Reviews

SCIENCE, TECHNOLOGY, MEDICINE

TECHNOLOGY IN EARLY AMERICA: Needs and Opportunities for Study. By Brooke Hindle, with a directory of artifact collections by Lucius F. Ellsworth. Chapel Hill: University of North Carolina Press. 1966. $4.50.

The history of technology is a new discipline impressive in its early achievement, the solidity of its scholarship, the grace of its practitioners' prose and the energy it has expended to keep the rest of us briefed on the state of the hypotheses which it is testing. This volume answers the important questions, "Where do we stand?" "Where are we going?" "What do we need?" and, most important, "What have we got which men in other fields ought to know about?" If other fields developed spokesmen as thoughtful and articulate as Mr. Hindle, American Studies would be stronger than it is, for their works would enable students of the culture to speak with confidence that their words reflected the results of current scholarship.

In his survey of approaches to the history of technology, Hindle mentions American Studies, the history of science, literary scholarship and several others. I would suggest that he add to his list the works of Marshall McLuhan. McLuhan's following makes him almost a fad, but his popularity should not blind us to some genuinely valuable insights he has into the influence of technology on patterns of thought. Hindle himself comes quite close to McLuhan's approach in discussing Oliver Evans: "When, before it was possible to travel in steam vehicles, Oliver Evans spoke of the exhilaration to be anticipated, he was not thinking of monetary profit at all. He was participating in the fulfillment of an unfolding technology." He goes on:

> Perhaps technology was not so much a tool or a means as it was an experience -- a satisfying emotional experience. When it became possible to make thread and cloth by machine, they were so made; when boats, trains, and mills could be driven by steam, they were so driven.

> These things could be accomplished only to the extent that economic needs and social attitudes permitted; but is it not possible that the more elemental force was within the technology itself? (24)

This seems quite close to McLuhan's explanation of how a medium is a message; his definitions of media always include technology.

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Readers of this journal are already aware, from the work of Eugene Ferguson, of the technological historian's fascination with the period 1776-1850. Hindle calls the achievements of that epoch, "epic," and feels that they need to be studied

> . . . not alone as a story within the history of technology but as a central thread in American history. In the perspective of the general historian, does not this define the era with far more justice than the westward-moving wagon trains, the Age of Jackson, or the battles over the tariff? Indeed, these episodes, which still constitute the warp and woof of traditional history, are understandable only in terms of the technology which rebuilt the floor under the pontificating senators even as they declaimed and which shaped and reshaped the tools required to conquer a continent and to erect a variant civilization. (18)

How useful technological history can be for understanding of American culture Hindle illustrates tentatively and briefly, but convincingly, through reference to "The Wooden Age." The American penchant for wood ". . . subsided from its peak before mid-century, but it had many results and ramifications and it continued to differentiate America from Western Europe." (26) Hindle suggests that we need sophisticated scholarship to explore the relationship between reliance upon wood and the spread of machine production, the development of labor-saving machinery and the "character of magnitude" which Europeans thought they saw in American technological thinking. "The big questions about social history," he says, "must be kept in mind even to get the most out of an investigation of the shape of a screw." (28)

It seems important that scholars in Mr. Hindle's young field explore these issues, and even more important that they continue to make the effort to communicate what they have found to other students of American culture. The rest of us are too liable to assume that these are questions of merely antiquarian interest, or that they are too obvious -- that any fool knows technology changed the world, and that that is all there is to it. In point of fact, if one examines one's own values and attitudes, one finds that one's relationship to contemporary technology is not at all simple, and that the scholar of the future, attempting to understand us in terms of the attitudes

we carry in relation to the automobile, television, the telephone and so forth would be far more than an antiquarian, for these are a large part of our lives and our personalities. The student of a technological culture must know the feel of the technology or he cannot know the culture.

The largest section of the book (29-94) is "A Bibliography of Early American Technology," also by Mr. Hindle. It alone would justify the publication of the volume, for it is intelligently critical, honest about its necessary limitations and a fine introduction to the shape of this provocative field. The book concludes with Lucius F. Ellsworth's "A Directory of Artifact Collections." Mr. Ellsworth's task is an exceedingly difficult one, since in a great many communities, local historical societies feel in a general way that it is a good idea to hold on to old artifacts. There are countless little museums and collections, some of them specialized because of the nature of a local industry, but most just general collections of old things which their owners had not the heart to throw out, and so donated. I have found the staffs of even many of the better organized collections cooperative but generally uninformed, and quite bewildered by even the simplest historical questions. Mr. Hindle's bibliography should give invaluable guidance to institutions which would like to set their houses in order, and to make them attractive to scholars; university personnel in any of a number of different fields could do a great service if they were to make themselves available to such museums, to give a hand in organizing what they have in ways which will enable them to say something. In return, many of these places can provide volunteer manpower to do the sort of cataloging and sorting needed to make the collections more useful to specialists. I found it difficult to judge the quality of Mr. Ellsworth's selection, but it gives every surface indication of being the work of a pro. I have one addition to suggest, under his heading "II C, Farming": the Agricultural Hall of Fame, in Bonner Springs, Kansas, which has a sizable and rapidly growing collection of tools and home living items. The curator is Elmo Mahoney; the executive vice-president tells me that the Hall would like to make itself useful to scholars of agricultural history and technology, but has thus far encountered difficulty in obtaining the foundation support it needs. It will soon have its own library, and the staff, while clearly amateur, seems right-minded and cooperative.

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SWORD OF PESTILENCE: The New Orleans Yellow Fever Epidemic of 1853. By John Duffy. Baton Rouge: Louisiana State University Press. 1966.

Historians increasingly have used epidemics to study a society's cultural characteristics, and Professor John Duffy has added a valuable