

PERIOD ONE IN SUMMARY (TO 1ST CIVILIZATIONS)

From Cosmic History to Human History

I. Opening vignette

- A. Different peoples have believed that the world was created in different ways.
 - 1. myths of origin try to answer a fundamentally human question: what happened in the beginning?
 - 2. try to provide a larger context to anchor particular societies
- B. World historians also try to puzzle out beginnings.
 - 1. modern creation stories depend heavily on fields that developed during and after the Scientific Revolution (astronomy, physics, geology, biology)
 - 2. but modern models are better at answering *how* things began than *why*
 - 3. many modern people have tried to reconcile scientific and religious understandings of beginnings

II. The History of the Universe

- A. The largest modern framework for understanding beginnings is “big history.”
 - 1. “history of everything” from the big bang to the present (around 13.7 billion years)
 - 2. the largest possible context for understanding the human journey
 - a. the idea of the cosmic calendar:
whole history of the cosmos as a single year
- B. The study of cosmic history is disturbing to many.
 - 1. gives a sense of the insignificance of human life
 - 2. but human awareness of the universe makes us unique and can inspire awe

III. The History of a Planet

- A. Our solar system emerged around 4.7 billion years ago.
- B. Life first appeared on earth about 600 million years after the earth itself was formed.
 - 1. remained at the level of single-celled organisms for about 3 billion years
 - 2. all multicelled creatures have evolved over the past 600 million years
- C. Each species has had its own history.
 - 1. but history books and courses focus on our own species, *Homo sapiens*
 - 2. *Homo sapiens* only appeared in the last few minutes of December 31 on the cosmic calendar
- D. The short history of *Homo sapiens* has had more consequences for the planet than the history of any other species.
 - 1. human communication skills allow us to learn from each other
 - 2. ability to accumulate knowledge and pass it on to future generations
 - 3. humans have had a massive impact on the earth

IV. The History of the Human Species . . . in a Single Paragraph: A Preview

- A. The history of *Homo sapiens* has occupied roughly the last 250,000 years and is typically divided into three major phases.
 - 1. Paleolithic age was very long; 95 percent of human history
 - a. settlement of every major landmass
 - b. construction of the first human societies
 - 2. agricultural era began about 12,000 years ago
 - a. domestication of plants and animals
 - b. dependence on domestic plants and animals to sustain life fundamentally shaped the human experience
 - 3. modern industrial era: from around 1750 to the present
 - a. massive increase in the rate of technological change
 - b. massive increase in human control over nature
 - c. rise of “modern” societies

V. Why World History?

- A. As recently as the mid-twentieth century, almost all college-level history courses were focused on particular civilizations or nations.
- B. Since then, education has moved toward world history.
 - 1. the world wars revealed the evils of unchecked nationalism
 - 2. economic and cultural globalization has emphasized the interdependence of the world's peoples and their unequal positions
 - 3. new awareness that many human problems are global in scope
 - 4. third world peoples wanted to have their histories known, too
- C. The world history movement has tried to create global understanding of the past by highlighting broad patterns that transcend particular civilizations.
 - 1. also tries to include the distinctive histories of many peoples
 - 2. this is a massive task that has generated much controversy

VI. Comparison, Connection, and Change: The Three Cs of World History

- A. Most world historians agree on three major issues that define their field of study.
 - 1. the need for constant comparison
 - a. world history is comparative
 - b. comparison is a recurring theme throughout this text
 - c. comparison is useful in fighting Eurocentrism
 - d. the art of comparison must be learned and is a matter of careful choice
 - 2. awareness of **connections**
 - a. effort to counteract the habit of thinking about peoples or states as self-contained and isolated
 - b. no societies developed in a vacuum
 - c. cross-cultural connections have existed for a very long time
 - 3. examination of “big picture” **changes**
 - a. What caused both large and small transformations?
- B. Change and comparison in particular help to counteract essentialism or stereotyping.
 - 1. it's too easy to define particular groups of people as having unchanging characteristics
 - 2. in reality, every category of people has endless divisions and conflicts
 - a. human communities are in a constant state of flux
 - 3. but human existence also has broad continuities

KEY TERMS

big history: The “history of everything” is a recent historiographical approach that provides an enormous context for history—from the creation of the universe to the present—rather than just focusing on the history of humankind.

comparative history: Recent historiographical approach that emphasizes the examination of issues that cross the bounds of a single culture, hoping by comparison to identify characteristics that are fundamental to a phenomenon as well as how different cultures respond differently to similar stimuli, and to sort out what is distinctive about a region's historical development.

cosmic calendar: The recent scholarly notion of charting the history of the cosmos as if it were a single 365-day year, with the big bang occurring on January 1 and the history of *Homo sapiens* fitting entirely within the last few hours of December 31; such an approach helps drive home the shortness of the human experience within the context of the age of the universe.

myths of origin: Traditional stories told by most of the earth's peoples in which they seek to explain where they came from as a people, or how humankind or the world itself came into being; these stories often express a religious sense of place and purpose that transcends more scientific explanations.

