Book Reviews

An Inside View of Big Science

The Education of a College President. A Memoir. JAMES R. KILLIAN, JR. MIT Press, Cambridge, Mass., 1985. xxiv, 481 pp. + plates. $19.95.

James R. Killian, Jr., opens for his readers a window on the New Society Americans have built for themselves in the 20th century. The particular acreage that can be seen is situated, roughly, where the systems of higher education, the scientific and technological professions, corporate enterprise, and the federal government overlap. Since the author of this engaging memoir has spent a lifetime plowing and planting those fields, he is uniquely qualified to help the rest of us appreciate their bounty. His readers will not, I think, be disappointed with the vista à la Killian.

Even if they take a narrow view of this important terrain, they will enjoy following the author's trail to the presidency of the Massachusetts Institute of Technology and thence to the White House, where he served as science adviser to President Eisenhower and to President Kennedy as well. Killian's career was tightly meshed with the rise of big science in the 1940's and 1950's. Such wartime successes as MIT's Radiation Laboratory and the lab for servomechanisms convinced men of purpose and power—into whose ranks Killian marched—that neither higher education nor the United States government could afford to let their close ties be severed after the war. The Cold War and effective leadership by a generation of science administrators ensured that military contracts and federal grants would continue to flow to MIT and other leading educational institutions. Killian, who headed MIT from 1949 to 1959, exalts in this transition to heavily funded research in a private-public setting. He takes note of the critics, men who talk about sin and science, but his feet are firmly planted in the positivism of the 1950's; he is as sure today of his nation as he is of the university to which he devoted most of his life and of the great corporations whose leaders he wooed and won for MIT.

What other qualities of this man are revealed by his memoir? For one thing, the building blocks of his life were personal relationships, many of which are described in rich (sometimes overpowering) detail. Unlike many science administrators, Killian did not first build a reputation in science; he was a writer, editor, administrative assistant (all at MIT). He was armed with good taste in people and professional concepts, a strong sense of purpose, and a healthy but not overwhelming ego: thus he can reprint the encomiums he received, but he can, with even greater enthusiasm, delve into the careers of his predecessors and peers. He worked with great skill in the old-boy network and then learned how to operate in the complex maze of modern corporate and governmental relationships that emerged in America after World War II. He seems to have been as effective in the traditional network as he was in the new corporate setting; he is today uncertain why others—in the '60's for instance—began to question the way decisions were made in his corner of the New Society.

There are of course many reputable scholars who are less certain than Killian is that the golden threads linking the military and the universities were in their early years "benign" or "nonintrusive" (p. 49). Critical of the Cold War amalgam, they suspect that the "Faustian bargains" (p. 137) that tempted educational institutions were more the rule than (as Killian would have it) the exception.

To Killian, however, certainly one of the leading science administrators of the postwar era, the proper path to scientific, technological, and economic success is as clear today as it was when Ike was president. The genius of the university, the entrepreneurship and efficiency of the corporate system, and the national purpose of the world's most powerful democracy were, he tells us, the essential ingredients of American success in the postwar years. They could be again today. The nation and its institutions should rebuild the consensus of the '50's and clear the path toward "a better society" (p. 411). Though it seems to me doubtful that this will happen and that Killian's particular vision will reign as it did before the experiences of the '60's and '70's, it is bracing to have that message reasserted in its pristine form by a man who heard the call to duty and served his university and the nation so admirably during the crucial early decades of the postwar era.

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Lessons of a Controversy

Beyond Velikovsky. The History of a Public Controversy. HENRY H. BAUER. University of Illinois Press, Urbana, 1985. xiv, 354 pp., illus. $21.95.

Fame for the late Immanuel Velikovsky began in 1950 when his book *Worlds in Collision* broke onto the scene and became a best-seller. In it Velikovsky contrived incredible interplanetary scenarios, including the eruption of Venus from Jupiter followed by several near collisions among Venus, Mars, and Earth in order to "explain" certain biblical events. In this way he made it seem as though Joshua's long day, Noah's cataclysmic flood, and other religious myths from antiquity had a solid basis in historical fact—at least much more so than the experts had led one to believe. Droves of book buyers became enchanted.

Learned scholars and scientists were not so enchanted. Many of them saw in Velikovsky a rather arrogant crank and a pseudoscientist of the first order. Others saw worse than that, and some mounted a vigorous campaign of criticism against Velikovsky, against his works, and against his publishers. The publicity from these attacks did more to help sales and to marshal support for Velikovsky than it did to deter them, and he remained popular even beyond his death, which came almost three decades later.

Since the 1950's much has been said about this affair, not only by Velikovsky's supporters but also by his critics, some of whom have openly expressed reservations over the treatment of Velikovsky by certain scientists. With so much already written, both pro and con, one might wonder why Bauer—a chemist and now dean of science and