Ancestors in Our Genome: The New Science of Human Evolution

Eugene E. Harris
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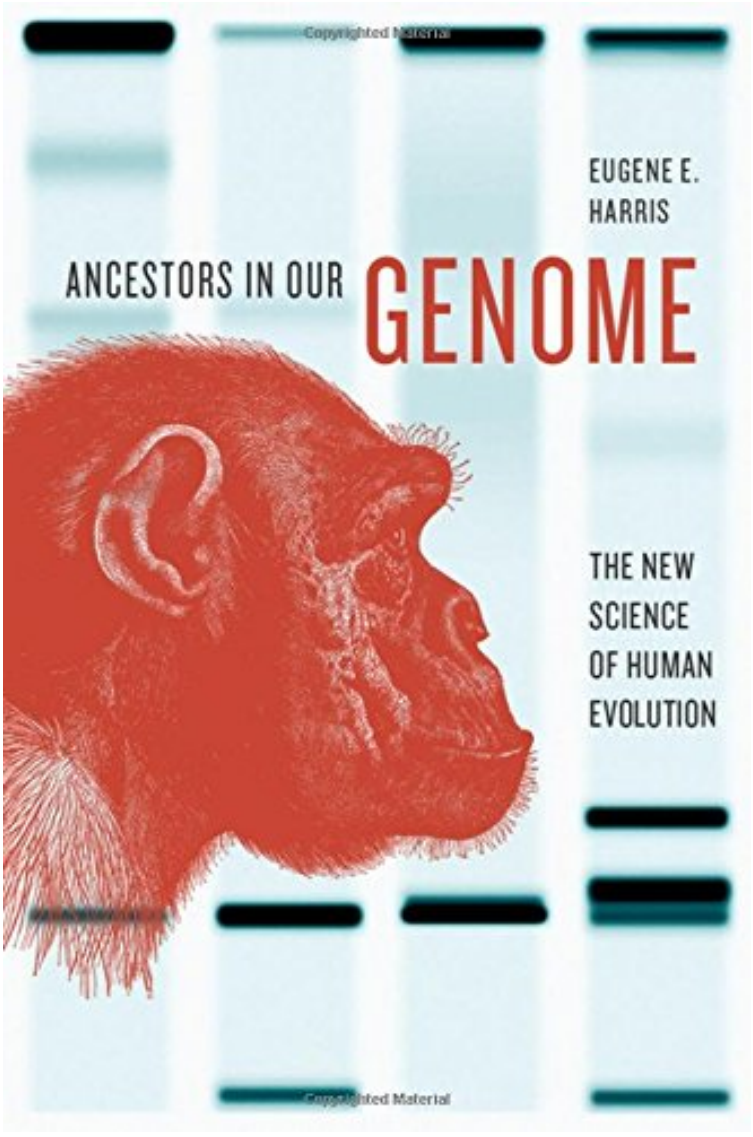

#691332 in Books Harris Eugene E 2014-12-01Original language:EnglishPDF # 1 6.40 x 1.00 x 9.30l, .90 #File Name: 0199978034248 pagesAncestors in Our Genome The New Science of Human Evolution | File size: 54.Mb

Eugene E. Harris : Ancestors in Our Genome: The New Science of Human Evolution before purchasing it in order to gage whether or not it would be worth my time, and all praised Ancestors in Our Genome: The New Science of Human Evolution:

1 of 1 people found the following review helpful. A different approach to understanding the history of our species.By eselarAn interesting, well written supplement to the views of paleoanthropology. I think perhaps the author should

have waited a few years, because he often expresses the wish that they had more data.1 of 1 people found the following review helpful. Up To Date ScienceBy Norman EdelenA thorough and modern accounting of what is being learned from paleogenetics. A fast changing field, so this book is needed.1 of 1 people found the following review helpful. Five StarsBy JomamaExcellent

In 2001, scientists were finally able to determine the full human genome sequence, and with the discovery began a genomic voyage back in time. Since then, we have sequenced the full genomes of a number of mankind's primate relatives at a remarkable rate. The genomes of the common chimpanzee (2005) and bonobo (2012), orangutan (2011), gorilla (2012), and macaque monkey (2007) have already been identified, and the determination of other primate genomes is well underway. Researchers are beginning to unravel our full genomic history, comparing it with closely related species to answer age-old questions about how and when we evolved. For the first time, we are finding our own ancestors in our genome and are thereby gleaning new information about our evolutionary past.In Ancestors in Our Genome, molecular anthropologist Eugene E. Harris presents us with a complete and up-to-date account of the evolution of the human genome and our species. Written from the perspective of population genetics, and in simple terms, the book traces human origins back to their source among our earliest human ancestors, and explains many of the most intriguing questions that genome scientists are currently working to answer. For example, what does the high level of discordance among the gene trees of humans and the African great apes tell us about our respective separations from our common ancestor? Was our separation from the apes fast or slow, and when and why did it occur? Where, when, and how did our modern species evolve? How do we search across genomes to find the genomic underpinnings of our large and complex brains and language abilities? How can we find the genomic bases for life at high altitudes, for lactose tolerance, resistance to disease, and for our different skin pigmentations? How and when did we interbreed with Neandertals and the recently discovered ancient Denisovans of Asia? Harris draws upon extensive experience researching primate evolution in order to deliver a lively and thorough history of human evolution. Ancestors in Our Genome is the most complete discussion of our current understanding of the human genome available.

