Marginalized Positions

Uneasy Careers and Intimate Lives. Women in Science, 1789–1979. PNINA G. ABIR-AM and DORINDA OUTRAM, Eds. Rutgers University Press, New Brunswick, NJ, 1987. xvi, 365 pp., illus. $35; paper, $12. Douglass Series on Women's Lives and the Meaning of Gender.

The editors and authors of this volume are headed in the right direction. They want to understand when and why the circumstances of women's and men's participation in scientific inquiry diverged significantly as science ceased to be an amateur endeavor and whether gender was a first- or second-order cause of that divergence. These are questions of profound significance for our understanding of modern science, and the editors pose them trenchantly.

The interpretative essay introducing the volume and the individual essays themselves are serious, scholarly, and lively. Yet even though each chapter contains important asperçus and each poses incisive historiographical questions, the total impact of the volume is diffuse. This is probably inevitable even though the essays were specially commissioned for the volume. As the editors write in their introduction, much more prosopographical work on women scientists will be required to unravel how and why it is that as modern science was institutionalized most women scientists were pushed to the margin of scientific activity and only extraordinarily talented and determined women could make full-time careers doing science.

Uneasy Careers and Intimate Lives sets out to challenge received opinion in the history of science and in women's studies. Specifically, the editors intend the volume to raise questions about the degree to which science between about 1789 and 1979 was an exclusively male activity, the degree to which the personal lives of scientists are separate from their scientific work, and the extent to which individuals operating outside the formal structures of institutional science have made major contributions until well into the 20th century. Part 1 is devoted to the analysis of the social and historical contexts in which women made significant contributions to either the sponsorship or the actual work of science and to an examination of the forms of intimacy available to women who sought active scientific careers. Each chapter explores a particular field, such as botany, ornithology, or astronomy, in which 19th-century women made major contributions as field observers and also examines the interplay between intimate relationships and scientific creativity for the women in question. The weight of the conclusions reached in these explorations is that single women and widows display the most consistent creativity, although instances of egalitarian marriages and shared creativity are also clearly described.

Part 2 contains six biographical essays that explore in detail the personal relationships of outstanding women scientists representing three generations (Maria Mitchell, Clémence Royer, Sofia Kovalevskaia, Marie Curie, Cecilia Payne-Gaposchkin, and Dorothy Wrinch). The generational treatment offers some cumulative sense of the nature of the barriers to full participation in institutionalized science experienced by women. Thus the combination of household obligations and field observation described for 19th-century women constrained by the cult of domesticity was no longer possible for a Wrinch or a Payne-Gaposchkin. Twentieth-century women might have easier access to formal training and fewer family demands, but their ability to gain access to facilities and more than marginal research support was possibly a greater constraint as doing science moved from field observation to laboratory.

The authors share the view that there is no biologically based female world view or mentality that affects cognitive activity or cognitive styles. They also challenge the view that cultural categorizations of nature as "feminine" and science as "masculine" render the woman scientist culturally anomalous and easily marginalized. This leaves them faced with the problem of how to explain the consistent underrepresentation of women in modern science and confused about the operation of gender as a cultural, as opposed to biological, category. The editors indicate that women's underrepresentation in modern science comes from the exclusion of the "domestic" realm from institutional science. In this respect modern scientific activity would be no different from that of the modern business corporation, the armed forces, or celibate religious communities. To be sure, the biographical essays describe many lives in which children are abandoned, husbands are burdensome, or intimate relationships are fraught with tension and bitterness. It is highly likely that a generational study of women surgeons or musicians or lawyers would reveal similar patterns. There *is* a tension between professional work and the family in modern society, but it is not one peculiar to science.

It is easy to point out such weaknesses in any volume that tries to break new ground as this one does by blending social and cultural history with the history of science. These weaknesses are compensated for by the scope of the undertaking, the liveliness of the individual essays, and the interest of the biographical studies.

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Sociopolitical Enumerations

The American Census. A Social History. MARGO J. ANDERSON. Yale University Press, New Haven, CT, 1988. xiv, 257 pp., illus. $20.

The United States Census has been an important part of American life since 1790. It has been used to fulfill the constitutional requirement for reapportioning representation every ten years. In addition, it has contributed to the growth of statistical thinking that is so much a part of modern life. Yet for many Americans census-taking is a poorly understood process intruding on our lives once a decade. Anderson begins this book with the story of a congressman who, in the 1960s, protested that the census seemed like an unnecessary expense when everything he needed was in an almanac. When she is finished, it is clear not only that the census has an important history of its own but that it also is closely linked with the broad patterns of social, political, economic, and intellectual change that have occurred over the last two centuries. This is quite consciously a book not only about the census, or even about the history of statistics; it is about American history as a whole.

The book is organized around the perspectives of continuity and change. Change is reflected in the focus on how the censuses have developed from 1790 to 1980. Anderson deliberately avoided the temptation to write a separate chapter on each census. In order to emphasize the fact that censuses always reflect the social and political concerns of their time, she treats counts that shared methods, assumptions, and influ-