Book Reviews

The Transplantation of European Intellectuals

Illustrious Immigrants. The Intellectual Migration from Europe, 1930–41. LAURA FERMI. University of Chicago Press, Chicago, 1968. xii + 440 pp., illus. $7.95.

In the five-year period beginning in 1926 nearly a million and a half individuals immigrated to the United States. In the next five years, after the national-origins provision of the latest immigration act went into effect, the number dropped to less than a quarter of a million. Therefore it was not quantity that distinguished the newcomers of the decade preceding World War II but the fact that among them were so many of Europe's most intelligent and best-trained men and women, who immediately became visible to middle-class America as neighbors, teachers, and colleagues to an extent that earlier waves of immigrants had never done.

Taking as its terminal points the years 1930 and 1941, *Illustrious Immigrants* presents this remarkable movement of peoples in several scales and perspectives beginning with the conditions that prompted intellectuals to leave Europe, the migration patterns of various nationalities, and the work of refugee committees which encouraged emigration, provided visas and travel funds, and found jobs in America. Mrs. Fermi's account of this generally successful rescue operation will evoke vivid memories for older readers and demonstrate to younger ones that resourcefulness and courage were not entirely lacking in those who faced the challenge of the dictators. The book then surveys by fields the contributions which this educated elite quickly began to make to the cultural life of its adopted country. While this multiple approach involves some repetition, it gives a sense of the movement in the round and leads to some interesting general observations.

The intellectuals were not exiled, Mrs. Fermi points out. Most left their homes by choice, albeit an unhappy one. Germans formed a large proportion of the wave (44 percent of the names in her file) because they came early and had time to send for relatives before the bars came down after Pearl Harbor. The mystery of Hungarian talent can be traced to the emergence of a strong middle class at the turn of the century, largely Jewish and intellectually ambitious, which created in Budapest a sophisticated and continuously stimulating atmosphere. "The political anti-Semitism of the early twenties hit this segment of the population with great vehemence and gave the intellectuals a further reason for striving to excel and stay afloat."

Intellectuals on the whole made a happy adjustment to America, especially those who fitted naturally into academic life, but several prominent writers and artists found the new environment entirely uncongenial and, with the politicians and statesmen, returned to Europe after the war ended. Professionals, whom Mrs. Fermi distinguishes from scholars, also had special problems. Life was initially hard for many physicians, but it was the lawyers whose training proved least exportable and who most frequently had to find a new means of livelihood.

Though rich in personal anecdote and communication which make delightful reading, *Illustrious Immigrants* is not an autobiography. Yet the author has gone about her task in a very personal way. "By intellectual immigrants," writes Mrs. Fermi, "I mean the men and women who came to America fully made, so to speak, with their PhD's or diplomas from art academies or music conservatories in their pockets, and who continued to engage in intellectual pursuits in this country." To have been included in Mrs. Fermi's file of 1900 "intellectuals," picked to start with from *Who's Who* and other biographical dictionaries, one must have done more than merely continue to practice a profession. One must have contributed to the development of one's field by teaching, writing, or appreciably affecting public opinion or taste. This is hardly a "sample" in the research sense of the term, but Mrs. Fermi disarms criticism by clearly indicating the substantive omissions she has made.

In assessing intellectual contribution, Mrs. Fermi makes a distinction between impact and achievement. The judgment implied in "impact" presupposes, she explains, "a detailed appraisal of conditions and trends in the American cultural scene before and after the arrival of the Europeans as well as a considered guess about the evolution that might have taken place in the absence of the migration." Evaluation of impact in all fields to which immigrants contributed significantly would have been too complicated. Hence the attempt is made in only two, psychoanalysis and atomic science.

Looking back upon her own reactions to America in 1938, Mrs. Fermi concludes that much of what seemed new and strange was due not to national differences between Italy and America but to the influence which Freudian concepts had already exerted upon American education and family life. The report on the psychoanalysts who arrived in the '30's, with its introductory section on the work of their predecessors and of early American pilgrims to Vienna, is clear and informative, but those who remember the strong impact of psychoanalysis in the late '20's—on the social work profession, for example—will suspect a slight distortion in the direction of the author's chosen period.

The other area where Mrs. Fermi is willing to assess impact is the one that inspired her to write the book in the first place, namely, the extraordinary development of nuclear physics made possible by the arrival of her husband and other European pioneers in nuclear research. This section is excellent, a summary that has both depth and detail. The now familiar story acquires a new perspective when the leading characters reminisce as immigrants rather than as scientists. As with the Hungarians, selective forces, we are told, accounted for their brilliance. Only the most intelligent had been attracted to a difficult and challenging field. Adaptable and self-reliant individuals, possessed of more than ordinary initiative, were most likely to emigrate, and these are qualities vital

to success in science. American job offers, made first to the most distinguished, were a further selective factor.

Although the author's topic is the magnitude of Europe's intellectual contribution, the "only in America" theme runs throughout the book and is nowhere more emphatically stated than in the case of the nuclear scientists. They were gratified, Mrs. Fermi reports, by the warmth of their reception and, after some initial signs of mistrust, by official confidence in them. The concentration of workers in wartime projects made possible the integration of European theory and American practice. Scientific policy makers were farsighted; money and industrial know-how were plentiful, and the Europeans, seeing some of their wildest fantasies on the verge of realization, became more productive than they could ever have been at home. Mrs. Fermi goes on to note the participation of the European scientists in the making of postwar policy but does not include their contributions to the tensions that developed around the Oppenheimer hearings and the testimony on the test-ban treaty, an omission permissible in a personal account but not in an objective history.

