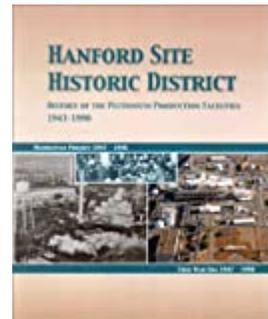


# H-Net Reviews

in the Humanities & Social Sciences

T. E. Marceau, D. W. Harvey, D. C. Stapp, S. D. Cannon, C. A. Conway, D. H. DeFord, B. J. Freer, M. S. Gerber, J. K. Keating, C. F. Noonan, G. Weisskopf.  
*Hanford Site Historic District: History of the Plutonium Production Facilities, 1943-1990.*  
Columbus: Battelle Press, 2003. 624 pp. \$47.50 (paper), ISBN 978-1-57477-133-6.



**Reviewed by** Susan Quinnell (Architectural Preservation Institute, Department of Construction Management, Colorado State University)

**Published on** H-Environment (May, 2004)

## The Hanford Handbook

Thorough compilation, exhaustive research, and precise chronology are the hallmarks of this work on the Hanford Site Historic District, which encompasses 560 square miles in southeastern Washington state.[1] It also embodies the history of almost fifty years of plutonium production, containment, shipment, and eventual shutdown of the plutonium production facilities in 1990. *Hanford Site Historic District: History of the Plutonium Production Facilities, 1943-1990* is the result of a four-year project conducted by the Richland Operations Office of the U.S. Department of Energy (DOE), in collaboration with the Washington State Historic Preservation Office and the Advisory Council on Historic Preservation. At over six hundred pages, it documents the history of the Hanford Site as thoroughly as any one book can and includes substantial information on the Manhattan Project and the Cold War. With its four substantial chapters covering the historic overview, the changing plutonium production facilities, a guide to further resources, and recommendations for future uses, this work will be the handbook on Hanford and an important resource on the atomic age for years to come. The website provides more informa-

tion on this immense historic site, including historic photographs, the National Register of Historic Places nomination form, and numerous other resources, including this book.[2] Architectural historians and those interested in the archaeology and built environment of the Hanford Site should first consult the companion website. When the HABS/HAER records are uploaded in the future, the web site will contain most of the documentation needed to understand the Hanford Site as a historic district. The book focuses on the history of plutonium production and its ramifications. The two resources together will contain excellent primary records of Hanford since much of the facility has been or will soon be demolished.

The authors discuss the Manhattan Project and the Cold War, covering the period from 1943-1990 in meticulous detail. The Manhattan Project, the United States's initial effort to build atomic weapons, was the largest scientific and industrial project ever achieved. The highly experimental project was spread among three locations: Oak Ridge, Tennessee; Hanford, Washington; and Los Alamos, New Mexico. Oak Ridge produced the enriched

uranium (U235) that decayed into plutonium; however, the process was exceedingly dangerous and Oak Ridge too near the city of Knoxville. Consequently, Brigadier General Leslie R. Groves, the military director of the Manhattan Project, ordered the moving of full-scale production of plutonium to Hanford, Washington, a rural area of fruit farms and ranches. Hanford subsequently produced the plutonium which, along with the enriched uranium from Oak Ridge, ended up at Los Alamos, where scientists feverishly worked out the development of the atomic bomb.

Although the scientists at Los Alamos had the ability to confer in their work, the managers and production employees at Hanford worked on a need-to-know basis, including the construction teams. Supervisors had to go to a vault, read the drawings, calculate the dimensions, and then inform the crews what the dimensions were for every aspect of construction. Notwithstanding the secrecy that continued from the inception of the project, the complexity of the site, and the difficulties of wartime production, the workers completed the construction of the Hanford Site in just two years. In total, Hanford produced 67,272 kilograms of plutonium, despite the experimental nature of the entire plutonium production process, and the constant modifications to production lines.

Although familiarity with the role of the Hanford Site is crucial to understanding the history of the atomic age, many environmental historians are interested in the long-term effects of the radiation on the workers and the environment. These scholars will be pleased by the sections on worker health and safety which chronicle the evolution of safety awareness within the plant, amply illustrated by historic photographs, and a chronology of changing radiation standards for workers. The authors also provide excellent overviews of waste man-

agement onsite and limited information on radiation in the air and water offsite. However, readers searching for the stories of the down winders, nuclear activists, and deformed sheep should refer to *Atomic Harvest: Hanford and the Lethal Toll of America's Nuclear Arsenal* by Michael D'Antoni. Richard Rhodes's 1988 *The Making of the Atomic Bomb* is an 886-page book that treats the Manhattan Project as an important part of a larger atomic epic. Other works at a higher technical level that document the environmental effects offsite include *On the Home Front: The Cold War Legacy of the Hanford Nuclear Site* by Michele Stenhjem Gerber, and *Hanford: A Conversation about Nuclear Waste and Cleanup* by Roy E. Gephart. Gephart's *Hanford* offers a more synthesized history of corporate management trends, such as the movement away from "need to know" secrecy to decision-making based on scientific and medical fact.

This work, limited by a mandate to focus on the area bounded by the historic district, relies heavily on internal documents produced by the United States Department of Energy and the three former operators of the site: Atlantic Richfield Hanford Company, E. I. Du Pont de Nemours and Company, and the General Electric Company. Its close allegiance to the boundaries of Hanford, ample reference lists, and suggestions for further research make it the ideal introductory work to the subject of the Hanford Site for environmental historians and other scholars.

#### Notes

[1]. The book is also available in its entirety on the internet at <http://www.hanford.gov/doe/culres/historic/>.

[2]. Use the same website listed above.

If there is additional discussion of this review, you may access it through the network, at:

<https://networks.h-net.org/h-environment>

**Citation:** Susan Quinnell. Review of Marceau, T. E.; Harvey, D. W.; Stapp, D. C.; Cannon, S. D.; Conway, C. A.; DeFord, D. H.; Freer, B. J.; Gerber, M. S.; Keating, J. K.; Noonan, C. F.; Weisskopf, G., *Hanford Site Historic District: History of the Plutonium Production Facilities, 1943-1990*. H-Environment, H-Net Reviews. May, 2004.

**URL:** <http://www.h-net.org/reviews/showrev.php?id=9380>

Copyright © 2004 by H-Net, all rights reserved. H-Net permits the redistribution and reprinting of this work for nonprofit, educational purposes, with full and accurate attribution to the author, web location, date of publication, originating list, and H-Net: Humanities & Social Sciences Online. For any other proposed use, contact the Reviews editorial staff at [hbooks@mail.h-net.org](mailto:hbooks@mail.h-net.org).