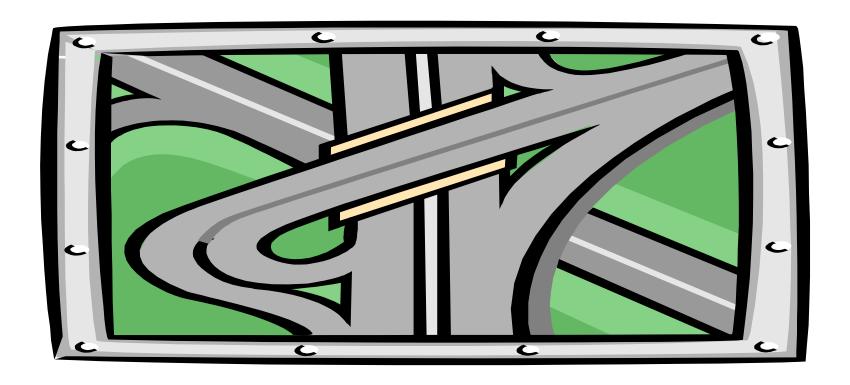
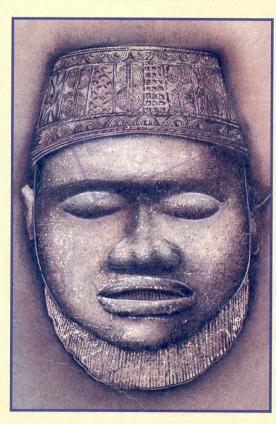
## Anthopology

#### The Nature of Anthropology



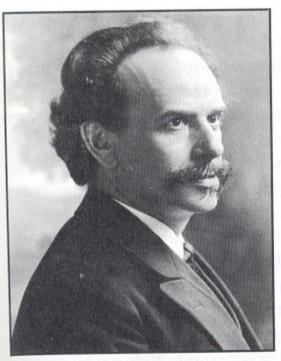


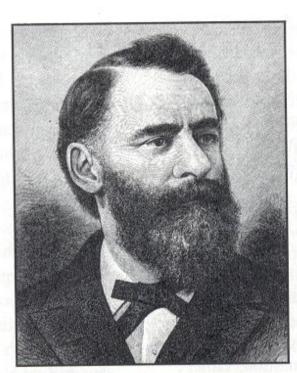
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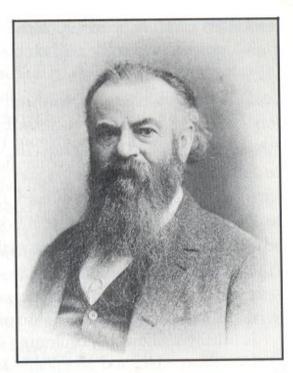


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# Famous S Authors s



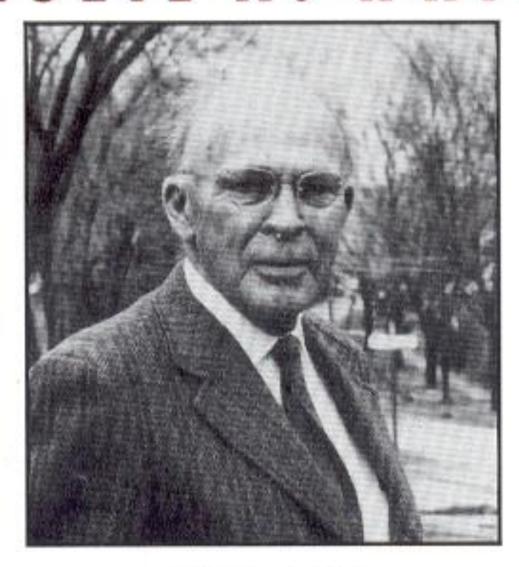




The unique character of anthropology among the social sciences in North America owes a great deal to these three men, all educated in the natural sciences: Franz Boas (1858–1942), in physics; Frederic Ward Putnam (1839–1915), in zoology; and John Wesley Powell (1834–1902), in geology. Although not the first to teach anthropology, Boas (and his students) made such courses a common part of college and university curricula. Similarly, Putnam established anthropology in the museum world, as did Powell in government.

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#### LESLIE A. WHITE



(1900-1975)

Leslie White was a major theoretician in North American anthropology who saw culture as consisting of three essential components, which he referred to as the techno-economic, the social, and the ideological. White defined the techno-economic aspect of a culture as the way in which members of the culture deal with their environment, and it is this aspect that then determines the social and ideological aspects of the culture.

Although he acknowledged the importance of symbols, White considered the manner in which culture adapts to its environment to be the most significant factor in its development. Hence his strategy has been labeled the cultural materialist approach. In The Evolution of Culture (1959), White stated his basic law of evolution, that culture evolves in proportion to the increased output of energy on the part of each individual,

or to the increased efficiency with which that energy is put to work. In other words, culture develops in direct response to technological "progress." A problem with White's position is his failure to account for the fact that "technological progress" may occur in response to purely cultural stimuli. In this respect, his theories were heavily influenced by nineteenth-century notions of human progress.

#### A.R. RADCLIFFE-BROWN



(1881 - 1955)

The British anthropologist A.R. Radcliffe-Brown was an originator of the structural-functionalist school of thought. He and his followers maintained that each custom and belief of a society has a specific function that serves to perpetuate the structure of that society—its ordered arrangement of parts—so that the society's continued existence is possible. The work of the anthropologist, then, was

to study the ways in which customs and beliefs function to solve the problem of maintaining the system. From such studies should emerge universal laws of human behavior.