Shortlisted for the 2015 Phi Beta Kappa Award in Science."Simply indispensable for any reader wishing to learn about the latest research on human origins." --Library Journal, starred review"The book is technical, thus challenging for the general reader, but is written well enough to make the effort worthwhile." --Publisher's Weekly"Ancestors in Our Genome tells the amazing story of human evolution as it has been revealed by the study of our DNA. Eugene Harris, a rare anthropologist who has studied the differences in the DNA of humans and other primates, has written a superb book about the latest discoveries comparing the DNA genomes of apes and humans-both living and fossilized . . . An enjoyable and wonderfully enlightening read." --Jody Hey, Professor and Director, Center for Computational Genomics and Genetics, Temple University and author of Genes, Categories, and Species"In a lucid and engaging style, Eugene Harris delivers a clear account of the latest insights in genomic studies that are giving humans a more comprehensive understanding of our evolutionary history, our place in nature, and where we may be headed." --Donald Johanson, Virginia M. Ullman Chair in Human Origins and Founding Director of the Institute of Human Origins, Arizona State University"It is a daunting and confusing task to make sense of the avalanche of genetic information that has recently become available. Fortunately, Harris's book is a concise and engaging explanation of what we have learned about human evolution from studying genomes. Harris clearly explains without jargon the basics of genetics and genomics, how and when humans evolved, and what about our genes make us different from our closest living and extinct relatives." --Daniel Lieberman, Chair, Department of Human Evolutionary Biology, Harvard University and author of The Story of the Human Body: Evolution, Health, and Disease"In the 'Age of Genomics,' this book is an absolute must-have for anyone interested in human evolution. In the most accessible manner, Eugene E. Harris enlightens how and why genomes represent such powerful evidence to understand our past. If you want to know why paleontologists and geneticists fight over evolutionary trees, whether chimpanzees and primitive hominins interbred after they split, how large the first human population was, or how in modern humans bad genes could become good genes, open Ancestors in Our Genome." --Jean-Jacques Hublin, Director, Department of Human Evolution, Max Planck Institute for Evolutionary Anthropology"Written in a very clear and easy to follow style, Ancestors in Our Genome is notable for its inclusion of really up-to-date research. For the uninitiated, it's a great guide to the whole subject area. If you already have some knowledge, it delivers important insights on the latest findings." --Evan Hadingham, Senior Science Editor at NOVA WGBH"Eugene Harris' Ancestors in Our Genome is an extremely clear and readable introduction to the studies of genetics and genomics that are advancing our understanding of our evolutionary history. He describes, in clear prose, both the most recent discoveries in primate phylogeny and human evolution and the methods underlying them. Most significantly, he emphasizes how studies of population genetics and genomic sequencing interact in interpretations of primate and human genetic evolution." --John G. Fleagle, Evolutionary Anthropology"Ancestors in Our Genome provides a good basic view of modern human evolutionary biology. Recommended." --Choice"One of the book's laudable features is its accuracy. Errors are

common in popular science books, but not this one. Harris cites some of the most pertinent research on the molecular foundations of human evolution, and he is invariably true to the original research. ... Though the effort to read this book may be considerable for those not familiar with genomic science, it is well worth it. Readers will come away from it with a powerful and up-to-date understanding of human evolution and of evolution in general." --Reports of the National Center for Science Education"...readers looking for an up-to-date, clearly written, and well-illustrated tour through the dynamics of human evolution will find no better guide than this compelling volume." --Bioscience"...a good overview of the state of the science regarding the genomics of human evolution." --The Scientist"All in all, the book shines when it discuses the recent technological advances in DNA sequencing, which allows readers a never-before-seen view into our genetic history. ...if you are interested in learning about the most recent findings in population genetics and human origins, then this book is a great start." --The Daily of the University of Washington"Harris gives us glimpses of the science behind these amazing discoveries of our ancestors. He explains the basics for non-biologists before diving deep into human genomics and population genetics. He unobtrusively notes his involvement in the work. The writing is always clean and light in spite of the tough concepts and jargon. The result is an incredible story of what genes and genomes can tell us about our distant past and our current condition." --The Key Reporter"[A]ccessible, informative, and entertaining. ... Ancestors in Our Genome is impressively thorough and current and will be a great resource to anyone interested in understanding how population genomic theory has been used to test fundamental hypotheses concerning the origins of our species." --American Journal of Human Biology"[O]n the whole this is a substantive, engaging, and worthwhile introduction to molecular anthropology for educated nonexperts." --Quarterly of BiologyAbout the AuthorEugene E. Harris is Professor of Biological Sciences and Geology at the City University of New York, and a Research Affiliate of the Center for the Study of Human Origins at New York University.