

clearly Niebuhr's theological insights on life and history. The Christian realist knew Communism for a virulent adversary of any tolerable civil social order. Brown's Chapter 8, "Christian Faith and the Social Order," shows the intelligently conservative side of Niebuhr.

To many American Protestants, Niebuhr restored an understanding of the truth of the dogma of Original Sin, as expressed in the myth of Adam's fall. Yet in the defense of other Christian dogmata, was he indeed so strong-hearted and strong-minded as he generally is taken to have been? Niebuhr is said to have told Waldo Frank, "I do not believe in personal immortality," St. Paul notwithstanding—a remark not mentioned by Brown—and indeed this reviewer's reading of Niebuhr's books leads me to that impersonal conclusion, which would have been indignantly rejected by Niebuhr's contemporary Unamuno. Niebuhr knew, with Chesterton, that all life is an allegory, and that we can understand it only in parable. Many truths can be expressed only in myth. Yet what of the Debatable Land between myth and historic reality? It would be very interesting to have Niebuhr's judgment on the recent studies of the Shroud of Turin. But of the mystical and the miraculous, there is little in Brown's book, nor was there much in Niebuhr's life.

Conceivably, after much hard experience of consequences, Protestant churches may turn away from present follies that would have vexed Niebuhr. They may find in *The Nature and Destiny of Man* (Vol. I, 1941; Vol. II, 1943),—most comically, on one page of this book, printed *The Nature and Density of Man*, though there's truth in misprints, too—in *The Children of Light and the Children of Darkness* (1944), and other of Niebuhr's books, an understanding of the human condition in our present time of discontents somewhat comparable to Augustine's when the Roman order col-

lapsed. "In our own Western history the crisis in which we stand is the third of a series," Niebuhr wrote in 1942. "The first was the fall of the Roman Empire. The second was the decay of feudalism and the rise of our own bourgeois democratic society." All of us are whirled about in the crisis, grimmer still, at the close of this century.

For survival in that crisis, the writings of Niebuhr remain most worthy of consultation; and to apprehend Niebuhr's significance, Charles Brown is an honest guide.

### ***A Christian Genius***

JOHN-PETER PHAM

#### **Scientist and Catholic: An Essay on**

**Pierre Duhem**, by Stanley L. Jaki,  
*Front Royal, Va.: Christendom Press,*  
1991. 279 pp. \$7.96 (paper).

Father Stanley L. Jaki's extensive studies of the relationship between science and theology and philosophy have earned him some of the highest honors which can be accorded a scholar in his field, including the Templeton Prize for 1987 and his appointment by Pope John Paul II to the Pontifical Academy of Sciences. Yet in summarizing his work during a speech at his Academy investiture, Jaki acknowledged that:

In all that research, my guiding light has been Pierre Duhem, easily the greatest among French geniuses around 1900, a genius in theoretical dynamics, the conceptual analysis of physical theories and in the discovery of an unsuspected phase—medieval physics—of the history of science.

Not even this high praise has resulted in bringing greater attention to the work of a man who has been scandalously

neglected, particularly in circles that would have the most to gain by a greater appreciation of his achievements. Nevertheless, an undaunted Jaki has now published *Scientist and Catholic: An Essay on Pierre Duhem*, a scholarly, but highly accessible, account of Duhem's life and work which includes an anthology of twenty-seven selections (some of which appear here in English for the first time) from his writings. Especially when taken together with Jaki's previously published monograph, *Uneasy Genius*, a lavishly illustrated album of Duhem's landscapes, *The Physicist as Artist*, and his more than a dozen articles on the French scientist, this book will no doubt more than amply justify Jaki's assertion that Duhem was "One of the true great prophets of modern times" who long ago should have been "turned into a legend" on university campuses.

