own mind, that the essential Britten could have survived the day-by-day aggression of Auden's multifaceted, ironical intelligence. Where "niceness" is a term of recommendatory laudation there is no place for the librettist of Stravinsky's Rake's Progress.

— Reviewed by Donald Pond

A Platonic-Christian Critique of Modern Science


Modern empirical science has undergone sea-changes in the past hundred years that have drastically altered how philosophers and scientists now look at the enterprise of science. As an intellectual construct, no theory of science was thought to be more secure, indeed the paradigm of scientific certainty, than Newton's, for it gave us the basis for modern science's understanding of motion, matter, time, and space. Above all it ratified for us the notion that the physical universe was knowable by a process of inductive experiment and mathematical law. The overthrow of Newton's cosmology by the development of the theory of relativity and quantum mechanics revealed, first of all, the unempirical and philosophical prejudices that underlay Newton's theory, and, second, exposed the fact that scientific knowledge was no more perfect a way to the truth than any other access to reality, including theology, philosophy, intuition, or art. Science, too, is fallible.

As soon as the Newtonian paradigm was overthrown, the implications were apparent. E.A. Burtt's The Metaphysical Foundations of Modern Physical Science, E.G. Collingwood's The Idea of Nature, and Milic Capek's The Philosophical Impact of Contemporary Physics all presented the cultural and intellectual ramifications of the overthrow of Newtonian mechanics. Subsequently, philosophers such as Karl Popper and Thomas Kuhn began to deal with the epistemological implications of the fallibility of what had hitherto been seen as mankind's one sure access to certain truth. More recently has come a rediscovery of cosmology, for the demise of the mechanical view of the world has allowed for re-interpretations of the world picture, which may now include elements not hitherto permitted, including the irreversibility of time and the existence of mind.

Wolfgang Smith's Cosmos and Transcendence is among a recent spate of books attempting a reinterpretation of modern scientific cosmology, among them books with titles such as The Tao of Physics, God and the New Physics, and Mysticism and the New Physics. As do most recent observers, Smith notes how relativity and quantum mechanics especially have shown up the contradictions in the world view of modern science and goes on to present a thoroughgoing critique of the Newtonian world view, including its implications for biology and psychology. What makes Smith's book distinctive is that it is written from a viewpoint that is not only Christian but also mystical. Smith cites Jacob Boehme or the pseudo-Dionysius as often as he does Descartes or Einstein in explicitly criticizing modern science from a metaphysical point of view. We are astounded to see the revival of philosophical doctrines long thought dead in a scientific context revived once again in this book — the subjectivity of time, the relativity of space, Platonic idealism, providence, and Creationism. Smith has a good grasp of both the scientific and the mystical points of view and thus is able to bring off with oc-
casional brilliance an effort that on its face might seem impossible. (Smith, it should be noted, has a doctorate in mathematics, which enables him to understand the formal systems of modern physics while at the same time giving him an intellectual approach that is abstract rather than empirical.)

The book is short, comprised of only seven chapters, which means that much of the discussion of complex philosophical and scientific issues is fairly condensed. Smith starts by examining the current status of scientific description of the physical universe, arguing that “both relativity theory and quantum mechanics have ‘desolidified’ the physical universe.” The old concept held by classical mechanics that space and time were absolute and that scientific method put the human intellect in direct contact with physical things in themselves has been put aside by the subtleties of the new physics. Both the theory of relativity and quantum mechanics emphasize the role of the observer in science, for what science studies is less an object in itself than our way of knowing the object. Such a formulation is not only a plausible inference from current physics; it is also a classic way of defining an idealistic metaphysics. As Smith says in discussing quantum mechanics, “this subjectivity is reflected in its very formulation,” *i.e.*, the mathematics of wave functions. Thus, the traditional epistemological doctrine of classical physics, which separated the knowing intellect from physical phenomena, has been re-evaluated as a metaphysical assumption not intrinsic in the actual operations of scientific research. This assumption, of course, comes from Descartes, who stated it in the generation before Newton. Of importance are its critics who were not blinded by the success and pretensions to absolute knowledge of classical physics, usually philosophers of the top rank, including Berkeley and modern thinkers like Alfred North Whitehead and Edmund Husserl.

