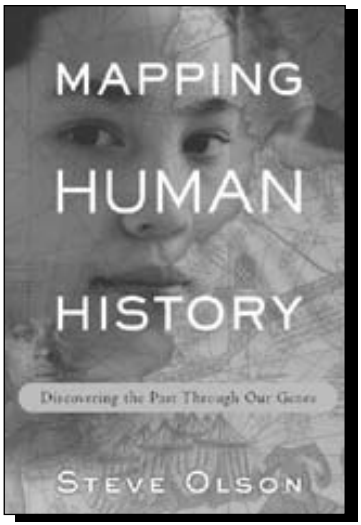
A Reading Guide
for

Mapping Human History
Discovering the Past Through Our Genes

BY STEVE OLSON



College of Charleston
2003 Convocation
August 25, 2003
4:00 p.m.
Johnson Physical Education Center

READING GUIDE

Summer 2003

Dear Students,

Welcome to the College of Charleston.

You are joining an exciting and distinguished community of scholars with a longstanding tradition of excellence. Your academic journey at the College actually begins before you arrive, with the selected summer reading book. Your experience formally opens with Convocation on August 25.

The Convocation and reading are designed to provide a common intellectual experience for all new students at the College of Charleston. The lecture and reading will provide an introduction to the College of Charleston's academic life and will give you material to think about and discuss with other students and faculty at the College (as well as with friends and family this summer). The book will be assigned in several courses this fall semester, and other events will be planned to build on the Convocation lecture and reading.

We are privileged to have Steve Olson, distinguished science writer, as the 2003 Convocation speaker. The Convocation reading is Olson's *Mapping Human History: Discovering the Past Through Our Genes*, nominee for the 2002 nonfiction National Book Award. Your copy of the book is enclosed. Please read the book and bring it with you to campus in August.

You have chosen to attend a college of liberal arts and sciences. What does this mean? Why is the education you will be offered at the College of Charleston called a liberal education? Part of the answer can be found in the etymology of our word "liberal": the modern English word derives from the Latin liber, meaning "free" or "unrestrained." So, a liberal education is an education which liberates, breaking the bonds of ignorance.

What does modern science teach us about race and ethnicity? In the past, conventional beliefs about race contributed to racist practices and policies. Will modern scientific knowledge of human origins and diversity help liberate us from this past? Our Convocation book addresses these important and provocative questions.

Steve Olson is an ideal Convocation speaker and his book is an ideal introduction to the liberal education offered at the College. Olson graduated from Yale University with a major in Physics. At Yale, he learned enough science to write credibly about it. He also learned to write well, so that he is able to communicate effectively and engagingly with a wide and diverse audience. Most importantly,

as an undergraduate, Olson “learned how to learn,” so that he can keep current in science and keep improving as a professional writer. He sets a high standard for what each of you can do with your own liberal education at the College of Charleston.

Enjoy the book. Let it challenge your ideas about human history and diversity. Challenge the book yourselves. This reading guide offers questions to consider as you read the book. Critical reading and critical thinking will be important in your college work; the questions are designed to encourage you to think critically about Olson’s book and the issues he addresses. We look forward to discussing the book with you this fall.

Sincerely,
Hugh Wilder
Professor of Philosophy and Speaker of the Faculty

About the Author

Steve Olson is a science journalist, who graduated with a B.A. in physics from Yale University in 1978 and currently lives in Washington, D.C. He has worked for the National Academy of Sciences, the White House Office of Science and Technology, and the Institute for Genomic Research. He is the author of several books, including *Shaping the Future* and *Biotechnology*, and has written for the *Atlantic Monthly*, *Science*, and other magazines. His writing has earned him a reputation for cracking the often-mystifying code of biological science for the lay reader.

Steve Olson's latest work, nominated for the 2002 National Book Award, steps up to the seemingly overwhelming task of mapping human history. In his ambitious review of more than 150,000 years of human history, Olson uses new findings in genetics to explore the origins of mankind. Sweeping across the continents, Olson begins with an explication of our African origins, and tracks the migration patterns of our forefathers across the globe, with some myth-busting results.

Questions to Think About and Answer Before Reading the Book

What is race? What is ethnicity? What is nationality?

What race are you? What ethnicity are you? What nationality are you?

What do your answers to these questions mean to you personally?

What role does race play in your life? Why do you think race plays this role?