First Peoples: Populating the Planet – to c. 10,000 BCE

I. Earliest Humans

- A. For 95 percent of human history, the means of life was gathering and hunting.
 - 1. food collection, not food production
 - 2. has been labeled “Paleolithic” (old stone age) era
- B. It’s wrong to ignore the first 200,000 years of human experience.
 - 1. archaeology reveals a great deal about these peoples
 - 2. they settled the planet
 - 3. they created the earliest human societies
 - 4. they were the first to reflect on issues of life and death

II. Out of Africa to the Ends of the Earth: First Migrations

- A. *Homo sapiens* emerged in eastern and southern Africa 250,000 years ago.
 - 1. stayed there exclusively for about 150,000 years
 - 2. Africa was home to the “human revolution,” in which culture became more important than biology in shaping human behavior
 - 3. humans began to inhabit environments not touched by earlier hominids
 - 4. technological innovation: use of stone and bone tools
 - 5. hunting and fishing, not just scavenging
 - 6. patterns of exchange
 - 7. use of ornaments, perhaps planned burials
 - 8. between 100,000-60,000 years ago: beginning of migrations out of Africa
 - a. adapted to nearly every environment on earth
 - b. much took place in the difficulties of the last Ice Age
- B. Into Eurasia
 - 1. humans started migrating into the Middle East around 51,000 years ago
 - 2. the best evidence of early European settlement comes from southern France and northern Spain
 - a. settlers in northern Europe were pushed southward into warmer areas around 20,000 years ago
 - b. developed new hunting habits, new hunting technologies
 - 3. the earliest Europeans left hundreds of cave paintings: depictions of animals and humans and abstract designs (maybe early form of writing)
 - 4. development of new technologies in Ukraine and Russia
 - a. needles, multilayered clothing, weaving, nets, baskets, pottery, etc.
 - b. partially underground dwellings made from mammoth remains
 - c. suggests semi-permanent settlement
 - d. creation of female figurines (“Venus figurines”); earliest dated at least 35,000 years ago
- C. Into Australia
 - 1. humans reached Australia about 60,000 years ago from Indonesia
 - 2. very sparse settlement; estimated 300,000 people in 1788
 - 3. development of some 250 languages
 - 4. still completely a gathering and hunting economy when Europeans arrived in 1788
 - 5. complex worldview: the Dreamtime
 - a. stories, ceremonies, and art tell of ancestral beings
 - b. everything in the natural order is an echo of ancient happenings
 - c. current people are intimately related to places and events in past
 - 6. major communication and exchange networks
 - a. included stones, pigments, wood, *pituri* (psychoactive drug)
 - b. also included songs, dances, stories, and rituals

D. Into the Americas

1. when settlement of the Americas began is still argued over (somewhere between 30,000 and 15,000 years ago)
 - a. mode of migration (Bering Strait or by sea down west coast of North America) also still argued about
 - b. how many migrations and how long they took also argued over
 - c. evidence of humans in southern Chile by 12,500 years ago
2. Clovis: the first clearly defined and widespread culture of the Americas
 - a. name comes from the Clovis point, a kind of projectile point
 - b. flourished 12,000–11,000 years ago
 - c. hunted large mammals (mammoth, bison)
 - d. disappeared about 10,900 years ago, at the same time as the extinction of a number of large mammals
3. next stage: much greater cultural diversity, as people adapted to the end of the Ice Age in different ways

E. Into the Pacific

1. the last phase of the great human migration, started ca. 3,500 years ago
2. migration by water from the Bismarck and Solomon islands and the Philippines
3. very quick migration over very long distances
4. migrants spoke Austronesian languages (can be traced to southern China)
5. settled every habitable area of the Pacific basin within 2,500 years
 - a. also settled the island of Madagascar
 - b. made Austronesian the most widespread language family
 - c. completed initial human settlement of the world ca. 900 C.E. with occupation of Aotearoa (New Zealand)
6. Pacific settlers
 - a. took agriculture with them, unlike other migrations
 - b. apparently followed a deliberate colonization plan
 - c. created highly stratified societies or chiefdoms (e.g., Hawaii)
 - d. massive environmental impact on previously uninhabited lands

