Flowing through Time: A History of the Iowa Institute of Hydraulic Research (review)

Abraham Hoffman

Technology and Culture, Volume 41, Number 2, April 2000, pp. 373-374 (Review)

Published by Johns Hopkins University Press
DOI: https://doi.org/10.1353/tech.2000.0065

Flowing through Time: A History of the Iowa Institute of Hydraulic Research.

By Cornelia F. Mutel. Iowa City: Iowa Institute of Hydraulic Research, 1998. Pp. xv+299; illustrations, maps, appendixes, index. $20.

Institutional histories often display an annoying sense of self-congratulation, minimal descriptions of colorless bureaucrats, and a narrow focus with all the appeal of a video of a wedding to which you were not invited. Fortunately, Cornelia Mutel avoids most of these pitfalls. As staff historian for the Iowa Institute of Hydraulic Research (IIHR), Mutel displays an intimate knowledge of the institute's creation and development. The book updates several earlier studies and places the accomplishments of the IIHR in historical perspective. Although IIHR projects require a vocabulary of technical terms, Mutel writes in clear and enthusiastic prose, telling a story of interest to readers who are not themselves engineers or connected in any way to the IIHR.

Mutel has shaped the format of her book to fit three broad periods that coincide with the three foremost directors of the IIHR: Floyd Nagler, founder of the institute and its first director, from 1920 to 1933; Hunter Rouse, director from 1945 to 1966; and John Kennedy, director from 1966 to 1991. Each brought his own expertise and definitions to the IIHR: Nagler a believer in applied research, Rouse an advocate of basic research, and Kennedy favoring a blend of both. The success they achieved is astonishing. Located on the campus of the University of Iowa, along the banks of the Iowa River, the IIHR has pioneered in a wide range of hydraulic investigations as well as other projects.

The IIHR began with the creation of a hydraulics laboratory for the tracing of water flow, sedimentation, and fluid mechanics. Clientele have

APRIL
2000
VOL. 41

included the Office of Naval Research (ONR) and other government agencies, the National Plumbing Laboratory, municipalities seeking solutions to water storage and sewerage problems, shipbuilders, and environmentalists. As might be expected, World War II induced an enormous expansion in IIHR facilities and projects, funded to a large extent by the ONR. The IIHR has disseminated its work through books, articles, and reports, and engineers worldwide have utilized its inventions.

Mutel includes biographical profiles of Nagler, Rouse, and Kennedy that are more professional than personal, yet do bring out their idiosyncracies and at least a few warts. Their leadership in directing the IIHR shaped the institute's success. Other staff members and their contributions are briefly described, though Mutel notes the impossibility of including everyone who has spent time at the IIHR. The book is generously illustrated with photographs depicting projects and staff members over the past eighty years. Although the book is meant to be as definitive as possible, Mutel does not delve as deeply as she might have into funding. Clearly the success of the IIHR has been based on financial support from government (at all levels) and industry, and much of the research would not have been carried out in the absence of outside funding. Mutel observes, almost in passing, that some staff members had to move on when research grants failed to materialize or expired.

Mutel rather surprisingly omits mention of the predominance of males at the IIHR. Only one photograph (p. 145) shows any females, two engineering students (unidentified) in a group of ten on a trip to India. The book includes a list of IIHR senior staff, 1971–97. Although I concede that some of the Chinese, Korean, and Japanese names may be female, the paucity of recognizable female names strongly suggests an absence of women in staff positions during the last quarter century. Mutel also skirts the question of war-related research. For example, the Chemical Warfare Service wanted information on the effect of the release of gas bombs "in a typical Japanese urban district." The IIHR report was inconclusive, but Mutel wonders: "Had the results of this report been more positive, who can guess the effect it might have had on the closing days of World War II?" (p. 106). Is she suggesting a preference for poison gas rather than the atomic bomb?

Some self-congratulation for the IIHR is inevitable, but Mutel argues that it is well deserved. The book offers a wealth of information about a successful institute, its research projects, and the leaders who brought it international prominence.

ABRAHAM HOFFMAN

Dr. Hoffman teaches history at Los Angeles Valley College.