But what did the scientific revolution of the seventeenth century leave behind? Smith considers this question in his third chapter, “Lost Horizons.” Cartesian dualism, he points out, had virtually banished God from His own creation, a departure that changed what had been a theophany in which the heavens and the earth declared themselves to be the handiwork of the Lord, into the flat, monochromatic physical universe of modern science. In this desacralized universe all things were equal and neither the heavens, nor life, nor man himself could claim ontological precedence over the atomic particles and their mathematically prescribed motion, which now constituted our universal essence. What was eliminated was a rich composite in which God’s immanence heightened emotions and gave relief to the contours of existence and purpose to the universe itself. God’s existence, the presence of being, the unity of nature even in multiplicity, the contingency of material existence, and the evanescence of time were notions that were lost to Western culture in the seventeenth century. Smith deals with each of these topics in turn, using the classic metaphysical doctrines to enlighten the issues of modern science.

Smith deals with evolution and the ideas of Freud and of Jung. Smith notes that Darwin clearly recognized that the fossil record reveals the existence of many ancient and extinct species, but not the intermediate forms between species required by the Darwinian dogma of change by insensible degrees. Smith develops a refined argument for special creation but leaves the question of the age of the earth untouched. He is especially critical of Freud, noting his unrelenting reduction of human personality to the bestial id and of religion to a form of gross social neurosis. Smith does note that Freud’s doctrine that the ego is in effect a “face” that does not constitute the inner core of the person is the same as that of certain mystics. Unlike Freud, Jung claims to be sympathetic to religion, but Smith sees in this claim a terrible deceit and points to the avowed gnosticism of Jung, “which has already gained admittance into the sanctuary.”
In his final chapter Smith re-echoes the belief that the cosmology of modern science constitutes a value system as well as a mathematical and empirical description of certain physical phenomena. Thus there are political implications, for as "the elements of culture [have been] subjugated . . . the manipulation of culture has become a serious enterprise, a business to be attended to by governments and other interest groups," Art, too, has been reduced in our scientific age to the production of fine arts, rather than being an expression of a combined utility and aesthetic sense, an expression of wholeness. The reduction of knowledge into theoretical and applied sciences has not been of benefit to mankind, for the physical universe has become merely something to be manipulated rather than appreciated or meditated upon for signs of its creator.

*Cosmos and Transcendence* is an interesting and sometimes compelling book, even though it treats a broad and complex topic in a condensed format. It stands as a needed corrective to recent interpretations of current cosmology, such as Carl Sagan's, which posit a "recurring" universe in which the history of the universe is repeated eternally and which has more to do with a revival of ancient Hinduism than with contemporary physics. Because of its brevity, *Cosmos and Transcendence* does not refer to many authors whose works are opposite to its large topic, e.g., Kuhn and Popper on scientific knowledge, Gould's evolutionary theory of "punctuated equilibria," or Frank Sulloway's book on Freud. Nor does it state what sort of cosmology might succeed that of classical modern science, though it does offer some hints. Smith posits a religious interpretation of the modern scientific world view, but one that is mystical rather than rationalistic, Franciscan rather than Thomistic, Platonic rather than Aristotelian. In any case, this book will repay study, especially its brilliant third chapter, "Lost Horizons."

— Reviewed by John C. Caiazza

In the "Cautionary Note on the Ghostly Tale," which serves his new collection as a preface, Russell Kirk tells us that the ten stories that follow were suggested by "perceptions, impressions or experiences" reaching back over "three or four decades." From what he himself has known or from what friends and acquaintances have told him, he could write something "quite as startling" as what is contained in these tales, but the result would be "more fragmentary and inconclusive." It is not only in the ghostly field that, to be worth printing, what happens in life must be "embroidered and enlarged by literary art."

The writers he admires in this area, and beside whom he would obviously like to take up his stand are those who, like George MacDonald, C.S. Lewis, and Charles Williams, wrote tales with "elements of parable and fable in them," which made their work "experiments in the moral imagination" and "instruments for the recovery of moral order." Since human beings understand life best in terms of parable or allegory, the kind of material employed by such writers seems to him better adapted to achieve these ends than those drawn from either the realm of "twentieth-century naturalism" or "the mechanized empire of science fiction" that is only an extension of it.

Rejecting materialism, Kirk not only boldly affirms "the reality of a realm of spirit" but also believes that something may well exist "above human nature, and something below it." It is not surprising that he should have more sympathy for Jung than for Freud; "as an intellectual force," he declares, "Freudianism is nearly spent." Though he is prepared to maintain that what are generally called supernatural happenings do occur, Kirk yet ad-