

AFTERWORD

PUZZLING OVER THE PAST

Piecing together the story of our beginnings is a lot like trying to do a giant jumble without all the letters.

Will we ever discover all the missing pieces?

No.

Will we ever know with 100 percent certainty what actually happened?

No.

Foturnately it is pssobile to unredtsand the sotry eevn wehn the ltteers are mxied up.

When you use that big brain, you won't always get it right, but being human is all about risking getting it wrong. It's who we are. And sometimes we *do* get it right. From the first hominid who stood on two feet to those who dared push off their canoes into open sea, from the first human who uttered a word to those who communicated to all of us by crawling through underground tunnels into caves and illustrating their world, curious, innovative humans planted seeds, tamed animals, and changed the world. Go out and question. Take a chance. It's your destiny.

Lif'se a pzluzer; ptu in a pecie.

*"I think and think for months and years,
ninety-nine times, the conclusion is
false. The hundredth time I am right."*

—Physicist Albert Einstein

TIMELINE

When writing about events that happened hundreds of thousands, and even millions of years ago, all dates are approximate.

5.5 million years ago

Earliest hominids (*Ardipithecus ramidus kadabba*) live in what is now the country of Ethiopia

3.6 million years ago

Early hominids leave footprints at Laetoli, Tanzania



3.18 million years ago

Lucy (*Australopithecus afarensis*) lives and dies at Hadar, Ethiopia

2.5 million years ago

First use of stone tools and earliest members of the genus *Homo Australopithecus garhi* in East Africa

1.8 million years ago

Earliest occupation of Olduvai Gorge, Tanzania



1.75 million years ago

Earliest hominids live outside Africa, at Dmanisi, Georgia

1.6 million years ago

Turkana Boy (*Homo erectus*) lives and dies in Kenya

1.25 million years ago

Earliest probable use of fire at Swartkrans, South Africa

800,000 years ago

Homo erectus reaches the Island of Flores, Indonesia, by boat; Gran Dolina Boy (*Homo antecessor*) lives and dies in Spain; earliest evidence of cannibalism at Gran Dolina, Spain

500,000–400,000 years ago

Earliest big-game hunting, Boxgrove, England; *Homo erectus* lives at the Zhoukoudian Cave, China

300,000 years ago

Many *Homo heidelbergensis* are buried in the Pit of Bones, at Atapuerca, Spain

120,000–70,000 years ago

Some of the earliest modern humans live and die at Klasies River Mouth, South Africa

50,000 years ago

Many Neandertals are buried at Shanidar Cave, Iraq

More than 40,000 years ago

People settle in Australia for the first time

40,000–12,000 years ago

Many Ice-Age animals die in the tar pits at La Brea, California

32,000 years ago

People paint and engrave some of the world's first art at Chauvet Cave, France



30,000 years ago

People first settle on the Solomon Islands

27,000 years ago

People build mammoth bone shelters, weave clothing, and make ceramic figures, at Dolní Věstonice, Czech Republic

25,000 years ago

The Kid, a Neandertal–modern human hybrid or a modern human child, lives and dies in the Lapedo Valley, Portugal

More than 12,000 years ago

People first enter the Americas

11,000 years ago

People of the Clovis culture hunt big and small game and gather plant foods across North America

10,400–7,800 years ago

First farmers at Abu Hureyra, Syria, and elsewhere in the Fertile Crescent of Southwest Asia

10,000 years ago

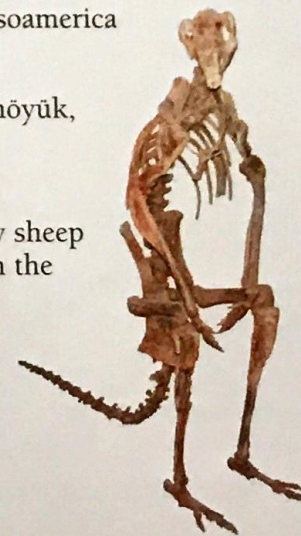
End of the last Ice Age; megafauna becomes extinct; earliest domesticated plants in Mesoamerica

9,300–8,100 years ago

People live at Çatalhöyük, Turkey

9,000 years ago

People keep Barbary sheep in pens and caves in the Sahara



8,500 years ago

People live seasonally at Koster, Illinois, site of North America's oldest cemetery

8,400 years ago

Kennewick Man dies in the United States

7,600 years ago

The Mediterranean Sea floods Lake Euxine and creates the Black Sea; people live year round at Koster, Illinois

