA evidence.

Consider the days of the flood: There were probably millions, possible billions of humans. They didn't listen to Noah concerning the impending deluge. When the deluge started, they reacted; some ran to higher ground and some held on to anything that would float. As the waters rose, there were humans, animals, and debris everywhere. The humans and animals would use debris for rafts and could have lived on these rafts for a considerable amount of time. As time went on, everything with the breath of life died and there were dead bodies everywhere: on the rafts, floating, or sinking to the ocean floor.

First, consider those who died on the rafts. As the waters receded, the rafts would run aground. As time went on, some of the carcasses would be discovered by their post-flood ancestors. Some of the post flood ancestors would want to bury them with dignity and others would want to simply dispose of the carcasses. There is evidence that some Neanderthals were ceremonially buried in caves.(NOUGIER, L., 1963)

Secondly, there were those who were either eaten by sea creatures, or sank to the bottom of the sea. After sinking to the bottom, they would be entombed in strata most probably in the limestone deposits. There is documented evidence of this happening. (BUSK, G. 1865; Finlayson, J. 2001)

Lastly, there were those who, as the waters receded, were swept with other debris into the newly formed limestone caves. These would have been the dead floating on rafts, or some of the skeletons on bottom of the sea. Some were caught in powerful cave currents that shattered their bones and deposited them in the deep recesses of the caves along with other pre-flood creatures; they were mangled and covered with debris. There is documented evidence of this scenario. (Zimmer, C. 2010)

# 3.0 Results

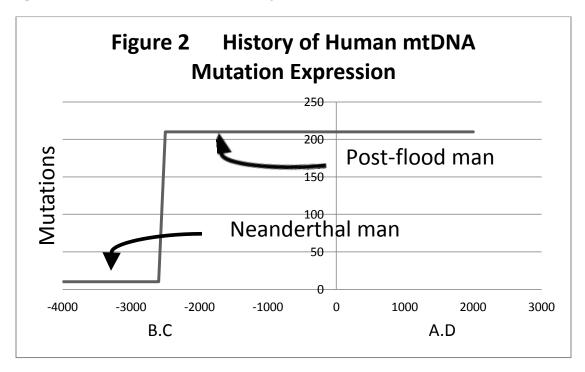
### 3.1 Mutation Explosion

Using the NARS (Nearest Adam Reference Sequence), the 16 Neanderthal mtDNA sequences and 15,000 modern man mtDNA sequences were evaluated. The findings are summarized in Table 1.

NARS	<b>D-loop Mutations</b>	<b>Total Mutations</b>	
Modern man (typical)	25	210	
Neanderthal (typical)	5	10	

Table 1 shows that Neanderthal has very few mutations in the mitochondrial DNA and that modern man has many. This is what you would expect: ancient man - few mutations; modern man- more mutations.

Just this table alone is compelling evidence that Neanderthal is pre-flood man; he possesses the first curse mutations but not those of the second curse; he fits the Figure 1 Biblical mutation model perfectly. Figure 2 presents the Biblical mutation model using the data from Table 1.



After the Garden of Eden, and before the flood, man's mtDNA possessed typically 10 mutations. Then, there was an explosion of approximately 200 additional mutations; these were a result of God speaking them into humanity just before the flood; these mutations were passed through Noah's three daughters-in-law (mitochondrial DNA) and through Noah's sons (y-chromosome DNA). Noah lived 950 years, but his sons lived shorter lives. His grandsons lived shorter lives yet; and it took approximately 8 generations for the mutations to fully express themselves resulting in a lifespan of approximately 120 years.

Many of the 210 mutations are significant. At least 40 of these mutations code for different amino acids. The mitochondria supplies energy and regulates the electrical grid in the body (Campbell, N., 2006); it is the source of many diseases (Chinnery, P.F., et. al. 2010).

Notice that the number of mutations in Figure 2 is flat with respect to time. Looking at the Bible, there is no evidence that the number of mutations increase accidentally with time. This is also supported by Cro-Magnon mtDNA; Cro-Magnon is considered ancient man; but, the limited mtDNA we have does not indicate he had any fewer mutations than modern man. According to both the Bible model and the raw mtDNA data, the mutation with time slope is flat. Also, this is a plot of mutations, not mutation expression; mutation expression is poorly understood by secular science and won't be addressed at this time.

### 3.2 Neanderthal Mutations Passed On - mtDNA D-Loop

This analysis revealed that the combined Neanderthal genomes have 18 mutations in the D-loop. This number will most probably increase as more Neanderthal sequences become available, but we have a fair amount of confidence about these 18. D-loop mutations were used for this analysis since D-loop data is available for all 16 of the Neanderthal subjects and the 15,000+ modern human individuals who participated in migration studies (Behar, D. 2007).