Questions You Might Think About While Reading Specific Sections of the Book

Introduction and Chapter 1: The End of Evolution

At various points in the book, Olson makes very big claims (such as "Every single one of the 6 billion people on the planet today is descended from the small group of anatomically modern humans who once lived in eastern Africa"). Some of these claims are in fact contentious, as the note on p. 242 indicates. In writing about "the human pageant" as a "saga of immense grandeur," does Olson oversimplify his case?

Chapter 2: Individuals and Groups

What are the scientific grounds Olson provides for arguing that race has no basis in biology, and what are the social grounds he provides for arguing that racial thinking has been a "misadventure"?

Chapter 3: The African Diaspora and the Genetic Unity of Modern Humans

Look at the use Olson makes of anecdotes drawn from contemporary or modern experience. How do these anecdotes advance his argument?

Does his use of such techniques water down the authority of the arguments he makes based on science?

Or does his use of them help to clarify the human significance of the science?

Chapter 4. Encounters with the Other

What evidence does the author present in order to argue that there is no genetic evidence of mating between modern humans and Neandertals?

How is this different from saying that there is evidence of no mating between modern humans and Neandertals?

We cannot, of course, know everything about how Neandertals lived. In this chapter, can you distinguish between what is known (from genetic or archaeological evidence), and what is concluded, based on this evidence?

Do you agree with these conclusions, given this evidence?

Chapter 5: Agriculture, Civilization, and the Emergence of Ethnicity

What changes occurred in the world that seem to be associated with the development of agriculture?

What effect did the development of agriculture have on human populations?

Chapter 6: God's People

What does it mean to be Jewish?

Is being Jewish determined by genetics? Environment? Both?

Chapter 7: The Great Migration

What logical interpretations of the genetic, fossil, and especially archaeological evidence does Olson use to support his model of the dispersal of modern humans to Asia and Australia?

Chapter 8: Sprung from a Common Source

On page 139, Olson says, "This chapter is the most speculative in this book." Why would he say this?

Chapter 9: Who Are the Europeans?

Olson claims that monuments such as Stonehenge may be signals that man was undergoing a fundamental change of lifestyle. What are his supporting arguments?

What are some opposing arguments?

According to Olson, how has modern genetics discredited the notion that the modern humans of Europe are biologically more advanced than the modern humans living in other areas of the world?

Chapter 10: Immigration and the Future of Europe

How is the face of Europe changing? Why is it changing?

The official position of the French government towards immigration is a policy of assimilation. What forces favor this policy and what forces work against it?

Chapter 12: The Burden of Knowledge

Some Native American peoples have been reluctant to participate in the Human Genome Diversity Project. Why?

What are the main ethical worries about gathering knowledge on the genetic differences among various groups of people?

Chapter 13: The End of Race

Olson predicts that global rates of intermarriage will increase. As this happens, it will become increasingly harder to identify a person as belonging to a single racial category (based on physical characters). But Olson doesn't think this will eliminate racial tensions. Why?

Questions to Think About and Answer After Reading the Book

1. Is this book a work of natural science, social science, or journalism? Explain and support your answer.

2. If you were a geneticist or anthropologist, what questions about human history would you want to answer, having read this book?

3. How does Olson use anatomical and genetic evidence to argue for the total replacement of archaic people by modern humans? How might these modern humans have replaced these archaic ones who had been living and adapting to local conditions for hundreds of thousands of years?

4. Olson says, "As is always the case with genetics and history, we interpret the past selectively, picking out those features that accord with our worldviews" (p. 206). What does this book tell us about the way scientific knowledge develops over time? Is Olson right to think that the use of genetic data to understand human history always involves subjective human interpretation?

5. Currently, the U.S. Census asks people to classify themselves as members of racial groups. Do you think it is important for our government to collect such data? Why or why not?

6. What is racism? Why does it exist? How can we explain the existence of "us" and "them" divisions?

7. Before reading this book, we asked these questions:
   - What is race? What is ethnicity? What is nationality?
   - What race are you? What ethnicity are you? What nationality are you?
   - What do your answers to these questions mean to you personally?
   - What role does race play in your life? Why do you think race plays this role?

Are your answers to these questions different now? Why or why not?

Technical Terms

Below is a list of a few technical terms used in the book whose meaning you might need to make sure you know. Listed beside each word is the page where Olson discusses it.

Archaic humans (3)

Chromosome (14)

Coalescence (26)

DNA (16)

Evolution (19–20)

Evolutionary dead-end (3)

Genus (19)

Haplotype (35)

Mitochondria (24)

Mutation (35)

Reproductive isolating mechanisms (22)

Speciation (21)

Species (19)