

els, he observed in a 1980 article, was "without any kind of scientific argumentation."

It is sometimes difficult, Graham acknowledges, to distinguish a scientist's theory skillfully camouflaged to make it less politically risky from a sincere attempt to demonstrate Marxism-Leninism through science. By and large, however, Graham finds contemporary Soviet dialectical materialism a unique and serious attempt to integrate the sciences of man and nature under the tenets of one philosophical system.

**NUCLEAR IMPERATIVES
AND PUBLIC TRUST**
**Dealing with
Radioactive Waste**
by Luther J. Carter
Resources for the Future, 1987
473 pp. \$25

In 1951, James Bryant Conant, architect of the Manhattan Project, warned that nuclear power would not be "worth the candle" unless the problems of safety, proliferation, and waste management were solved. Thirty-six years later, users of the atom have yet to devise a palatable strategy for disposing of the waste—thousands of tons of radioactive material left over from the manufacture of nuclear weapons and the generation of millions of kilowatt hours of electricity.

Although the prospects for nuclear power are on the wane in the United States and elsewhere, science writer Carter argues that it is "not dead and not dying." America's \$150 billion investment will not be abandoned simply "for lack of permanent means of waste disposal." He finds, moreover, that deep underground depositories offer the safest and cheapest solution to the problem. In addition to making suggestions for national programs and international accords to allow the burial of nuclear wastes, Carter rejects the "false promise" of reprocessing. Recycling in either breeder or thermal reactors will not only increase waste inventories but will also be more costly than direct disposal for "many, many years."

**THE GREAT JOURNEY:
The Peopling of
Ancient America**
by Brian M. Fagan
Thames & Hudson, 1987
288 pp. \$19.95

When Balboa crossed Central America and beheld the Pacific Ocean almost 500 years ago, he realized that the land discovered by Columbus was not part of Asia but instead a separate continent. The people inhabiting the New World were not "Indians" from the Indus River valley but a mysterious race of uncertain origin.

For three centuries, quaint myths accounted for

America's first settlers: They were survivors of Noah's Flood or the lost civilization of Atlantis. But with the rise of anthropology and archeology during the 19th century, a host of scientific theories began to emerge. During the 1890s, for instance, geological illustrator William Henry Holmes advanced the notion that America had been settled for "at most only a few thousand years." His theory was dogma until the 1920s.

Fagan, an anthropologist at the University of California, Santa Barbara, brings the story of the researchers and their quest right up to the most recent explanation of how the continent was peopled. Most likely, Fagan relates, the first Americans were hunters from northern Asia who, during a severe glaciation some 15,000 to 25,000 years ago, crossed the exposed land bridge between Siberia and Alaska. Studies of tooth morphology and comparisons of blood proteins suggest a close connection between ancient Siberians and Americans. To the Stone Age hunter, "the flat, gently undulating landscape" was apparently a "continuation of his homeland." As the glaciers retreated, the hunters pursued the mammoths and giant bison south to the Great Plains. It took only a few centuries, he says, for most large mammals to be wiped out, "leaving only the bison for American Indians to prey on."

