Hungry for Profit: The Agribusiness Threat to Farmers, Food and the Environment

Edited by Fred Magdoff, John Bellamy Foster and Frederick H. Buttel New York: Monthly Review Press, 2000 ISBN 1583670165

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Hungry for Profit is an expose of the agro-industrial apparatus and the myriad ways in which our food supply has fallen prey to capitalism and corporate hegemony. This book is a compilation of articles, each dealing with the social, scientific and environmental aspects of agribusiness, with a common contention woven throughout that our food supply in is danger; it is becoming increasingly insecure due to corporate control and its consequent concentration. What follows is an undemocratic agricultural system in which the public has little say or knowledge about the production process(es). Such social closure includes the introduction of new technologies (e.g., biotechnology) that putatively offer solutions to present day concerns such as global hunger, but whose risks to human health and the environment are either glossed over or ignored. Hungry for Profit offers a new discourse wherein the political is inextricably tied to the agricultural. This is articulated in Middendorf et al. when they assert that "technical choices [within the agricultural industry] are simultaneously political choices..." (see 116). As a result, the ultimate goal comes to be profit-maximization at the expense of human and environmental well-being.

This examination begins with Wood's historical analysis involving the evolution of capitalistic domination within agriculture, wherein she debunks the notion that the embryonic form of capitalism (i.e., agrarian capitalism) got started in the cities. Rather, capitalistic principles arose in the countryside where new conceptions of "property" and the transformation of property relations emerged - communal property and use-rights came to be privatized and based on exclusivity. As a result, the peasants were dispossessed and their labor power appropriated by the owners of production. In addition, the emergence of the market as sole regulator of production turned both the direct producers and capitalists into marketdependent actors—a dependence fundamental to a capitalistic society. Thus, it was here that the very tenets of capitalism (i.e., competition, accumulation and profit-maximization) were first realized. These conditions in turn gave rise to the mass migration of the direct producers (i.e., peasants) to the cities in search of work. Foster and Magdoff build upon Wood's historical analysis by making reference to this rural exodus as the separation of town and country or what Marx calls the "metabolic rift" in relation to food production. That is, no longer were people (and society in general) producing for themselves and thus connected to the land; rather, the production of food came to be controlled and consolidated by capitalists, thereby becoming removed from the very consumers of these products. Such "distancing" helped promote the concentration of capital and the consolidation of corporate power within the agricultural industry.

The techniques associated with capitalism's "treadmill of production" (e.g., Schnaiberg and Gould 1994) coupled with the removal of sustainability from production has brought with it serious and in some cases irreversible environmental degradation. Altieri exposes this corporate-agricultural nexus and its link to the deterioration of our ecosystems. For instance, with specialization and monocropping (the large-scale production of a single crop) has come the development of a more genetically uniform milieu as well as increased dependence on synthetic chemicals. Not only is our food supply *more* vulnerable to disease (since genetic diversity provides protection against pests), but it is also being contaminated with these chemicals. Altieri refers to this increasing use of such toxins as the "pesticide treadmill" (82). Such exposure (to these pesticides) is harmful, but the actual "risks" (c.f., Beck 1992) associated with this contact in terms of human health are not fully known.

Economic concentration is also a function of vertical integration, in which a firm comes to dominate a number of stages in the agricultural industry (68-69). This has in turn fostered and perpetuated the "proletarianization of the farmer" as noted by Lewontin: "The essence of proletarianization is in the loss of control over one's [the farmer's] labor process ..." (97), since firms now own and control not just the output, but the input (e.g., equipment, synthetic chemicals, the seed itself, etc.) as well. Ironically, one consequence is the "modern" contract system, in which the farmer becomes essentially a "putting out" worker under contract with a major corporation. In addition, the farmer must use by law the corporation's products throughout the entire farming process. In addition, vertical integration and thus corporate power extends into the realm of biotechnology (notably, the major players within biotechnology are those same companies that dominate both the seed and chemical industries). A function of biotechnology involves the manipulation of genetic material — in this case, the transformation of an organism (e.g., a seed) into a more "productive" variety. Thus, efficient seed and livestock varieties are the goal, with undesirable traits selected out and removed. Yet, as Hungry for Profit points out, this "standardization" leads to a reduction in genetic diversity and an intensification of market concentration, both of which make the agricultural system increasingly *inefficient*. Corporate hegemony vis-à-vis biotechnology is made precariously clear with what is known as "terminator technology" where the seed itself is made sterile after each harvest. As a result, growers are forced to return to seed companies every year; thus, the traditional practice of "saving seed" is rendered moot.

