An essay in which Murray Bookchin outlines his ideal system of food cultivation and criticizes the existing, capitalist system.

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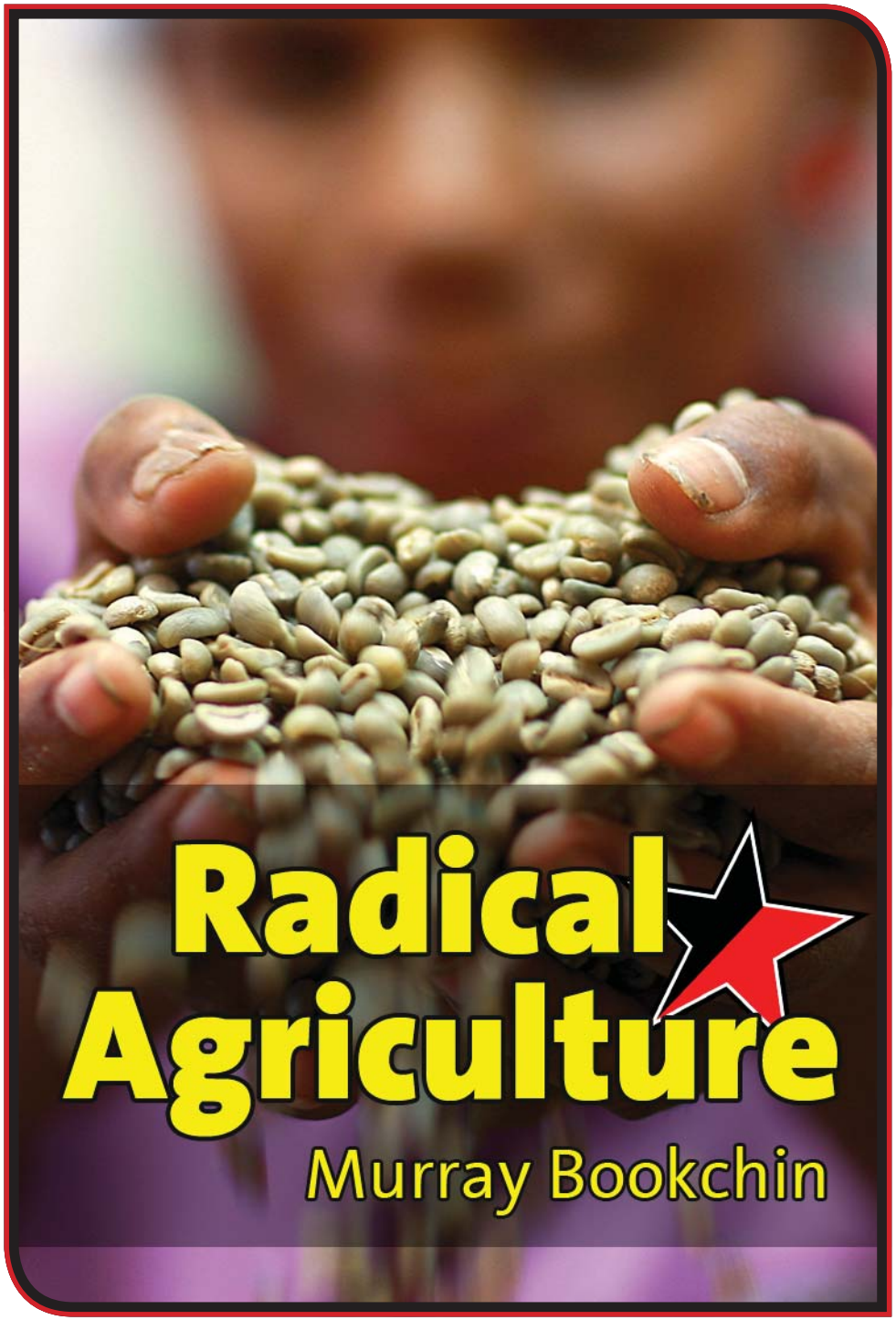

Footnotes:

1. T.C. McLuhan, ed., *Touch the Earth* (New York: Outerbridge & Lazard, 1971), p.8.
2. Ibid., p. 56.
3. Edward Hyams, *Soil and Cultivation* (London: Thames & Hudson, 1952), pp 274, 276.
4. Lynn White, Jr., *Medieval Technology and Social Change* (New York: Oxford Univ. Press, 1962), p. 56.
5. Ibid., p. 57.
6. Karl Marx, *Grundrisse,* ed. and trans. David McLellan (New York; Harper & Row, 1971), p. 94.
7. See especially P. Kropotkin, *Fields, Factories and Workshops Tomorrow* (New York: Harper & Row, 1974); *Mutual Aid* (Boston: Sargent Publishers, 1955), and also: *Conquest of Bread* (New York: New York University Press, 1972).
8. See Murray Bookchin, *Post-Scarcity Anarchism* (Berkeley: Ramparts Press, 1972).

