

Examining the Cosmos

Session 10 *The Journey of Man*

Reference Document 15

Out of Africa or Out of Eden: Does Science Contradict the Bible? by [Rich Deem](#)

Introduction

Numerous genetic studies over the last few decades have shown that human genetic diversity is greatest within African populations, leading scientists to proclaim that modern human populations originated in Africa. However, the Bible says that humans were created in Eden, which is described as being in or near Mesopotamia. Can we stretch the biblical creation narrative to place Eden in Africa or is it possible that the science is wrong? Alternatively, is the Bible just wrong about where humans originated?

Eden in Africa?

Some Christians have suggested that the Bible is not specific enough to conclude that Eden is in Mesopotamia. Let's look at the biblical description of Eden to see if it could be stretched to include eastern Africa.

The LORD God planted a garden toward the east, in Eden; and there He placed the man whom He had formed. Out of the ground the LORD God caused to grow every tree that is pleasing to the sight and good for food; the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil. Now a river flowed out of Eden to water the garden; and from there it divided and became four rivers. The name of

Out of Africa?

Scientists have known for a number of years that the most genetically diverse human beings come from Africa. It is assumed that this higher degree of diversity is due to more time for genetic mutations to accumulate in this founder population. However, it is also possible that humans arose outside of Africa and first migrated there, where populations were relatively undisturbed by subsequent human migrations. If the original founding population were replaced through later migration events, Africa would *appear* to be the home of humanity's origin, even if it were not.

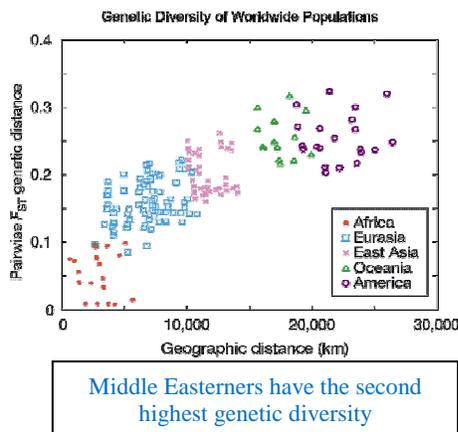
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the first is Pishon; it flows around the whole land of Havilah, where there is gold. The gold of that land is good; the bdellium and the onyx stone are there. The name of the second river is Gihon; it flows around the whole land of Cush. The name of the third river is Tigris; it flows east of Assyria. And the fourth river is the Euphrates. (*Genesis 2:8-14*)

The location of Eden has always been somewhat uncertain. However, the Bible describes four rivers, two of which (the Tigris and Euphrates) are in Mesopotamia. The other two rivers are unknown. However, the Bible describes the river Gihon as being associated with Cush, which is described as being near Egypt, and is usually associated with the land of Ethiopia. The other river (Pishon) is said to be in the land of Havila, which is described as being east of Egypt, toward Assyria,¹ probably being on the Arabian peninsula. A tentative map of the area is shown to the right.



So, although it is possible that the garden of Eden was in Africa, it would have to be at the very boundary of potential locations. In addition, such a location would contradict the Genesis 2 narrative that says that God planted the garden "toward the east" (presumably east of Israel). Ethiopia is to the southwest. Therefore, Mesopotamia matches the description of the biblical narrative the best.



Out of Africa?

Numerous scientific studies have proposed to have shown that a small group of individuals migrated out of eastern Africa and eventually expanded into most of today's populations.² In reality, what the studies have shown is that African populations exhibit the most genetic diversity among all people groups. The theory is that once a population has been founded, the amount of genetic diversity increases over time.

The theory is generally good, but does make some assumptions. One of the assumptions is that the populations have undergone little or no interbreeding with other populations. For Africa, the assumption is generally good, since Africa is geographically isolated from the rest of the world. The only route to get into Africa is through Suez. Likewise, for Native Americans, there was only one route - over the Aleutians near the end of an ice age, when sea levels were low and temperatures were beginning to moderate. However, for people groups in Mesopotamia and the Middle East, there was no geographic isolation. Being at the intersection of three continents, the Middle East has seen numerous people groups migrate through and back. So, it would be *very unlikely* that peoples of the Middle East would have the greatest genetic diversity of modern humans, *even if humans originated there*.

Two new studies, the result of the human genome project, examined the genetic diversity of over 1,000 individuals from 51 population groups all over the world.^{3,4} As in previous studies, peoples of Africa were the most genetically diverse. However, these studies also determined

that those from the Middle East were the second most genetically diverse. The authors of one study admitted that Middle Eastern population genetics was not just simple gene flow, saying, "The Middle Eastern populations may have experienced both continuous gene flow and shared ancestry with the rest of Eurasia."⁴ The authors of either study did not consider the possibility that humans originated in Mesopotamia, as the Bible says, since the out of Africa hypothesis is the current reigning paradigm. However, given the evidence of admixture in Middle Eastern populations and the fact that those populations are still the second most genetically diverse, it is entirely possible that modern humans originated in the Middle East, but lost much of their genetic diversity through subsequent migrations and replacement.

Conclusion

[Out of Eden](#)

New genetic analysis of human population groups shows that peoples of the Middle East represent the second most genetically diverse group among world-wide populations. A hypothesis is proposed that modern humans originated in the garden of Eden, in or near Mesopotamia, through the direct creation of God, and subsequently migrated world-wide, first into Africa, then Asia and Europe, and eventually the Americas and Polynesia. Subsequent back migrations diluted the genetic diversity of this founder population, making them appear to be less ancient than the Africans. The hypothesis can potentially be tested by carefully examining more Middle Eastern populations in more detail to attempt to reconstruct the original founder population.

For more information go to the following website:

http://www.godandscience.org/apologetics/humans_out_of_africa.html