The value of the structuralfunctionalist approach is that it caused anthropologists to analyze cultures as systems, and to examine the interconnections between their various parts. It also gave a new dimension to comparative studies, as present-day societies were compared in terms of structural-functional similarities and differences rather than their presumed historical connections. Contrary to Radcliffe-Brown's original theory, universal laws of human behavior have not emerged, however, and the questions remain: Why do particular customs arise in the first place, and how do cultures change?

#### BRONISLAW MALINOWSKI



(1884 - 1942)

The Polish-born Bronislaw Malinowski argued that people everywhere share certain biological and psychological needs and that the ultimate function of all cultural institutions is to fulfill those needs. Everyone, for example, needs to feel secure in relation to the physical universe. Therefore, when science and technology are inadequate to explain certain natural phenomena—such as eclipses or earthquakes—people develop religion and magic to account for those phenomena and to restore a feeling of security. The nature of the institution, according to Malinowski, is determined by its function.

Malinowski outlined three fundamental levels of needs which he claimed had to be resolved by all cultures:

- A culture must provide for biological needs, such as the need for food and procreation.
- 2. A culture must provide for instrumental needs, such as the need for law and education.
- 3. A culture must provide for integrative needs, such as religion and art.

If anthropologists could analyze the ways in which a culture fills these

needs for its members, Malinowski believed that they could also deduce the origin of cultural traits. Although this belief was never justified, the quality of data called for by Malinowski's approach set new standards for ethnographic fieldwork He himself showed the way with his work in the Trobriand Islands between 1915 and 1918. Never before had sur in-depth work been done, nor had su insights been gained into the working of another culture. Such was the quality of Malinowski's Trobriand research that, with it, ethnography a be said to have come of age as a scientific enterprise.

#### RUTH FULTON BENEDICT



1887-1947

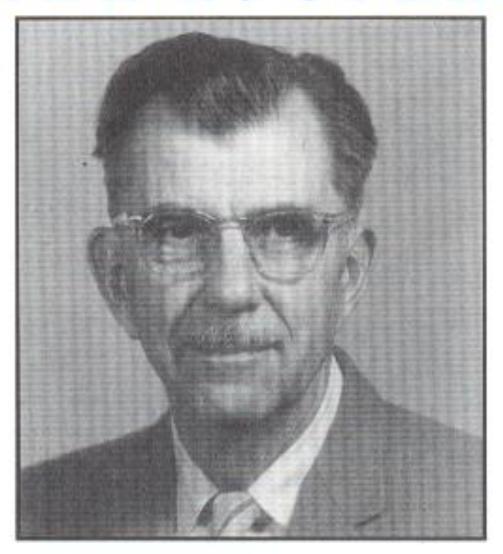
Ruth Benedict came late to anthropology; upon her graduation from Vassar College, she taught high school English, published poetry, and tried her hand at social work. In anthropology, she developed the idea that culture was a projection of the personality of those who created it. In her most famous book Patterns of Culture (1934), she compared the cultures of three peoples—the Kwakiutl of western Canada, the Zuni of the southwestern United States, and the Dobuans of New Guinea. She held that each was comparable to a great work of art, with an internal coherence and consistency of its own. Seeing the

Kwakiutl as egocentric, individualistic, and ecstatic in their rituals, she labeled their cultural configuration "Dionysian"; the Zuni, whom she saw as living by the golden mean, wanting no part of excess of disruptive psychological states, and distrusting of individualism, she characterized as "Apollonian." The Dobuans, whose culture seemed magic-ridden, with everyone fearing and hating everyone else, she characterized as "paranoid."

Although Patterns of Culture still enjoys popularity in some nonanthropological circles, anthropologists have long since abandoned its approach as

impressionistic and not susceptible to replication. To compound the problem, Benedict's characterizatons of cultures are misleading (the supposedly "Apollonian" Zunis, for example, indulge in such seemingly "Dionysian" practices as sword swallowing and walking over hot coals), and the use of such value-laden terms as "paranoid" prejudices others toward a culture. Nonetheless, the book did have an enormous and valuable influence in focusing attention on the problem of the interrelation between culture and personality, and in popularizing the reality of cultural variation.

#### JULIAN H. STEWARD



(1902-1972)

This North American developed an approach that he called cultural ecology—that is, the interaction of specific cultures with their environments. Initially, Steward was struck by a number of similarities in the development of urban civilizations in both Peru and Mesoamerica and noted that certain developments were paralleled in the urban civilizations of the Old World. He identified the constants and abstracted from them his laws of cultural development. Steward

proposed three fundamental procedures for cultural ecology:

- 1. The interrelationship of a culture's technology and its environment must be analyzed. How effectively does the culture take advantage of available resources to provide food and housing for its members?
- 2. The pattern of behavior associated with a culture's technology must be analyzed.

- How do members of the culture go about performing the work that is necessary for their survival?
- 3. The relationship between those behavior patterns and the rest of the cultural system must be determined. How does the work they do to survive affect the people's attitudes and outlooks? How is their survival behavior linked to their social activities and their personal relationships?

