

single, central meaning. Certainly if this new volume of *Osiris* is an accurate guide—and I believe it is—we already have at hand an abundance of carefully researched monographs with which to build such a conceptual edifice. All we need is a scholar to undertake the construction, and several of the authors of these essays are, I know, fully capable of that demanding task.

LOUIS GALAMBOS  
Department of History,  
Johns Hopkins University,  
Baltimore, MD 21218

## Hopes and Fears

**By the Bomb's Early Light.** American Thought and Culture at the Dawn of the Atomic Age. PAUL BOYER. Pantheon, New York, 1985. xx, 441 pp., illus. \$25.

*By the Bomb's Early Light* is a rich account of the impact of the atomic bomb on American culture between 1945 and 1950. Paul Boyer, a historian from the University of Wisconsin, has drawn on a wide variety of sources—archival documents, public opinion polls, interviews, cartoons, novels, poems, songs—to show how fully the bomb became part of American life in the period immediately following the Second World War.

Boyer's book deals with uncharted territory. Scholars have studied the decision to drop the atomic bomb, the escalating arms race that resulted after the first Soviet detonation in 1949, the diplomatic confrontations that have followed, and the strategic arguments that have reverberated in policy-making circles in the past 40 years. But no one, until now, has attempted to understand just how Americans, at all levels, have been affected in their own lives by the bomb. "If a scholar a thousand years from now had no evidence about what had happened in the United States between 1945 and 1985 except the books produced by the cultural and intellectual historians of that era," Boyer writes, "he or she would hardly guess that such a thing as nuclear weapons had existed." With the appearance of his book, the role of the bomb in America becomes far clearer.

Boyer's main point echoes the comment of Anne O'Hare McCormick in the *New York Times* on 8 August 1945 that the bomb caused "an explosion in men's minds as shattering as the obliteration of Hiroshima." In his own phrase, "Hiroshima bisected history." At all levels, in all ways, Americans had to confront a startling new force, and Boyer is intent on proving that "the bomb's larger impact on culture and consciousness



"Healed by atomic energy. In this photo montage from a May 3, 1947, *Collier's* article on the atom's medical promise, a recovered paraplegic emerges smiling from a mushroom cloud, his abandoned wheelchair in the background." [From *By the Bomb's Early Light*]

demands more attention than it has received."

Early chapters deal with the first reactions to the bomb, as the public became aware of what had happened at Alamogordo, Hiroshima, and Nagasaki. Entrepreneurs of all sorts seized upon the atomic vocabulary. The Washington Press Club offered an "atomic cocktail" made from Pernod and gin. The music industry presented such songs as "Atom Polka" and "Atom and Evil." Boyer then goes on to describe in detail the fears that scientists felt as they considered what had occurred. He shows how the bomb caused a crisis in moral values, as religious leaders questioned what had been done. And he notes how government officials and private promoters sought to use arguments for the peacetime benefits of the atom to offset the more grim nightmares of the atomic age.

Boyer suggests that there was a genuine dialogue in American society in the first years after 1945. By 1950, however, "the cultural discourse had largely stopped." Americans seemed readier to embrace, or at least accept, the bomb; it became an important weapon in the context of the Cold War. Hopes came to outweigh fears. Efforts to confront the harsher realities had to await another day.

*By the Bomb's Early Light* is an impressive work of scholarship. Boyer has a judicious eye for quotation, and he integrates all of his materials into a fascinating story that covers

the reactions of all kinds of Americans, from religious and professional leaders, to government officials, to ordinary citizens who occasionally made their voices heard. He upholds the historiographic standards he has applied in previous works that have nothing to do with atomic affairs, yet his book is at the same time a highly personal work. Boyer records his own first perceptions of the bomb in 1945, describes his atomic viewer ring provided by the Kix Cereal company, recalls his reactions to the film "On the Beach." He notes how that background led him to this project, and tells us of his hope that his account can contribute "to the process by which we are again, at long last, trying to confront, emotionally as well as intellectually, the supreme menace of our age."

Occasionally the book seems a trifle repetitive. Examples found in one chapter reappear later as Boyer takes up a somewhat different theme. The book sometimes seems to go over similar territory as Boyer moves from one group to the next. Yet the effort to deal with cultural impact at all levels is the strength of the book as well, and the detail makes a difference in the story he tells. *By the Bomb's Early Light* is the superb account of the origins of contemporary hopes and fears, protests and dreams.

ALLAN M. WINKLER  
Department of History,  
University of Oregon,  
Eugene, OR 97403

## Evidence about Evolution

**Evolutionary Case Histories from the Fossil Record.** J. C. W. COPE and P. W. SKELTON, Eds. Palaeontological Association, London, 1985. 203 pp., illus. Paper £30. Special Papers in Palaeontology, 33. From a symposium, Swansea, Dec. 1983.

The last ten years have seen an explosive increase in the attention paid to questions of the mode (or modes) of evolution, both in professional journals and in the popular press. The relative importance of constraints (developmental, historical, and morphological) and natural selection in evolutionary processes, the causes of mass extinctions and their effects on evolutionary history, and the mechanisms of macroevolution (that is, the evolution of grades of organization higher than species) have all achieved new prominence and respectability. The goal of this collection of papers was to test these theoretical arguments about the evolutionary process against the data provided by the fossil record. As in most symposium volumes, the papers are uneven in both cover-