

A·N·N·U·A·L E·D·I·T·I·O·N·S

Physical Anthropology

02/03



A·N·N·U·A·L E·D·I·T·I·O·N·S

Physical Anthropology

Eleventh Edition

EDITOR

Elvio Angeloni

Pasadena City College

Elvio Angeloni received his B.A. from UCLA in 1963, his M.A. in anthropology from UCLA in 1965, and his M.A. in communication arts from Loyola Marymount University in 1976. He has produced several films, including *Little Warrior*, winner of the Cinemedia VI Best Bicentennial Theme, and *Broken Bottles*, shown on PBS. He also served as an academic adviser on the instructional television series, *Faces of Culture*.

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3. Sex and Society

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4. Fossil Evidence

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Eleventh Edition

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Members of the Advisory Board are instrumental in the final selection of articles for each edition of ANNUAL EDITIONS. Their review of articles for content, level, currentness, and appropriateness provides critical direction to the editor and staff. We think that you will find their careful consideration well reflected in this volume.

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To the Reader

In publishing ANNUAL EDITIONS we recognize the enormous role played by the magazines, newspapers, and journals of the public press in providing current, first-rate educational information in a broad spectrum of interest areas. Many of these articles are appropriate for students, researchers, and professionals seeking accurate, current material to help bridge the gap between principles and theories and the real world. These articles, however, become more useful for study when those of lasting value are carefully collected, organized, indexed, and reproduced in a low-cost format, which provides easy and permanent access when the material is needed. That is the role played by ANNUAL EDITIONS.

This eleventh edition of *Annual Editions: Physical Anthropology* contains a variety of articles pertaining to human evolution. The writings were selected for their timeliness, relevance to issues not easily treated in the standard physical anthropology textbook, and clarity of presentation.

Whereas textbooks tend to reflect the consensus within the field, *Annual Editions: Physical Anthropology 02/03* provides a forum for the controversial. We do this in order to convey to the student the sense that the study of human development is an evolving entity in which each discovery encourages further research and each added piece of the puzzle raises new questions about the total picture.

Our final criterion for selecting articles is their readability. All too often, the excitement of a new discovery or a fresh idea is deadened by the weight of a ponderous presentation. We seek to avoid that by incorporating essays that are written with enthusiasm and with the desire to communicate some very special ideas to the general public in the liveliest way possible.

Included in this volume are a number of features designed to be useful for students, researchers, and professionals in the field of anthropology. While the articles are arranged along the lines of broadly unifying subject areas, the *topic guide* can be used to establish specific reading assignments tailored to the needs of a particular course of study. Other useful features include the *table of contents* abstracts, which summarize each article and present key concepts in bold italics, and a comprehensive *index*. In

addition, each unit is preceded by an overview that provides a background for informed reading of the articles, emphasizes critical issues, and presents *key points to consider* in the form of questions. Also included are *World Wide Web* sites, coordinated to follow the volume's units, which can be used to further explore the topics.

In contrast to the usual textbook, which by its nature cannot be easily revised, this book will be continually updated in each yearly edition to reflect the dynamic, changing character of its subject. Those of us who are involved in producing *Annual Editions: Physical Anthropology 02/03* wish to make the next edition as useful and effective as possible. Your criticism and advice are always welcomed. Please complete and return the postage-paid *article rating form* on the last page of the book and let us know your opinions. Any anthology can be improved, and this one will continue to be.



Elvio Angeloni
Editor

Topic Guide

This topic guide suggests how the selections in this book relate to the subjects covered in your course. You may want to use the topics listed on these pages to search the Web more easily.

On the following pages a number of Web sites have been gathered specifically for this book. They are arranged to reflect the units of this *Annual Edition*. You can link to these sites by going to the DUSHKIN ONLINE support site at <http://www.dushkin.com/online/>.

ALL THE ARTICLES THAT RELATE TO EACH TOPIC ARE LISTED BELOW THE BOLD-FACED TERM.

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World Wide Web Sites

The following World Wide Web sites have been carefully researched and selected to support the articles found in this reader. The easiest way to access these selected sites is to go to our DUSHKIN ONLINE support site at <http://www.dushkin.com/online/>.