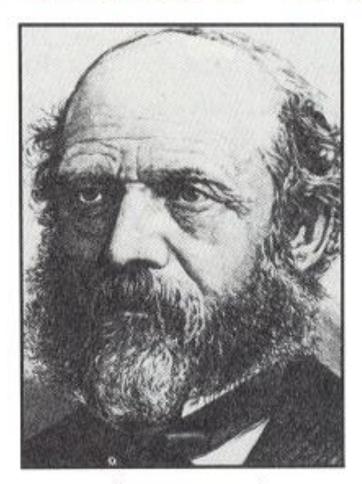
Claude Lévi-Strauss is the leading exponent of French structuralism, which sees culture as a surface representation of underlying mental structures that have been affected by a group's physical and social environment as well as its history. Thus, cultures may vary considerably, even though the structure of the human thought processes responsible

for them is the same everywhere.

Human thought processes are structured, according to Lévi-Strauss, into contrastive pairs of polar opposites, such as light versus dark, good versus evil, nature versus culture, raw versus cooked. The ultimate contrastive pair is that of "self" versus "others," which is necessary for true symbolic communication to take place,

and upon which culture depends. Communication is a reciprocal exchange, which is extended to include goods and marital partners. Hence, the incest taboo stems from this fundamental contrastive pair of "self" versus "others." From this universal taboo stem the many and varied marriage rules that have been described by ethnographers.

#### LEWIS HENRY MORGAN



(1818-1881)

This major theoretician of nineteenth-century North American anthropology has been regarded as the founder of kinship studies. In Systems of Consanguinity and Affinity of the Human Family (1871), he classified and compared the kinship systems of peoples around the world in an attempt to prove the Asiatic origin of American Indians. In doing so, he developed the

idea that the human family had evolved through a series of evolutionary stages, from primitive promiscuity on the one hand to the monogamous, patriarchal family on the other. Although subsequent work showed Morgan to be wrong about this and a number of other things, his work showed the potential value of studying the distribution of different kinship

systems in order to frame hypotheses of a developmental or historical nature and, by noting the connection between terminology and behavior, showed the value of kinship for sociological study. Besides his contributions to kinship and evolutionary studies, he produced an ethnography of the Iroquois, which still stands as a major source of information.

#### SIR EDWARD B. TYLOR



(1832-1917)

The concept of animism was first brought to the attention of anthropologists by the British scholar Sir Edward B. Tylor. Though not university-educated himself, Tylor was the first person to hold a chair in anthropology at a British university, with his appointment first as lecturer, then reader, and finally (in 1895) professor at Oxford. His interest in anthropology developed as a consequence of travels that took him as a young man to the United States (where he visited an Indian Pueblo), Cuba, and Mexico, where he was

especially impressed by the achievements of the ancient Aztec and the contemporary blend of Indian and Spanish culture.

Tylor's numerous publications ranged over such diverse topics as the possible historical connection between the games of pachisi and patolli (played in India and ancient Mexico), the origin of games of Cat's Cradle, and the structural connections between post-marital residence, descent, and certain other customs such as in-law avoidance and the couvade (the confinement of a child's father

following birth). It was also Tylor who formulated the first widely accepted definition of culture (see Chapter 12). The considerable attention paid to religious concepts and practices in his writings stemmed from a lifelong commitment to combat the idea, still widely held in his time, that so-called savage people had degenerated more than civilized people from an original state of grace. To Tylor, "savages" were intellectuals just like anyone else, grappling with their problems, but handicapped (as was Tylor in his intellectual life) by limited information.

#### FRANZ BOAS



(1858 - 1942)

Born in Germany, where he studied physics and geography, Franz Boas came to the United States to live in 1888. His interest in anthropology began a few years earlier with a trip to Baffinland, where he met his first so-called primitive people. Thereafter, he and his students came to dominate anthropology in North America

through the first three decades of the 1900s. Through meticulous and detailed fieldwork, which set new standards for excellence, Boas and his students were able to expose the shortcomings of the grandiose schemes of cultural evolution which had been proposed by earlier social theorists. His thesis that a culture must be judged

according to its own standards and values, rather than those of the investigator, represented a tremendously liberating philosophy in his time. (The photo shows Boas posing as a Kwakiutl hanatsa dancer for a National Museum diorama, 1895).





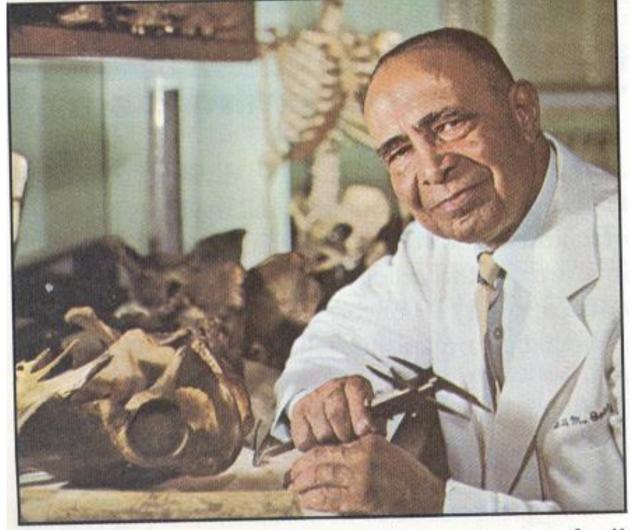
Alice Fletcher and Frank Hamilton

In the United States, anthropology began in the nineteenth century, when a number of dedicated amateurs went into the field to determine whether prevailing ideas about so-called savage peoples were valid. Shown here are Alice Fletcher, who spent the better part of 30 years documenting the ways of the Omaha Indians, and Frank Hamilton Cushing, who lived four and a half years with the Zuni in New Mexico.