That this has not come to pass is no doubt a consequence of what is now popularly termed as "political correctness" in the academy, a phenomenon to which Duhem was no stranger. Born in 1861 in Paris, Duhem passed his early years in the shadow of his country's bitter defeat in the Franco-Prussian War and, like many Frenchmen, saw intellectual achievement as a patriotic duty. But unlike the patriotism of many of his contemporaries, Duhem's was also marked by a deep faith which he learned both at home and at the College Stanislaus, where he received his secondary education. Duhem entered the Ecole Normale Supérieure, then the pinnacle of French higher education, in 1882. There, however, Duhem was to experience his first brush with the tentacles of academic orthodoxy.

While only a second-year student at the Ecole, he formulated what is now known as the Gibbs-Duhem equation, a basic foundation of physical chemistry. Unfortunately for the young scholar, his formulation, articulated in a doctoral dis-

sertation in physics presented to the Sorbonne in 1885, amounted to a rebuttal of Berthelot's maximum work principle and, as Jaki notes, "brought down on him the bitter resentment of an academic establishment in which too many owed too much to Marcelin Berthelot," then chief guru and power-broker of the centralized French academy. Consequently, Duhem, destined to be one of the greatest minds in modern physics, was denied a doctorate in that field. Despite this setback, Duhem was already so great as to be able to write in less than six months a new dissertation for which he received the doctorate with highest honors from the Sorbonne's department of mathematics—then, as now, one of the few academic disciplines which has managed to maintain its integrity before the onslaught of intellectual conformism.

This dark episode was not destined to be the last in the career of Duhem, who was to suffer again and again for his commitment to truth which has its source in the ultimate Truth. After a still-enraged Berthelot decreed that "this young man shall never teach in Paris," Duhem was exiled by the Ministry of Education to provincial universities—Lille, Rennes, Bordeaux—where he was left without access to graduate students (the lifeline of a research professor), laboratories, adequate libraries, or even a decent salary. In fact, throughout his career, and despite his increasing reputation, Duhem's salary was always to remain, curiously enough, among the lowest in his seniority group. Yet, relatively free from the ordinary burdens which would have been entailed by a normal academic position, Duhem was able to concentrate on an astounding amount of work before his early death in 1916. Among his accomplishments in physics—to list just two—are the Duhem-Margules equation and the Clausius-Duhem inequality, which has been described as "a pillar of the mathematical theory of thermody-

namics.”

Had this been the sum of Duhem’s achievements, there would be little cause for recalling him, except perhaps among physicists. However, as Jaki notes, Duhem was “unique among modern scientists with his penetrating insights into the method of the exact sciences,” which as intellectual disciplines are valid only within the framework of realism and certain methodological limits. In words which would have resonated well with Saint Thomas Aquinas and his latter-day disciples, particularly Etienne Gilson, Duhem declared, “I have held it my duty as a scientist as well as my duty as a Christian never to cease being the apostle of common sense, the sole foundation of all scientific, philosophical, and religious certainty.” So much for Kant’s notion of the universe as the “bastard product of the metaphysical cravings of the intellect.” Duhem also studiously avoided what is today the greatest pitfall for physicists, their attempt to mandate an *a priori* cosmology. Rather, in the literally thousands of pages he published on scientific methodology and epistemology, Duhem repeatedly warned his fellow scientists that mathematical formalism does not entitle them to make absolute final declarations, especially about nature.

Despite these great accomplishments, Duhem is perhaps best remembered as an historian of science because of his greatest discovery, contained in his ten-volume *Le système du monde*, which is described by Jaki as “easily the most original, creative, and potentially epoch-making achievement for the interpretation of Western cultural history.” Duhem exposed the lie of common cliché that the “otherworldliness” of Christianity made impossible the development of Greek thought into a full-fledged scientific enterprise and that science began its progress anew only when the Renaissance shed its Christian shackles. The fact is that Greek science had long lost

most of its vitality by the time Christianity became an even noticeable factor in social and cultural life. The true reason for the “stillbirth of science” (an expression of Jaki’s) in all ancient cultures, including that of Greece, lies in their belief in a system of eternal cycles or Great Years. Sparing no niceties, Duhem noted that

To the construction of that system all disciples of Hellenic philosophy—Peripatetics, Stoics, Neoplatonists—contributed; to that system Abu Masar offered the homage of the Arabs; the most illustrious rabbis, from Philo of Alexandria to Maimonides, accepted it. To condemn it and to throw it overboard as a monstrous superstition, Christianity had to come.

