Intellectual Spoils

Science, Technology, and Reparations. Exploitation and Plunder in Postwar Germany. JOHN GIMBEL. Stanford University Press, Stanford, CA, 1990. xvi, 280 pp. \$29.50.

Since the end of the Second World War, rumors have abounded about the seizure of scientific and technical information from defeated Germany by the United States and its allies. How extensive was this intelligence effort? How did it affect the postwar scientific, technological, and economic development of East and West Germany? How useful was such information to the former allies? Except for some attention paid to German scientists who came to the United States (primarily aeronautical engineers and rocket scientists under the auspices of Project Paperclip), scholars have given us only a few intriguing hints about the organization, scale, and significance of the military and commercial exploitation of German scientific and technological secrets. John Gimbel has now provided us with a definitive study of this significant subject. The result of over 10 years of intensive research by a historian who has studied the American occupation for over 30 years, the book is an impressive addition to the historiography of that era. It should also prompt other scholars to explore related aspects of this long-neglected sub-

Gimbel concentrates for the most part on the U.S. side of the exploitation effort, which grew out of wartime scientific and technical intelligence operations. By spring 1945, a large number of investigators of military-related German science and technology accompanied advancing U.S. troops in Europe. Their purpose was to find useful information to help in the still-ongoing war against Japan. Even before the war against Japan ended in August 1945, however, the purpose began to shift: wartime efforts, which were dictated by military expedience, became commercial exploitation programs sponsored by the Commerce and War Departments in the postwar period.

Policy shifted gradually and for a number of reasons. For one thing, the commercial possibilities of the information collected became apparent to investigators, most of whom were seconded from large corporations: companies could save on research-and-development costs by avoiding dead

ends discovered by German scientists; investigators could garner ideas for new products and processes; and they could also gather industrial intelligence for use against once and future German competitors. Another factor in the policy shift was increasing competition among the former allies—and not just between the Americans and the Russians—for German scientific and engineering talent. Project Paperclip grew out of the American desire to "deny" such talent to other countries. Gimbel underscores the commercial as well as the military impetus behind Paperclip.

From the beginning of the occupation, German industrialists and politicians complained about the exploitation program. Military government personnel responsible for controlling, and eventually rebuilding, the shattered German economy echoed their complaints. Gimbel details the clash within the American camp between the "governors" and the "exploiters"—the latter primarily Commerce Department employees, backed by American industrialists. Shifts in U.S. policy on Germany that occurred as the Cold War escalated combined with continued pressure from occupation authorities to force an official end to the program in mid-1947.

Some of the most striking of Gimbel's findings come from his analysis of the extent of the plundering operation. Hundreds of technical investigators from FIAT (the Field Information Agency Technical) visited thousands of university and industrial targets and collected millions of pages of documents, blueprints, and drawings. Microfilms of much of this material were made available to U.S. industry. The investigators also produced summary reports that the Commerce Department's Office of Technical Services offered to the public in the United States and abroad at the cost of reproduction. Gimbel marshals a number of examples to illustrate the complexity and variety of these efforts, the German response to them, and their value to U.S. industry.

Why is this analysis of the extent of exploitation significant? For one thing, it demonstrates the dubiousness of subsequent U.S. claims of commercial distinterestedness in the occupation of Germany: just like the Russians, and to a lesser degree the British and the French, the Americans seized enor-

mous quantities of reparations from the defeated country. Gimbel explains in detail why placing a precise value on these "intellectual" reparations is impossible, but gives some credence to the Russian claim that Anglo-American seizures amounted to about \$10 billion. In addition, Gimbel argues that the significance of the exploitation effort extended beyond 1947. He suggests that the FIAT experience, by providing concrete evidence of the sophistication of German science, technology, and industry, helped convince U.S. policymakers of the centrality of German recovery to European recovery, an idea that became a key feature in the implementation of the Marshall Plan. FIAT was also a "conveyor-belt for future business connections" between American and West German industrialists. Finally, the material collected by FIAT certainly affected the pace and direction of postwar U.S. technological development in a number of

Precisely how the exploitation program affected the course of U.S. technological progress after 1945 is not the subject of Gimbel's book. But he provides the background for investigation of this question. We also need to know more about the effects of FIAT and other programs on West German industrial development during the 1950s and beyond, and detailed examinations of the French, British, and even the Russian counterparts to the American programs would be useful. In his study of the U.S. case, Gimbel has accomplished a great deal: he has simultaneously produced a definitive analysis of a key, yet long-neglected problem and challenged scholars to extend his analysis to related issues.

RAYMOND G. STOKES Department of Science and Technology Studies, Rensselaer Polytechnic Institute, Troy, NY 12180–3590

Trends in Morbidity

Sickness, Recovery and Death. A History and Forecast of Ill Health. JAMES C. RILEY. University of Iowa Press, Iowa City, 1989. xvi, 295 pp., illus. \$27.50.

In the past two centuries, mortality has declined drastically. Since 1900, for example, expectation of life at birth in the United States has increased by some 30 years. For a large majority of the population at present, death has been postponed until old age.

With this reduction in the risk of death, one might think that the incidence and duration of sickness, a typical antecedent of death, would have also decreased. Indeed, there are plausible reasons for accepting this