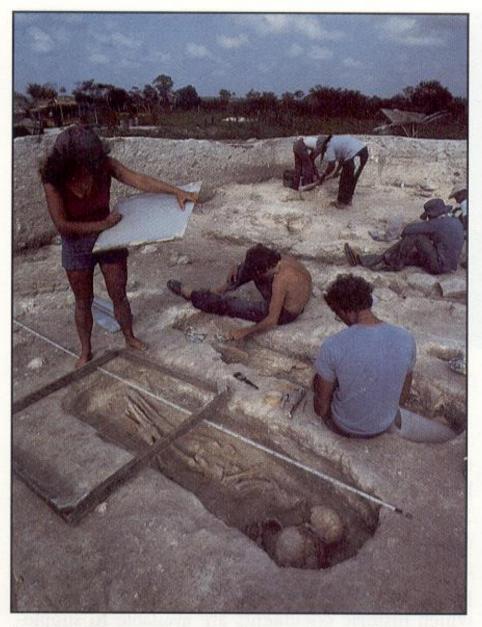
### Study of Man...

Cultures....





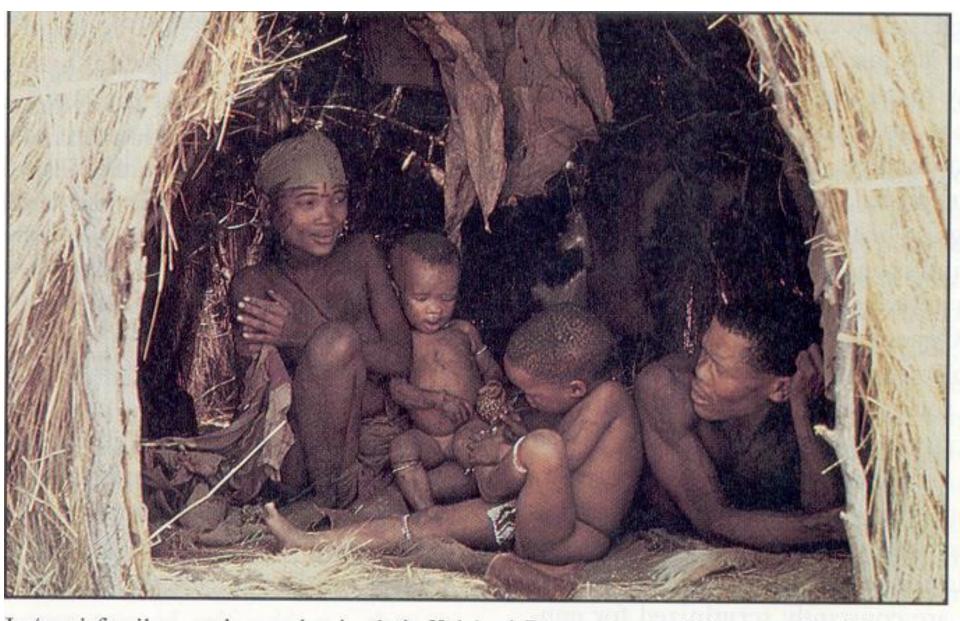
Physical anthropologists often study more than just fossil skulls. W. Montague Cobb, for many years head of the anatomy department in Howard University's medical school, specialized in research on aging in the adult human skeleton. This expertise made him a valued expert consultant to the FBI and similar agencies on forensic



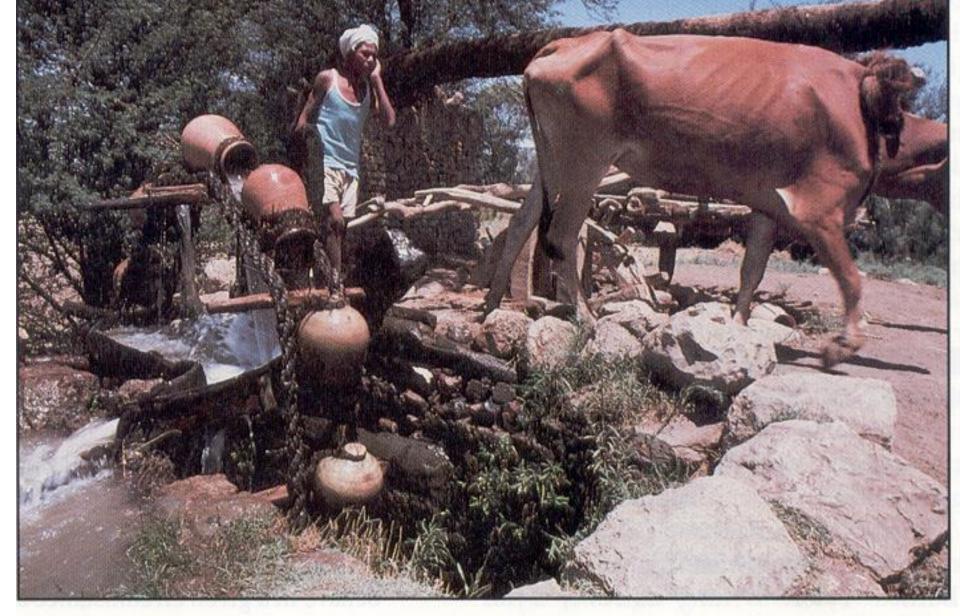
Archaeologists study material remains to learn about human behavior. Shown here is an exposed burial at the ancient Maya site of Cuello, in Belize.



Nagasaki one month after the atomic bomb blast of August 9, 1945. Japan surrendered less than a week after the blast. Late in World War II, however, anthropologists and other social scientists working for the U.S. government had predicted a Japanese surrender without the need to drop nuclear bombs.