III. The Ways We Were

A. The First Human Societies

1. societies were small, bands of 25–50 people
2. very low population density (because of available technology)
 - a. very slow population growth
 - b. perhaps 10,000 people in world 100,000 years ago
 - c. grew to 500,000 by 30,000 years ago
 - d. reached 6 million 10,000 years ago
3. Paleolithic bands were seasonally mobile or nomadic
 - a. moved in regular patterns to exploit wild plants and animals
 - b. since they moved around, they couldn't accumulate goods
4. societies were highly egalitarian
 - a. perhaps the most free people in human existence
 - b. did not have specialists, so most people had the same skills
 - c. relationships between women and men were far more equal than in later societies
5. James Cook described the gathering and hunting peoples of Australia as tranquil and socially equal
6. Paleolithic societies had clearly defined rules
 - a. men hunted, women gathered
 - b. clear rules about distribution of meat from a kill
 - c. rules about incest and adultery

B. Economy and the Environment

1. gathering and hunting peoples used to be regarded as “primitive” and impoverished

- a. modern studies point out that they worked fewer hours
- b. wanted or needed little
- c. but life expectancy was low (35 years on average)
- 2. alteration of natural environments
 - a. deliberately set fires to encourage growth of certain plants
 - b. extinction of many large animals shortly after humans arrived
 - c. gradual extinction of other hominids, like the Neanderthals (Europe) and Flores man (Indonesia)
- C. The Realm of the Spirit
 1. it is difficult to decipher the spiritual world of Paleolithic peoples
 - a. lack of written sources
 - b. art is subject to interpretation
 - c. contemporary gathering and hunting peoples may not reflect ancient experience
 2. Paleolithic peoples had a rich ceremonial life
 - a. led by part-time shamans (people especially skilled at dealing with the spirit world)
 - b. frequent use of psychoactive drugs to contact spirits
 3. apparent variety of beliefs
 - a. some societies were seemingly monotheistic
 - b. others saw several levels of supernatural beings
 - c. still others believed in an impersonal force running throughout the natural order
 - d. Venus figurines make some scholars think that Paleolithic religion was strongly feminine, with a great goddess
 - e. many peoples probably had a cyclical view of time
- D. Settling Down: “The Great Transition”
 1. gradual change as populations grew, climates changed, and peoples interacted
 2. collection of wild grains started in northeastern Africa around 16,000 years ago
 3. last Ice Age ended 16,000–10,000 years ago
 - a. followed by a “global warming” period
 - b. richer and more diverse environment for human societies
 - c. population rise
 - d. beginnings of settlement
 4. settlement led to societal change
 - a. larger and more complex societies
 - b. storage and accumulation of goods led to inequality
 5. settling-down process occurred in many areas 12,000–4,000 years ago
 - a. Jomon culture in Japan
 - b. Scandinavia, Southeast Asia, North America, Middle East
 - c. bows and arrows were invented independently in Europe, Africa, and Middle East
 6. the process of settlement was a major turning point in human history

V. Reflections: The Uses of the Paleolithic

- A. The study of history is about those who tell it today, not just about the past.
 1. views of the past reflect our own smugness or disillusionment
 2. Paleolithic era is sometimes regarded as a golden age
 - a. admired by feminists, environmentalists, antimaterialists
 3. scholars have looked to the Paleolithic era in questioning explosive population and economic growth of recent past
 4. gathering and hunting peoples of today have looked to Paleolithic era in an effort to maintain or recover their identities
- B. A basic question: “What have we lost in the mad rush to modernity?”

C. Nobody can be completely detached when studying the past.

KEY TERMS

Austronesian migrations: The last phase of the great human migration that established a human presence in every habitable region of the earth. Austronesian-speaking people settled the Pacific islands and Madagascar in a series of seaborne migrations that began around 3,500 years ago. (*pron.* aws-troe-NEEZH-an)

Clovis culture: The earliest widespread and distinctive culture of North America; named from the Clovis point, a particular kind of projectile point.

Dreamtime: A complex worldview of Australia's Aboriginal people that held that current humans live in a vibration or echo of ancestral happenings.