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The following sites were available at the time of publication. Visit our Web site—we update DUSHKIN ONLINE regularly to reflect any changes.

General Sources

American Anthropological Association (AAA)

<http://www.ameranthassn.org/index.htm>

Maintained by the AAA, this site provides links to AAA's publications (including tables of contents of recent issues, style guides, and others) and to other anthropology sites.

Anthromorphemics

<http://www.anth.ucsb.edu/glossary/index2.html>

A glossary of anthropological terms is available at this Web site.

Anthropology in the News

<http://www.tamu.edu/anthropology/news.html>

Texas A&M provides data on news articles that relate to anthropology, including biopsychology and sociocultural anthropology news.

Anthropology on the Internet

<http://www.as.ua.edu/ant/libguide.htm>

This Web site provides addresses and tips on acquiring links to regional studies, maps, anthropology tutorials, and other data.

Anthropology 1101 Human Origins Website

<http://www.geocities.com/Athens/Acropolis/5579/TA.html>

Exploring this site, which is provided by the University of Minnesota, will lead to a wealth of information about our ancient ancestors and other topics of interest to physical anthropologists.

Anthropology Resources on the Internet

<http://www.socsciresearch.com/r7.html>

Links to Internet resources of anthropological relevance, including Web servers in different fields, are available here. *The Education Index* rated it "one of the best education-related sites on the Web."

Anthropology Resources Page

<http://www.usd.edu/anth/>

Many topics can be accessed from this University of South Dakota site. South Dakota archaeology, American Indian issues, and paleopathology resources are just a few examples.

Library of Congress

<http://www.loc.gov>

Examine this extensive Web site to learn about resource tools, library services/resources, exhibitions, and databases in many different subfields of anthropology.

The New York Times

<http://www.nytimes.com>

Browsing through the archives of the *New York Times* will provide a wide array of articles and information related to the different subfields of anthropology.

The PaleoAnthro Lists Home Page

<http://www.pitt.edu/~mattf/PalAntList.html>

Spend time at this site and the related PaleoChat site, at <http://www.pitt.edu/~mattf/PaleoChat.html>, to exchange information related to physical anthropology.

UNIT 1: Natural Selection

Charles Darwin on Human Origins

<http://www.literature.org/Works/Charles-Darwin/>

This Web site contains the text of Charles Darwin's classic writing, *The Origin of Species*, which presents his scientific theory of natural selection.

Enter Evolution: Theory and History

<http://www.ucmp.berkeley.edu/history/evolution.html>

Find information related to Charles Darwin and other important scientists at this Web site. It addresses preludes to evolution, natural selection, and more. Topics cover systematics, dinosaur discoveries, and vertebrate flight.

Fossil Hominids FAQ

<http://www.talkorigins.org/faqs/fossil-hominids.html>

Some links to materials related to hominid species and hominid fossils are provided on this site. The purpose of the site is to refute creationist claims that there is no evidence for human evolution.

Harvard Dept. of MCB—Biology Links

<http://mcb.harvard.edu/BioLinks.html>

This site features sources on evolution and links to anthropology departments and laboratories, taxonomy, paleontology, natural history, journals, books, museums, meetings, and many other related areas.

UNIT 2: Primates

African Primates at Home

<http://www.indiana.edu/~primate/primates.html>

Don't miss this unusual and compelling site describing African primates on their home turf. "See" and "Hear" features provide samples of vocalizations and beautiful photographs of various types of primates.

Chimpanzee and Great Ape Language Resources—Anthropology

<http://www.brown.edu/Departments/Anthropology/apelang.html>

This series of Web sites on primates includes the Primate home page and the Gorilla home page. It provides links to the entire text of Darwin's *Origin of Species* and more.

Electronic Zoo/NetVet-Primate Page

<http://netvet.wustl.edu/primates.htm>

This site touches on every kind of primate from A to Z and related information. The long list includes Darwinian theories and the *Descent of Man*, the Ebola virus, fossil hominids, the nonhuman Primate Genetics Lab, the Simian Retrovirus Laboratory, and zoonotic diseases, with many links in between.