Ju/wasi family members relax in their Kalahari Desert home. Like most food foragers, these people spend only a small percentage of their time working—in this case, no more than about 20 hours a week.



A cow-powered irrigation system in Egypt. All over the world, people have worked out their own solutions to particular problems of existence. Though sometimes construed as old-fashioned, traditional ways often offer more workable solutions than so-called modern ways.



The Amish people have maintained a distinctive agrarian way of life in the midst of industrialized North American society. By administering their own schools to instill Amish values in their children, prohibiting mechanized vehicles and equipment, and dressing in their characteristic plain clothing, they perpetuate their own special identity.

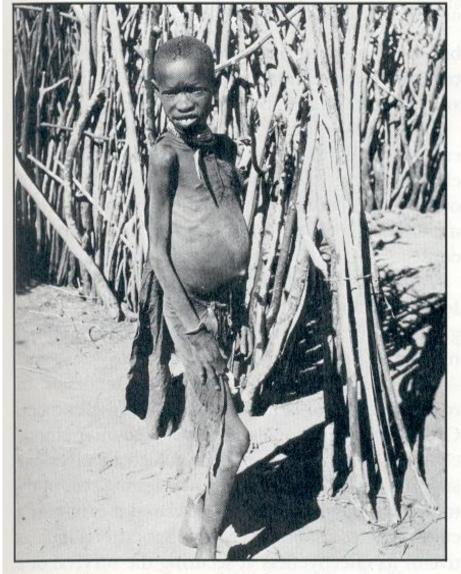


In the Trobriand Islands, women's wealth consists of skirts and banana leaves, large quantities of which must be given away upon the death of a relative.

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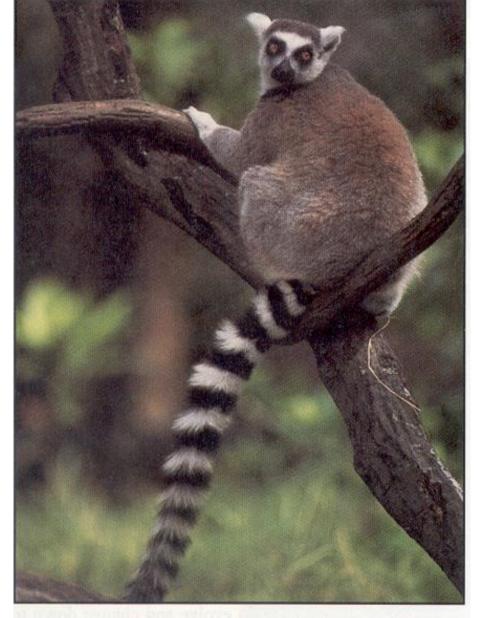
What is adaptive at one time may not be at another. In the United States, one major source of fruits and vegetables is California's Central Valley, where vast irrigation works have made the desert bloom. As happened in ancient Mesopotamia, evaporation concentrates salts in the water, but here pollution is made worse by chemical fertilizers. These are now accumulating in the soil and threaten to make the valley a desert again.



An Ik child in the unused kitchen of her family compound. Her parents were unable to feed her, and when she persisted in her demands, they shut her in. Too weak to break out, she died there; a few days later her body was unceremoniously thrown out. Such acts have become standard among the Ik.



By studying primates that are closely related to us, like these lowland gorillas, we can discover which characteristics we do and do not share with them. The former characteristics we presumably owe to a common ancestry; the latter are what make us distinctly human.



Modern lemurs represent highly evolved variants of an early primate model. In them, primate characteristics are not as prominent as they are in monkeys, apes, and humans.



The abilities to judge depth correctly and to grasp branches firmly are of obvious use to animals as active in the trees as this South American squirrel monkey.



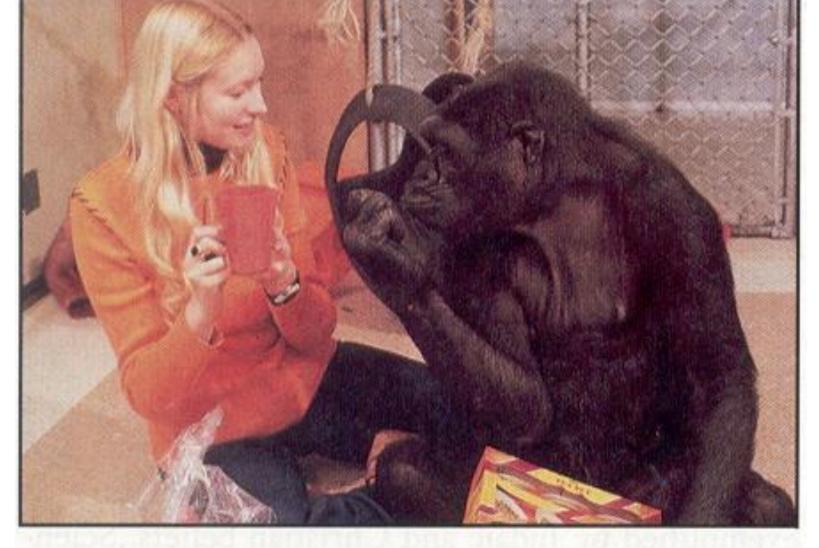
Among chimpanzees, as among most primates, the mother-infant bond is strong. This mother is playfully tickling her offspring.



