
RELIGION & PHILOSOPHY

Navajo medicine men have tried injecting new rigor into their practices by licensing their profession. And many tribes whose own religious rites have vanished with their old priests are now adopting the symbols of the Plains Indians—e.g., the sacred pipe and Sun Dance. Forty percent of all Indians are Christian, at least nominally. Many Protestant and Catholic church workers are trying to fit Indian rites into the framework of Christianity. Episcopalians, for instance, have accepted Navajo medicine men into their congregations and permitted them to offer prayers.

The American Indian Religious Freedom Act requires federal agencies to “protect and preserve” the Indians’ right to practice their traditional religions. The law has ensured the Paiutes and Shoshones of access to sacred hot springs on the China Lake Naval Weapons Center in California and enabled Indian convicts to build a prison “sweat lodge” for pipe ceremonies. But whether the law bars private land development on sacred Indian sites is unclear. And no federal law can protect the Indian religions from the less tangible influences of secularism or from the white man’s proselytizing.

SCIENCE & TECHNOLOGY

Classical Science

“Godliness and Work” by Lionel Casson
in *Science* '81 (Sept. 1981), P.O. Box
10790, Des Moines, Iowa 50340.

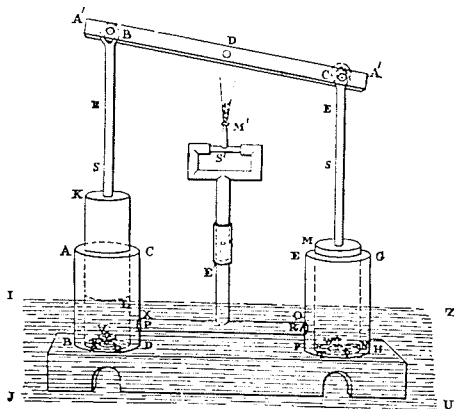
The Parthenon, the great roads to Rome, the stately buildings of ancient Greece stand as testaments to muscle power rather than to technology, writes Casson, a historian at New York University. Greek and Roman scholars knew the energy potential of steam, compressed air, and water; but their efforts to harness these powers produced gadgets such as coin-operated holy water machines or miniature steam engines, not practical machinery. Why?

Most scholars believe that an enormous pool of cheap labor and slaves in ancient Greece and Rome dulled the incentive to develop work-saving devices. Yet, the author notes, contemporary books on farming—the main business of the ancients—complain of a manpower shortage. Casson blames an ancient prejudice against manual labor for the absence of technological progress.

Apollo, the god of music, was imagined by the Greeks to be “gloriously handsome.” By contrast, the god of the forge, Hephaestus (Vulcan, to the Romans) was homely and crippled. According to the poet Homer, his appearance drew “unquenchable laughter” on Mount Olympus. Craftsmen fared no better on Earth. Plato ranked them at the bottom of society; Greek and Roman aristocrats scorned them. And intellectuals avoided their stigma by focusing on theory and impracti-

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Early Greek and Roman inventions included many toys—such as this steam-driven “fire engine,” designed by Hero in the second century B.C. But the ancients had little interest in finding practical uses for their scientific knowledge.



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cal projects or by applying their knowledge only to tools of war (Archimedes' catapults and cranes, for instance).

Moreover, the Greeks and Romans believed that honorable wealth came from the land. Men who made money by other means—trading or industry—invested their profits in land rather than “research and development.” And farmers, who enjoyed a sellers' market, saw no reason to cut profits even temporarily by investing in machinery.

By A.D. 1200, however, Europe ceased to be a technological wasteland—thanks to Christianity. Monks who followed the Lord's example by working six days and resting on the seventh had spread the view that labor was exalted—even a religious act, like prayer. Every community had its water mill (there were more than 5,500 in England alone). Windmills were becoming a common sight. The pathetic image of Hephaestus the Smith had disappeared—replaced by manuscript drawings of God as Master Craftsman of the universe, with carpenter's square and scales.

Ancient Man, Modern Feud

“The Politics of Paleoanthropology” by Constance Holden, in *Science* (Aug. 14, 1981), 1515 Massachusetts Ave. N.W., Washington, D.C. 20005.

Like reconstructing the plot of *War and Peace* from 13 random pages—that's how one anthropologist has described the challenge of piecing together man's family tree from fossil fragments. But paleoanthropology has experienced more war than peace in the last 10 years, reports Holden, a *Science* staff writer. The field remains split between supporters of two researchers—Richard Leakey of Kenya and Donald Johanson of the Cleveland Museum of Natural History.