

## The Road to Understanding Human Origins

Human evolution is a fascinating and dynamic subject, with an explosion of new information leading to constant revisions and re-evaluations of our understanding. Today, many disciplines inform the field - embryology, comparative anatomy, geology, climate history, human and primate paleontology (fossil finds), and more recently, DNA analysis which provides insight into the very mechanics of how evolution occurs – information of which Darwin himself was unaware. While giving all these some consideration, we'll delve most deeply into human paleontology and genetics. We'll view the direct evidence (bones, teeth and even footprints), as well as reconstructions of several types of "hominins" (species on the road to present-day humans) that have existed over the course of nearly 7 million years of human evolution. We'll discuss evolutionary changes in the context of past climates and other environmental pressures. We'll also explore migration patterns and their role in both preserving and diversifying the human species. We will try to understand why humans today are the only hominin left standing – what is the secret of their success?

And if where we come from is not interesting enough, we will look briefly forward to where we are going and some of the immediate challenges to humanity: climate change, overpopulation and social organization.

Texts for the course:

- *Evolution, The Human Story*, by Dr Alice Roberts (2018) – excellent pictorial overview.
- *Before the Dawn* by Nicholas Wade (2006) - probably best read after the course.

Numerous internet links/videos will be shared, as well as selected readings from texts and articles.

Optional Reading:

- *The Journey of Man, A Genetic Odyssey*, Spencer Wells: 2017 (available in paperback).
- *Human Evolution: A Very Short Introduction*, Bernard Wood: 2005 (available in paperback, new edition August 2019)
- *Demonic Males*, Richard Wrangham and Dale Peterson (1996) – older but still relevant.

**Leaders:** Dr. Peter Smith has had a career in chemistry and IT and has long been fascinated by humanity's origins. He will work in conjunction with Dr. Peggy de Wolf, whose background is in biological anthropology and sociology with much of her career on the sociology faculty of Virginia Tech.

**Mondays:** 1:00 to 3:00 p.m., 6 weeks: February 26 through April 2.

**Location:** Presbyterian Church of Lawrenceville