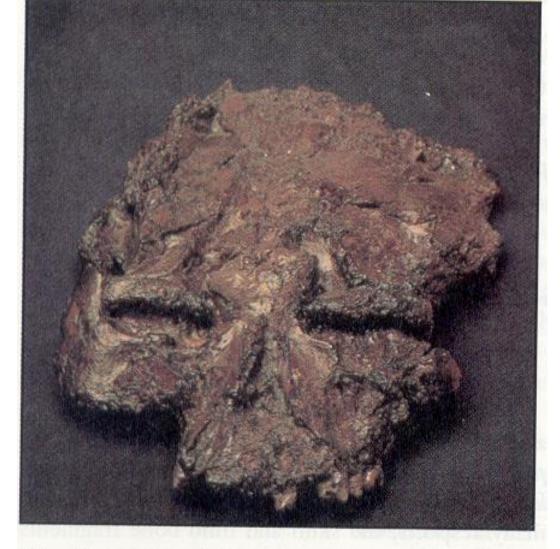
This chimpanzee is using a tool to fish for termites.



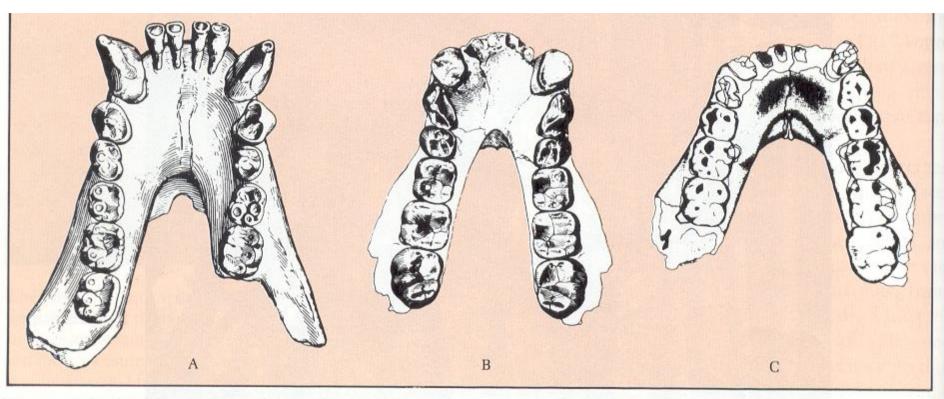
The modern ape most like (although not identical to) the ramapithecine is the orangutan. Chimpanzees and gorillas, like humans, have come to differ more from the ancestral condition than have these Asian apes.



Koko the gorilla "talks" with researcher Penny Patterson. Language experiments with captive apes reveal a degree of intelligence and capacity for conceptual thought long believed impossible for nonhuman animals.



The skull of an Asian ramapithecine is remarkably similar to that of the modern orangutan—so much so that an ancestor-descendant relationship is probable. The last common ancestor of chimpanzees, gorillas, and humans may lie among African ramapithecines.



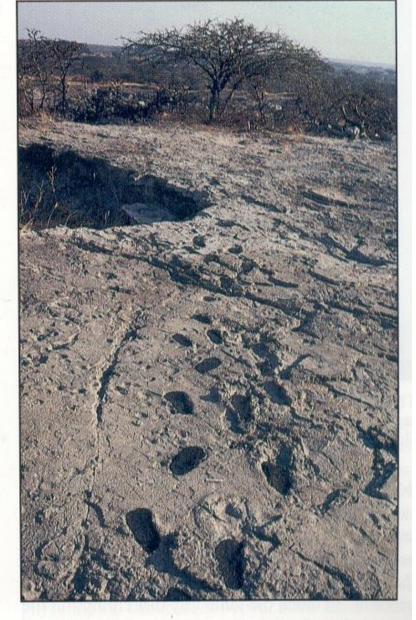
**Figure 3.3** The lower jaws of *Dryopithecus* (A), an early ape; a ramapithecine (B); and *Australopithecus* (C) from Laetoli, East Africa. The latter is a hominid who lived nearly four million years ago. All have comparably small teeth at the very front of the jaw, relative to the cheek teeth. There is a general similarity between (A) and (B), as well as between (B) and (C). The major difference between the ramapithecine and *Australopithecus* is that the rows of cheek teeth are farther apart in the hominid.



A gorilla mother and her offspring. The ability of these apes to carry their infants is limited by the need to use their arms in locomotion.



Sufficient parts of the skeleton of "Lucy," a hominid that ived between 2.6 and 3.3 million years ago, survived to permit this reconstruction. Her hip and leg bones reveal that she moved around in a fully human manner.



Footprints of Australopithecus from Laetoli, Tanzania.

