rah Fink, shows that women's work was central to the pre-1940 farm economy. In the second, Tracy Bachrach Ehlers incorporates age and life-course considerations into the analysis of women as subsistence producers, wage laborers, managers, and sellers of petty commodities. She includes a good discussion of the varieties of cash-generating strategies initiated and maintained by women, from selling eggs in order to purchase groceries (until the mid-'60s) to selling cosmetics, vitamins, and home decorations from their homes (1982). The section points to the qualitatively different kinds of work performed by men and women and raises some important questions about labor force measurement.

Part 3, Racial and Ethnic Differences, contains papers by Sonya Salamon and B. Lisa Gröger. Salamon discusses resource control and ethnic differences in inheritance patterns, church affiliation, and family goals and strategies in two Illinois farm communities. Gröger contrasts land tenure arrangements and intergenerational relationships among blacks and whites in a North Carolina tobacco-growing community.

Part 4, Legal and Policy Issues, contains papers by Miriam J. Wells on sharecropping in the United States, Frances J. Aaron Brooks on trespassing on New Jersey vegetable farms, and Gerald M. Britan on the politics of agricultural science. Wells raises some important questions concerning comparative studies of sharecropping and their potential for explaining variations in sharecropping arrangements. In her discussion of the conflicts that result from trespassing, Brooks quite rightly points out that her

analysis is most significant for its implications for understanding changes in the social and political structures of rural communities.

The afterword, by Chibnik, emphasizes the diversity and complexity of rural life. Chibnik points out, for example, that land tenure is a central feature of rural social structure—as land values fluctuate, tenure relations will change. He recommends, also, that much more research needs to be done on land use rights and obligations. Here is where the cross-cultural record can be mined. Are there regions of the United States in which agrarian systems are less developed (smaller, less capital-intensive) and, perhaps, comparable to areas in some Third World countries? Alternatively, are there other areas that are comparable to parts of other industrial states in Europe, for example, during certain periods in history? The challenge for anthropologists is to use the panhuman (cross-cultural) perspective to devise methods for dealing analytically with both diversity and complexity. This involves not only collecting data that can be used, for example, to paint a detailed picture of a single case in a single county or community but also developing analytical frames (models) for collecting and organizing comparable data so that we can begin to explain the precise nature of the diversity. The papers in this volume provide some good case materials. Much more work needs to be

> RHODA H. HALPERIN Department of Anthropology, University of Cincinnati, Cincinnati, OH 45221

Homes of Research

To Advance Knowledge. The Growth of American Research Universities, 1900–1940. ROGER L. GEIGER. Oxford University Press, New York, 1986. x, 325 pp. \$27.50.

The research university is a robust, familiar feature of 20th-century America. Anyone committed to the life of the mind can hardly avoid it. In fields from English literature to quantum physics the research university and the professoriate have come to play a central role, often to the dismay of thinkers more at home in salons, research institutes, government bureaus, professional organizations, museums, foundations, or the solitariness of their own studies.

The research university may be familiar, but it is ill understood. Information on its parentage, its origins, its early struggles, its

growth, its transformations, its purposes, and its funding is fragmentary and confusing. The bewildering variety of forms and functions to be found in the research university by mid-century was openly celebrated by Clark Kerr in his brilliant essay The Uses of the University. Kerr himself was a master builder, with a sure sense of the rhythms, problems, and possibilities of the research university. Equally adept was Jacques Barzun. The latter's The American University is another celebrated text of that era which spells out in longhand many of the same points made by Kerr. The 1960s were of course receptive to large and expansive views, and much was heard of the information explosion, the knowledge-based society, and the apparently unlimited possibilities that lay ahead. However, to describe and project the visions of an era is not the same as to offer satisfying historical explanation. Besides, the mood has become more sober, doubting, and uncertain over the past 15 years.

The ebbing of the baby boom, the slowing in the growth of overall support for higher education from the federal government, the aging of the professoriate, and the shift of students from liberal to utilitarian studies have made it less appropriate to celebrate that high theory which the research university prizes above all. Yet the research university has if anything increased in its importance to our larger society. The federal government may seek to cut back on Pell grants, but it continues to devote increasing sums to university research on subjects deemed vital to our national defense or our industrial competitiveness (and what subject isn't?). The director of the National Science Foundation believes it possible to double his budget within five years and to multiply the foundation's support of university-based multidisciplinary centers. Corporations vie in their support of university research on subjects with commercial possibilities, from biotechnology to superconductivity. The prestige and the dazzle may have dimmed, but the research university marches on.

Roger Geiger is therefore to be greatly thanked for having put together the first reliable account of "The Growth of American Research Universities, 1900–1940." Now at length we have available between one pair of covers a comprehensive, organized text on how the research university got its start in American society.

The story that Geiger tells is an interesting, complex one. Strange as it may seem, there was a time when it was not settled that the university would be "the home of research." Early in this century many other models seemed possible. The Carnegie and Rockefeller philanthropies favored research in special institutes (what is now the Rockefeller University did not begin as a university, and the Carnegie Institution has still to succumb). It was not impossible to believe that government bureaus would hold center stage, for the Department of Agriculture and the Smithsonian Institution offered plausible paradigms. After World War I the universities themselves seemed to falter as "the collegiate man" came to the fore and Anglophilia waxed as the Germanic ideal waned. Experiments with industrial support of research at the Massachusetts Institute of Technology were less than encouraging in their implications for basic research on the campus. But despite the alternatives and the problems, the research university had moved to center stage by 1940. The die was cast.