Once a novel entity is created (e.g., seed from this terminator technology), it becomes the property of its creators via such policies as the Plant Variety Protection Act and Intellectual Property Rights (IPRs). As a result, corporate ownership now extends into the reproduction of life itself. In addition, these patents make the exchange of information illegal and exclusive (a condition I refer to as "intellectual closure"), creating additional distance between the citizenry and the scientific community. In essence, such social closure turns the corporate elite into the "monopoly owners of knowledge" (Shiva 2000). More importantly, such corporate control now extends across the globe and has been referred to as a type of "agricultural imperialism." For instance, biotech companies have expropriated and laid claim to indigenous plants, which Shiva refers to as "biopiracy," i.e., gene theft.

The economic liberalization and deregulation of agriculture through economic policies that favor First World nations, such as the implementation of green revolution technologies, have also worked to strengthen the agro-industrial apparatus. The green revolution following World War II focused on rapid production in the Third World at the expense of environmental health and sustainable development. One such policy as dictated by the World Bank (of which the United States is a primary participant), was the implementation of an intense agro-export strategy. Such a strategy was reinforced and perpetuated by later trade agreements such as GATT, which promotes economic liberalization via free trade and deregulation (which strengthens capital control). Such nonsustainable production leads to the degradation of land which in turn hinders future productivity. Not coincidentally, there has been increased famine, malnutrition and hunger in the Third World — problems brought about by agro-industrial practices originating in the First World which are the very problems biotechnology now purports it can "fix."

Hungry for Profit calls for a transformation of agriculture, a radical departure from the status quo with a move towards sustainable production via environmentally sound practices. Such a direction would involve the input of the community and an opening up of information to the public. Thus, no longer would we be "blind" to current practices that are potentially risky and which compromise the public welfare. Of course, these developments can only take place in a context where profit is not pursued with such vigor. Yet, Hungry for Profit falls short in at least one way; such pro-

found changes will not occur until our ideological framework itself is radically readjusted, recognizing that the planet is first and foremost our sustainer. An ideological vision wherein the contradictions of capitalism are acknowledged as a shortcoming to humanity's future needs is necessary in this renaissance of change.

Secondly, while this book focuses on the political economy, on occasion it overlooks the central role the nation-state has in reinforcing and fostering the concentration and control corporations have in today's society. The state as the creator of social rules and ideology is itself inextricably tied to and dependent upon capitalism (and vice versa). Given this, we need to examine in detail the state's role and complicity within not only the agricultural industry but in society as well.

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Agency, Democracy, and Nature: The U.S. Environmental Movement from a Critical Theory Perspective

By Robert J. Brulle Cambridge, MA: MIT Press, 2000 ISBN 0-262-52281-0

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Robert Brulle sets out with the ambitious project of examining environmental movements in the United States through the lens of social theory. He lays the groundwork with a detailed review of previous work, and particularly of Habermas's framework of communicative action, highlighting its usefulness for the understanding of social movements. His extensive review of major (and some of the minor) organizations associated with environmental movements in the U.S. is both scholarly and, at the same time, accessible to a larger audience.

Following Habermas, Brulle sees the money, power and rationalization of the market as having trumped other institu-

tions and compromised moral and aesthetic considerations. This in turn distorts the ability of citizens to address problems through civic discourse. The state, rather than acting as a healthy counter-balance to the market, further disempowers citizens by acting through opaque bureaucratic structures populated with amoral technocrats. In this view, established interest groups, themselves tailored to negotiate through the nuances of this organizational structure, are able to exert undue power and influence at the expense of the public good.

These problems form such a potential juggernaut for private citizens that they typically need to be addressed collectively through vehicles such as social movement organizations. Organizations engaged in trying to influence discourse of *any* sort have oligarchic tendencies, and those attempting to influence social action relative to the natural environment — the subject of this particular study — are no exception in this regard. Further, the distortions of the market affect the organizations themselves. Particularly in the bourgeois public sphere, the tone of much of the rhetoric of social movement organizations, and especially those where power resides in the hands of a few people, tend to reflect the material interests of their primary funding sources.

