

ner fashioned Oliver Wendell Holmes Jr. into a liberal folk hero. Holmes, Hollinger shows, was useful to these intellectuals because he was an agnostic enemy of the genteel Christian culture against which they were struggling, and they turned a blind eye to those aspects of his thought and character that made him an unlikely candidate for canonization by liberals. By understanding Holmes's utility for Jewish intellectuals, Hollinger suggests, we can better grasp why they celebrated him, even though he was, as legal historian Grant Gilmore has said, "savage, harsh, and cruel, a bitter and lifelong pessimist who saw in the course of human life nothing but a continuing struggle in which the rich and powerful impose their will on the poor and weak."

On the whole, Hollinger's essays are exemplary instances of the "mainstream academic professionalism" that he tells us has characterized scholarship at the University of Michigan, where he taught for many years. Such professionalism, he says, is marked above all by "attention to aspects of the social sciences and humanities least likely to be mistaken for political advocacy, cultural criticism, or journalism." But fortunately Hollinger cannot resist a bit of cultural criticism, and it enlivens his book whenever it puts in an appearance. Hollinger worries over the fragility of the secular academic culture he analyzes, and he is anxious about the effects of "postmodernist" attacks on the authority of science by disciples of Michel Foucault and Thomas Kuhn—not only in themselves but also for the ironic opening they have provided for evangelical Christian scholars such as George Marsden to call for a reconsideration of the banishment of the "biblical episteme" from the university. Indeed, Hollinger's story of the secularization of the American academy is the mirror image of that offered by Marsden in his provocative book *The Soul of the American University* (1994): what Marsden sees as tragedy, Hollinger depicts as triumph. When addressing the arguments of Christian professors such as Marsden, who claim that they are now the victims of a secular academic culture, Hollinger's prose turns polemical, even bitter. Such critics, he says, invite the suspicion that they "are slow to shed the expectations and psychological habits of hegemony." Sensitive to the unhappy, anti-Semitic uses to which his emphasis on the role of Jews in the secularization of American higher education might be put by those who today lament it, Hollinger leaves no doubt where he stands. "Whatever may be wrong with American universities, and with America," he remarks, "it is not that they

are insufficiently Christian."

Hollinger ends his book with an idiosyncratic vision of the Pentecost. In his version of the "jubilee morning when the curse of Babel shall be revoked and the dispersed children of Adam and Eve return to Eden to testify with cloven tongues of fire, the language in which they would testify would be the language of Newton and Locke, the language of intersubjective reason, the language of science." This delightfully revanche millennialism will win him few friends among postmodern multiculturalists who would have us Babel on, or among academic Christians, who have quite another *lingua franca* in mind for the end days. But I doubt that Hollinger will lose much sleep over objections from these quarters.

Robert Westbrook

Department of History,
University of Rochester,
Rochester, NY 14627, USA



Retrospective in Physics

History of Original Ideas and Basic Discoveries in Particle Physics. HARVEY B. NEWMAN and THOMAS YPSILANTIS, Eds. Published in cooperation with NATO Scientific Affairs Division by Plenum, New York, 1996. xxii, 1018 pp., illus. \$195. ISBN 0-306-45217-0. NATO ASI Series B, vol. 352. From a workshop, Erice, Italy, July 1994.

This huge book, the proceedings of a workshop held at the "Ettore Majorana" Center for Scientific Culture, brings together contributions of 49 scientists who answered the call to describe from their own personal points of view the discoveries for which they are known. It is neither history in the usual sense nor exclusively particle physics. A harvest of diverse grains, sometimes accompanied by considerable straw, the content ranges from facetious to profound and needs much winnowing before it becomes coherent history. The subject matter ranges over past discoveries and future hopes in particle physics, but also in astrophysics and superconductivity. The style stretches from posturing to whimsy to straightforward to pedagogical.

The meeting was obviously a success for the participants, who manifestly enjoyed seeing old friends and, in some cases, the opportunity to set the record straight from their point of view. But, as Sheldon Glashow says in his paper, "Beware! We can no more be our own historians than actors can be their own critics." After reading a

large fraction of the papers and turning every page, I conclude that such proceedings are nevertheless worthwhile. Biased and stale some contributions may be, but others bring valuable fresh perspectives. Even the straightforward accounts of accelerator and detector development are useful for assembling the (hi)story in one place.

For particle physicists a browse through the volume will prove enjoyable. Reliving the excitement and achievements of the past 40 years is always fun. The most impressive Standard Model and the experimental and theoretical physicists who made it are featured here. The competition and rivalries are visible (albeit in subdued fashion, as befits public presentation), with preening theorists jostling to occupy the central position in its development. Beneath the banter and the informality of first names, however, lie illuminating discussions of the emerging theoretical ideas and the stumbling way in which progress is made. David Gross's account of his conversion to field theory and, with the discovery of asymptotic freedom, to non-Abelian gauge theories is one example. Howard Georgi's short description of the origins of the SU(5) grand unified theory, though in a very different style, is another. The contributions by Piccioni (on the discovery that the muon was not Yukawa's strongly interacting meson) and by Turlay (on his part in the discovery of CP violation) are just two of many examples on the experimental side. The discussions at the end of each paper occasionally provide counterpoint to the position staked out by the speaker. It pays to know the personalities for full enjoyment here.

The interested reader, not an expert, who seeks insight into particle physics, a "big science," will do well to read the panel discussion on the status and future directions in high energy physics, chaired by Herwig Schopper. Come to think of it, particle physicists should read it, too. The nonspecialist will enjoy the paper by the Goodsteins on Richard Feynman and superconductivity, the paper on Emmy Noether by Nina Byers, and the pictures, drawings, and photographs in the contributions by C.-S. Wu and T. D. Lee.

Perhaps it is inevitable in a volume of this sort and size that typographical errors are rife, especially in the discussion portions, which apparently were developed largely from tape recordings. Phonetic spellings of names abound. Perhaps historians are adept at dealing with such infelicities.

J. David Jackson

Physics Division,
Lawrence Berkeley National Laboratory,
Berkeley, CA 94720, USA