READING: Ranking Humankind

In the 1700s, scientists tried to understand the world by naming, sorting, and categorizing every part of it. For example, Swedish naturalist Carolus Linnaeus devised a system that showed how living things are related to one another. Writer Jonathan Weiner notes that Linnaeus's system is often drawn as a "tree of life."

> The trunk of the tree divides near its base to form kingdoms, and each great trunk divides again and again into ever-finer branches and twigs; into species, subspecies, races, varieties, and, at last, like leaves on the twigs, individuals. We depict the order of life, in other words, as a family tree, a genealogy, in which the branches trace back to a common trunk. Every living thing is related, whether distantly or nearly, and every animal and plant shares the same ancestors at the root. . . .
>
> But that is not how Linnaeus himself saw his system. To him, and to other pious naturalists of his generation, . . . they represented the plan of God, who created the species in a single week, as described in the first pages of the Hebrew Bible: "And God created great whales . . . and every winged fowl after his kind: and God saw that it was good."
>
> . . . In Linnaeus's vast botanical collections he did notice many examples of local plant varieties, variations on a theme. But in his system these varieties were not half as significant as true species. . . . Local varieties were merely instances in which one of the Lord's created species had come to be adapted to its particular neighborhood.[1]

Linnaeus classified humankind as a species within the animal kingdom. He divided the human species into four varieties: European, American, Asiatic, and African. In his view, the four were more alike than different. By the late 1700s, a number of thinkers were trying to improve on Linnaeus's classification of humans.

In 1795, Johann Friedrich Blumenbach came up with a new classification scheme. In his book, *On the Natural Variety of Mankind*, he divided humanity into five varieties. As Linnaeus did, he associated each with a particular geographic area—Negro (African), Mongolian (Asian), Malay (Southeast Asia), American Indian (American), and Caucasian (European). Blumenbach introduced the word *Caucasian* "to describe the variety of mankind—the Georgian—that had originated on the southern slopes of Mount Caucasus." This, to Blumenbach, was the most beautiful race, and he said it must be "considered as the primate or intermediate of these five principal races." Other races represented "a degeneration from the original type."[2]

Although Blumenbach regarded Caucasians as the first and most beautiful variety of humans, he was careful to point out in *A Manual of the Elements of Natural History:*

> Although there seems to be so great a difference between widely separate nations, that you might easily take the inhabitants of the Cape of Good Hope, the Greenlanders, and the Circassians for so many different species of man, yet when the matter is thoroughly considered, you see that all do so run into one another, and that one variety of mankind does so sensibly pass into another that you cannot mark out the limits between them.

Like Blumenbach, Petrus Camper was also preoccupied with the idea of beauty and order in the world. Trained as an artist before turning to science, Camper was a professor of anatomy at the University of Groningen in the Netherlands. His interest in art and anatomy came together in the illustration which originally appeared in a medical textbook printed in 1791 (see below), two years after his death.

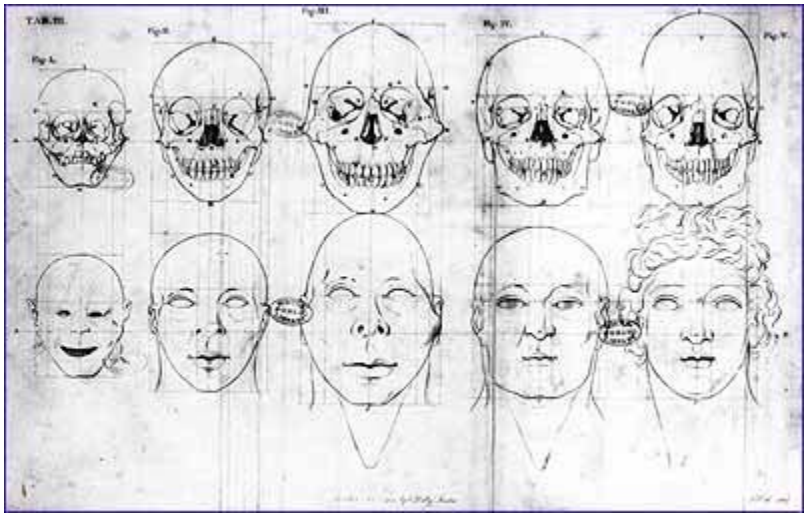
Camper lived at a time when the Dutch were deeply involved in the international slave trade. Although Camper was personally opposed to slavery, he was fascinated by the stories and the artifacts brought

home by sailors and merchants involved in the trade. He saw the skeletal remains of animals and humans from distant lands as pieces of a puzzle—each piece was a clue to a better understanding of the order of nature.