7,000 years ago

People herd domestic cattle, sheep, and goats in the Sahara

6,300 years ago

Earliest known maize (corn) cobs harvested in Mexico

6,000 or more years ago

Farming and domestication of llamas and alpacas begins in South America

5,700–150 years ago

Native Americans stampede bison off the cliffs at Head-Smashed-In, Canada

5,500 years ago

The first cities develop in Mesopotamia (modern-day Iraq)

5,300 years ago

Ötzi the Iceman is killed in the Alps

5,000–3,500 years ago

Various episodes of building and use of Stonehenge, England

4,500 years ago

People in eastern North America cultivate sunflowers, gourds, and other plants; Sahara Desert becomes very dry; farming spreads south of the Sahara

This is one of several possible family trees of human evolution. The numbers in the bars are estimates of how many different hominids (not how many individual fossil bones) of each species have been found. For example, paleoanthropologists have discovered 11 fossil bones and teeth of *Ardipithecus ramidus kadabba*, which must belong to at least 5 different individuals.

4,300 years ago

Beginning of the Bronze Age in Europe; the Amesbury Archer is buried near Stonehenge, England

4,000–3,500 years ago

People introduce corn into southwestern United States from Mexico

1,400–1,200 years ago

First peopling of Easter Island (Rapa Nui) and Hawaii

1,000 years ago

Native American

peoples live in villages beside the Knife River in North Dakota; people settle in New Zealand for the first time

1,000–750 years ago

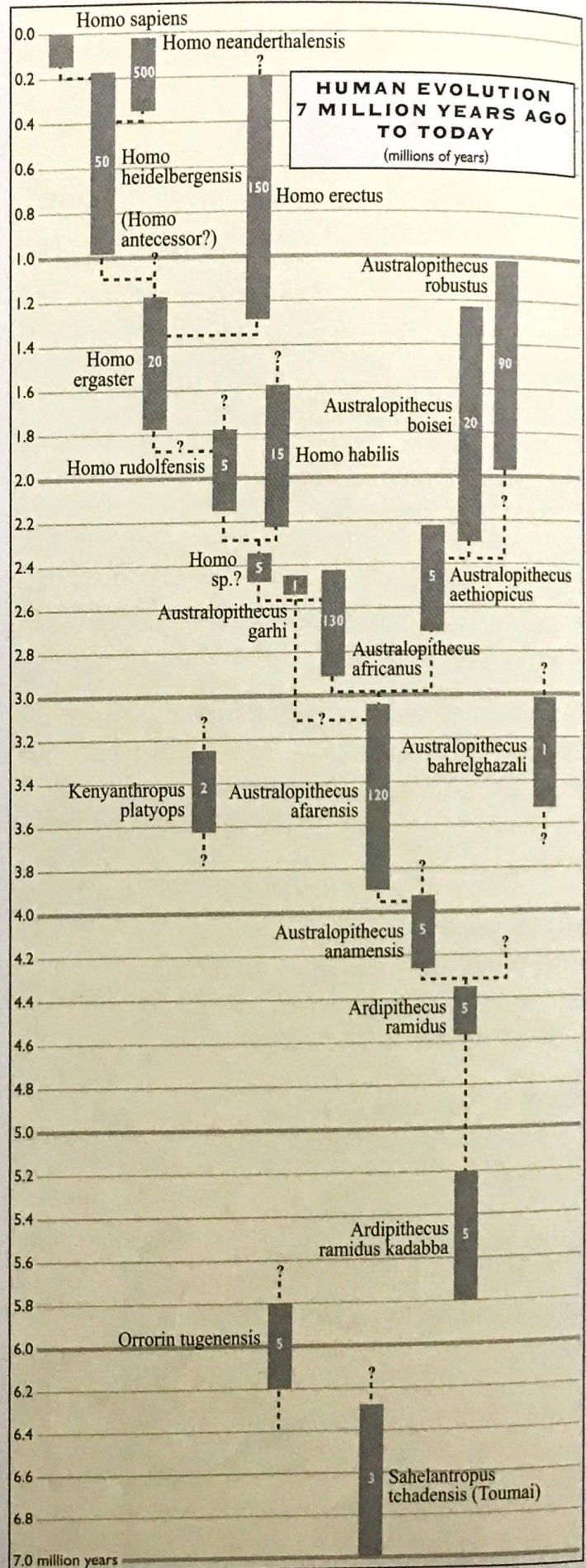
As many as 15,000 people live in a city at Cahokia, Illinois

930 years ago

Native Americans build Serpent Mound in Ohio

500 years ago

Makah Indians occupy the village of Ozette, Washington, until it is buried by a mudslide; remains of wooden houses, canoes, and other items uncovered by erosion in 1970



FURTHER READING

Entries with ☞ indicate primary source material.

