BOOK REVIEWS

Academic Paragons

Research and Relevant Knowledge. American Research Universities Since World War II. ROGER L. GEIGER. Oxford University Press, New York, 1993. xvi, 411 pp. $65 or £55.

Higher education in the United States has acquired a worldwide reputation for excellence. It is remarkable for its variety, its competitive edge, and its accessibility to a broad range of people. Surely to a significant degree this proliferation of colleges and universities is an expression of the American taste for diversity and ability to pay. We may think our fellow Americans are sunk in self-indulgence, but their willingness to pay for our edifice of higher education will give a different perspective. It is a monument to civic pride as much as to ambition for upward mobility.

Within the American academic conglomerate, the research university has served as a paragon. In recent decades, as the Ph.D. has become the expected credential for acceptance into university and college faculties, the dominance of the research university mode has been little disputed. Its position has been sustained by the American belief in the power of science to change the world and of technology to improve our lives, a belief that includes the assumption that it all starts in universities.

Roger Geiger in the second of his two volumes tracing the history of the American research university explores at length the coupling of the creed of useful science and the institutional form that is peculiar to the United States. His theme is that social demands backed up with money in many cases have powerfully shaped the loosely linked structure of universities and the community of universities. There is a dialectic between the institutionalized pursuit of increasingly specialized knowledge and these social demands.

The narrative starts with the radical changes in the social role of academic science and engineering personified in the wartime career of the patron saint, Vannevar Bush. The contours of growing support by U.S. government agencies of academic research, driven by faith in its practical efficacy and justified brilliantly by Bush in *Science: The Endless Frontier*, constitute the matter of about a third of the book. Another third is devoted to issues of academic organization and to a considerably lesser degree developing attitudes. The final third presents case studies of a number of institutions that exemplify the processes of evolution.

Geiger's view seems to be that academic evolution, at least in the research university sector, has been driven by external, principally federal, support and has been substantially shaped by competition for status. He recounts in summary form the initial dominance of the military services (subsequently the Department of Defense) in this process; the delayed emergence of the National Science Foundation at a point too late for it to exert the comprehensive role in federal science policy and programs envisioned by Bush and others; the enormous upsurge of federal patronage across the board triggered by Sputnik and perpetuated by prosperity and the concerns of the cold war and the Vietnam war; and the decline after Vietnam and the countervailing resurgence of the cold war in the Reagan period.

Through this complicated story runs a theme of tension between variously articulated expectations (and promises) of practicality and relevance on the one hand and disciplinary, institutional, and professional assertions of the standards of pure science on the other. Obviously the tension never has been and never will be resolved, but it seems to me the author could have made more of its surprising utility in enhancing academic science's claims to a significant degree of self-determination and freedom from controls.

The dialogue stimulated by this tension plays out both inside universities and in the relations between academia and the world of sponsors. In Geiger's narrative it lies across the story of what appears in retrospect to be a pell-mell quest for growth and prestige in the university world. The consequences are the radical enlargement of the role of research per se in that world, the symbiotic relationship of research and graduate education, and the augmented measure of autonomy that this complex attained within the academic community. Geiger notes that the outcome constitutes a kind of academic revolution, as Jencks and Riesman called it, wherein the disciplines nationally and the external sponsors gave leverage to faculty, leverage that was further enhanced by the peculiar potency of periodic ratings of departments. As a result faculty acquired greater autonomy as well.

Another consequence was the push by various institutions to join the august ranks of research universities. In his case studies Geiger examines in an illuminating fashion this process at different times as it worked out at Stanford, the University of California at Los Angeles, the University of Arizona, and the Georgia Institute of Technology. He finds contrasting strategies by which institutions sought and attained the goal. The histories are also placed in the context of changing circumstance of public policy toward university development, of funding availability, and of internal attitudes toward research and graduate education and presumptions about the academic world. These chapters are the unique element of the book.

Geiger brings his tale to a close by returning to the theme of the pull of external sponsorship. His last section is largely devoted to what he perceives with some justification as a swing of interest away from the pure science that flourished, ironically, during the Cold War and toward service to the technological needs of industry, both foreign and domestic.

Geiger's review of the developments of the last five decades is informed by several persistent ideas. One of these is summed up in his comment, "The research role might lie at the heart of the modern American university, but internally it was constrained and often contested, while its content was shaped appreciably by external forces." A second idea is that even as institutions developed toward the research-university ideal type they "shed few of their multiple tasks." Geiger sees their "proliferation of activities" as a form of adaptation, albeit a risky one. We may wonder in our day of straitened resources and alternative claims whether this strangely unselective strategy of competition can continue to be effective.

Research and Relevant Knowledge, with its several perspectives, its selected details, and its quite successful comprehensiveness on a subject of great complexity and variety, will be of interest both to those of us who have lived through most of the developments and to our younger colleagues, who will learn from it that their world could have been different.

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