Science and Nazism

Murderous Science. Elimination by Scientific Selection of Jews, Gypsies, and Others, Germany, 1933–1945. BENNO MÜLLER-HILL. Oxford University Press, New York, 1988. xvi, 208 pp. $24.95. Translated from the German edition (Reinbek bei Hamburg, 1984) by George R. Fraser.

For most of this century, the consensus among most Anglo-American science theorists has been that science flourishes only in a democracy and that democratic values inhere in the practice of science. In the past decade or so, a broad literature has emerged in Germany challenging both of these assumptions. More than a dozen books have appeared exploring the history of science or medicine under the Nazis, following upon Gerhard Baader *et al.*'s pioneering compilation *Medizin und Nationalsozialismus* (1980) and works by the students of Fridolf Kudlien, Gunter Mann, Achim Thom, and others. Benno Müller-Hill's *Murderous Science* (translated with minor corrections from the German edition) follows in this tradition, exploring the role of science in the extermination of European Jews, Gypsies, and others. The thesis of the work is that "human genetics played a crucial role in the atrocities committed by the Nazis."

Evidence for this claim is powerful, and disturbing. Eugen Fischer, for example, as head of the Kaiser Wilhelm Institute for Anthropology, Human Genetics and Eugenics (1927–1942) supervised the training of SS physicians and helped to administer the sterilization of German-Negro half-breeds in the Rhineland. On 20 June 1939, speaking to the coal barons of the Ruhr, he called for the rejection of Jews as "alien racial elements"; he characterized as "self-defense" the suppression and elimination of this "greatest enemy with whom we have to fight." In March 1942, Fisher was proposed by Rosenberg as a possible head for a planned "Reich Center for Research on the East"; and on 10 June 1944, he accepted Rosenberg's invitation to head an elaborate Anti-Jewish Congress planned for Cracow.

Fischer is only one of several figures discussed by the author, in what is clearly an attempt to provide not a "balanced" account of geneticists and anthropologists in this period but rather an account of those who were to become "accessories" in the murder perpetrated by the Nazis. Much of this book reads as a catalog of horrors. We read how scholars at the Kaiser Wilhelm Institute for Brain Research scrambled to obtain the brains of murdered mentally ill (for purposes of dissection), and how the German Association for Scientific Research (DFG) provided support for Otmar von Verschuer, Fischer's successor at the Kaiser Wilhelm Institute for Anthropology, to have his assistant, Josef Mengele, prepare and ship eyes, blood, and other body parts back to Berlin for analysis. We also hear about the failure of psychiatrists to resist the euthanasia program (in fact, psychiatrists helped to plan and administer it), and about the silence after the war on the part of those involved—a silence that, when probed by Müller-Hill, is greeted by repeated claims that (as one psychiatrist puts it) "no one knew anything."

Müller-Hill stresses that Nazi racial policy was the work of trained scholars, not ignorant fanatics: how else are we to interpret the fact that 7 out of 14 participants at the notorious Wannsee conference (outlining plans for the "final solution") possessed doctorates or that leading German psychiatrists were mobilized with hardly a single protest to exterminate Germany's mentally ill? In this, Müller-Hill reaches the same conclusion as Max Weinreich more than 40 years ago, in his *Hitler's Professors*, where it is established that the crimes against Germany's ethnic minorities were not the product of a crazed minority but rather were assisted by leading scholars of international repute. Fischer himself, writing in March 1943, noted that "it is a rare and special good fortune for a theoretical science to flourish at a time when the prevailing ideology welcomes it, and its findings can immediately serve the policy of the state." That ideology, according to Müller-Hill, was that "there is a biological basis for the diversity of Mankind." Anthropologists and psychiatrists were able to give "a scientific gloss and tidiness" to the Nazi regime and its activities.

One of the most intriguing parts of Müller-Hill's book is the 63-page section devoted to interviews with several of those who had lived close to the racial theory of the 1930s and 1940s, including Gertrud Fischer (daughter of Eugen), Wolfgang Abel (successor to Fischer's chair of anthropology at the University of Berlin), Widukind Lenz (Fritz Lenz's son), Helmut von Verschuer (Otmar's son), Edith Zerbin-Rüdin (daughter of Ernst Rüdin), and several others. We hear about Fischer being visited after the war by his old friend Martin Heidegger, and of how Germany's foremost anthropologist believed (in his daughter's words) not that "the Jews are bad" but that "the Jews are different." We hear the notorious Auschwitz physician described as "Papa Mengele" (by the ladies, on account of his "friendliness") and as Verschuer's "favorite student"; we hear about Abel's efforts to prove the Mendelian segregation of human anatomical features (jaws and teeth) through the study of racial crossings. We hear Lenz's son comparing the situation of the Jews in 1933 to that of the Palestinians in 1980, and about post-war DFG support for anthropometric research (by Ehrhardt) on data gathered from Gypsies killed at Auschwitz. The memories of the children of Fischer, Verschuer, and Lenz are revealing in what they omit: if we can believe the children, their fathers "never spoke about politics"; no one interviewed appears to be willing to admit that Lenz, Fischer, Verschuer, or Rüdin was an anti-Semite.