As a man of faith, Camper believed in monogenesis, the idea that all people share a common ancestry, even though, he thought that some groups had drifted further from the Biblical ideal than others. As a man of the Enlightenment, Camper believed that the world was ordered according to laws that could be discovered through reason and observation and then visually demonstrated. In such a world, he and others believed that an organism's "outer state"—its appearance—reflected its "inner state," its moral or intellectual worth.

Convinced that ancient Greece and Rome had come closer than other civilizations to perfection, he used Greek statues to establish standards of beauty. He ranked human faces by how closely they resembled this ideal. After measuring dozens of statues, Camper found that their "facial angle" averaged 100 degrees. (The facial angle is the angle formed by two intersecting lines—one drawn horizontally from the ears to the nose and other formed by the shape of the face from the upper lip to the forehead. See illustration, below.) With this ideal in mind, Camper began measuring and sorting the skulls of apes and humans. He found that apes had a facial angle of 42 to 50 degrees. The average for the Europeans he measured was about 90 degrees and for Africans 70 degrees. (The intersecting lines on the drawing below indicate "facial angles.")

In the late 18th and early 19th centuries, a number of scientists ranked humankind along a "chain of being" based on Camper's facial angles. The idea of a "chain of being" dated back to the Middle Ages but gained new popularity in the years after Camper's death. As Kenan Malik explains in *The Meaning of Race*, "The Great Chain of Being linked the cosmos from the most miserable mollusk to the Supreme Being. Near the apex of this chain stood Man, himself graded by social rank. In this great chain, the humblest as well as the greatest played their part in preserving order and carrying out God's bidding."[3]



Petrus Camper's illustration of "facial angles."

**This reading is excerpted from Race and Membership in American History: The Eugenics Movement (Facing History and Ourselves National Foundation, Inc., Brookline, Massachusetts) 2002, pp. 43-46.*

CONNECTIONS...Questions for Classroom Discussion

- Linnaeus, Blumenbach, and Camper were all men of faith. How did their religious beliefs shape their observations of the natural world? What other aspects of their identity may have influenced the way they viewed differences among humankind? The value they placed on the similarities among humankind?
- Look carefully at Camper's illustration. If possible, project a slide of the image on a large screen and

then discuss the illustration in small groups.

—Try not to explain the picture, simply describe what you notice. Have someone in the group record your observations and those of your classmates. You may also want to record your own impressions in your journal.
—Which faces look the most “human”? How does the artist use lines, shading, and shapes to convey a message? What characteristics make the drawings seem scientific? Authoritative?
—Based on your group’s interpretation, give the drawing a title.

- Camper called his drawing “The progression of skulls and facial expressions—from monkey, through black, to the average European and then thence to the Greek ideal-type.” To what extent does his title support your impressions of the drawing? What is the significance of the word *progression*?

- What kinds of proofs do you find more powerful—written proofs or visual evidence? Which is more likely to stretch the mind and inspire the imagination? Which is more difficult to forget? How do you think ideas like those of Blumenbach and Camper might have influenced people of the time? To what extent might the mystique of science keep the average person from questioning their ideas?

---

[1] *The Beak of the Finch* by Jonathan Weiner (Random House), 1995, pp. 23–24.

[2] Quoted in *Race and Manifest Destiny* by Reginald Horsman (Harvard University Press), 1981, p.47.

[3] *The Meaning of Race: Race, History and Culture in Western Society* by Kenan Malik (New York University Press, New York), 1996, p. 43.