With this framework as his backdrop, Brulle traces the development of a wide array of ideas motivating environmental movements and the organizations associated with them in the U.S. He searches for common themes of discourse, identifying the most salient of these as: 1) Manifest Destiny, which assumes the natural environment has value only as it is "developed" for human exploitation; 2) Wildlife Management, which emphasizes the scientific management of "game," primarily for recreational hunting and fishing; 3) Conservation, or a utilitarian view in which natural resources should be managed in such a way as to bring "the greatest good for the greatest number of people over the longest period of time"; 4) Preservation, which stresses the value of nature sui generis, and thus the need to keep wilderness undisturbed by humankind; 5) Reform Environmentalism, which emphasizes the link between the environment and human health, and the need to act responsibly and in a scientifically informed manner; 6) Deep Ecology, or a belief that all life, non-human as well as human, has inherent worth and, because of this, human impact on the natural environment should be radically curtailed; 7) Environmental Justice, which focuses on the uneven impact of environmental degradation and risk on different sectors of society, and emphasizes the need to make fundamental social change, particularly in stratification systems; 8) Ecofeminism, which stresses the complementarity between men and women and between humans and the natural environment, the imbalance of which - historically in terms of the dominance of male ideas and institutions — leads to ecological degradation; and 9)

Ecotheology, which emphasizes that the natural environment is God's creation, and that humanity has a moral obligation to provide stewardship and protection of it from harm (p. 98).

Brulle does an extensive examination of literature produced by the movement organizations, identifying major themes therein. But what is really behind the rhetoric of the literature? *Cherchez l'argent*. Brulle's approach, clever though simple, is to examine the sources of their funding (most notably from their tax returns, obtained directly from the U.S. Internal Revenue Service).

The empirical analysis largely bears out Brulle's theoretically based expectations. Not surprisingly, he finds that material interests go a long way in explaining ideology or, as he puts it: "The influence of external funding creates a dynamic that can be seen as financial steering of the environmental organization" (256). The other key finding is that many organizations tend toward oligarchy, and that tendency often is exacerbated by the way organizations garner funds from external sources.

Brulle (280 ff.) concludes with the recommendations that: 1) "The influence of foundation funding on the structure of environmental organizations should be addressed"; 2) The potential for developing environmental organizations with democratic structures should be explored; and 3) "We need to invent new ways of envisioning our relationship with nature and one another, then act to realize our visions."

So much of the book's argument is couched in Habermasian terms (in fact, Brulle's background work is thorough enough that parts of the book could stand alone as a secondary source on Habermas), that the book suffers from many of the same problems as Habermas's project in general. Brulle (e.g., 24 ff.) adopts Habermas's definition of the "ideal speech situation ... [as] ... interaction in which all participants harmonize their individual plans of action with one another and thus pursue their aims without reservation" (Habermas 1984, 294). Like Habermas, Brulle does a stellar job at uncovering aspects of the social order that compromise the ideal speech situation, particularly as it applies to discourse about the environment.

Yet after a painstakingly researched and closely argued critique of the problems, the book is vague on precisely how the *ideal speech situation* is to be accomplished in a world of over six billion people, how that ideal speech situation could ameliorate the world's pressing environmental problems, and how it could be done in a timely enough manner to avert environmental catastrophe. As is the case with ideal types in general, the ideal speech situation serves as a useful comparison point in the analytical process; the potential for its actual occurrence remains problematic.

Far outweighing these problems, the book stands on the basis of its considerable strengths. Brulle's command of the

history of environmental movements in the U.S. and the rhetoric they employ, of the literature in social movements and in critical theory are formidable. His writing style is accessible and engaging, and he His writing style is

offers hope for positive solutions to the crushing environmental problems we face. Robert Brulle does a service by bridging the gap between the world of scholarship and the real life world of the common citizen. His book deserves a wide reading.

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Human Ecology: Basic Concepts for Sustainable Development

By Gerald G. Marten

London: Earthscan Publications Ltd., 2001

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Gerald Marten's book is intended for use as an introductory text in undergraduate courses on human ecology and environmental science. As Maurice Strong notes in his foreword, it "is a valuable step towards making human ecology a scientific discipline ..." This volume represents a highly original contribution to the literature of human ecology because it employs ecological principles to understand interactions between ecosystems and human social systems. Marten has adapted and elaborated this reviewer's earlier systems model of human ecology (Rambo 1984) into a useful tool for helping students to understand the extremely complex interactions between humans and their environment.