A second chapter on science selects the fields of mathematics, astronomy, medicine, and molecular biology for special treatment. Here too Mrs. Fermi's understanding of the subject matter and familiarity with leading figures are great assets, although the absence of some individuals and topics will doubtless be questioned. When the story moves into the fields of the arts and the social sciences, it becomes a somewhat mechanical recital of biographical data and titles of publications that smacks of line-counting in *Who's Who*, and the judgments have a second-hand flavor that fails to carry conviction. In fact, one might make a good deal of the ambiguity of the author's role, changing as it does without comment from that of sensitive, careful, firsthand observer to that of amateur sociologist, were it not that *Illustrious Immigrants* is in so many ways a splendid and useful book, tackling with imagination, industry, and a rare combination of personal concern and emotional detachment a subject that would frighten—indeed thus far has frightened—professional social historians by its magnitude and complexity.

Mrs. Fermi's involvement as part of the wave is both an asset and, to a lesser extent, a liability. Bewilderment at new

Books Reviewed in This Issue

surroundings, homesickness, and heartbreak for those left behind are things that she thoroughly understands, and this understanding, conveyed without sentimentality, makes the book warm and human. Even so, one wonders if she does not understate the anguish of uprooting even for those successful enough to be included in this study. One casual reference to "refugee psychology" suffices for what was once a painfully common phenomenon of maladjustment, though not perhaps so marked in the scientific community as in others.

At the same time one misses certain perspectives that an American writer would have brought to the task. The background of economic depression is here, but not the corollary upsurge of pride and interest in America's own cultural past that to Mrs. Fermi's contemporaries was one of the most significant aspects of the depression experience and that surely affected their receptivity to artistic and literary stimuli from Europe. There is an excellent brief survey of the background of the exclusion provisions of the immigration act of 1924 but little reference to the character and distribution of recent waves of immigrants that determined attitudes toward those who came in the '30's. And, as 19th-century history testifies, 100-percent Americanism was not a "novel" concept.

Fifty years ago the struggles of young immigrants in the promised land, movingly described by Mary Antin, Jacob Riis, Edward Bok, and others, were avidly followed by the American reading public, young and old alike. One notes that Mrs. Fermi's highly literate new Americans of the '30's produced no comparable classics of aspiration and fulfillment. For established European intellectuals America was a physical haven; it was not a promised land. In the beginning they undoubtedly regarded it with considerable condescension. And these immigrants were too old. There is no romance in middle-aged adjustment, and their very success made it relatively easy for their children to become American.

But the audience too has changed in 50 years and seeks perhaps more generalized testimony about past experience than those earlier tales of individual struggle and achievement. One answer may lie in the kind of personalized history represented by *Illustrious Immigrants*, full of pitfalls and sure to be resisted by professional historians, but pointing the way perhaps to a new genre of historical writing, somewhere between the memoir and the supposedly objective recital of historical events.

ALICE KIMBALL SMITH
Radcliffe Institute,
Cambridge, Massachusetts

An Earlier Day in American Science

American Science in the Age of Jackson. GEORGE H. DANIELS. Columbia University Press, New York, 1968. xii + 282 pp. $7.95.

Science in Nineteenth-Century America. A Documentary History. NATHAN REINGOLD, Ed. xii + 339 pp., illus. Hill and Wang, New York, 1964; cloth, $5.95; paper, $2.45. Macmillan, London, 1966; 30 s.

Despite the rapid development of the history of science as an academic discipline in the past two decades, the history of American science remains largely unwritten. Most professional historians of science have ignored it, regarding American contributions to science before 1900 as too slight to merit attention. Historians of the United States have usually considered the history of science as lying outside their field of interest and competence. But the subject has not been totally neglected. Such scientist-historians as Joseph Ewan and George White have written and inspired numerous articles and monographs on the history of botany and geology in America and have edited scholarly reprint editions of American works in these fields. At the same time, a small band of American historians trained in social and intellectual history have turned their attention to the role of science in American history. The former group of writers tends toward the "internal" history of science, the latter toward its "external," or contextual, history.

The two books under review are good examples of the contextual approach. Both writers focus attention on mid-19th-century developments, both stress the growing professionalization of American science, both examine its institutional form and development, both attempt to display science as an integral part of American history. But each has his own distinctive way of treating these subjects.

Daniels approaches American science in the period 1815–1845 from two distinct but related points of view. The first two chapters and the appendices of his book present a picture of the American scientific community in the Jacksonian era. The remaining chapters analyze and illustrate the general ideas about science and scientific method prevailing among scientists and philosophers of science at that time. Very little is said about the actual science of the period, except by way of illustrating the influence of philosophical and religious presuppositions on scientific investigation.

As a basis for defining the scientific community in Jacksonian America, Daniels has made a careful study of 16 scientific journals of the period. From the ranks of the contributors he selects 56 "leading scientists," who together accounted for more than half the articles in these journals. The biographical and bibliographical sketches of 55 of these men, given in appendix 1, are one of the most valuable features of the book. Daniels also analyzes the content of the articles in his 16 journals, presenting the results in tabular form. These data are then used to refute the common misconception that American science in the early 19th century was unspecialized, strongly utilitarian, and preoccupied with natural history at the expense of the physical sciences.

Daniels's account of the professionalization of American science and of its relations with philosophy and religion leads him into an extended analysis of the "Baconian" philosophy of science in America—a complex of ideas and attitudes derived partly from Bacon, partly from the Scottish common-sense philosophers, and partly from Protestant natural theology. These chapters constitute a valuable contribution to American intellectual history and, more generally, to the history of the philosophy of science, a largely neglected subject. Since American scientists were not given to writing treatises on the philosophy of science, Daniels is forced to base his account to a considerable extent on the writings of philosophers such as Levi Hedge and Samuel Tyler—men forgotten today but influential in their own time. Daniels then tries to show how ideas about scientific method were reflected in the general pronouncements of the scientists themselves and in their