GENERAL WORKS ON THE EARLY HUMAN WORLD

- Bailey, Jill, and Tony Seddon. *The Young Oxford Book of the Prehistoric World*. New York: Oxford University Press, 1996.
- Bryson, Bill. *A Short History of Nearly Everything*. New York: Broadway, 2003.
- ☞ Darwin, Charles. *The Descent of Man*, reprint, 2nd ed. Amherst, N.Y.: Prometheus, 1998.
- ☞ Darwin, Charles. *The Expressions of Emotions in Man and Animals*. reprint. New York: St. Martin's, 1979.
- Fagan, Brian M. *People of the Earth: An Introduction to World Prehistory*, 11th ed. Upper Saddle River, N.J.: Pearson, 2004.
- Foley, Robert. *Humans before Humanity: An Evolutionary Perspective*. Cambridge, Mass.: Blackwell, 1995.
- Gowlett, John. *Ascent to Civilization: The Archaeology of Early Humans*. 2nd ed. New York: McGraw Hill, 1993.

- Leakey, Richard, and Roger Lewin. *Origins Reconsidered: In Search of What Makes Us Human*. New York: Doubleday, 1992.
- McKie, Robin. *Dawn of Man; The Story of Human Evolution*. New York: Dorling Kindersley, 2000.
- Redfern, Martin. *The Kingfisher's Young People's Guide to the Planet Earth*. New York: Kingfisher, 1999.
- Tattersall, Ian. *Becoming Human: Evolution and Human Uniqueness*. New York: Harcourt Brace, 1998.
- . *The Fossil Trail: How We Know What We Think We Know Human Evolution*. New York: Oxford University Press, 1996.
- Wenke, Robert J. *Patterns in Prehistory: Humankind's First Three Million Years*. 4th ed. New York: Oxford University Press, 1999.

ATLASES

- Aston, Mick, and Tim Taylor. *The Atlas of Archaeology*. New York: DK, 1998.
- Bahn, Paul G. *The Atlas of World Archaeology*. New York: Checkmark, 2000.
- Rollin, Sue. *The Illustrated Atlas of Archaeology*. New York: Warwick, 1982.

DICTIONARIES AND ENCYCLOPEDIAS

- Darvill, Timothy. *The Concise Oxford Dictionary of Archaeology*. New York: Oxford University Press, 2002.
- Delson, Eric, Ian Tattersall, Alison S. Brooks, and John S. Van Couvering. *Encyclopedia of Evolution and Prehistory*, 2nd ed. New York: Garland, 2000.
- Jones, Steve, Robert Martin, and David Pilbeam, eds. *The Cambridge Encyclopedia of Human Evolution*. Cambridge, England: Cambridge University Press, 1992.
- Vogel, J. O., ed. *Encyclopedia of Precolonial Africa*. Walnut Creek, Calif.: AltaMira, 1997.

BIOGRAPHY AND AUTOBIOGRAPHY

- Fagan, Brian. *Archaeologists: Explorers of the Human Past*. New York: Oxford University Press, 2003.
- Goodall, Jane. *My Life with the Chimpanzees*. New York: Pocket, 1996.
- Heiligman, Deborah. *Mary Leakey: In Search of Human Beginnings*. New York: W. H. Freeman, 1995.

Leakey, Mary. *Disclosing the Past*. Garden City, N.Y.: Doubleday, 1984.

Morell, Virginia. *Ancestral Passions: The Leakey Family and the Quest for Humankind's Beginnings*. New York: Simon & Schuster, 1995.

Poynter, Margaret. *The Leakeys: Uncovering the Origins of Humankind*. Springfield, N.J.: Enslow, 1997.

Quackenbush, Robert M. *The Beagle and Mr. Flycatcher: A Story of Charles Darwin*. Englewood Cliffs, N.J.: Prentice-Hall, 1983.

Sis, Peter. *Tree of Life: Charles Darwin*. New York: Farrar Straus & Giroux, 2003.

Steffoff, Rebecca. *Charles Darwin and the Evolution Revolution*. New York: Oxford University Press, 1996.

AFRICA

Lewin, Roger. *The Origin of Modern Humans*. New York: Scientific American Library-W.H. Freeman, 1993.

Stringer, Christopher, and Robin McKie. *African Exodus: The Origins of Modern Humanity*. New York: Henry Holt, 1997.