Flores man: A recently discovered hominid species of Indonesia.

“gathering and hunting peoples”: As the name suggests, people who live by collecting food rather than producing it. Recent scholars have turned to this term instead of the older “hunter-gatherer” in recognition that such societies depend much more heavily on gathering than on hunting for survival.

great goddess: According to one theory, a dominant deity of the Paleolithic era.

“human revolution”: The term used to describe the transition of humans from acting out of biological imperative to dependence on learned or invented ways of living (culture).

Ice Age: Any of a number of cold periods in the earth's history; the last Ice Age was at its peak around 20,000 years ago.

“insulting the meat”: A San cultural practice meant to deflate pride that involved negative comments about the meat brought in by a hunter and the expectation that a successful hunter would disparage his own kill.

Jomon culture: A settled Paleolithic culture of prehistoric Japan, characterized by seaside villages and the creation of some of the world's earliest pottery. (*pron.* JOE-mahn)

megafaunal extinction: Dying out of a number of large animal species, including the mammoth and several species of horses and camels, that occurred around 11,000–10,000 years ago, at the end of the Ice Age. The extinction may have been caused by excessive hunting or by the changing climate of the era. (*pron.* meg-ah-FAWN-al)

Neanderthals: *Homo sapiens neanderthalensis*, a European variant of *Homo sapiens* that died out about 25,000 years ago.

“the original affluent society”: Term coined by the scholar Marshall Sahlins in 1972 to describe Paleolithic societies, which he regarded as affluent not because they had so much but because they wanted or needed so little.

Paleolithic: Literally “old stone age”; the term used to describe early *Homo sapiens* societies in the period before the development of agriculture.

Paleolithic rock art: While this term can refer to the art of any gathering and hunting society, it is typically used to describe the hundreds of Paleolithic paintings discovered in Spain and France and dating to about 20,000 years ago; these paintings usually depict a range of animals, although human figures and abstract designs are also found. The purpose of this art is debated.

Paleolithic “settling down”: The process by which some Paleolithic peoples moved toward permanent settlement in the wake of the last Ice Age. Settlement was marked by increasing storage of food and accumulation of goods as well as growing inequalities in society.

shaman: In many early societies, a person believed to have the ability to act as a bridge between living humans and supernatural forces, often by means of trances induced by psychoactive drugs.

Venus figurines: Paleolithic carvings of the female form, often with exaggerated breasts, buttocks, hips, and stomachs, which may have had religious significance.

The Revolutions of Agriculture

II. The Agricultural Revolution in World History

A. Agriculture is the second great human process after settlement of the globe.

1. started about 12,000 years ago
2. often called the Neolithic (New Stone Age) or Agricultural Revolution
3. deliberate cultivation of plants and domestication of animals

4. transformed human life across the planet
- B. Agriculture is the basis for almost all human developments since.
- C. Agriculture brought about a new relationship between humans and other living things.
 1. actively changing what they found in nature rather than just using it
 2. shaping the landscape
 3. selectively breeding animals
- D. “Domestication” of nature created new mutual dependence.
 1. many domesticated plants and animals came to rely on humans
 2. humans lost gathering and hunting skills
- E. There was an “intensification” of living: getting more food and resources from much less land.
 1. more food led to more people
 2. more people led to greater need for intensive exploitation

III. Comparing Agricultural Beginnings

- A. The Agricultural Revolution happened independently in several world regions.
 1. Fertile Crescent of Southwest Asia
 2. several areas in sub-Saharan Africa
 3. China
 4. New Guinea
 5. Mesoamerica
 6. the Andes
 7. eastern North America
 8. all happened at about the same time, 12,000–4000 years ago
 9. scholars have struggled with the question of why agriculture developed so late in human history
- B. Common Patterns
 1. Agricultural Revolution coincided with the end of the last Ice Age
 - a. global warming cycle started around 16,000 years ago
 - b. Ice Age was over by about 11,000 years ago
 - c. end of Ice Age coincided with human migration across earth
 - d. extinction of some large mammals: climate change and hunting
 - e. warmer, wetter weather allowed more wild plants to flourish
 2. gathering and hunting peoples had already learned some ways to manage the natural world
 - a. “broad spectrum diet”
 - b. development of sickles, baskets, and other tools to make use of wild grain in the Middle East
 - c. Amazon: peoples had learned to cut back some plants to encourage growth of the ones they wanted
 - d. Australians had elaborate eel traps
 3. women were probably the agricultural innovators
 4. gathering and hunting peoples started to establish more permanent villages
 - a. especially in resource-rich areas
 - b. population growth perhaps led to a “food crisis”
 5. agriculture developed in a number of regions, but with variation
 - a. depended on the plants and animals that were available
 - b. only a few hundred plant species have been domesticated
 - c. only fourteen large mammal species were domesticated
- C. Variations
 1. the Fertile Crescent was the first to have a full Agricultural Revolution
 - a. presence of large variety of plants and animals to be domesticated
 - b. transition to agriculture triggered by a cold and dry spell between 11,000 and 9500 B.C.E.