Radical Agriculture

Murray Bookchin

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specialized fossil-fuel technology in use today, we are beginning to see the emergence of a new technology—one that lends itself to the local deployment of many energy resources on a small scale (wind, solar and geothermal)—that provides a wider latitude in the use of small, multipurpose machinery, and that can easily provide us with the high-quality semi-finished goods that we, as individuals, may choose to finish according to our proclivities and tastes. The rounded eco-communities of the future would thereby be sustained by rounded ecotechnologies. **8** The people of these communities, living in a highly diversified agricultural and industrial society, would be free to avail themselves of the most sophisticated technologies without suffering the social distortions that have pitted town against country, mind against work, and humanity against itself and the natural world.

Radical agriculture brings all of these possibilities into focus, for we must begin with the land if only because the basic materials for life are acquired from the land. This is not only an ecological truth but a social one as well. The kind of agricultural practice we adopt at once reflects and reinforces the approach we will utilize in all spheres of industrial and social life. Capitalism began historically by undermining and overcoming the resistance of the traditional agrarian world to a market economy; it will never be fully transcended unless a new society is created on the land that liberates humanity in the fullest sense and restores the balance between society and nature.

humanity's psychic and social well-being but for the well-being of the natural world as well.

Our own era has gone further than this visionary approach. A century ago it was still possible to reach the countryside without difficulty even from the largest cities and, if one so desired, to leave the city permanently for a rural way of life. Capitalism had not so completely effaced humanity's legacy that one lacked evidence of neighbourhood enclaves, quaint life-styles and personalities, architectural diversity, and even village society. Predatory as the new industrial system was, it had not so completely eliminated the human scale as to leave the individual totally faceless and estranged. By contrast, we are compelled to occupy even quasi-rural areas that have become essentially urbanized, and we are reduced to anonymous digits in a staggering bureaucratic apparatus that lacks personality, human relevance, or individual understanding. In population, if not in physical size, our cities compare to the nation-states of the last century. The human scale has been replaced by the inhuman scale. We can hardly comprehend our own lives, much less manage society or our immediate environment. Our very self-integrity, today, is implicated ill achieving the vision that utopians and radical libertarians held forth a century ago. In this matter, we are struggling not only for a better way of life *but for our very survival.*

Radical agriculture offers a meaningful response to this desperate situation in terms not of a fanciful fight to a remote agrarian refuge, but of a systematic recolonlization of the land along ecological lines. Cities are to be decentralised—and this is no longer a utopian fantasy but a visible necessity which even conventional city planning is beginning to recognize—and new eco-communities are to be established, tailored artistically to the ecosystems in which they are located. These eco-communities are to be scaled to human dimensions, both to afford the greatest degree of self-management possible and personal comprehension of the social situation. No bureaucratic manipulative, centralized administration here, but a voluntaristic system in which the economy, society and ecology of an area are administered by the community as a whole, and the distribution of the means of life is determined by need, rather than by labour, profit or accumulation.

But radical agriculture carries this tradition further—into technology itself. In contemporary social thought, technology tends to be polarized into highly centralized labour-extensive forms on the one hand and decentralized, craft-scale labour-intensive forms on the other. Radical agriculture steers the middle ground established by an eco-technology: it avails itself of the tendency toward miniaturization and versatility, quality production, and a balanced combination of mass manufacture and crafts. For side by side with the massive, highly

Agriculture is a form of culture. The cultivation of food is a social and cultural phenomenon unique to humanity. Among animals, anything that could remotely be described as food cultivation appear ephemerally, if at all; and even among humans, agriculture developed little more than ten thousand years ago. Yet, in an epoch when food cultivation is reduced to a mere industrial technique, it becomes especially important to dwell on the cultural implications of "modern" agriculture—to indicate their impact not only on public health, but also on humanity's relationship to nature and the relationship of human to human.