AMERICAS

Dillehay, Thomas. *The Settlement of the Americas: A New Prehistory*. New York: Basic, 2000.

Nelson, Ted W., and Sharlene P. Nelson. *The Makah*. London: Franklin Watts, 2003.

Pauketat, Timothy R., and Nancy Stone Bernard. *Cahokia Mounds*. New York: Oxford University Press, 2003.

Sattler, Helen Roney. *The Earliest Americans*. New York: Clarion, 1993.

Struever, Stuart, and Felicia Antonelli Holton. *Koster: Americans in Search of Their Prehistoric Past*. Garden City, N.Y.: Doubleday, 1979.

ARCHAEOLOGY

Fagan, Brian M., ed. *The Oxford Companion to Archaeology*. New York: Oxford University Press, 1996.

McIntosh, Jane. *Archaeology*. New York: Knopf, 1994.

Orna-Ornstein, John. *Archaeology: Discovering the Past*. New York: Oxford University Press, 2002.

Pitts, Michael, and Mark Roberts. *Fairweather Eden: Life Half a Million Years Ago as Revealed by the Excavations at Boxgrove*. London: Century, 1997.

Pringle, Heather. "New Women of the Ice Age." *Discover* (April 1998): 62-69.

Schick, Kathy D., and Nicholas Toth. *Making Silent Stones Speak*. New York: Simon & Schuster, 1993.

AUSTRALIA AND THE PACIFIC

Flenley, John, and Paul Bahn. *The Enigmas of Easter Island*. New York: Oxford University Press, 2003.

Heyerdahl, Thor. *Kon-Tiki: Across the Pacific by Raft*. New York: Franklin Watts, 1950.

Mulvaney, John, and Johan Kamminga. *The Prehistory of Australia*. Washington, D.C.: Smithsonian Institution Press, 1999.

66 Thomas, W. E. *Some Myths and Legends of the Australian Aborigines*. London: Whitcombe & Tombs, 1923.

CAVE ART

Bahn, Paul, and Jean Vertut. *Journey through the Ice Age*. Berkeley: University of California Press, 1997.

Chauvet, Jean-Marie, Eliette Brunel Deschamps, and Christian Hillaire. *Dawn of Art: The Chauvet Cave*. New York: Abrams, 1996.

Lauber, Patricia. *Painters of the Cave*. Washington, D.C.: National Geographic, 1998.

CHIMPANZEES

de Waal, Frans. *Peacemaking among Primates*. Cambridge, Mass.: Harvard University Press, 1989.

Goodall, Jane. *Chimps*. New York: Aladdin, 1989.

Savage-Rumbaugh, Sue, and Roger Lewin. *Kanzi: The Ape at the Brink of the Human Mind*. New York: Wiley, 1994.

EARLY HOMINIDS

Johanson, Donald, and Maitland Edey. *Lucy: The Beginnings of Humankind*. New York: Simon & Schuster, 1981.

Johanson, Donald C., and Kevin O'Farrell. *Journey from the Dawn: Life with the World's First Family*. New York: Villard, 1990.

Lewin, Roger. *Bones of Contention: Controversies in the Search for Human Origins*. New York: Simon & Schuster, 1987.

Picq, Pascal, and Nicole Verrechia. *Lucy and Her Times*. New York: Henry Holt, 1999.

Walker, Alan, and Pat Shipman. *The Wisdom of the Bones: In Search of Human Origins*. New York: Knopf, 1996.

Wilkinson, Philip, ed. *Early Humans*. New York: Knopf, 1989.

FARMING

Balter, Micheal. "The First Cities: Why Settle Down? The Mystery of Communities." *Science Magazine* (November 20, 1998).

Diamond, Jared. *Guns, Germs, and Steel: The Fates of Human Societies*. New York: W. W. Norton, 1999.

Patent, Dorothy Hinshaw. *Secrets of the Ice Man*. New York: Benchmark, 1998.

Woods, Michael, and Mary Woods. *Ancient Agriculture: From Foraging to Farming*. Minneapolis: Runestone, 2000.

FOSSILS

Busbey, III, Arthur B. *The Nature Companions Rocks, Fossils and Dinosaurs*. San Francisco: Fog City, 2002.

Parker, Steve, and Jane Parker. *Collecting Fossils: Hold Prehistory in the Palm of Your Hand*. New York: Sterling, 1997.

Taylor, Paul D. *Eyewitness: Fossil*. New York: Knopf, 1990.

