Book Reviews

The Nuclear Age: Britain's Role

The Greatest Power on Earth. The International Race for Nuclear Supremacy. RONALD W. CLARK. Harper and Row, New York, 1981. x, 342 pp. + plates. $13.95.

Journalist turned free-lance author, Clark is one of our day's most prolific writers. This book is, by my count, his 55th since 1948, his 12th on science and science-based technology, and his second on the origins of the nuclear age. Not surprisingly, he has based it largely on prior studies that have described how scientists and engineers, urged on by statesmen and soldiers, translated implausible conjectures about subatomic energy into deadly realities between 1939 and 1954. Yet Clark does more than provide a lively rendering of earlier historical research. He presents the results of his own archival work, chiefly in the Public Record Office (London) and the Cherwell and Tizard papers. And he makes good use of this evidence in reiterating the thesis—first espoused by the British during World War II and subsequently developed by Clark himself in *The Birth of the Bomb: The Untold Story of Britain's Part in the Weapon That Changed the World* (1961) and by Margaret Gowing in *Britain and Atomic Energy 1939–1945* (1964)—that Britain played a significant role in the opening of the nuclear era.

British physicists, according to Clark, were initially as skeptical as most of their colleagues around the world about the immediate prospects for fission weapons. In April 1940, however, a secret committee of British physicists was established to consider the possibility raised by the refugees Frisch and Peierls that a superbomb might be made from uranium-235. The MAUD (Ministry of Aircraft Uranium Development) Committee proceeded to canvass the problem from all angles, including Halban's proposal that a heavy-water and uranium pile be used to generate fissile plutonium. In July 1941 it recommended an all-out effort to develop uranium-235 bombs. This recommendation was soon approved by Churchill, and a bomb project was organized under the code name Tube Alloys. Meanwhile, the MAUD Committee's report was being used by Bush and Conant in the United States both to focus the American physicists' inquiries and to secure Roosevelt's support. The British report played, that is, a decisive role in the initiation of both the British and the American bomb projects.

From this juncture, Britain's role in the technical arena was relatively unimportant. The British were too hard pressed by the Germans to allocate the requisite resources to their project. Moreover, on account of differences regarding postwar objectives, the British had little access to the American project until fall 1943, by which time they were too far behind to make more than minor contributions. Despite being eclipsed in the technical arena, Britain, as represented by Churchill, played an important role in setting policy. Churchill's influence was especially pronounced on the issue of disclosure to the Soviet Union. In August 1943 he persuaded Roosevelt of the desirability of nondisclosure to third parties. Thereafter he managed to thwart Bohr and others who, in hopes of averting a nuclear arms race, were advising that Russia be officially informed of American progress. Churchill, it is evident not only from Clark's account but especially from Martin Sherwin's *A World Destroyed: The Atomic Bomb and the Grand Alliance* (1975), regarded such thinking as hopelessly optimistic about Soviet intentions. He seems to have assumed that an arms race was inevitable and hence that America and Britain should have as great a lead as possible. Alas, Churchill was probably correct, as Clark suggests, in thinking that early disclosure would not have prevented the postwar competition.

This supposition, however, contradicts Clark's oft-repeated view that the development of nuclear weapons introduced a new stage in world politics. Indeed, present global armaments indicate that statesmen and soldiers still do not comprehend the havoc their arsenals can wreak.

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Oak Ridge in Wartime

City Behind a Fence. Oak Ridge, Tennessee, 1942–1946. CHARLES W. JOHNSON and CHARLES O. JACKSON. University of Tennessee Press, Knoxville, 1981. xxiv, 248 pp., illus. Cloth, $18.50; paper, $9.50.

In their introduction to *City Behind a Fence*, the authors propose to partially remedy what they consider to be a "curious oversight" in earlier works on the history of the Manhattan Project. They point out that until now historians have failed to adequately examine the three secret support communities established and directed by the Army in conjunction with the wartime atomic weapons development program. They argue that Oak Ridge, Tennessee, Hanford, Washington, and Los Alamos, New Mexico, are worthy of study "if only because the successful operation of these communities was so crucial to the successful conclusion of the Manhattan Project's atomic mission."

Clearly, however, that was not the only or even the primary motivation for this book. Much more, the project stems from the authors' interest in and proximity to Oak Ridge itself. They view the origin of the unique and still somewhat incongruous city as a "fascinating episode in American social history." They request that their book be evaluated on the basis of their success in answering the question: "What must have been the nature of the 'secret city' and what did it mean to live there in the war period?"

Stating that the technical activities at each of the three major Manhattan Project sites have already been given much attention, the authors concentrate on the organizations and people responsible for the management and operation of the Oak Ridge "townsite" itself. They consulted voluminous records of the Manhattan Engineer District of the Army Corps of Engineers (the MED headquarters were moved to Oak Ridge in 1943); they examined the papers of Leslie R. Groves, the leader of the MED; and they systematically reviewed newspapers and periodicals from the region and elsewhere. To supplement these written sources, the authors conducted approximately 75 one-hour interviews with Oak Ridgers who had lived in Oak Ridge or in the surrounding counties during the war.

It is noteworthy that the authors did not consult records of the industrial or university contractors who built or operated the major facilities of the Clinton Engineer Works (the code name given the entire Oak Ridge project), nor did they obtain access to the existing man-