One would expect that these 18 mutations would be passed through Noah's three daughters-in-law and would be widely distributed in the modern population. And, they are: Table 2 presents the modern population groups (haplogroups) which inherited the Neanderthal's mutations. The table lists the sequence number of each mutation, the nucleotide variations, and the haplogroups which possess each variation. Both variations are included since it is impossible to know which variation is the mutation and which variation is the day-6 original nucleotide.

**Table 2. Distribution of Neanderthal Variations** 

Sequence	Variations	Haplogroups (1st Variation)	Haplogroups (2nd Variation)		
16078	A/G	16078A A,B,C,D,F,H,I,J,K,L,M,N,R,T	16078G L		
160/8	C/T	16078A A,B,C,D,F,H,I,J,K,L,M,N,R,T 16086T A,G,C,F,H,I,J,K L,M,N	16078G L 16086C		
10000	C/ I	1,0,0,1,11,1,0,11 1,111,1	A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16093	C/T	16093C A,B,C,D,F,H,I,J,K,L,M,N,R,T	16093T A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16129	G/A	16129 GA,B,C,D,F,H,I,J,K,L,M,N,R,T	16129A A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16154	T/C	16154T A,B,C,D,F,H,I,J,K,L,M,N,R,T	16154C B,F,H,J,M,N		
16156	A/G	16156A B,I	16156G A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16172	C/T	16172C A,B,C,D,F,H,I,J,K,L,M,N,R,T	16172T A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16182	A/C	16182A A,B,C,D,F,H,I,J,K,L,M,N,R,T	16182C A,B,D,F,H,J,K,L,M,R,T		
16189	T/C	16189T A,B,C,D,F,H,I,J,K,L,M,N,R,T	16189C A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16258	A/G	16258A A,B,C,D,F,H,I,J,K,L,M,N,R,T	16258G H,J,L,T		
16263	C/T	16263C A,D,H,I,L,M,T	16263T A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16278	C/T	16278C A,B,C,D,F,H,I,J,K,L,M,N,R,T	16278T A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16299	A/G	16299A A,B,C,D,F,H,I,J,K,L,M,N,R,T	16299G A,B,C,D,F,H,L,T		
16320	C/T	16320C A,B,C,D,F,H,I,J,K,L,M,N,R,T	16320T C,H,J,K,M,N,T		
16344	T/C	16344T A,B,C,F,J,K,L,M,T	16344C A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16361	A/G	16361A H,M	16361G A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16362	T/C	16362T A,B,C,D,F,H,I,J,K,L,M,N,R,T	16362C A,B,C,D,F,H,I,J,K,L,M,N,R,T		
16369	A/G	16369A None	16369G A,B,C,D,F,H,I,J,K,L,M,N,R,T		

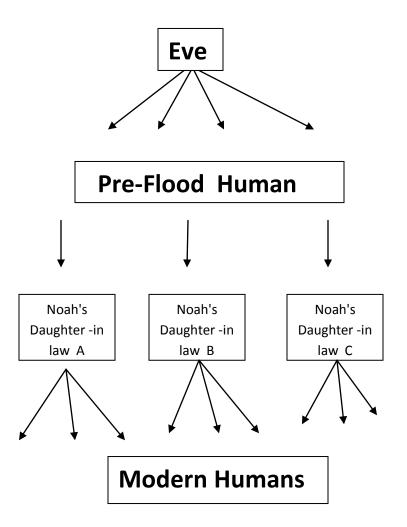
The Table 2 data was taken from the Genographic Project Public Participation Mitochondrial DNA Database (Behar, D. 2007). The analysis is limited to mitochondrial D-loop nucleotides and haplogroups A,B,C,D,F,H,I,J,K,L,M,N,R,T. (note: it appears that 16369A vanished with Neanderthal in the flood.)

# 3.3 Genealogy and Neanderthal

Figure 3 presents the Biblical model of the mtDNA genealogical flow chart for humanity.

Figure 3 mtDNA Genealogical Flow Chart of Humanity

(based on the Bible)



If Neanderthal is placed in the position of "pre-flood human," everything fits. Just as in Figure 2, Neanderthal bore the genetics of the first curse, but not the genetics of the second curse. And, all humanity after the flood possess the genetics from both the first and second curses. It works.

However, placing Neanderthal directly under one of the daughters-in-law of Noah or under any of their offspring, the enigma returns with the following unanswerable question: "How could Neanderthal develop 210 mitochondrial DNA mutations so quickly, have so little genetic diversity, live in so many diverse

nations without interbreeding with other humans, and disappear without leaving a historical or genetic trace?"

Note that Neanderthal remains have been found in France, Germany, Spain, Italy, Croatia, Russia, Siberia, Iraq, Israel, Belgium, the bottom of the North Sea, and Uzbekistan.

### 4.0 Conclusion

Neanderthal does not fit in the post-flood world; but, placing him where he belongs, in the pre-flood world, his DNA is congruent with the Biblical model of pre-flood man. Neanderthal bore the mutations of the first curse, but not those of the second curse; he was closer to Adam physiologically; he had a long lifespan; and, he was our common ancestor.