Walker, Cyril. *Fossils*. New York: Dorling Kindersley, 2002.

NEANDERTALS

Shreeve, James. *The Neandertal Enigma: Solving the Mystery of Modern Human Origins*. New York: Morrow, 1995.

Solecki, Ralph. *Shanidar: The First Flower People*. New York: Knopf, 1971.

Trinkaus, Erik, and Pat Shipman. *The Neandertals: Changing the Image of Mankind*. New York: Knopf, 1993.

WEBSITES

The Amesbury Archer

www.wessexarch.co.uk/projects/amesbury/archer.html

Archaeologists from Wessex Archaeology discover the grave of the Amesbury Archer.

Archaeology

www.archaeology.org/magazine.php?page=online/news/human

The Archaeological Institute of America's story covering the discovery of *Australopithecus garhi*.

Ardipithecus ramidus kadabba Discovery

www.berkeley.edu/news/berkeleyan/2001/07/11_homin.html

www.washingtonpost.com/ac2/wp-dyn/A47640-2001Jul11

http://news.nationalgeographic.com/news/2001/07/0712_ethiopianbones.html

News stories covering the discovery in Ethiopia of our earliest known ancestor.

The Arnhem Zoo Chimpanzee Colony

<http://chimpanzee.homestead.com/arnhemzoo.html>

A guide to the life of the chimpanzees at Burgers' Zoo (the official name of the Arnhem Zoo).

Becoming Human

www.becominghuman.org/

An interactive journey through 4 million years of human evolution.

Cahokia Mounds State Historic Site

<http://medicine.wustl.edu/~mckinney/cahokia/cahokia.html>

Discover Cahokia, the largest pre-Columbian settlement in North America.

Çatalhöyük: Excavations of a Neolithic Anatolian Höyük

<http://catal.arch.cam.ac.uk/index.html>

Read the diary entries written by the archaeologists who excavated the site.

The Cave of Chauvet-Pont-D'Arc

www.culture.gouv.fr/culture/arcnat/chaudet/en/
Offers tour of Chauvet Cave.

Dmanisi

www.dmanisi.org.ge

News, photos, and information on the oldest hominid site outside of Africa.

The First Europeans: Treasures from the Hills of Atapuerca

www.amnh.org/exhibitions/atapuerca

Features Atapuerca and the movement of *Homo erectus* out of Africa.

First Farmers

http://whyfiles.org/122ancient_ag/index.html

Shoulder your flint hoe, grab your digging stick, and discover the origins of domestication.

Head-Smashed-In Buffalo Jump

www.head-smashed-in.com

Learn about the Blackfoot Indians and how they hunted bison by running them off a cliff.

Human Evolution: You Try It

www.pbs.org/wgbh/aso/tryit/evolution

Learn about the Laetoli footprints, the Leakey family, and more.

The Jane Goodall Institute

www.janegoodall.org

Loads of information on Jane Goodall and chimpanzees.

Kanzi

www.gsu.edu/~wwwlrc/biographies/kanzi.html

The biography of Kanzi, the toolmaking bonobo.

Kennewick Man Virtual Interpretive Center

www.kennewick-man.com

The discovery, investigation, and legal battles surrounding Kennewick Man.

Knife River Indian Villages National Historic Site

www.nps.gov/knri/overview.htm

Explore an earth lodge, go hunting, and learn about Indian life in North Dakota's past.

The Leakey Foundation

www.leakeyfoundation.org

Biographical information on Mary Leakey and her work at Olduvai and elsewhere.

Makah Research Page

www.learningspace.org/instruct/jr_high/projects/bgilbert/makah.htm

Follow a seventh-grade class as they learn about the buried village of Ozette and about the Makah Indian nation.

Minnesota State University Museum

www.mnsu.edu/emuseum/index.shtml

Online museum of anthropology, archaeology, prehistory, and history.

Mummy Tombs

www.mummytombs.com/mummylocator/featured/otzi.htm

Information and student activities about the Iceman.

The Mysteries of Çatalhöyük

www.smm.org/catal

Read comics, play games, make a Neolithic dinner, and more.

National Museum of Natural History

www.mnh.si.edu

Visit an excavation in Kenya and examine the hominids in the Hall of Human Ancestors.

Page Museum

www.tarpits.org

Have an Ice-Age adventure as you explore the La Brea tar pits.

Past

www.ucl.ac.uk/prehistoric/past/

The Prehistoric Society's newsletter, which includes the society's field trip to the Sahara Desert.