This book is divided into 12 chapters. Chapter 1 introduces the concept of human ecology, chapter 2 deals with population and introduces the concepts of positive and negative feedback, and Chapter 3 discusses the human population. Chapters 4, 5, and 6 introduce some basic organizing concepts of ecosystems, Chapter 7 discusses the coevolution and coadaptation of human social systems and ecosystems, while Chapter 8 describes the services that ecosystems provide to humans. Chapter 9 deals with environmental perceptions, and Chapters 10 and 11 deal with unsustainable and sustainable human interactions with the environment. Finally, chapter 12

offers two brief case studies of ecologically sustainable development, the first the use of copepods to control the mosquito vector for dengue hemorrhagic fever and the second a regional environmental management program for the estuary of the Mississippi River. A useful glossary and a short reading list round off the text.

Marten presents a rather provocative view of both ecosystems and social systems as complex adaptive systems by employing the concept of emergent properties, which the author defines as "the distinctive features and behaviour that 'emerge' from the way that complex adaptive systems are organized." Although the concept of emergent properties has long been employed in agroecosystems analysis, Marten uses it in a quite innovative way as a general tool for understanding human ecology. After describing the self-organizing characteristics of ecosystems and social systems, Marten introduces the concept of complex system cycles involving the stages of growth, equilibrium, dissolution, and reorganization. He suggests that all complex societies, as well as their constituent parts (e.g., clubs), follow this cycle. He asserts that societies eventually become so complex that they can no longer function effectively, leading to lowered productivity, declining standards of living and, ultimately, system collapse — a view that is reminiscent of Spengler's and Toynbee's grand theories of human history. The causes of social system decline seem to this reviewer to be too idiosyncratic to be amenable to such general theorizing.

Chapter 9, on perceptions of nature, is in many ways the least satisfactory part of this book. To try to summarize religious attitudes towards nature in seven pages using the rubrics of animism, Eastern religions, and Western religions, inevitably leads to the making of sweeping generalizations about a social institution that displays immense diversity. The chapter also does not give adequate recognition to the very problematic nature of causal links between ideology and behavior toward the environment. As Tuan Yi-Fu (1968) long ago pointed out, the high value assigned by traditional Chinese culture to living in harmony with nature did not prevent the occurrence of massive environmental degradation in pre-modern China whereas, in their research on American environmental values. Kempton et al (1996) have found that the Christian belief that God has assigned people stewardship over nature is a powerful determinant of positive American attitudes toward environmental protection. Conversely, recent unpublished research by the reviewer and colleagues on popular environmental perception in Japan, Hong Kong, Thailand, and Vietnam, has, to our surprise, produced no evidence that the environmental attitudes of modern Asians are strongly influenced by religious beliefs. Instead, they display an anthropocentric view of nature in which protection of the environment is justified only in terms of the benefits it provides to humans.

Marten developed his text in the course of a decade of teaching a required introductory course on human ecology to undergraduates in the School of Policy Studies of Kwansei Gakuin University in Sanda, Japan. The need to communicate with large numbers of students having limited understanding of English forced him to write in simple, straightforward language, employ vivid illustrative examples (which he refers to as "stories"), and make maximum use of figures to illustrate key points. This is both a strength and weakness of this volume, which is clear and concise, but also sometimes excessively simplistic and lacking in nuances. The topics for further discussion by the students in the boxes labeled "Things to Think About" found at the end of each chapter are reminiscent of a high school textbook. Such "guided thinking" may work well with Japanese students but I can't imagine it appealing to American undergraduates.

Perhaps understandably for an introductory text that does not provide detailed references to the literature, not all of the concepts and examples presented by Marten are clearly attributed to their originators. This shortcoming might be alleviated by a more comprehensive set of references but the

list of suggested "further readings" is quite brief and omits many of the works on which the author relied.

Despite some shortcomings, this volume is a valuable addition to the all too thin literature that deals with human ecology from a systems perspective. It may well be the first introductory human ecology text to offer students a systematic framework for thinking about the relations between people and the environment.

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