Jane Goodall Research Center

<http://www.usc.edu/dept/elab/anth/goodall.html>

The Jane Goodall Research Center, a program of the University of Southern California's Anthropology Department, is a repository for data gathered over more than 30 years at Gombe National Park, Tanzania. Search this site for information about primate research.

UNIT 3: Sex and Society

American Anthropologist

<http://www.aaanet.org/aa/index.htm>

Check out this site—the home page of *American Anthropologist*—for general information about anthropology as well as articles relating to such topics as biological research.

American Scientist

<http://www.amsci.org/amsci/amsci.html>

Investigating this site will help students of physical anthropology to explore issues related to sex and society.

Bonobo Sex and Society

<http://songweaver.com/info/bonobos.html>

Accessed through Carnegie Mellon University, this site includes a *Scientific American* article discussing a primate's behavior that challenges traditional assumptions about male supremacy in human evolution.

UNIT 4: The Fossil Evidence

The African Emergence and Early Asian Dispersals of the Genus *Homo*

<http://www.sigmaxi.org/amsci/subject/EvoBio.html>

Explore this site and click on this title to learn about what the Rift Valley in East Africa has to tell us about early hominid species. An excellent bibliography is included.

Anthropology, Archaeology, and American Indian Sites on the Internet

<http://dizzy.library.arizona.edu/users/jlcox/first.html>

This Web page points out a number of Internet sites of interest to different kinds of anthropologists, including physical and biological anthropologists. Visit this page for links to electronic journals and more.

Long Foreground: Human Prehistory

http://www.wsu.edu:8001/vwsu/gened/learn-modules/top_longfor/lfopen-index.html

This Washington State University site presents a learning module covering three major topics in human evolution: Overview, Hominid Species Timeline, and Human Physical Characteristics. It also provides a helpful glossary of terms and links to other Web sites.

UNIT 5: Late Hominid Evolution

Archaeology Links (NC)

<http://www.arch.dcr.state.nc.us/links.htm#stuff/>

North Carolina Archaeology provides this site, which has many links to physical anthropologists' sites such as the paleolithic painted cave at Vallon-Pont-d'Arc (Ardeche).

Human Prehistory

<http://users.hol.gr/~dilos/prehis.htm>

The evolution of the human species, beginning with the *Australopithecus* and continuing with *Homo habilis*, *Homo erectus*, and *Homo sapiens* is examined on this site. Also included are data on the people who lived in the Palaeolithic and Neolithic Age and are the immediate ancestors of modern man.

UNIT 6: Human Diversity

Cult Archaeology Topics

<http://www.usd.edu/anth/cultarch/culttopics.html>

This fun site provides information on interesting pseudoscientific theories that have attracted scholarly attention. The Lost Tribes

and the Moundbuilder Myth and Cryptozoology: Bigfoot and Nessie are among the many myths debunked here.

Hominid Evolution Survey

<http://www.geocities.com/SoHo/Atrium/1381/index.html>

This survey of the Hominid family categorizes known hominids by genus and species. Beginning with the oldest known species, data includes locations and environments, physical characteristics, technology, social behaviors, charts and citations.

Human Genome Project Information

http://www.ornl.gov/TechResources/Human_Genome/home.html

Obtain answers about the U.S. Human Genome Project from this site, which details progress, goals, support groups, ethical, legal, and social issues, and genetics information.

OMIM Home Page-Online Mendelian Inheritance in Man

<http://www3.ncbi.nlm.nih.gov/omim/>

This database from the National Center for Biotechnology Information is a catalog of human genes and genetic disorders. It contains text, pictures, and reference information of great interest to students of physical anthropology.

Patterns of Human Variability: The Concept of Race

<http://www.as.ua.edu/ant/bindon/ant101/lectures/race/race1.htm>

This site provides a handy, at-a-glance reference to the prevailing concepts of race and the causes of human variability since ancient times. It can serve as a starting point for research and understanding into the concept of race.

