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978-0-521-28584-1 - Manufacturing Green Gold: Capital, Labor, and Technology in the
Lettuce Industry

William H. Friedland, Amy E. Barton and Robert J. Thomas

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American Sociological Association**

Manufacturing green gold

Capital, Labor, and Technology in the Lettuce Industry

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William H. Friedland

Amy E. Barton

University of California, Santa Cruz

Robert J. Thomas

University of Michigan, Ann Arbor

Cambridge University Press

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Preface

We are concerned with the analysis of a specific segment of the agricultural production system of the United States. The chapters that follow will examine, in some detail, the ways in which social groups interact with one another in the making of a common food in American society: iceberg lettuce. The major questions informing the research, however, extend beyond the specific features of lettuce production. Rather we are interested more generally with the factors influencing the organization of industrial production. In particular, how are new methods of production formulated? What forces determine the acceptance or rejection of new technologies?

We seek answers to these questions by focusing on a major agricultural industry currently moving in the direction of large-scale changes in work organization. Thus the more general questions lend a specific focus to the analysis: What factors led to the development of a mechanical lettuce harvester? What consequences might be expected as a result of harvest mechanization?

This monograph is also explicitly focused on two additional and distinct kinds of activities. First, it is directed toward contributing to the emergence of a *sociology of agriculture*, which we expect to locate, in turn, in a broader body of knowledge and theory—the *comparative analysis of production systems*. In this approach the goal is to integrate the analysis of social systems involving agricultural production with a broader body of theory and research concerned with production. We are especially interested in addressing sociology and political economy as disciplines. Each of these disciplines has both relevant bodies of literature that have been drawn upon and intellectual questions to which a sociology of agriculture can contribute.

Second, beyond disciplinary involvements, but with a related set of concerns, we believe the analysis of concrete social systems requires some form of *application*. Our strategy here undertakes empirical analysis to deal with the social consequences deriving from real and potential

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changes in the system of production. Utilizing the analysis of lettuce production, we intend to develop specific social projections of the outcomes of a particular technological change, on the one hand, while working toward the development of a more generalizable methodology of social projection, on the other.

Many social and natural scientists have been engaged recently in seeking applications of knowledge to the improvement of society. Yet the mainstream positivistic traditions of modern social science, on the whole, have rejected this approach, arguing not only for “value-freedom” but for the insulation of academicians and intellectuals from the political process. Other traditions in the sciences and social sciences, however, have argued for application of social knowledge toward social improvement. In this respect, although insisting on the need for solid, objective analysis of the social order, we believe it important that scientists and social scientists clarify the value assumptions that underlie their work.

One assumption we make is that the sciences, social and natural, as well as the actors involved in these operations, can and should apply their knowledge to concrete situations. The notion of a “detached” science seems naïve to us; if scientists discover knowledge and simply cast it into the world, it will still have consequences. This leads, therefore, to our second assumption: The discovery of knowledge has social consequences. The actors, as well as the institutions in which they function, bear responsibility for these consequences, even if the actors do not personally implement them. Third, the production and implementation of scientific knowledge constitutes social intervention. In contrast to positivist notions about a “value-free” science, we believe that science is a value-laden and structured activity used most often to legitimate existing relations of power and control. Scientific knowledge can, however, be used to counter relations of inequality if advanced on behalf of disadvantaged groups or social categories. Thus the process of social intervention can and should be geared toward the improvement of society, and this study explicitly is concerned with finding an application in that direction.

This study may prove somewhat unconventional both in terms of the orientations previously outlined and by its “location” within current intellectual paradigms in the social sciences and in existing bodies of knowledge.

The major underlying theoretical categories and concepts are drawn primarily, but not exclusively, from Marxian theory. Because of the proliferation of Marxian and neo-Marxian theories in recent years and the

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often overlapping, and sometimes contradictory, meanings laid on basic ideas, we will attempt to provide definitions and operationalizations of concepts as we proceed. We realize that, for example, “mode of production,” “social relations of production,” and “labor process” are often vague, ill defined, or used as a shorthand for communication between initiates to the theory informing them. In order to communicate with the mainstream of sociology as well as to others working in the Marxian tradition, we will endeavor to make these ideas clearer.

We recognize, however, the need to integrate the work of other social scientists where appropriate. Of particular importance are theories of economic organization and bureaucracy. We will interact, therefore, with Max Weber’s contributions as we analyze relations between political and economic institutions, for example, the relationship between publicly funded research organizations such as the University of California and private, large-scale, capitalist enterprises.

Although the work undertaken here could conceivably be integrated with rural and industrial sociology, that is, constitute an intersection between them, it addresses a constellation of issues that both fields have avoided with considerable alacrity. As we will show later, rural sociology has preferred to define its field of work rather narrowly, almost totally ignoring the analysis of agricultural production. Approaches to the organizations and social relationships embodied in agricultural production have been largely indirect, focusing on the processes of technological innovation and diffusion rather than examining the material or organizational bases for change in the organization of production (Nolan et al. 1975; Friedland 1979).

Because agriculture has been normatively viewed, within the broader discipline of general sociology, as “belonging” to the rural sociologists, both general and industrial sociology have avoided the examination of agriculture. By locating the work as we have, we hope readers will be able to transcend “normal” jurisdictional boundaries within the discipline and treat the work as intended – as a substantive analysis of the social organization of production.

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