Duhem backed this bold assertion with his startling documentation of Buridan’s anticipation, rooted in orthodox Christian theology, of Newton’s first law (inertial motion), by over three hundred years. Thanks to Duhem’s research, the evidence for the Christian matrix for the birth of science is undeniable to any honest scholar. This basis alone makes possible arguments, including those in Jaki’s own highly original works, that creative sciences must always presuppose—explicitly or implicitly—a world view rooted in the Christian dogma of creation *ex nihilo*.

That the now largely de-Christianized West has chosen to ignore Duhem’s account of the origins of its rise, rooted in creative science and the resulting technological development, to a position of global cultural preeminence is hardly surprising, especially in light of the contemporary deconstructionist denial of that very preeminence. Yet equally scandalous is the failure on the part of traditionalist and Christian scholars to appreciate the crucial contribution Duhem made to their cause in the ideological battle for the academy. Some of these, all too eager to ape their secularist counter-

parts and falling for the ancient temptation to combat one's opponents on their terms, accept without question the myth of the Renaissance as the dawn of reason, particularly scientific. Duhem, however, as Jaki notes, realized that this myth was more than another historical interpretation, but that it had a "virulent anti-medieval and, by implication, anti-Christian thrust," which could be combated only by stripping it of the intellectual trappings to which it has neither historical nor logical rights.

In our own increasingly scientific age, the intellectual perspective in which science and its history are seen is of the utmost importance. In the final analysis, however, there are only two possible—and mutually exclusive—alternatives: either science is the crown of man's absolute autonomy or it is the crowning gift to man from the Author of his freedom. It is against this dramatic backdrop that Pierre Duhem's vast work—scientific, philosophical, historical—today takes on prophetic dimension.

## ***Golden Moments*** GEORGE A. PANICHAS

**Creative Chicago: From The Chap-Book to the University**, by Henry Regnery, *Evanston, Ill.: Chicago Historical Bookworks, 1993. xix + 200 pp. \$25.00.*

This is a beautiful book—visually, conceptually, intellectually—a pleasure to read and to ponder. It poses important questions regarding the city and culture, even as it depicts inevitable tensions affecting life and letters in a megalopolis. As the title itself indicates, the main and immediate concern is with the cultural

situation of the city of Chicago, "From *the Chap-Book* to the University." What a reader will notice most in this book is the pervasive tone and ethos that emerge from and mirror authorial sincerity.

Henry Regnery is an independent publisher, a "dissident publisher," to be exact. Neither specialist nor academic, he is a man of thought in search of civilizing values that shape American opinion and character. What he has to say specifically about visionary men and women, and generally about "the creative spirit in a prairie setting," has relevance to our larger concern with human existence. His story is about a particular city in a particular region of the country and covers a particular period, a little over a hundred years, from about 1840 to 1950. In recounting this story he demonstrates enviable ability to remain within the limits of his subject and aims and to present his story with clarity and concision. There is no pretentiousness here, no vague gropings or flights, no impractical claims or pronouncements. Honesty and temperateness are virtues that Regnery honors and that, in turn, honor him and his book.

The interweaving concern of the various "papers" that make up this book, as Regnery employs that generic word, is with the question, Why has Chicago, with all of its pioneering spirit, geographical advantages, and material assets, failed to become a literary center? Or, to rephrase the question, Why has this great city with such great creative energy failed to achieve promise of greatness? Regnery does not make it his job to give hard-and-fast answers to the questions he raises; he does not force judgments on or presume to speak for his reader. Rather he gives his report from Chicago, so to speak, staying close to the historical record, without adornment or illusion. Veracity shapes the focus of his presentation. His report is the result of careful assimilation and concentrated thought.