UNIT 7: Living With the Past

Ancestral Passions

http://www.canoe.ca/JamBooksReviewsA/ancestral_morell.html

This review of Virginia Morell's book, *Ancestral Passions*, a biography of the famously dysfunctional Leakey family, will likely spur you to the bookstore in order to learn more about the history of paleontology and the thrill and trials of the hunt for human origins. It is this evolutionary detective story that is the book's true drama. Jump over to http://url.co.nz/african_trip/tanzania.html to read an individual's account of a recent trip "In the Cradle of Humankind."

Forensic Science Reference Page

<http://www.lab.fws.gov>

Look over this site from the U.S. Fish and Wildlife Forensics Lab to explore topics related to forensic anthropology.

Zeno's Forensic Page

<http://forensic.to/forensic.html>

A complete list of resources on forensics is presented on this Web site. It includes general information sources, DNA/serology sources and databases, forensic medicine anthropology sites, and related areas.

We highly recommend that you review our Web site for expanded information and our other product lines. We are continually updating and adding links to our Web site in order to offer you the most usable and useful information that will support and expand the value of your Annual Editions. You can reach us at: <http://www.dushkin.com/annualeditions/>.

UNIT 1

Natural Selection

Unit Selections

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2. **Darwin's Influence on Modern Thought**, Ernst Mayr
3. **Curse and Blessing of the Ghetto**, Jared Diamond
4. **The Saltshaker's Curse**, Jared Diamond

Key Points to Consider

- In nature, how is it that design can occur without a designer, orderliness without purpose?
- What is “natural selection”? How does Gregor Mendel's work relate to Charles Darwin's theory?
- In what ways has Charles Darwin influenced modern thought?
- Why is Tay-Sachs disease so common among Eastern European Jews?
- What is the “saltshaker's curse,” and why are some people more affected by it than others?
- What do genes actually do and how predictive are they of human social behavior?



Links: www.dushkin.com/online/

These sites are annotated in the World Wide Web pages.

Charles Darwin on Human Origins

<http://www.literature.org/Works/Charles-Darwin/>

Enter Evolution: Theory and History

<http://www.ucmp.berkeley.edu/history/evolution.html>

Fossil Hominids FAQ

<http://www.talkorigins.org/faqs/fossil-hominids.html>

Harvard Dept. of MCB—Biology Links

<http://mcb.harvard.edu/BioLinks.html>

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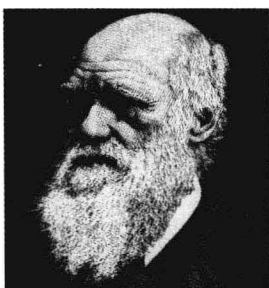
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UNIT 1 Natural Selection

Four articles examine the link between genetics and the process of natural selection.

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1. **The Growth of Evolutionary Science**, Douglas J. Futuyma, from *Science on Trial*, Pantheon Books, 1982
Before the rise of **science**, the causes of orderly events were sought in the **divine purposes** they were thought to have served. Today, patterns and designs are seen to be the result of **natural selection**.

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2. **Darwin's Influence on Modern Thought**, Ernst Mayr, from *Scientific American*, July 2000
As Ernst Mayr points out, our conception of the world and our place in it is, at the beginning of the twenty-first century, drastically different from the **Zeitgeist**, or "spirit of the times," at the beginning of the nineteenth century. The one person most responsible for this change is **Charles Darwin**.

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3. **Curse and Blessing of the Ghetto**, Jared Diamond, *Discover*, March 1991
Tay-Sachs disease is a choosy killer, one that for centuries targeted Eastern European Jews above all others. Jared Diamond reports that, by decoding its lethal logic, we can learn a great deal about how **genetic diseases** evolve—and how they can be conquered.

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4. **The Saltshaker's Curse**, Jared Diamond, *Natural History*, October 1991
Physiological adaptations that at one time helped West Africans and their descendants cope with unusually high **salt loss** may now be predisposing African Americans to **hypertension** and a premature **death**.

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UNIT 2 Primates

Ten selections examine some of the social relationships in the primate world and how they mirror human society.

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5. **Machiavellian Monkeys**, James Shreeve, *Discover*, June 1991
Deception plays such an important role in primate survival that it may not simply be the result of great **intelligence**. James Shreeve indicates that it may also be a driving force behind the development of intelligence.
6. **What Are Friends For?**, Barbara Smuts, *Natural History*, February 1987
Barbara Smuts reports that an understanding of **friendship bonds** among baboons is not only destroying our stereotypes about monkeys in the wild, but it is also calling into question traditional views concerning the **relationships** between the **sexes** in early hominid evolution.