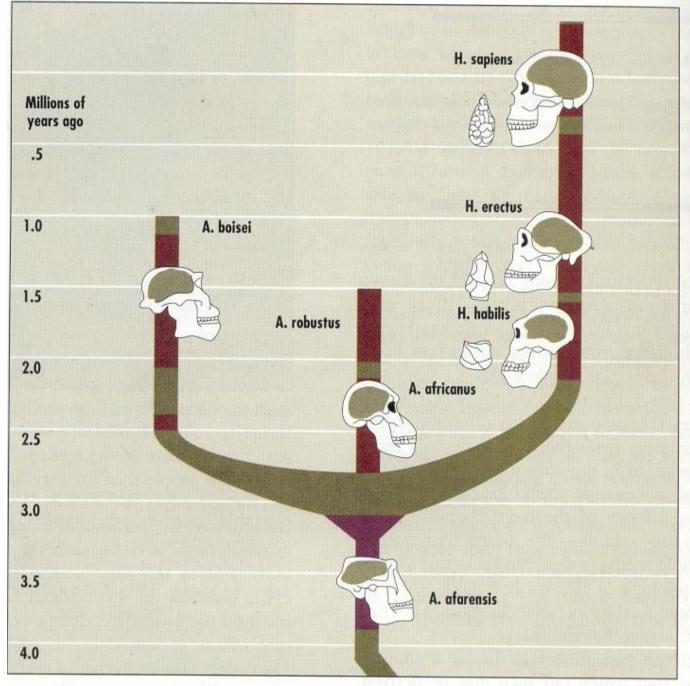
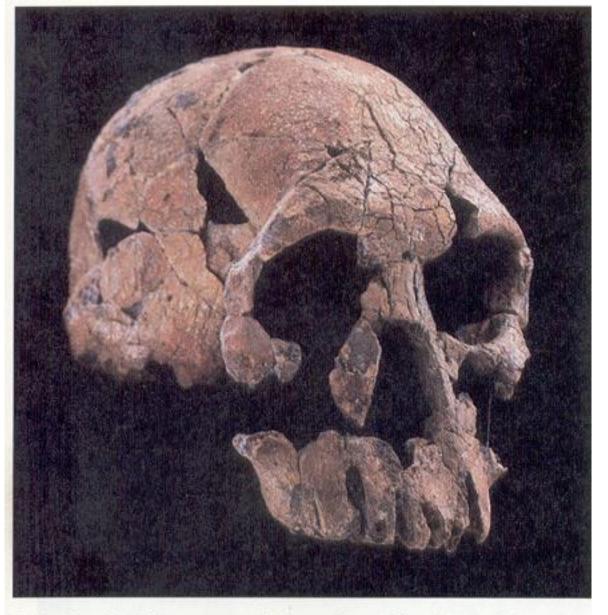
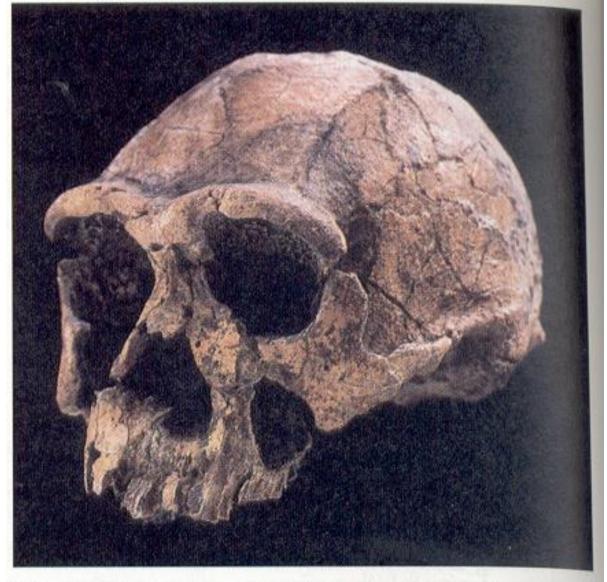


Figure 3.4 A plausible view of early human evolution.



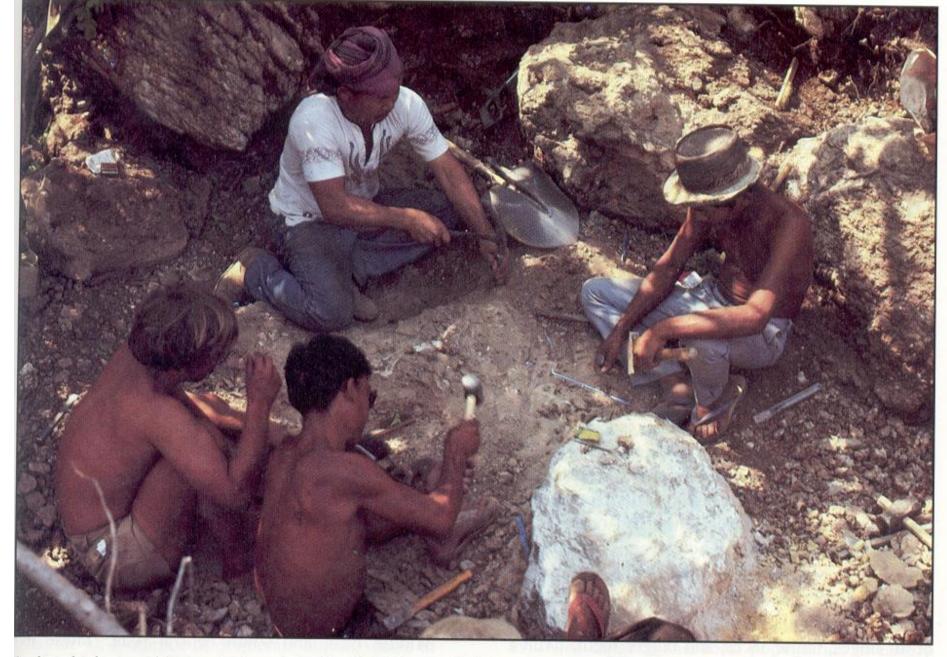
This skull of the genus *Homo*, found in the early 1970s near Lake Turkana, Kenya, is nearly two million years old.