Sadly, much of what Müller-Hill uncovered has not been, and probably never will be, published. As he notes in his introduction, he granted his informants veto rights over whether their interviews would be printed; many of those interviewed subsequently refused to allow their remarks to be published, even after correction. This is especially unfortunate, given that the author recorded the views of figures such as B. K. Schultz (former SS officer and editor of the anthropological journal *Volk und Rasse*), S. Ehrhardt (a collaborator of the Gypsy expert Robert Ritter), A. Butenandt (formerly director of the Kaiser Wilhelm Institute for Biochemistry), and H. Schade (assistant of Otmar von Verschuer at Berlin and at Frankfurt)—scholars familiar with the research and policy of this period. In at least one case (Lothar Loeffler), the person interviewed agreed to correct his remarks for publication but became ill before this could be accomplished; the guardians of his estate prohibited publication.

Fortunately, the flood of research and writing on this topic shows no signs of abating. This year sees the publication of a book by Peter Weingart *et al.* covering, among other things, the post-war legacy of racial hygiene; also a new collection of papers edited by Achim Thom entitled *Medizin unter Faschismus*. In English, there are at least three major volumes being published on this topic this year. What is slowly becoming clear is that scientists and physicians played a much greater role in the construction of

Nazi racial policy than has heretofore been recognized; new efforts will no doubt continue to shed light on this darker, hidden chapter in the history of science.

In his preface, Müller-Hill worries that his work may be misunderstood as "a condemnation of science and a denial of rationalism." He deflects this by noting that a world in which science flourishes but justice is absent is condemned "to the same fate as Sodom" but that a world in which justice flourishes but science is absent would be condemned "just as surely to a different, but equally horrible fate." One hopes that we do not have to choose between these fates; perhaps we can find ways to ensure that both science and justice can flourish in ways that might prevent the horrors of such a past.

ROBERT N. PROCTOR
Program in Science, Technology, and Power, Eugene Lang College, New School for Social Research, New York, NY 10011

The Party of John Muir

Pacific Visions. California Scientists and the Environment, 1850–1915. MICHAEL L. SMITH. Yale University Press, New Haven, CT, 1988. xii, 243 pp. + plates. $26.50.

The most famous environmental organization in the United States, the Sierra Club, was founded in 1892 in San Francisco. Among its leading members was a group of scientists and naturalists, some of them amateurs, some professionals, including John Muir, the club's first president, and Joseph Le Conte from the Berkeley campus, George Davidson of the Coast and Geodetic Survey, David Starr Jordan and William Dudley of Stanford University, and Alexander McAdie of the Weather Bureau, all members of the club's board in the first decade or so. Those were some of the most important names in the fledgling scientific community on the Pacific shore. Why so many men of that caliber, busy organizing science in a new setting, became dedicated conservationists is the question prompting this book. The answer Michael Smith gives is that they were emotionally responsive to the spectacular beauty of their surroundings—the redwoods, mountains, and sea. From them they gained a new vision of humans living in harmony with nature, a vision they shared with Muir. Like him, they rejected an anthropocentric attitude, especially one that sanctioned a commodifying, exploitative stance toward the natural world. Here in California, they believed, men and women might create a better set of attitudes, acknowledging their dependence on all living things, preserving the beauty of places like Yosemite Valley, and using the earth's resources with care and sensitivity. In pursuing that vision, they sought to establish science on a more "feminine" foundation, where knowledge comes through cultivating sympathy with what is being observed rather than through a rigidly distanced, manipulative, domineering approach.

Certainly that was the vision of John Muir, though he largely brought it with him from Wisconsin. The extent to which it was also the vision of the scientists is less certain; the evidence presented is fragmentary and circumstantial. Often the differences separating them from Muir loom as large as their similarities. If they really did accept the core of his thinking, biocentrism, it is still not clear whether they were different in this from any of their peers in, say, Boston or Chicago. Smith reasons that "from observing the California backcountry, with its radical variations in topography, climate, and vegetation, they developed an emphasis on environmental interdependence" (p. 4), rather than on Darwinian individualistic competition—an intriguing idea but a hard one to find good evidence for. The most we can say is that at least some California scientists heard Muir's challenge to traditional Judeo-Christian and capitalistic values

"Toppled statue of Louis Agassiz following the 1906 earthquake, Stanford University Campus. Despite Agassiz's strong influence on California's first scientists, most of them rejected his stand against Darwinian evolution." [From Pacific Visions; Stanford University Archives, Palo Alto]

"California State Geological Survey, 1864 field crew: James Gardner, Richard Cotter, William Brewer, Clarence King." [From Pacific Visions; Bancroft Library, University of California, Berkeley]

and were not loathe to associate with him in seeking environmental reform.

Smith discusses in detail such figures as Davidson, Le Conte, Josiah Dwight Whitney (who headed the state geological survey in the 1860s), and Clarence King. His research into their published and unpublished papers is impressive and his presentation consistently informative; we learn a great deal about their careers and the institutions with which they were affiliated. As a study in the history of science this is a fresh, innovative book. With a deft, engaging style, it surveys the formative period of West Coast science and relates it skillfully to broader European and American developments.

For a golden moment, leading scientists discerned a road they wanted to help nonscientists travel—a road leading to environmental literacy, responsibility, and humility. Then, yielding to demands for a more "disinterested professionalism," which held such reform activity to be incompatible with research, they put aside that vision. By 1915 they had largely deserted the club and its campaigns. The state of California went on to build factories, freeways, massive water projects, and the Lawrence Radiation Laboratory at Livermore, all expressions of the urge to use science to win power over nature. Smith ends by asking why so few of the 20th century's scientific leaders, in this or any region, have belonged to the party of John Muir. Does the fault lie in the vision or in the institutions of science?

DONALD WORSTER
Department of American Studies, Brandeis University, Waltham, MA 02254