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7. **Fossey in the Mist**, Robert M. Sapolsky, *Discover*, February 2001
The memory of *Dian Fossey* will be forever filled with contradictions and controversy. She began as a scientist studying gorillas in the wild and quickly became a **conservationist**. Her methods, however, would ultimately lead to the murders of both the gorillas and herself. 37

8. **The Mind of the Chimpanzee**, Jane Goodall, *from Through a Window*, Houghton Mifflin, 1990
It has long been recognized that the differences in anatomy and physiology between apes and humans are a matter of degree. Because of the work of Jane Goodall, we have come to realize that there is continuity in **mental** and **emotional development** as well. 41

9. **The Cultures of Chimpanzees**, Andrew Whiten and Christophe Boesch, *from Scientific American*, January 2001
The **rudimentary cultural capacities** of the chimpanzee not only sharpens our understanding of our uniqueness as humans, but it also suggests an **ancient ancestry** for the **mental abilities** that we and the chimpanzees have in common. 46

10. **Dim Forest, Bright Chimps**, Christophe Boesch and Hedwige Boesch-Achermann, *Natural History*, September 1991
Contrary to expectations, forest-dwelling **chimpanzees** seem to be more committed to **cooperative hunting** and **tool use** than are savanna chimpanzees. Such findings may have implications for the course of human evolution. 53

11. **To Catch a Colobus**, Craig B. Stanford, *Natural History*, January 1995
When **chimpanzees** in Gombe National Park band together to **hunt** red colobus monkeys, the most important ingredient seems to be the number of males and the presence of at least one estrous female. Craig Stanford indicates that their goals appear to be more **social** than dietary. 57

12. **Coping With Crowding**, Frans B. M. de Waal, Filippo Aureli, and Peter G. Judge, *from Scientific American*, May 2000
A persistent and popular view holds that **high population density** inevitably leads to **violence**. These authors report that this myth, which is based on rat research, applies neither to humans nor to other primates. 60

13. **Aping Language**, Sharon Begley, *Newsweek*, January 19, 1998
New studies suggest that the **brains** of chimps possess the same structures for **syntax** and **meaning** that ours do. This fact, in turn, would suggest that the last common ancestor of chimps and humans had and used these structures too. 65

14. **Are We in Anthropodenial?**, Frans de Waal, *Discover*, July 1997
To endow animals with **human emotions** and **mental qualities** has long been a **scientific taboo**, but the more we learn about them, especially our closer relatives, the more it seems that there really are similarities, as Frans de Waal's research indicates. 68



UNIT 3

Sex and Society

Eight articles discuss the relationship between the sexes and the evolution of a social structure.

Unit Overview

15. **These Are Real Swinging Primates**, Shannon Brownlee, *Discover*, April 1987
Although the muriqui monkeys of Brazil are heavily invested in **reproductive competition**, they seem to get along just fine without a **dominance hierarchy** and fighting over females. In other words, Shannon Brownlee reports, their mission in life seems geared to making love, not war. 73