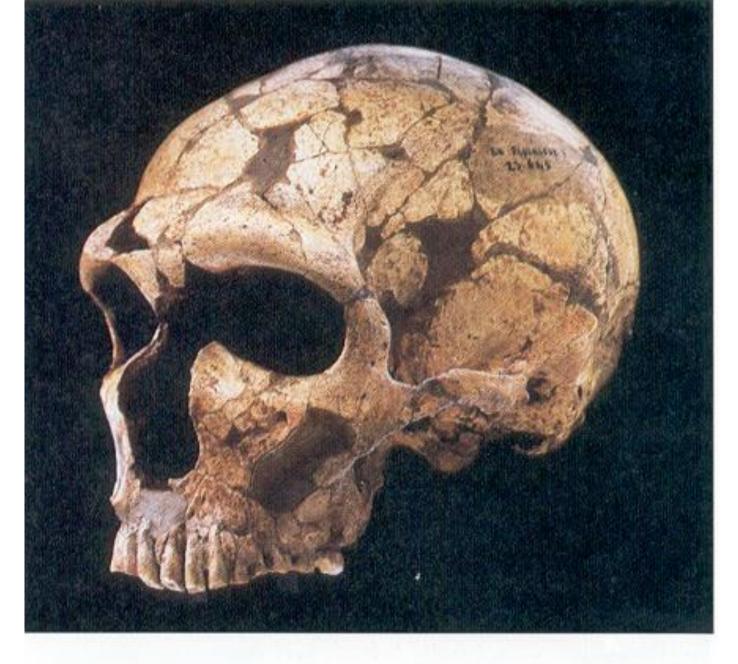
This late *H. erectus* skull from Petralona, Greece, like its contemporaries from Africa and Asia, retains much of the shape of earlier *erectus* skulls, but its brain is a bit larger.



Experimentation on an elephant that died of natural causes demonstrates the effectiveness of Acheulean tools. Simple flakes of flint slice through the thick hide easily, while hand axes sever large muscles. With such tools, two men can each butcher 100 pounds of meat in an hour.



Archaeologists working at the hearth in Kao Poh Nam rockshelter in Thailand. This hearth testifies to human use of fire 700,000 years ago.

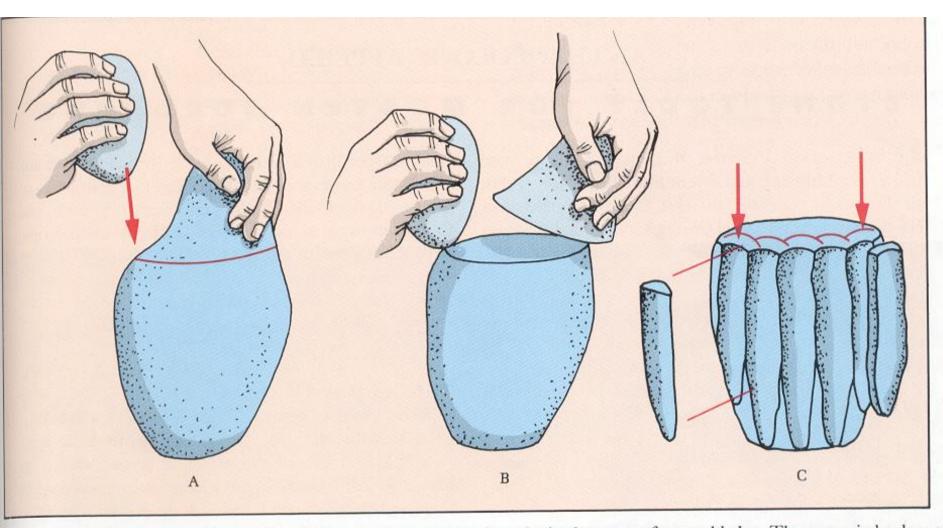


Neandertal skull from La Ferrassie, France.

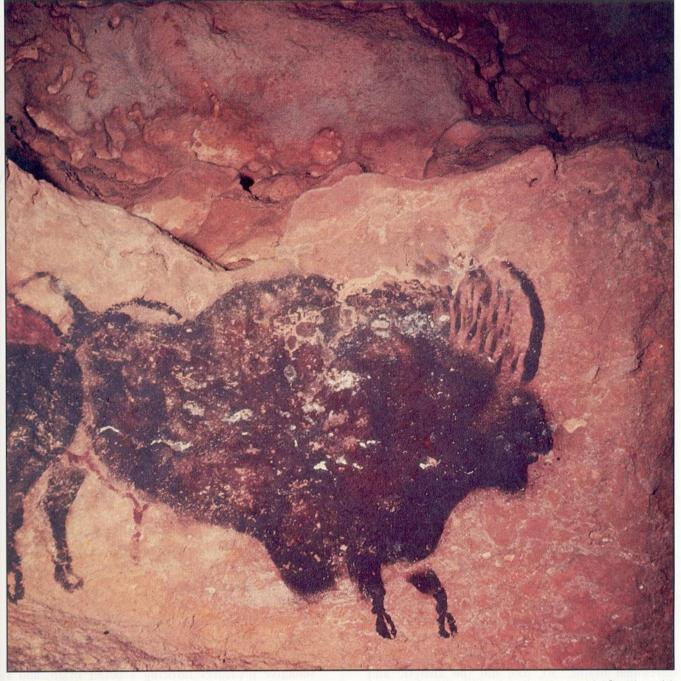




Left, the original Cro-Magnon skull, which differs very little from modern European skulls. Right, a much anatomically modern skull from the 90,000-year-old site of Qafzeh, Israel.



**Figure 3.6** During the Upper Paleolithic, a new technique was devised to manufacture blades. The stone is broken to create a striking platform, then vertical blades are flaked off the sides to form sharp-edged tools.



This Upper Paleolithic cave painting of a bull indicates an artist who was not only skilled but also thoroughly familiar with the anatomy of the animal depicted.