authority. To reconcile the ambivalent hostility and respect with which he responded to authority in the person of a superior, Taylor created a new source of authority, scientific management, impersonal and rational in its absolute control of the worker and its definition of the job.

Kakar then attempts to show that Taylor's "solution" to his own neurotic conflicts "met the needs of industrial management at a time when traditional ways were fast becoming obsolete. . . . It is the fateful coincidence of an original man's conflicted life history with a critical moment in the industrial and social history of his world" (p. 188). Here the analysis falters and the evidence is unconvincing, however. Taylor's contribution to management did not coincide with the needs of industry; it preceded them slightly, and thereby led Taylor into one practical failure after another in the 1890's. He failed to gain acceptance of his new form of managing in the Manufacturing Investment Company, in Cramp's Shipyard, and in the Simonds Company. Finally, the experimental application of the new management in the Bethlehem Steel Company came almost to an end when the president summarily dismissed him. Apparently managers of the time did not highly value either his methods or his goals. At the turn of the century, businessmen were realizing such large efficiencies from enlarging their factories and mills—from economies of scale alone—that they felt little need to make a further effort to rationalize their management.

Though Kakar overlooks the fact that Taylor's managerial innovation was mistimed to meet the immediate needs of industry, he recognizes that the decade of failures led Taylor to abandon the practice of scientific management, though the vision of it burned brighter than ever for him. Kakar sees him redeeming his failures by becoming a prophet of a reforming creed that promised a world of industrial harmony. As a prophet Taylor was both a *forthteller* of the new means of managing and a *foreteller* of the managerial style that surely would be adopted. Disciples hailed his vision, and with a religious fervor spread his message to a still reluctant but increasingly receptive industrial world.

Academicians understood the significance of his vision and his creed. He provided the basis for a science of management and the training of professional managers. They invited him to lecture, to conduct seminars, and even to head the new business schools and institutes of technology. He died in 1915 just as businessmen were beginning to accept his preachings. Since then management has molded itself in Taylor's image, and business schools have become the keepers of the flame. A new time has arrived for the industrial world. There is need for a new managerial creed that will fit today's demands better than Taylor's does.

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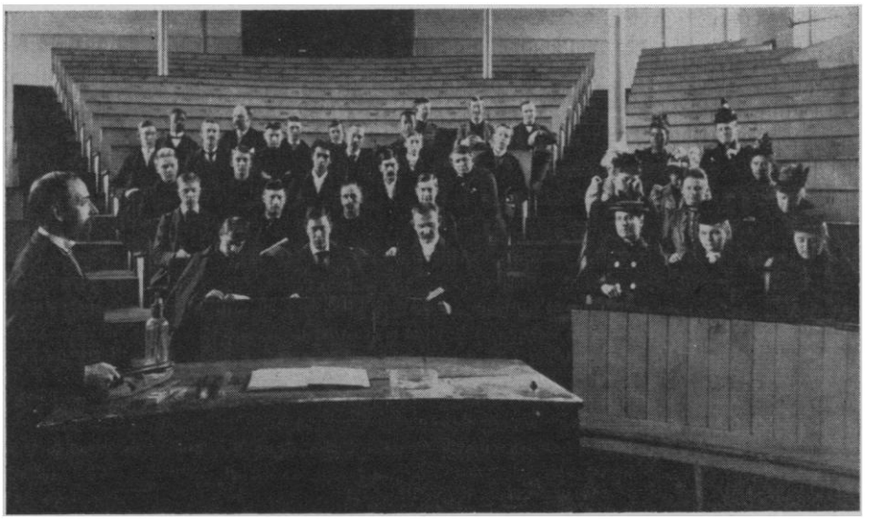
A Fair Chance for Girls

A Dangerous Experiment. 100 Years of Women at the University of Michigan. DOROTHY GIES MCGUIGAN. Center for Continuing Education of Women, Ann Arbor, 1970. vi, 136 pp. + plates. Paper, $2.50.

The first woman undergraduate at the University of Michigan chose to call it an accident that she was asked to translate a passage from Sophocles which began, "It behooves us in the first place to consider this, that we are by nature women, so not able to contend with men. . . ." She did conclude, however, that her admissions examinations had been "longer and more severe" than those normally administered. The "dangerous experiment" was the admission of women to the University of Michigan in 1870. Michigan was not the first institution, or even the first state university, to admit women, but it was the largest and most prestigious to do so. The subtitle of the book, "100 Years of Women at the University of Michigan," is in a sense misleading, for Dorothy McGuigan has skillfully employed the experiences of students and administrators of a single institution to illumine the broader story of higher education for women in the United States. This admirable and unpretentious book is a small gem of social history, with much useful information about enrollments and national trends embedded in a framework of refreshing individual biographies and anecdotes.

McGuigan has tapped a rich mine of quotable material which derives wry humor from its extraordinary aptness to today's discussions: Horace Mann warning the university regents of the difficulty of securing themselves against clandestine meetings between male and female students, or retiring President Tappan, a firm opponent of coeducation, cautioning against communities of "defeminated women and demasculated men." There must have been particular satisfaction in unearthing the *New York Times*'s 1870 comment on the Michigan experiment that "Harvard and Yale, which have so long hesitated on the brink, will have an opportunity to observe the effect on those who have plunged boldly in."

