

# Examining the Cosmos

## Session 11

### *Humans Are Different from All Others God Created*

#### **Recommended Reading**

Hugh Ross, Who was Adam? (NAVPRESS)

National Geographic Magazine, October 2008 "Neanderthals Revealed"

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#### EVE, NOAH AND NEANDERTHAL BIOCHEMISTRY

Two portions of human genetic material do not recombine (mix up) in reproduction: (1) most of the mitochondrial DNA (that is, DNA that resides in specialized structures, call Mitochondria, outside the cell's nucleus): and (2) a large segment of the Y-chromosome. Though both men and women carry mitochondrial DNA, all of us get nearly all of our mitochondrial DNA from our mothers only. Only men carry the Y-chromosome segment. That is, males receive a large portion of the Y-chromosome from their fathers only.

If all humans descended from one woman and one man without God's supernatural intervention, the only explanation for variation in these portions of human mitochondrial DNA and the Y-chromosome is natural mutation. (The only way my mitochondrial DNA can differ from my mother's and my Y-chromosome from my father's is if I experience a natural mutation.) Measuring the natural mutation rate in this genetic material should be possible then, via observation of real-time changes. By comparing samples of currently living humans with some well-dated ancient human DNA, and by noting the range of DNA differences among individuals from all of the people groups of the world, researchers could then estimate the total time required for these differences to have developed.

One study of Jewish males worldwide provides some useful information, especially in tracing the genetic history of Jews since Moses. A more recent study on Japanese males yields a veritable treasure. The advantages of the latter study include the centuries-long stability of this island population and the availability of ancient DNA samples from the Jomon and Yayoi tribes, who first colonized the Japanese isles.

With reasonably reliable figures for the natural DNA mutations, rates derived from this research, from another study on the Finnish population, and from more studies currently underway, we can explore dates for the common ancestor of all humans. In 1995 a Y-chromosome research project, the one we are viewing on the video, Journey of Man, this study examined a hundred times more nucleotide base pairs than any previous study, fixed the date for the most recent common ancestor of all human males at somewhere between 35,000 and 47,000 B.C. This finding represents a significant breakthrough in physical anthropology.

The recent date eliminates the possibility that modern humans evolved from another bipedal primate species (meaning that humans must be specially created). However, mitochondrial DNA results typically place the most recent common ancestor of all women somewhere between a few thousand and a few tens of thousands of years earlier.

While scientists ponder the reason for this discrepancy, Genesis provides an explanation. Genesis reveals that we can expect to find a much earlier date for the most recent common ancestor of all women than for the most recent common ancestor of all men because of what happened in the Flood. Of the eight people on board Noah's ark, the four men were blood-related but not the four women. Thus, the most recent common ancestor for the four men on Noah's ark (and for all men since) was Noah; the most recent common ancestor for the four women on the ark, Noah's wife and daughters-in-law, could go back all the way to Eve. The difference in the two biochemical dates roughly fit the time frame suggested by the Genesis 5 genealogy.

Until the mid-1990's anthropology courses routinely taught that no significant anatomical differences distinguish modern humans from Neanderthals. Based on this assertion, most anthropology professors, including some well-known Y/E creation scientists, have argued that Neanderthals should be considered part of the human species, descendants of Adam. This assumption was shattered by discovery of a Neanderthal infant's skeletal remains. This infant possessed the same anatomical distinctives as has been found now in eleven adults. For example, spinal hole, in the skull, is oval, not round, a squarish lower jawbone, and a bony protrusion near the rear of the lower jawbone.

A spectacular advance in biochemical technology has brought further breakthroughs in Neanderthal research. Analysis of recently recovered Neanderthal DNA confirms that the human race neither descended from nor bears any biological connection to the Neanderthal species. As one of the great ironies of our time, the DNA sample used in this breakthrough study was taken from the very first Neanderthal skeleton (dated as between 40,000 and 100,000 years old) ever found.

Through painstaking effort the research team located about fifty copies of the Neanderthal skeleton's mitochondrial DNA in strings of about 100 nucleotide pairs each.

Matching pieces of the strands with other pieces, they ended up with a DNA fragment 379 nucleotide pairs long, all from a part of the mitochondrial DNA that does not recombine in the reproductive process. When the Neanderthal DNA fragment was compared with a DNA strand of 986 nucleotide pairs from living humans of diverse ethnic backgrounds, the difference was enormous, and average of twenty-six nucleotide links in the DNA chain differed completely. Modern humans differed from one another in an average of just eight links of the chain, and all of the observed differences among humans were independent of the twenty-six observed for the recovered Neanderthal DNA. The researchers considered these findings conclusive: Neanderthals could not have made any contribution to the human gene pool.

The biochemical history of humans proves consistent with these dates and with new evidence that the Neanderthals were morphologically and biochemically distinct. All the dates and data fit the roughly estimated biblical dates for the creation of Adam and Eve.