16. **The Myth of the Coy Female**, Carol Tavis, *from The Mismeasure of Woman*, Simon & Schuster, 1992
It may be impossible for us to observe the behavior of other species in a way that does not mirror the assumptions of our own way of life. In this light, Carol Tavis maintains that **primate behavior** and the **theories** it generates need to be handled with care. 78
17. **Mothers and Others**, Sarah Blaffer Hrdy, *Natural History*, May 2001
In many species, including our own, **mothers are assisted** by others in rearing their offspring. The more we adhere to this evolutionary heritage of "**cooperative breeding**," the more likely we are to raise **emotionally healthy children**. 82
18. **Big Brains and Parenting**, John M. Allman, *Engineering and Science*, Number 4, 1998
Large-brained, slowly developing, **dependent offspring** require long-surviving parents in order to reach maturity. A measure of this parental dependency effect is the **differential survival of caretakers versus noncaretakers**. 88
19. **A Woman's Curse?**, Meredith F. Small, *The Sciences*, January/February 1999
Meredith Small reports on an anthropologist's study of the **ritual of seclusion** surrounding **women's menstrual cycles**, which has some rather profound implications regarding human evolution, certain cultural practices, and **women's health**. 95
20. **Why Women Change**, Jared Diamond, *Discover*, July 1996
The winners of evolution's race are those who leave behind the most offspring to carry on their progenitors' genes. So, asks Jared Diamond, doesn't it seem odd that human females should experience **menopause**? 99
21. **What's Love Got to Do With It?**, Meredith F. Small, *Discover*, June 1992
The **bonobos'** use of sex to reduce tension and to form **alliances** is raising some interesting questions regarding human evolution. In Meredith Small's review, this question is raised: Does this behavior help to explain the origins of our **sexuality**, or should we see it as just another primate aberration that occurred after humans and primates split from their common lineage? 104
22. **Apes of Wrath**, Barbara Smuts, *Discover*, August 1995
Whether or not males beat up females in a particular species seems to have a great deal to do with who is forming **alliances** with whom. Barbara Smuts indicates that this, in turn, has powerful implications as to what can be done about **sexual coercion** in the human species. 108



UNIT 4

The Fossil Evidence

Four selections discuss some of the fossil evidence for hominid evolution.

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23. **Early Hominid Fossils From Africa**, Meave Leakey and Alan Walker, *from Scientific American*, June 1997
Fossil finds in Africa display similarities to modern African apes. As these authors report, not only do these discoveries hint at our **common ancestry** with apes, but the **environmental context** is raising questions about whether early hominids evolved on the savanna or in a more wooded setting. 113
24. **One Giant Step for Mankind**, Michael D. Lemonick and Andrea Dorfman, *Time*, July 23, 2001
Evidence for a chimplike forest creature with **upright posture** is showing up from between 5 and 6 million years ago in what was once the fertile woodlands of northeast Africa. We still do not know, however, whether these creatures were our **ancestors** or just another branch on the evolutionary bush. 118

25. **A New Human Ancestor?**, Elizabeth Culotta, *Science*, April 23, 1999
Elizabeth Culotta writes that recent discoveries in Ethiopia may generate more questions than answers, but one finding is the best evidence yet for **animal butchery by hominids** 2.5 million years ago. 124

26. **Scavenger Hunt**, Pat Shipman, *Natural History*, April 1984
Microscopic analyses of tooth wear and cut marks on bone, combined with an increased understanding of the advantages of **bipedalism**, point in the direction of a "**man the scavenger**" model rather than "**man the hunter**," Pat Shipman reports. 128



UNIT 5 Late Hominid Evolution

Nine articles examine archaeological evidence of human evolution.

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27. **Erectus Rising**, James Shreeve, *Discover*, September 1994
Most paleoanthropologists used to agree that **Homo erectus** was confined to Africa until one million years ago. Author James Shreeve notes that new finds and a new **dating method** are challenging that view. 134

28. **Doubting Dmanisi**, Pat Shipman, *American Scientist*, November/December 2000
When anthropologists scrutinize a colleague's work, they like to think they are being objective. As recent discoveries relating to **Homo erectus** have shown, the individuals involved may determine **why one claim is accepted and another is rejected**. In other words, the facts never speak for themselves. 140

29. **The Scavenging of "Peking Man"**, Noel T. Boaz and Russell L. Ciochon, *Natural History*, March 2001
Excavations from 1921 to 1982 at **Dragon Bone Hill** in China uncovered the remains of 45 individuals, **Homo erectus pekinesis**, with their tools and debris dating from 300,000 to 600,000 years ago. The authors try to determine whether these relatives of ours used **fire**, and whether they were **cannibals, hunters, or the hunted**. 144

30. **Old Masters**, Pat Shipman, *Discover*, July 1990
Systematic analyses of the **cave paintings** in Europe reveal Cro-Magnons' intimate knowledge of the **animals hunted** and, perhaps, even purposeful **ritual** associated with the images. 149