Geiger provides a detailed, authoritative account of how a small group of universities were able to sustain a long struggle and to impose their vision of cognitive rationality as an end and research as the means. The original founder members of the American Association of Universities, plus Illinois, Minnesota, and M.I.T., were early in the game and they still today remain the central players. They triumphed through strategies of decentralization, compartmentalization, and professionalization. Graduate students played the role that Karl Marx elsewhere assigned to the reserve army of the unemployed. Certain visionary leaders in private foundations (Beardsley Ruml, Warren Weaver) came to see that the universities were their natural allies in fostering an ideology of research.

In telling his story, Geiger is able to draw on the numerous specialist studies of scholars such as Daniel J. Kevles, Robert E. Kohler, and John W. Servos. He weaves their accounts in a richly detailed, convincing tapestry. Yet in the end his story is stronger on the how than on the why of what happened. Perhaps this was inevitable in a pioneering text. A comparison of American with British, French, and German experience might have proved illuminating. Only

in the United States did a system of laissezfaire funding so ruthlessly condition the struggle for resources in a massive market place. Only in the United States was the individual professor able to translate his own competitive advantage in research into facilities, funds, and students in a way that fostered the emergence of a flexible, kaleidoscopic national system of research universities. Those universities in turn were able to nourish coherence in their local communities even as they became ever more deeply committed to the cosmopolitan, fragmented, transitory nature of modern knowledge.

The story is rich in its texture, and in its implications. One longs for a second volume to carry the story through the great transformation wrought by federal funds between 1940 and 1980. Only when both these volumes are on the shelves shall we understand the context of that third volume, for which we all now write the source materials through our daily commitment to live the life of research. But, for now, Geiger's story must suffice, and we are all in his debt.

ARNOLD THACKRAY Department of History and Sociology of Science, University of Pennsylvania, Philadelphia, PA 19104-6310

Philanthropic Institutions

The Nonprofit Sector. A Research Handbook. WALTER W. POWELL, Ed. Yale University Press, New Haven, CT, 1987. xiv, 464 pp., illus. \$45.

As the subtitle of this work on the subject might suggest, the study of philanthropic enterprises has grown so complex that one now needs to be guided through it. Government policy has made it necessary to be much clearer about what can be justified as a charitable act. In particular, the Tax Act of 1969 necessitated a rethinking of foundation policy. But there are other, related reasons that are perhaps more interesting.

In the 1970s the report of the Commission on Private Philanthropy and Public Needs (Filer Commission), a privately funded study of the philanthropic sector that had its own rather special relation to government policy-makers, opened up philanthropy to economic analysis on a scale never before attempted. What was virtually a new field of study began to transform the literature about foundations. For better or for worse professional economists discovered philanthropy and saw that it was good.

The Reagan administration's opening appeal to philanthropy to "take up the slack" as government support declined produced a puzzled embarrassment on the part of both

traditional philanthropists and the new corporate grantmakers, who had for more than two decades been watching government involve itself in a multitude of old and new enterprises on a scale private philanthropy could not dare to match. The Reagan appeal reinforced a challenge posed by the Filer Commission's analysis and touched the well-springs of the new privatization that that commission's report had sought to reach in the nation's business and industrial community. For a moment foundation managers and private philanthropists stood like naked emperors.

In subsequent years the representatives of philanthropy covered themselves once again with privacy, but of a new order. They set about collecting information about themselves and analyzing it to see what in fact they were doing and to justify it. Neither has been easy; and it is to their credit that they have refused to stop at the barriers traditional defenders of privacy have erected against investigation. For philanthropy in most of its forms involves public action and public choices about what is good and useful. However private the resources and their management may be, the effects of philanthropy have traditionally changed public perceptions of the quality of life.

Philanthropy is and has always been a private intervention in areas we would now regard as the domain of public policy. In the once innumerable areas in which there was no public intervention, philanthropy provided a service that was, in its way, essential; but in recent years the expansion of government intervention has put private and public on courses that have been at best mutually supportive, but also intersecting in ways that suggest the possibility of collision.

Philanthropy has increasingly needed advocates to defend it against its critics in and out of government, to encourage the growth and continuity of the philanthropic process, and to provide guidelines that would make self-regulation possible. Part of that advocacy resides in the very term "nonprofit organization," since it substitutes for the implication of charity that "philanthropy" carries an organizational conception modeled on business enterprise, which is presumably efficient, subject to cost-accounting standards of performance and principles of effective management. The only difference between a profit-making agency and a non-profit thus becomes the profit. We assume, in a hidden pejorative, that by removing the profit we enhance either the public character of the benefit or its inefficiency.

The use of the term "research" as an umbrella that would cover the various aspects of advocacy without drawing critical attention to the process has been a stroke of genius. Both the Council on Foundations and Independent Sector have bodies devoted to research, and since 1978 some of the major foundations have funded a Program on Non-Profit Organizations at Yale. By far the most distinguished philanthropy think tank, PONPO has been responsible for gathering together a wide range of scholars whose purposes are more objective than any of the philanthropic world's internal bodies could afford to be, although committed still to arguing the fundamental effectiveness of philanthropy.

The book under review is a product of PONPO, and a useful one. The information it provides is new and important, even though it is distributed among an uneven collection of two dozen reviews. In a sense the book is unusual for anything that carries that title of "Handbook." Much of the information one would like to have either is not systematically collected by anyone or is not made available by its collectors. But by constructing a systematic framework and asking analytic questions within it the creators of the volume do a service to future research. The outline-and it is impressive in scope and comprehensiveness—is here. Future researchers will be grateful; but they

984 SCIENCE, VOL. 236