- c. transition apparently only took about 500 years
- d. much more societal sophistication (mud bricks, monuments and shrines, more elaborate burials, more sophisticated tools)
- 2. at about the same time, domestication started in the eastern Sahara (present-day Sudan)
 - a. the region was much more hospitable 10,000–5,000 years ago
 - b. domestication of cattle there about 1,000 years before Middle East and India
 - c. in Africa, animals were domesticated first; elsewhere, plants were domesticated first
 - d. emergence of several widely scattered farming practices
 - e. African agriculture was less productive than agriculture in the Fertile Crescent
- 3. separate development of agriculture at several places in the Americas
 - a. absence of animals available for domestication
 - b. only cereal grain available was maize or corn
 - c. result: replacement of gathering and hunting with agriculture took 3,500 years in Mesoamerica
 - d. Americas are oriented north/south, so agricultural practices had to adapt to distinct climate zones to spread

IV. The Globalization of Agriculture

- A. Agriculture spread in two ways:
 - 1. diffusion: gradual spread of techniques and perhaps plants and animals, but without much movement of human population
 - 2. colonization or migration of agricultural peoples
 - 3. often both processes were involved
- B. Triumph and Resistance
 - 1. language and culture spread with agriculture
 - a. Indo-European languages probably started in Turkey, are spoken today from Europe to India
 - b. similar process with Chinese farming
 - c. spread of Bantu language in southern Africa
 - d. similar spread of Austronesian-speaking peoples to Philippines and Indonesian islands, then to Pacific islands
 - 2. the globalization of agriculture took about 10,000 years
 - a. did not spread beyond its core region in New Guinea
 - b. did not spread in a number of other regions
 - c. was resisted where the land was unsuitable for farming or where there was great natural abundance
 - 3. by the beginning of the Common Era, gathering and hunting peoples were a small minority of humankind
- C. The Culture of Agriculture
 - 1. agriculture led to much greater populations
 - 2. changes in world population
 - a. 10,000 years ago: around 6 million people
 - b. 5,000 years ago: around 50 million people
 - c. beginning of Common Era: around 250 million people
 - 3. farming did not necessarily improve life for ordinary people
 - a. meant much more hard work
 - b. health deteriorated in early agricultural societies
 - c. new diseases from interaction with animals
 - d. the first epidemics appeared due to larger communities
 - e. new vulnerability to famine, because of dependence on a small number of plants or animals
 - 4. new constraints on human communities
 - a. all agricultural people settled in permanent villages
 - b. the case of Banpo in China (settled ca. 7,000 years ago)
 - 5. explosion of technological innovation

- a. pots
- b. textiles
- c. metallurgy
- 6. “secondary products revolution” started ca. 4000 B.C.E.: a new set of technological changes
 - a. new uses for domesticated animals, including milking, riding, hitching to plows and carts
 - b. only available in the Eastern Hemisphere
- 7. deliberate alteration of the natural ecosystem
 - a. removal of ground cover, irrigation, grazing
 - b. evidence of soil erosion and deforestation in the Middle East within 1,000 years after beginning of agriculture

V. Social Variation in the Age of Agriculture

A. Pastoral Societies

- 1. some regions relied much more heavily on animals, because farming was difficult or impossible there
- 2. pastoral nomads emerged in central Asia, the Arabian Peninsula, the Sahara desert, parts of eastern and southern Africa
- 3. relied on different animals in different regions
 - a. horses were domesticated by 4000 B.C.E.; encouraged the spread of pastoral peoples on Central Asian steppes
 - b. domesticated camels allowed human life in the inner Asian, Arabian, and Saharan deserts
- 4. no pastoral societies emerged in the Americas

