the United States who have become steeped in the subject as a result of the debates on the ABM here during the last year.

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Massive Investments

The Economy of Death. RICHARD J. BARNET. Atheneum, New York, 1969. vi + 202 pp. \$4.95.

The Politics of Weapons Innovation. The Thor-Jupiter Controversy. MICHAEL H. ARMACOST. Columbia University Press, New York, 1969. xiv + 306 pp. \$10. Institute of War and Peace Studies.

Barnet's compelling essay indicts the economy of a nation preoccupied with security and defense for a generation; Armacost gives us a study in miniature of the political process in the Thor-Jupiter missile controversy. The two books go together in a curious way. Armacost shows us good and sincere men seeking the best response to new strategic needs. Barnet, on the other hand, argues that such men have over 20 years created a grotesquely distorted society which is about to devour itself.

Barnet, a founder and codirector of the Institute of Policy Studies, Washington, served during the Kennedy administration in the Arms Control and Disarmament Agency. In this book he dismantles the basic assumptions of the defense budget. He sees the inevitable and early demise of the system, but only after a renewed climax of struggle. He draws up the battle plan to redirect American priorities away from military mysticism.

There is no way to fix a rational limit to defense spending other than by the application of old-fashioned political judgment and moral insight. Unless the American people begin to ask and keep asking what real security they are buying, there is no hope of stopping the mindless expansion of the war machine.

For a generation no project of the military, no matter how massive the investment, roused any significant interest group to ask that challenging question. Every new weapon system has been presented to the public doubly wrapped, "an inside wrapping of baffling technical detail, and on the outside, the flag." But suddenly the opportunity for change is

at hand. The reversals of Vietnam policy and the revolt of submerged social groups have suddenly made it possible to cast off "the economy of death." Barnet writes a powerful, staccato prose. The essays in this slim volume strike sure and terrible blows against the Cold War way of life.

Armacost's book is one of a series of studies sponsored by the Institute of War and Peace Studies of Columbia University. It is an excellent addition to the list. Although dealing with the early years of the missile race (mid-1950's), it is as fresh and topical as if the events were just happening—and in a sense the ABM controversy is reenacting the struggle.

The treatment in this study is unemotional and comprehensive. The process of policy making is skillfully recounted. The verbal and rhetorical dimension of policy represents a search for consensus among the power groups involved in formulation and execution. All participants have a high degree of autonomy and are summoned into combat by the necessity of responding to a new strategic need. All the agencies articulate demands and present them as programs to those legally and politically capable of authorizing action. They mobilize support for their programs through persuasion and bargaining. They seek to transform their recommendations into policy through the various channels of influence in the policymaking process. Like interest-group activity in any political system, interservice politics is conditioned by the substance of existing policy, by the prevailing procedures for policy making, by the culture norms that constitute the political ground rules, and by the environment of policy making, that is, the external parameters to which the new policy must respond.

The struggle for operational control of the emerging missile systems is a classical drama of new technology and its painful assimilation into human affairs and national policy. The study delves into the incentives giving rise to the development of two separate intermediate-range missile systems, one by the Air Force, the other by the Army, and describes the struggle for operational control of both research and development and eventually deployment. It looks at and evaluates the dilemmas of collaboration and competition in the development of the system. Finally, it considers the international diplomacy of

deploying the system and the impact of the learning process on both the strategic reformulation and the reorganization of the nation's space efforts in 1958.

The Thor-Jupiter controversy affords an excellent case study of public decision making under conditions of strategic indeterminacy. The goals and requirements of strategy and policy were not fully grasped and were themselves the subject of dispute. The facts were complex and poorly understood and the goals contradictory and multiple. The controversy offers an opportunity in microcosm to view the learning process forced upon the nation by new technology.

It is no secret that Washington is a jungle of quasi sovereignties in which conflict is continuous, necessary, and ubiquitous, although not total. The reality principle emerges from the process of political infighting itself, involving all kinds of institutions and individuals in and out of government. Thus there is no substitute for politics in the process of choice.

Both books are highly pertinent, and they are mutually illuminating. The Armacost study provides a humanistic insight—good men working to achieve legitimate purposes can, through fate and events, create a monstrously distorted set of values and institutions which ultimately—now, as Barnet so compellingly argues—requires reform and change.

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Living with Radioactivity

Biological Implications of the Nuclear Age. Proceedings of a symposium, Livermore, Calif., March 1969. Division of Technical Information, U.S. Atomic Energy Commission, Oak Ridge, Tenn., 1969 (available as CONF-690303 from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Va.). x + 342 pp., illus. Paper, \$3. AEC Symposium Series, vol. 16.

When hydrogen bombs began to be tested in the Pacific in 1954, and reports of fallout started to appear, many scientists became increasingly worried about the possible long-term hazards to mankind, particularly because so little was known about the effects of