

Reviews

The Dominion of Man: The Search for Ecological Responsibility. By JOHN BLACK. Edinburgh: Edinburgh University Press; Chicago: Aldine Publishing Co., 1970. 169 pages. \$7.50.

If we wait to act until we know everything we would like to know about the fantastic interrelations that constitute the ecological system, we will surely end up without any habitable earth to know about. If that blunt fact could only be made to penetrate the academic, the economic, the political mind! The academician-scientists would like to know everything; they already know enough to know we are in a catastrophe. The economic mind, with a few exceptions, does not know anything about nature except how profitably to rape it. And the political mind is commonly interested in getting elected or reelected.

John Black, in a volume as direct as his good Scot name, has got to the heart of the matter. "If western civilization has failed, it has failed because it has been unable to find a concept which would engender a feeling of responsibility for the use to which we put our control over nature, and at this late date it is not easy to suggest one which would be compatible with the rest of our world view."

This book traces the power of the biblical notion of man's dominion over nature into (a) the various rationalizations of the original myth, (b) philosophical-political thought, and (c) practical consequences. I know no treatment of the intellectual and cultural career of this powerful and penetrating notion to match Professor Black's chapter on the matter.

"To be responsible" is, of course, the only answer. But we cannot be responsible within the common assumptions, practices, production profits, consumer syndrome. The basic operating notion of every Western nation makes ecological responsibility a contradiction. Unless *that* is faced, and the nature and size of our obligation put within that context, we are lost.

This volume is an expanded version of three lectures originally delivered to University College, London. The author is professor of natural resources in the University of Edinburgh. Black knows very fully the ecological data; he also knows that the terror and possibility inherent in these facts cannot work a change in our usual procedures with the earth unless some uprooting, shattering, reconceptualizing of fundamental assumptions is effected. Such a reconstruction-at-the-center is our culture's most urgent task.

JOSEPH SITTLER

University of Chicago

Knowing and Being. By MICHAEL POLANYI. Edited by MARJORIE GRENE. Chicago: University of Chicago Press, 1969. 246 pages. \$8.00.

In this volume Marjorie Grene has made available to us fourteen essays by Polanyi, written between 1959 and 1968. She has effectively streamlined the material by removing much of the argumentation and documentation which would have made the essays unhappily repetitious. The broad scope of Polanyi's thought is reflected in the four-part outline of the book. Three essays deal with cultural-historical analysis, for example, "Beyond Nihilism" and "The Message of the Hungarian Revolution." Five papers reflect on the political and economic implications of the scientific community. Case studies in this section include discussions of his adsorption theory and his work with X-rays and crystals. Four more build open the foundation of his thought by spelling out logical and philosophical implications of tacit knowing. Last, two discussions of the structure of life and consciousness address themselves to the current explorations swirling around DNA and evolution.

Knowing and Being is a valuable collection of documents for two reasons: (1) It represents some fresh restatements of the basic components of Polanyi's thought as embodied in *Personal Knowledge*. Hence, people already engaged in a study of Polanyi's importance for science-and-religion research have a handy resource. (2) It surfaces some fairly unexplored touchstones for science-and-religion study. Permit me to allude to the first and briefly develop the second.

1. For the many who believe that science-and-religion study revolves around the axis of "reality," "ontology," and "hierarchical being," *Knowing and Being* may offer support. On pages 119-20 Polanyi speaks of external reality and says it owes its attractive power to its independent existence. He believes (p. 133) that the only way we humans can account for our capacity to know more than we can tell is to believe in the presence of an external reality with which we can make contact. All understanding is an intimation of such reality. For example, William T. Scott, tying this metaphysic to a hierarchical concept of being (and using Tillichian terminology), suggests the possibility that our participation in being is also a participation in God as the Ground of Being ("A Bridge from Science to Religion Based on Polanyi's Theory of Knowledge," *Zygon* 5 [1970]: 41-62).

2. *Knowing and Being* presents at least two dimensions of Polanyi's life and thought which deserve exploration and development: (a) The set of historical-biographical "boundary conditions" which energized and informed his research and authorship, and (b) the theological significance of man's creative imagination.

a) The roots of Polanyi's passion for moral accountability run deep into the soil of Eastern Europe and the Soviet Union. Much could be learned about the relationships between scientific development and religious and cultural value systems by reliving with Polanyi the years in Budapest, the contacts with Russian life in the 1920s and 1930s, his reactions to Stalinism, his conversations with Bukarin. The many Russian social scientists and philosophers expelled from the Soviet Union in 1921-22 produced writings which should be placed beside those of Polanyi. The inclusion of the historical essays in *Knowing and Being* pushes out the boundaries of Polanyi studies. Possibly

the modern student of science and religion must investigate more thoroughly statements like the following: "The line of modern writing descending from Dostoevsky undertook to explore the limits of nihilism, in search of an authentic residue of moral reality" (p. 44).

Polanyi learned early that any attempt to organize a group of researchers under a single authority eliminated independent initiatives, killed effectiveness, and paralyzed cooperation. He asserts that scientific values must be compared with closely neighboring fields. In the "*principle of overlapping neighborhoods*" Polanyi sees the formation of a chain of judgments spanning the wide range of sciences (p. 84). Little has been done by theologians or scientists to connect this kind of scientific collegiality with interdisciplinary or ecclesiastical collegiality. This would seem to be imperative now that science-and-religion problems are projected into an ecological rather than a categorical screen.

b) Because of the philosophical imprecision of Polanyi's language, one has a difficult time boxing him up. This is undoubtedly one of his greatest strengths. Sometimes it is the mind-fix of the reader alone which determines whether Polanyi's "reality" is ontological or eschatological, whether tacit knowledge involves discovery or creation, or whether each instance involves both ingredients. The discovery of what is real is marked by the presence of an "unlimited range of unsuspected implications" (p. 172). With these kinds of statements Polanyi walks a thin line between heuristics and verification.

For Polanyi the dynamics of tacit knowing in the scientist is "*the questing imagination vaguely anticipating experiences not yet grounded in subsidiary particulars evokes these subsidiaries and thus implements the experience the imagination has sought to achieve*" (pp. 199-200). The degree to which the scientists' faculty of *anticipatory intuition* is present in the knowledge of the artist, the city planner, the theologian, and the technologist is yet to be determined. The structure of tacit knowing, for Polanyi, contains a general theory of meaning. The theory applies to language as well as to all other products of the human mind. Herein lies a challenge to students of science and religion. How can Polanyi be so clear about a general theory of meaning when he believes all knowledge is either *tacit* or *rooted in tacit knowledge*? He seems to have wholly explicit knowledge about what he has called the unthinkable.

Interdisciplinary exploration of man's creative imagination may assist us in evaluating Polanyi's contribution to science-and-religion studies. Before using Polanyi's epistemology as a base for interdisciplinary study (as many would have us do), we might illuminate that epistemology by asking whether it broadens or restricts our anticipations.

DANIEL F. MARTENSEN

Hamma School of Theology, Springfield, Ohio