

an allotting agent for the federal government.) It may be that there was little difference among the experiences of women on the Oregon Trail in the 1850s, army wives in the Southwest of the 1880s, settlers on the prairies in the 1890s and early 1900s. It may be that face-to-face contact with Indians did not vary significantly from tribe to tribe. And it may be that the white cultural perception of "women's role" did not change significantly between the 1790s and 1900. The reader is given no way of judging whether those factors made a difference.

There are organizational problems as well. Not until the second half of the book does the reader learn about face-to-face experiences that changed (or did not change) white women's perceptions. Within that half are sections on other "minority" groups, too: Panamanians met by those who crossed the isthmus, Mormons in Salt Lake Valley. These digressions interrupt the reader's attempt to piece together Riley's data, as does repetition from chapter to chapter of both topics and particular references. In the middle of the book the author notes the number and range of the original sources she has used—information that would have been much more useful if it had been in the introduction.

A book that is potentially of great interest to those who would study women's western experience and Indian-white relationships is thus flawed by its patchwork quality. Greater attention to the whole, by both author and editor, could have produced a much better work.

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Judith Austin

Agricultural Science and the Quest for Legitimacy: Farmers, Agricultural Colleges, and Experiment Stations, 1870-1890. By Alan I Marcus. (Ames: Iowa State University Press, 1985. Pp. x, 269. Notes, bibliographic essay, index. \$22.50.)

In 1887 the Hatch Act created the agricultural experiment station system. Since that time scientists at the state experiment stations have been engaged in basic and applied research. They have discovered new knowledge, and they have helped farmers use it to solve a host of agricultural problems. As a result, farmers are more productive and efficient than ever before. The creation of the experiment stations, however, was a difficult and hard-won achievement. Although farmers wanted to improve their vocations, they were not united about how to do so. During the 1870s and early 1880s farmers and scientists debated whether agricultural research should be pure or applied, whether it should be conducted in the field or laboratory, and

whether it should be the domain of professionals or laymen. Moreover, they disagreed about which bodies should control agricultural experiment stations—the federal or state governments, farm organizations, or state agricultural colleges.

Between the creation of the Connecticut agricultural experiment station in 1875 and the development of New York's station five years later, the prevailing concept of agricultural experimentation fundamentally changed. Instead of supporting research institutions that were little more than state chemistry shops involved with the testing of commercial fertilizers, advocates of experiment stations began to champion the benefits of both pure and applied research. During the 1880s they also increased public support for the creation of a nationwide, federally endowed, college-based agricultural experiment-station system. As early as 1882 Seaman A. Knapp, professor of agriculture at Iowa Agricultural College, drafted a bill to create those experiment stations. Although Congress did not pass Knapp's bill, it did incorporate the essential research features of his plan into the Hatch Act six years later.

Alan I Marcus, associate professor of history at Iowa State University, has written an important book about the development of experiment stations that preceded the Hatch Act. Marcus analyzes the long and often bitter struggle between farmers and scientists for the creation and control of agricultural experiment stations. He proves that the research laboratory was not always central to agricultural experimentation, that agricultural chemistry and agricultural science are not synonymous, and that the college-based, agricultural experiment stations were founded as much on philosophy as on scientific and economic need. This is a perceptive, well-reasoned, and thoroughly researched study of a complex problem that involved the agricultural, political, scientific, and academic communities. Anyone interested in agricultural history will find this book illuminating and useful. It is a solid contribution to the field.

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R. Douglas Hurt

Coxey's Army: An American Odyssey. By Carlos A. Schwantes.
(Lincoln: University of Nebraska Press, 1985. Pp. xii, 321.
Illustrations, notes, index. \$22.95.)

A reviewer might approach Carlos A. Schwantes's book with a bit of scepticism. What could Schwantes say about Coxey's Army that Donald McMurry had not already said in his 1929 *Coxey's Army: A Study of the Industrial Army Movement of 1894*?