The Decline of the Modern University

Burton R. Clark, *Places of Inquiry: Research* and *Advanced Education in Modern Universities* (Berkeley: University of California Press, 1995). **284** pp. ISBN 0-520-08762-3

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Research universities are in trouble in many countries. Budget cutters and government planners in Washington, Sacramento, and Albany, not to mention London and Rome, seem to have forgotten that research-oriented universities have played a central role in the development of modem science and technology. It is argued that research can be conducted by private industry. In many countries, there is a surplus of doctorates in some disciplines. Budget. cutting, stimulated by a movement to reduce public spending at all levels, is linked to the ideology of privatization. The forces arrayed against the universities are powerful. Burton Clark's *Placer of Inquiry* comes at an opportune time. Clark argues for the importance of advanced scientific training and research as part of the central role of universities. He brings an international perspective to the topic, and points out how research and advanced education have evolved in the academic systems of the United States, Britain, France, Germany, and Japan. Clark assumes the centrality of universities to modem scientific development and to research—an assumption that may no longer he shared hy many in authority.

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Research is not an immutable part of the higher education enterprise. As Clark points out, research as a central function of the university dates back only to the establishment of the University of Berlin in 1810, hasedon Wilhelm von Humboldt's model. The Humboldtian idea, with its reliance of Lehrfreiheit and Lernfreiheit—the freedom of the professor to teach his or her specialty and the freedom of the student to choose what to study-emphasized research. The reformed German universities had strong ties to government and were publicly funded. They also played a cen-

tral role in Germany's modernization. Scholars in other countries looked to the new German universities as a model. American and Japanese academics were especially interested and succeeded in implanting German ideas about higher education at home. In the United States, research, graduate study, and the link between the university and social and economic development were most influential. In Japan, the contribution of higher education to national development and the organization of higher education into the hierarchical "chair" system were adopted. **As** Clark points out, Humboldtian ideas were less influential in Britain and France.

Places of Inquiry discusses the ways in which advanced study and research are carried out in four of the world's major academic systems. Although each of the countries discussed is technologically advanced, they differ in their approaches to university-basedresearchand training. Burton Clark is clearly pamal to the American approach, with its large and highly differentiated system, and a university structure based on departments and multidisciplinary centers. He argues that this arrangement has helped ensure American scientific preeminence. He sees the American academic system as the most successful in the world, and admires its ability to absorb large numbers of students while at the same time maintaining elite, research-oriented institutions at the top. He implies that a weakening of this academic infrastructure will inevitably result in a downturn in American science and technology.

The other three countries analyzed in this hook all have significant weaknesses in the provision of graduate-level education and research. Germany, which is the home of the Humboldtian university, saw its academic system dramatically weakened during the Nazi period. German scientific preeminence never reemerged. Clark points to the disjunction between the government-funded research institutes (the Max Planck Institutes) and theuniversities. The institutes are well funded and have excellent research facilities in the various disciplines, while the universities tend to be overcrowded, with deteriorating conditions. Clark argues that the existence of a strongnon-university research network tends to draw university-based research out of academic institutions, and that the German system de-emphasizes advanced training in the universities.

Of the countries considered in *Places of Inquiry*, Germany has the strongest research system, after the United States. Clarkpoints out that Britain, France, and Japan have seriously flawed arrangements for advanced education and research in the arts and sciences. Britain, with its strong

Oxbridge undergraduate traditions, was late to develop graduate education. Programs were established outside of the traditional universities, such as University College, London, or the University of Manchester, and only later were incorporated into Oxford and Cambridge, and even now are in an uneasy relationship with the wealthy undergraduate colleges. Recent developments in Britain have weakened academicstructures painstakingly built up in the period following the Second World War. The abolition of the University Grants Committee, which ensured autonomy in the allocation of funds to the universities, and most recently, the upgrading of the polytechnics to university status, have weakened top-level training and research. The French university system was abolished during the French Revolution, and reestablished by Napoleon with a purely teaching function. Further, the grandes ecoles, which educate the French elites, do not have a significant research focus. As in Germany, there are some government-funded laboratories and institutes outside the university system, but these do not have organic Links to the universities.

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Japan is an interesting case, especially for Americans, because of its persistent trade surpluses and the high achievement of Japanese students in comparative tests in mathematics and science. By all accounts, Japanese higher education does not measure up to Japanese primary and secondary schooling. Clark focuses on graduate education and research, and points to some important deficiencies. Japanese public universities — and the public institutions are the most prestigious and research oriented — are organized according to the rigidly hierarchical German "chair" system, which provides little latitude for interdisciplinary work. Further, the doctorate is not required for academic jobs, so Japanese scholars often do not complete doctoral degrees. Most graduate programs, according to Burton Clark, are undersubscribed. However, Clark underestimates the total productivity of Japanese science, as evidenced by the filing of large numbers of patents and a significant growth of scientific amcles and other research products in recent years.

Placer of Inquiry, as the title implies, focuses on the structures of institutions and especially of research systems. Clark does not pay much attention to the people within these systems—the professors and their orientations toward research and graduate study, or the students who will become

the next generation of scholars or scientists. He does not discuss the scientific community, which functions internationally as well as within national academic systems and in many ways is central to the research culture.

Surprisingly, there is virtually no mention of the academic upheavals of the 1960s, which had a significant, and largely negative, impact on higher education worldwide, and especially in the five countries discussed here. The 1960s marked the "massification" of the higher education systems of Germany and France, among other European countries. Academic structures were altered, as in the addition of students to the governance of some universities in Germany, the confidence of the senior faculty was shaken, and public opinion turned against higher education. In Japan and the United States, student activism brought unprecedented, and largely negative, public attention to the academic system. By focusing on Britain, France, Germany, Japan, and the United States, Clark leaves out many important developments in the world of science and scholarship. The once fairly powerful Russian academic system is currently in complete disarray. On the other hand, there is considerable academic growth, including some advanced research, in East Asia. However, Clark's choice of countries, at least in terms of traditional research productivity, makes a good deal of sense.

Burton Clark is describing an academic ethos that, he says, is coming to end. As he says, "The Humboldtian idea is no longer, and cannot be, in command across modem systems of higher education and related systems of research. Powerful conditions dictate that much research and teaching, research and learning, will proceed on different pathways."(p.10) If he is right, and there is, unfortunately, considerable evidence that he is, new means of supporting research will have to be found, and perhaps new institutional forms, to ensure that both basic and applied research is carried out—applied research and development is simply not possible indefinitely without the underpinnings of basic research. At present, the academic systems that have slowly evolved over centuries and that were strengthened in the past half-century are under unprecedented attack. In all five countries discussed here, higher education is being weakened. There is little attention being paid to the future of advanced training and research. Inevitably, what is being destroyed will have to be rebuilt. Places of Inquiry provides a useful analysis of the nature and development of graduate study and research in the late 20th century.