Riddle of the Bones

www.pbs.org/wgbh/evolution/humans/riddle/index.html

Learn from the bones of our ancestors and see the species that came before us in the "origins of humankind."

Secrets of Lost Empires

www.pbs.org/wgbh/nova/lostempires/easter

All you ever wanted to know about Easter Island and its stone statues.

Stone Pages

www.stonepages.com

Photos, information, and news about Stonehenge and many other European archaeological sites made of stone.

The Talk Origins Archive

www.talkorigins.org

Explores the creation versus evolution controversy.

Walking with Cavemen

www.bbc.co.uk/science/cavemen

Interactive games and lots of information on human ancestors, including Neandertals.

INDEX

References to illustrations and their captions are indicated by page numbers in **bold**.

- Aborigines, 90
 Abu Hureyra (Syria), 119–124
 Acheulian tool kit, 71
 Afar Triangle, 36, 40
African Exodus (Stringer), 88
 Americans, earliest, 105–111
 Americas, farming in, 149–153
 Amesbury (England), 134, 135
 Amesbury Archer (*Homo sapiens sapiens*), 9, 134–136
Ancestral Passions (Morell), 48
 Anglian ice age, 69
 Anthropology, 20
Ardipithecus ramidus kadabba, 9, 23
 Art, 96–97, 98–104, 126–127, 140, 141
 Artifacts, 47
 Artificial selection, 152
 Atapuerca (Spain), 70
 Australia, 90–92
Australopithecus afarensis, 9, 38, 39, 40. *See also* Lucy
Australopithecus boisei, 9, 45–46
Australopithecus garhi, 9, 40–41
Australopithecus robustus, 9, 63
 Awash River, 21
 Awash Valley, 37
 Bahn, Paul, 104
 Barbary sheep, 140–141
 Barker, Graeme, 9, 137, 138, 141
 Bar-Yosef, Ofer, 9, 76–77
 Bering Land Bridge (Beringia), 107, 109, 111, 115
 Binford, Lew, 9, 79–80
 Bipedalism, 34–35
 Black Sea, 128
 Boxgrove (England), 67–72
 Brain development, 58–59
 Bronze Age, 134, 135
 Bryson, Bill, 47
 Burials, 74–75, 79, 80, 97, 117, 128–129, 134
 Cahokia (Illinois), 154–156
 Cannibalism, 64, 81–82, 83
 Carbon dating, 104, 106–107
 Çatalhöyük (Turkey), 11, 125–130
 Cave art, 99, 101, 102, 103, 104
 Cave bears, 70, 100, 101, 103
 Cenozoic Era, 15
 Chauvet Cave, 98–104
 Chauvet, Jean-Marie, 98–102
 Chile, sites in, 13
 Chimpanzees, 9, 25–31, 42. *See also* Kanzi
 Chimpanzees at Burgers' Zoo, 9, 25–31
Chimps (Goodall), 29
 China, sites in, 13
 Climate Change Hypothesis, 114
 Clottes, Jean, 104
 Clovis First theory, 107–108
 Clovis people, 9, 107–108, 113
 Columbus, Christopher, 149–150
 Corn, 150, 152–153
 Cro-Magnons, 9, 86–87, 88–89, 94–96
 Crops, 138, 141, 149. *See also* Corn
 Czech Republic, sites in, 12, 93
 Darwin, Charles, 9, 26, 27–29
Dawn of Art (Chauvet), 102
 De Waal, Frans, 29
 Deacon, Hilary, 9, 81, 82, 83
Descent of Man, The (Darwin), 27
 Deschamps, Eliette Brunel, 98–102
 Dillehay, Thomas, 9, 105–107, 108–111
 Dinguinesh, 38. *See also* Lucy
Disclosing the Past (Mary Leakey), 33
 Dmanisi (Republic of Georgia), 61–63