The world has attempted and succeeded to discredit Neanderthal to the point that it is an insult to be called a Neanderthal or be connected with him in any way. The slander of Neanderthal does not fit the evidence, but has prejudiced many. It is time to acknowledged who he is and give him his proper place in the rich Biblical history of man.

So, in conclusion, here are the answers to the mysteries presented in the abstract based on acceptance of Neanderthal as pre-flood man.

1. How did Neanderthal go extinct?

Answer: He died in the flood

2. Why is there no evidence of pre-flood man?

Answer: There is much evidence of pre-flood man - Neanderthal

3. Why is Neanderthal genetically distinct from modern man?

Answer: He did not possess the genetic mutations of the second curse.

4. Why do we have his (Neanderthal) mutations, but he doesn't have ours (modern man)?

Answer: He is our common ancestor. See table 2 and Appendix 2.

5. Why did Neanderthal not interbreed with modern man?

Answer: He couldn't; Neanderthal and modern man were separated by the flood.

6. Why are Neanderthal's remains found in so many divers locations?

Answer: The flood deposited them there.

7. Why is Neanderthal physiologically and anatomically superior?

Answer: His DNA was superior and not subject to the second curse.

8. Where does Neanderthal fit in post-flood Bible genealogy?

<u>Answer:</u> He doesn't. We know the DNA from the table of nations people (Genesis Chapter 10) and subsequent generations; none has the Neanderthal genetic signature.

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Appendix 1 Neanderthal mtDNA Used in Analysis

GenBan Sequence	Date	Location	Nucleotides
NC_011137.1	2009	Croatia	16565
FM865411.1	2009	Russia - Caucasus	16565
FM865410.1	2009	Croatia- Vindija	16565
AM948965.1	2008	Croatia	16565
AF254446.1	2000	Southern Russia Mezmaiskaya Cave	345
AF282971	2000	Croatia: G3 layer in Vindija Cave	357
AY149291	2003	Germany:Neander Valley	357
DQ464008	2006	Belguim Sclandina	123
DQ859014	2010	Spain: El Sidron	379
GU191144	2010	Italy: Mont Lessini, Verona	76
FM865409	2009	Spain: Asturias	16565
FM865407	2009	Germany: Neander valley	16565
FM865408	2009	Germany: Neander valley	16565
EU078680	2007	RussiaSiberia Altai	
EU078679	2007	Uzbekistan	190
DQ836132	2006	Italy:Riparo Mezzena, Monti Lessine	378

Appendix 2 Comparison of rCRS and NARS in the mtDNA D-Loop

Sequence Number	rCRS	Modern Man Mutation/ Variation	Neanderthal GenBank NC_011137 (NARS)	Neanderthal Mutation/ Variation	Mutation/ Variation Appearance	Mutation/ Variation Appearance
16037	A	G	G	none		After Flood
16078	A	G	G	A	Before Flood	
16129	G	A	A	G	Before Flood	
16139	A	T	T	none		After Flood
16148	C	T	T	none		After Flood
16154	T	С	С	T	Before Flood	
16169	C	T	T	none		After Flood
16182	A	С	С	none		After Flood
16183	A	С	C	none		After Flood
16189	T	С	С	T	Before Flood	
16209	T	С	C	none		After Flood
16223	C	T	T	none		After Flood
16230	A	G	G	none		After Flood
16234	C	T	T	none		After Flood
16244	G	A	A	none		After Flood
16256	C	A	A	none		After Flood
16258	A	G	G	A	Before Flood	
16262	C	T	T	none		After Flood
16278	C	T	T	none		After Flood
16299	A	G	G	A	Before Flood	
16311	T	C	C	none		After Flood
16320	C	T	T	C	Before Flood	
16362	T	C	C	T	Before Flood	
16400	C	T	T	none		After Flood
16519	T	C	C	none		After Flood

Note 1: One of the first things you notice is that if you reverse the mutations/variations in the revised Cambridge Reference Sequence (rCRS), the two references systems become identical. This does not directly contribute to our case, but shows the close similarities of our two subjects.

Note 2: Notice in Table 3 that Neanderthal does not show variation in all of the nucleotides; this is because the variations did not appear until after the flood. For instance, take sequence 16037; all of the Neanderthal (16 of them) were Gs. Unless, at a later date some Neanderthal is found to have some other nucleotide, it had to be a post flood mutation. Conversely, sequence number 16078 had a variation (A or G); this places the variation/mutation before the flood. If Neanderthal did, in fact, live before the flood, he would have no post-flood mutations. So, if the post flood mutations are removed from the rCRS, 17 sequences become identical between the reference system and you have the Neanderthal and European sequences vary by 8 nucleotides which is exactly the expected human variation. (Krings, M., 1997) Summarizing, Neanderthal does not possess the post flood mutations, and these post flood mutations are built into the rCRS and result in a bias.