

Or, why not follow Leonardo and Pasteur into examining the true role of the electromagnetic processes in the ordering of biological systems (a field known as “optical biophysics”)? Is it because the evidence at hand might overturn every ruling assumption of physics? After all, you mustn’t anger the physicists, they make nuclear bombs, you know.

Asking the fundamental questions

Great scientists make truly great and fundamental discoveries, because they are driven to ask great and fundamental questions. Lesser thinkers carry out an internal dialogue in the form of “I was taught X as *fact*, and I believe X as *fact*. Therefore, I would be greatly disappointed if X were proven untrue” (or, “How angry my peers would be, were I to question, or worse, disprove, X, which they all believe”).

The philosopher Plato, in his dialogues, and the theologian Nicolaus of Cusa, in his *De docta ignorantia* (“Of

Learned Ignorance”), like Lyndon LaRouche today, sought to recruit thinkers to the outlook of true science, and to provide them with the methodological tools and training required to generate a continuous stream of fundamental scientific breakthroughs. Plato and his predecessors created the Golden Age of Athens; Cusa and his co-thinkers, the Golden Renaissance. Thus, today our political movement must bring about a revival of their classical scientific culture, if we are to have the discoveries required to cure AIDS, feed the hungry, defend our nations, and conquer space.

So, read this book and enjoy it. But also, commit yourself to learning some real science: Pick up a few works by LaRouche (a good starting point is his “Beethoven as a physical scientist,” published in the May 26, 1989 issue of this magazine), or Cusa or Plato or Leibniz. Read them five times if you have to, until they start to make sense. It will be worth it.

A new biography of Louis Agassiz

by Stuart Lewis

Louis Agassiz: A Life In Science,

by Edward Lurie

The Johns Hopkins University Press, Baltimore and London, 1988, 457 pages, paperback, \$14.95.

Most Americans today may have never heard of the great Swiss-American scientist Louis Agassiz, but in the 19th century he had the stature to draw 5,000 people to a public lecture about natural history in America. A disciple of German natural scientist Alexander von Humboldt and a firm believer in studying the classics of Goethe, Schiller, and Shakespeare, Agassiz is well known for developing the theory of glaciation and the Ice Age. Among his many achievements were: numerous works on the recording of fossil fishes, founder of the Museum of Comparative Zoology at Harvard, one of the founders of the National Academy of Sciences and Cornell University, and the leading opponent of the evolutionary theories of Charles Darwin.

Lurie, like most people today, believes that Darwin’s theory of arbitrary random mutation based on survival of the fittest, is correct and he has trouble accepting Agassiz’s conception of natural law in a grand plan of the universe. While

the book quotes a great deal from Agassiz, such as, “In the beginning the Creator’s plan was formed, and from it He has never swerved in any particular. . . . To study . . . the succession of animals in time and their distribution in space, is therefore to become acquainted with the ideas of God himself,” Lurie is compelled to add that this was a view Agassiz was never “entirely able to shake off.” Agassiz described Darwin’s theory as “a scientific mistake, untrue in its facts, unscientific in its method, and mischievous in its tendency.”

In addition to leading the fight against Darwin’s views, Agassiz was also part of a broader group of republicans interested in developing America, who called themselves “the Lazzaroni.” The Lazzaroni “were ready with vast programs. They had ideas and innovations to propose; they looked toward the future; they symbolized a new approach to the organization of science in universities and the nation.” Biographer Lurie also makes it perfectly clear that Agassiz’s opponents on the question of Darwin were also the leading opponents of the Lazzaroni. “Significantly, opposition to the Lazzaroni stemmed from the same men who were Agassiz’s opponents . . . Asa Gray and William Barton Rogers.” They were “disenchanted with Agassiz as a research scientist.”

For anyone interested in the history of American science this book should be read. It is well researched and gives enough background material on the period to give an idea of Agassiz’s place in American science. But, one wishes the author had spent more time on Agassiz and the Lazzaroni’s plan for development and not so much space on every boring detail of supposed scandal or backbiting incident by Agassiz’s assistants. Lurie is also very sympathetic to Agassiz’s major opponent on the issue of Darwin and evolution, Asa Gray, so much so that at times one wonders why he didn’t write a biography of Gray.