 DNA trails, 146
 Dogs, earliest, 115–116
 Dolní Věstonice (Czech Republic), 94–96, 97
 Domestication of animals, 115–116, 124, 150–151
 Dreamtime stories, 90–92
 Duarte, Cidália, 10, 85–87
 Earth, origins of, 14–19
 Earth lodge, 157
 Easter Island. *See* Rapa Nui
 Easter Island Heads, 146–148
 Elephant butchering, 53
 England, sites in, 12, 68, 131
 Ethiopia, sites in, 12, 20
 Europeans, early, 131–136
 Evolution of plants, 133
 Evolution, human, 23–24, 28, 30–31
Expression of Emotions in Man and Animals, The (Darwin), 29
 Extinctions, 114–115
Fairweather Eden (Roberts), 68, 69
 Farming, origins of, 122, 123–124, 133, 139–141, 149–153
 Fertile Crescent, 122, 139–140
 Fire, 63, 80, 102
 Footprint Tuff, 33–34, 35
 Footprints, Laetoli, 33, 34
 Fossils, dating of, 22
 Fossils, definition of, 21
 France, sites in, 12, 98
Genyornis newtoni, 91, 92
 Geofacts, 47
 Geology, 20
 Giant wallaby, 92
 Gona (Ethiopia), 46
 Goodall, Jane, 10, 29
 Gran Dolina (Spain), 63–64
 Gran Dolina Boy (*Homo antecessor*), 61, 63–64
 Gray, Tom, 37–38
 Grids, 62, 66
 Guilá Naquitz Cave (Mexico), 149, 151
 Hadar (Ethiopia), 36, 37–39
 Haile-Selassie, Yohannes, 10, 20–24
 Hand axes, 69–70, 71
 Hand stencil, 102
 Head-Smashed-In Buffalo Jump (Alberta, Canada), 154, 158
 Henges, 135–136
 Herding, cattle, 139–141
 Heyerdahl, Thor, 10, 142–148
 Hillaire, Christian, 98–102
 Hinds Cave (Texas), 153
 Hodder, Ian, 10, 127–130
 Hominid gang, 10, 55, 56–58
 Hominids, 10, 19, 23–24, 40–41, 45, 47, 51–54. *See also* *Homo erectus*
Homo antecessor, 10, 63, 64
Homo erectus, 10, 56–59, 60–66. *See also* Turkana Boy
Homo ergaster, 57
Homo habilis, 45
Homo heidelbergensis, 10, 67–72, 81
Homo neanderthalensis. *See* Neandertals
Homo sapiens, 26, 61, 81
Homo sapiens neanderthalensis, 81
Homo sapiens sapiens, 10, 81, 85, 97, 120, 121, 128, 132, 134
 Horizons, 116–118
 Horses, 37, 72, 103
 Housing, 95, 109–111, 118, 122–123, 125–130, 145–146, 154, 155, 157
 Hunting, 67–72, 94, 104, 107–108, 158
 Ice ages, 79, 112, 107
 Iceman (*Homo sapiens sapiens*), 11, 69, 131–134
 Injuries, Neandertal, 78
 Iraq, sites in, 12
 Island of Flores (Indonesia), 64–65
 Italy, sites in, 12, 131
 Jewelry, 86, 96–97, 117
 Johanson, Donald, 10, 36, 37–40
 Kamba people, 48–52
 Kanzi (chimpanzee), 10, 42–47
 Kanzi (Savage-Rumbaugh), 42, 44
 Kebara (Israel), 77
 Kennewick Man, 10, 107, 108
 Kenya, sites in, 12, 55
 Kid, the (*Homo sapiens sapiens*), 10, 85–87, 89
 Kimeu, Kamoya, 10, 48–54, 56, 58
 King of Stonehenge. *See* Amesbury Archer
 Klasies River Mouth (South Africa), 81–84
 Knife River (North Dakota), 154, 156–159
Kon-Tiki (boat), 142–145
Kon-Tiki (Heyerdahl), 142, 144
 Koster (Illinois), 116–118
 La Brea tar pits (California), 112, 113, 114
 Laetoli (Tanzania), 32–35
 Lagar Velho (Portugal), 86
 Language, 71, 96
 Lapedo Valley (Portugal), 85
 Leakey, Louis, 29, 32, 54, 58