31. **Secrets of the Cave's Art**, Sharon Begley, *Newsweek*, May 24, 1999
The **oldest cave art** known to science reveals **techniques** supposedly thousands of years before their time—**animals** that were otherwise not normally depicted and **symbolism** that seems "to capture the essence of the animals." 152

32. **The Gift of Gab**, Matt Cartmill, *Discover*, November 1998
While the **origin of human language** is rooted in aspects of psychology and biology that we share with our close animal relatives, Matt Cartmill proposes that our kind of communication seems to be associated with **making tools and throwing weapons**. 154

33. **The Dating Game**, James Shreeve, *Discover*, September 1992
James Shreeve writes that newly discovered **dating methods** are challenging previous notions about the evolution of **Homo sapiens**. The accuracy of these methods, however, is still a matter of controversy. 159

34. **Who Were the Neandertals?**, Kate Wong, *from Scientific American*, April 2000

Controversial new evidence indicates that the **Neanderthals** may not have been just another failed species, but perhaps were successfully adapted to their environment when more **modern humans** entered Europe, **interbred** with them and, genetically speaking, swamped them out of existence.

164

35. **Archaeologists Rediscover Cannibals**, Ann Gibbons, *Science*, August 1, 1997

From digs around the world, researchers have unearthed strong new evidence of **cannibalism**. People may have eaten their own kind from the early days of human evolution through recent prehistory, as indicated by author Ann Gibbons.

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UNIT 6

Human Diversity

Four articles examine human racial evolution and diversity.

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36. **The Lost Man**, Douglas Preston, *The New Yorker*, June 16, 1997

Recent skeletal findings of “Kenewick Man” indicate that the **first Americans** might not be who we think they were. Before the evidence could be adequately studied, however, the U.S. government withheld the bones. Native Americans want to rebury the bones, and archaeologists have gone to court to reclaim them. Douglas Preston asserts that in the process, issues of **race** and **ethnicity** have been brought to a steaming head.

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37. **Black, White, Other**, Jonathan Marks, *Natural History*, December 1994

With regard to classifying human beings, Jonathan Marks notes that the central message of anthropology is, You may group humans into a small number of **rac**es if you want to, but biological evidence does not support it.

188

38. **Racial Odyssey**, Boyce Rensberger, *Science Digest*, January/February 1981

Despite the many attempts over the past 200 years to classify humans into separate and “pure” **rac**es, Boyce Rensberger reports that the consensus among geneticists and anthropologists is that there are overlapping differences among us that are matters of degree rather than of kind.

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39. **The Tall and the Short of It**, Barry Bogin, *Discover*, February 1998

Rather than being able to adapt to a single environment, we can—thanks to our **genetically endowed plasticity**—change our bodies to cope with a wide variety of environments. In this light, Barry Bogin reports on research that suggests that we can use the average **height** of any group of people as a barometer of the **health** of their society.

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UNIT 7

Living With the Past

Four articles discuss evolutionary theory and the impact of genetic heritage on our present and our future.

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40. **Profile of an Anthropologist: No Bone Unturned**, Patrick Huyghe, *Discover*, December 1988

Patrick Huyghe reports that the skills displayed by **physical anthropologists** and **archaeologists** in the analysis of old bones have resulted in the development of a whole new field: **forensic anthropology**.

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41. The Viral Superhighway , George J. Armelagos, <i>The Sciences</i> , January/February 1998 According to George Armelagos, international travel as well as environmental disruptions have accelerated the occurrence of serious, new diseases upon humans . However, protective cultural practices could provide a countervailing effect to fight the encroachments of many diseases.	207
42. Dr. Darwin , Lori Oliwenstein, <i>Discover</i> , October 1995 Lori Oliwenstein reports that the application of Darwin's theory of evolution to the understanding of human diseases will not only help us to better treat the symptoms of diseases, but it also promises to help us understand how microbes and humans have evolved in relation to one another.	212
43. Kansas Recants , Leon Albert, <i>McGraw-Hill/Dushkin</i> , 2002 Recent efforts to limit the teaching of evolution in the classroom and to replace it with the concepts of " Scientific Creationism " or " Intelligent Design " serve to highlight the differences between modern science on the one hand and simplistic folk theology on the other.	216
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