B. Agricultural Village Societies

- 1. most characteristic form of early agricultural societies, like Banpo or Jericho
- 2. maintenance of equality and freedom (no kings, chiefs, bureaucrats, aristocrats)
- 3. Çatalhöyük, in southern Turkey
 - a. population: several thousand
 - b. dead buried under their houses
 - c. no streets; people moved around on rooftops
 - d. many specialized crafts, but little sign of inherited social inequality
 - e. no indication of male or female dominance
- 4. village-based agricultural societies were usually organized by kinship, group, or lineage
 - a. performed the functions of government
 - b. the Tiv of central Nigeria organized nearly a million people this way in the late nineteenth century
- 5. sometimes modest social/economic inequality developed
 - a. elders could win privileges
 - b. control of female reproductive powers

C. Chiefdoms

- 1. chiefs, unlike kings, usually rely on generosity, ritual status, or charisma to govern, not force
- 2. chiefdoms emerged in Mesopotamia sometime after 6000 B.C.E.
- 3. anthropologists have studied recent chiefdoms in the Pacific islands
- 4. chiefdoms such as Cahokia emerged in North America
- 5. distinction between elite and commoner was first established

VI. Reflections: The Legacies of Agriculture

A. Agriculture is a recent development in world history.

- 1. was an adaptation to the unique conditions of the latest interglacial period
- 2. has radically transformed human life and life on the planet more generally

B. One species, *Homo sapiens*, was given growing power over other animals and plants.

C. Agriculture also gave some people the power to dominate others.

KEY TERMS

Agricultural Revolution: Also known as the Neolithic Revolution, this is the transformation of human (and world) existence caused by the deliberate cultivation of particular plants and the deliberate taming and breeding of particular animals.

Austronesian: An Asian-language family whose speakers gradually became the dominant culture of the Philippines, Indonesia, and the Pacific islands, thanks to their mastery of agriculture.

Banpo: A Chinese archeological site, where the remains of a significant Neolithic village have been found. (*pron.* bahn-poe)

Bantu: An African-language family whose speakers gradually became the dominant culture of eastern and southern Africa, thanks to their agricultural techniques and, later, their ironworking skills. (*pron.* BAHN-too)

Bantu migration: The spread of Bantu-speaking peoples from their homeland in what is now southern Nigeria or Cameroon to most of Africa, in a process that started ca. 3000 B.C.E. and continued for several millennia.

broad spectrum diet: Archeologists' term for the diet of gathering and hunting societies, which included a wide array of plants and animals.

Cahokia: An important agricultural chiefdom of North America that flourished around 1100 C.E. (*pron.* cah-HOKE-ee-ah)

Çatalhöyük: An important Neolithic site in what is now Turkey. (*pron.* cha-TAHL-hoo-YOOK)

chiefdom: A societal grouping governed by a chief who typically relies on generosity, ritual status, or charisma rather than force to win obedience from the people.

diffusion: The gradual spread of agricultural techniques without extensive population movement.

domestication: The taming and changing of nature for the benefit of humankind.

end of the last Ice Age: A process of global warming that began around 16,000 years ago and ended about 5,000 years later, with the earth enjoying a climate similar to that of our own time; the end of the Ice Age changed conditions for human beings, leading to increased population and helping to pave the way for agriculture.

Fertile Crescent: Region sometimes known as Southwest Asia that includes the modern states of Iraq, Syria, Israel/Palestine, and southern Turkey; the earliest home of agriculture.

horticulture: Hoe-based agriculture, typical of early agrarian societies.

intensification: The process of getting more in return for less; for example, growing more food on a smaller plot of land.

Jericho: Site of an important early agricultural settlement of perhaps 2,000 people in present-day Israel.

Mesopotamia: The valley of the Tigris and Euphrates rivers in present-day Iraq.

native Australians: Often called "Aboriginals" (from the Latin *ab origine*, the people who had been there "from the beginning"), the natives of Australia continued (and to some extent still continue) to live by gathering and hunting, despite the transition to agriculture in nearby lands.

pastoral society: A human society that relies on domesticated animals rather than plants as the main source of food; pastoral nomads lead their animals to seasonal grazing grounds rather than settling permanently in a single location.

"secondary products revolution": A term used to describe the series of technological changes that began ca. 4000 B.C.E., as people began to develop new uses for their domesticated animals, exploiting a revolutionary new source of power.

stateless societies: Village-based agricultural societies, usually organized by kinship groups, that functioned without a formal government apparatus.

teosinte: The wild ancestor of maize. (*pron.* tay-oh- SIN-tay)