- Leakey, Louise, 10, 58
 Leakey, Mary, 10, 32, 49–54, 58
 Leakey, Meave, 10, 57–58
 Leakey, Philip, 54
 Leakey, Richard, 10, 55, 57–58
 Libya, sites in, 137–141
 Locality 162 (Ethiopia), 37
 Lovejoy, Owen, 40, 80
 Lucy (*Australopithecus afarensis*), 9, 10, 38–40
 Lucy: *The Beginnings of Humankind* (Johanson), 37, 38, 40
 Mammoths, 95, 105, 108, 112, 113–114
 Marrow, 41, 52–53
 Mastodons, 105–106, 113
 Meadowcroft Rockshelter (Pennsylvania), 111
 Megafauna, 92, 114–115
 Megaliths, 136
 Mellaart, James, 11, 125–127
 Mesozoic Era, 15
 Mexico, sites in, 12, 149
 Middle Awash Valley, 20, 22
 Middle Stone Age, 81–84
 Migrations, 60, 61–66, 87, 107, 109, 142–145, 146, 148
 Millennium Man. *See* *Orrorin tugenensis*
 “Missing link,” 27
 Moai. *See* Easter Island Heads
 Modern humans, 59, 81–84, 87–89.
See also *Homo sapiens sapiens*
 Monk’s Mound (Cahokia, Illinois), 154, 156
 Monte Verde (Chile), 106–111
 Morell, Virginia, 48
 Nandy (Neandertal), 78–79, 80
 Nariokotome River, 55, 56, 58
 Natural selection, 28
 Neandertal *Enigma, The*, 80, 82, 87, 88
 Neandertals, 11, 73–80, 81, 87, 88–89
 Netiv Hagdud (Jordan Valley), 76–77
 Nutcracker Man (*Australopithecus boisei*), 46
 Obsidian, 91, 127, 130
 Oldowan stone tools, 71
 Oldowan tool kit, 43
 Olduvai Gorge, 43, 48–54
 Olduvai pick, 49, 50, 57
Origins Reconsidered (Richard Leakey), 55
Orrorin tugenensis, 11, 24
 Ötztal Alps (Italy), 131, 132
 Ötzi the Iceman (*Homo sapiens sapiens*), 11, 69, 131–134
 Out of Africa theory, 87
 Overkill Hypothesis, 114–115
 Owl pellets, 77
 Ozette (Washington), 154, 159–160
 Paleoanthropology, 20
 Paleoclimatology, 116
 Paleoecology, 20
 Paleofeces, 153
 Paleolithic era, 71, 96, 104
 Paleontology, 20
 Paleopathologists, 120–122
 Paleozoic Era, 15
Paranthropus boisei. *See* *Australopithecus boisei*
Paranthropus robustus. *See* *Australopithecus robustus*
 Parfitt, Simon, 11, 68–69
 Past (newsletter), 137
 Patton, Mark, 129
Peacemaking among Primates (de Waal), 29
 Peking Man, 65, 66
 Peruvians, 142–143, 145, 146
 Pit of Bones, The, 70
 Pitts, Michael, 69, 72
 Pleistocene era, 79, 90
 Plow, 150
 Polynesia, 142–148
 Portugal, sites in, 12, 85
 Prehistoric Society, 137–141
 Race, 89
 Rapa Nui, 145–148
 Republic of Georgia, sites in, 12
 Rhino tooth, 67–69
 Roberts, Mark, 11, 68, 70, 71, 72
 Rock art, 140, 141
 Root-ape. *See* *Ardipithecus ramidus kadabba*
 Sabertooth cat, 115
 Sahara Desert, 137–141
 Savage-Rumbaugh, Sue, 11, 42–47
 Schöningen (Germany), 72
 Serpent Mound (Peebles, Ohio), 156
Settlement of the Americas, The (Dillehay), 108
 Settlements, permanent. *See* Housing
 Shanidar Cave (Iraq), 74–75, 78–80
 Shanidar IV, 75
 Shanidar (Solecki), 74
Short History of Nearly Everything, A (Bryson), 47
 Shreeve, James, 82, 87, 88
 Skull, definition of, 20
 Softer, Olga, 96
 Solecki, Ralph, 11, 74, 78–79, 80
 South Africa, sites in, 12, 81
 Spain, sites in, 12
 Stonehenge, 135–136
 Stringer, Christopher, 11, 88–89
 Sunghir (Russia), 96
 Swartkrans Cave (South Africa), 62, 63
 Syria, sites in, 12
 Tanzania, sites in, 12, 32
 Tattersall, Ian, 11, 47, 61
 Taxonomy, 31
 Tectonic plates, 17
 Tell, 119
 Thorne, Alan, 11, 61
 Toolmaking, 42–47, 70
 Tools, 42–47, 53, 62, 69–70, 71, 83, 93–97, 106, 146
 Toth, Nicholas, 11, 42–46
 Toumai, 11, 24
 Tsetse fly, 140
 Turkana (Kenya), 55–59
 Turkana Boy (*Homo erectus*), 11, 55–59
 Turkey, sites in, 12, 125
 United States, sites in, 12, 112, 154
 Walker, Alan, 11, 55, 56, 57–59, 60
 Weapons, 83, 93–94, 108, 125, 134, 160
 White, Tim, 9, 11, 39, 40–41, 82
Wisdom of Bones, The (Walker), 56, 58, 59
 WoldeGabriel, Giday, 11, 20–24
 Zhoukoudian Cave (China), 65, 66