At Michigan, the one irrefutable argument in favor of women was that the university's founding statute of 1837 had opened it to all persons resident in the state. One young woman was admitted to undergraduate classes in February 1870, and 33 the following September. Eighteen of them were in the medical department, where the pos-



A physics lecture at the University of Michigan in the late 1880's. [From *A Dangerous Experiment*]

sibility of women students had elicited a special set of arguments—physical weakness, threats to feminine modesty, and the danger of improprieties of deportment in the classroom. The regents had induced members of the medical faculty to yield by granting them an additional $500 salary for teaching women and by agreeing to segregate the anatomy class. (Seventy-five years later Harvard-Radcliffe mathematics classes remained separate, after all others had merged, for a different reason—that women would be unable to compete.) The first woman to earn a medical degree at Michigan graduated with honors, but at commencement "she was hooted and showered with abusive notes" from male undergraduates.

Such episodes were the exception. Women were soon taken for granted on the campus, in the classroom, and in the non-university rooming houses where, as a matter of course, men and women lived in adjacent rooms and used the same plumbing much as they do today in the newly liberated coeducational dormitories. Nevertheless the case for women in higher education had to be made again and again as the opposition coalesced around new arguments. Initially it seemed enough to say that women were intellectually inferior. While their scholastic records quickly demonstrated the fallacy of this thesis, another argument, the danger of intellectual activity to delicate feminine health, was mobilized in a widely read book, *Sex and Education, or a Fair Chance for Girls*, by a Massachusetts physician, Edward H. Clarke. Again, administrators produced ample evidence that college women were on the whole less prone to physical and nervous disorders than their less intellectual contemporaries, but opponents of higher education were soon citing later marriages and smaller families among women college graduates to show that education inhibited breeding capacity, an argument that acquired special overtones for turn-of-the-century Americans as they observed the flood of southern European immigrants with large families.

But the most telling factor in the reaction against higher education for women that set in around 1900 was probably the very enthusiasm with which women had seized upon the expanding opportunities of the preceding decades. At Michigan in 1899, women received 53 percent of the Bachelor of Arts degrees, a phenomenon that frightened its male alumni as it did those of other institutions where the same trend was evident. Between the founding of Pembroke College at Brown University in 1891 and the 1950's, McGuigan points out, no additional all-male universities let down the bars.

The book, of course, has its heroines. Lucinda Stone, whose own college aspirations, never fulfilled, had been ridiculed in her native Vermont, taught in the University of Michigan's preparatory school in Kalamazoo and well knew the frustration of bright girls who could go no further. It was she as much as anyone who stimulated sufficient interest among the Michigan regents to effect the admission of women in 1870. And there were the students themselves, quietly courageous pioneers among whom were Alice Freeman Palmer, later president of Wellesley, and Dr. Alice Hamilton. There are heroes in the story too, notably James Burrill Angell, who assumed the presidency of the university in 1871 and with his wife befriended their fellow newcomers, the women students. In 1904 his son James Rowland Angell, professor of psychology at the University of Chicago, wrote a strong defense of coeducation as the reaction against it picked up momentum.

What happened in the next 50 years is summed up in a few pages with the apt title "Revolution in slow motion." The stocktaking in the final chapter, based on the wisdom and experience of Michigan's highly successful Center for Continuing Education of Women, effectively generalizes the situation for educated women in the present day. This book is an excellent introduction to the subject of women's current status in academia.

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The Poor State of Health

The American Health Empire. Power, Profits, and Politics. BARBARA and JOHN EHRENREICH. Random House, New York, 1971. viii, 280 pp. $7.95. A Health-PAC Book.

The Quality of Mercy. A Report on the Critical Condition of Hospital and Medical Care in America. SELIG GREENBERG. Atheneum, New York, 1971. xx, 388 pp., illus. $6.95.

The President of the United States has told us that our medical system faces a "massive crisis," and medical commentators can enumerate profound problems the way youngsters can recite batting averages. Several bills have been introduced in the Congress, the various forces and interests are aligning themselves, and the stage is being set for what appears to be a major political confrontation that will bring forth much rhetoric in the next few years. It is already apparent that the dominant theme in the debate—whatever the suggested legislative resolutions—is the steep, uncontrolled rise in health care costs, particularly hospital costs. Among the many subsidiary themes are the need for an adequate system of primary care, the health problems of the poor, the inadequate distribution of health manpower and facilities, and poor quality control. It is the cost factor that brings together such diverse forces as labor unions and employers, who bargain over the health benefit package; government, both state and federal, which pays two-fifths of health care expenditures and is increasingly anxious about open-ended commitments; the large providers of health care and the medical schools, which seek better financing; and the middle class, which has been paying higher prices for increasingly impersonal services as new public programs reinforce the seller's market. Whatever the merits of Medicare and Medicaid, they impressively illustrate that to increase investments in health care substantially without altering the framework in which services are delivered will only exacerbate the inefficiencies and absurdities of the current organization of medical care in America.

It serves us well to consider what people expect from the health care system, which is not necessarily what the providers wish to offer. Most basically, people seek to have a personal physician or a comparable source of care readily accessible and reasonably convenient to use. They want and ex-