

"Uranium glass from Bohemia. Due to high uranium content (*ca.* 1%) such glasses may be readily dated by fission tracks." [From *Fission-Track Dating*]

erosion of mountain belts and basement, determination of thermal evolution of basins and ore deposits, dating of meteoroid impacts, and dating of sea-floor basalts.

This volume would make a suitable supplemental textbook for an isotope geology or tectonic analysis course. Moreover, the specialist will find it to be a handy reference, as the bibliography is reasonably complete through early 1991. The chapter about the etching and stability of fission tracks in a variety of geological materials is especially interesting and thorough. In addition to discussing the minerals commonly used in fission-track dating (apatite, zircon, glass, mica, and sphene), the authors put forth suggestions for further work on a number of other minerals, such as calcite and epidote, that may have important geological applications.

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Reprints of Books Previously Reviewed

A Convergence of Lives. Sofia Kovalevskaia: Scientist, Writer, Revolutionary. Ann Hibner Koblitz. Rutgers University Press, New Brunswick, NJ, 1993. Paper, \$13.95. *Reviewed* 224, 726 (1984).

German National Socialism and the Quest for Nuclear Power, 1939–1949. Mark Walker. Cambridge University Press, New York, 1993. Paper, \$13.95. Reviewed 249, 570 (1990).

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The Outer Circle. Women in the Scientific Community. Harriet Zuckerman, Jonathan R. Cole, and John T. Bruer, Eds. Yale University Press, New Haven, CT, 1993. Paper, \$18. *Reviewed* 254, 445 (1991).

Scribes, Warriors and Kings. The City of Copán and the Ancient Maya. William L. Fash. Barbara W. Fash, illustrator. Thames and Hudson, New York, 1993 (U.S. distributor, Norton, New York). Paper, \$19.95. *Reviewed* 256, 1062 (1992).

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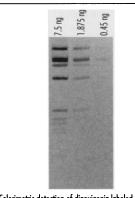
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Vignettes: Finishing Physics

When I was growing up in the Bronx, I used to watch my older brother playing with chemicals. He was a whiz.... Today he's in the novelty business. He sells things like whoopee cushions, booster license plates, and T-shirts with catchy sayings. These allow people to sum up their world view in a statement no wider than their chest. Science should have no less lofty a goal. My ambition is to live to see all of physics reduced to a formula so elegant and simple that it will fit easily on the front of a T-shirt.

—Leon Lederman, in The God Particle: If the Universe Is the Answer, What Is the Question? (Houghton Mifflin)

Talk of a final theory seems to enrage some philosophers and scientists. One is likely to be accused of something awful, like reductionism, or even physics imperialism. This is partly a reaction to the various silly things that might be meant by a final theory, as for instance that discovery of a final theory in physics would mark the end of science. Of course a final theory would not end scientific research, not even pure scientific research, nor even pure research in physics. Wonderful phenomena, from turbulence to thought, will still need explanation whatever final theory is discovered. The discovery of a final theory in physics will not necessarily even help very much in understanding these phenomena (though it may with some). A final theory will be final in only one sense—it will bring to an end a certain sort of science, the ancient search for those principles that cannot be explained in terms of deeper principles.

—Steven Weinberg, in Dreams of a Final Theory (Pantheon)

An accelerator bigger than the supercollider would be a vast technical challenge, and even if physicists are willing to try it, the likelihood of society paying the bills seems faint. Thermodynamics, however, is stronger than any political force; as the universe winds down, energy will become unavailable at any cost, and physics itself, in the form of the venerable strictures of thermodynamics, will make it impossible for physicists to do any but a tiny fraction of the experimental work that would be needed to test a theory of everything.

The physicists must hope instead that they can complete physics in the manner the ancient Greeks imagined, by means of thought alone.

—David Lindley, in The End of Physics: The Myth of a Unified Theory (Basic Books)

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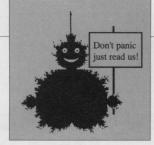
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