The contrast between early and modern agricultural practices is dramatic. Indeed, it would be very difficult to understand the one through the vision of the other, to recognize that they are united by any kind of cultural continuity. Nor can we ascribe this contrast merely to differences in technology. Our agricultural epoch—a distinctly capitalistic one—envisions food cultivation as a business enterprise to be operated strictly for the purpose of generating profit in a market economy. From this standpoint, land is an alienable commodity called "real estate," soil a "natural resource," and food an exchange value that is bought and sold impersonally through a medium called "money." Agriculture, in effect, differs no more from any branch of industry than does steelmaking or automobile production. In fact, to the degree that food cultivation is affected by nonindustrial factors such as climatic and seasonal changes, it lacks the exactness that marks a truly "rational" and scientifically managed operation. And, lest these natural factors elude bourgeois manipulation, they too are the objects of speculation in future markets and between middlemen in the circuit from farm to retail outlet.

In this impersonal domain of food production, it is not surprising to find that a "farmer" often turns out to be an airplane pilot who dusts crops with pesticides, a chemist who treats soil as a lifeless repository for inorganic compounds, an operator of immense agricultural machines who is more familiar with engines

than botany, and perhaps most decisively, a financier whose knowledge of land may be less than that of an urban cab driver. Food, in turn, reaches the consumer in containers and in forms so highly modified and denatured as to bear scant resemblance to the original. In the modern, glistening supermarket, the buyer walks dreamily through a spectacle of packaged materials in which the pictures of plants, meat, and dairy foods replace the life forms from which they are derived. The fetish assumes the form of the real phenomenon. Here, the individual's relationship to one of the most intimate of natural experiences—the nutriments indispensable to life—is divorced from its roots in the totality of nature. Vegetables, fruit, cereals, dairy foods and meat lose their identity as organic realities and often acquire the name of the corporate enterprise that produces them. The "Big Mac" and the "Swift Sausage" no longer convey even the faintest notion that a living creature was painfully butchered to provide the consumer with that food.

This denatured outlook stands sharply at odds with an earlier animistic sensibility that viewed land as an inalienable, almost sacred domain, food cultivation as a spiritual activity, and food consumption as a hallowed social ritual. The Cayuses of the Northwest were not unique in listening to the ground, for the "Great Spirit," in the words of a Cayuse chief, "Appointed the roots to feed the Indians on." **1** The ground lived, and its voice had to be heeded. Indeed, this vision may have been a cultural obstacle to the spread of food cultivation; there are few statements of the hunter against agriculture that are more moving than Smohalla's memorable remarks: "You ask me to plough the ground. Shall I take a knife and tear my mother's breast? Then when I die she will not take me to her bosom to rest." **2**

When agriculture did emerge, it clearly perpetuated the hunter's animistic sensibility. The wealth of mythic narrative that surrounds food cultivation is testimony to an enchanted world brimming with life, purpose and spirituality. Ludwig Feuerbach's notion of God as the projection of man omits the extent to which early man is stamped by the imprint of the natural world and, in this sense, is an extension or projection of it. To say that early humanity lived in "partnership" with this world tends to understate the case; humanity lived as *part* of this world—not beside it or above it.

Because the soil was alive, indeed the mother of life, to cultivate it was a sacred act that required invocatory and appeasing rituals. Virtually every aspect of the agricultural procedure had its sanctifying dimension, from preparing a tilth to harvesting a crop. The harvest itself was blessed, and to "break bread" was at once a domestic ritual that daily affirmed the solidarity of kinfolk as well as an act of hospitable pacification between the stranger and the community. We still

"needs," however irrational or synthetic these needs may be. A truly ecological outlook, by contrast, sees the biotic world as a holistic unity of which humanity is a part. Accordingly, in this world, human needs must be integrated with those of the biosphere if the human species is to survive. This integration, as we have already seen, involves a profound respect for natural variety, for the complexity of natural processes and relations, and for the cultivation of a mutualistic attitude toward the biosphere. *Radical agriculture, in short, implies not merely new techniques in food cultivation, but a new non-Promethean sensibility toward land and society as a whole.*

Can we hope to achieve fully this new sensibility solely as individuals, without regard to the larger social world around us?

Radical agriculture, I think, would be obliged to reject an isolated approach of this kind. Although individual practice doubtless plays an invaluable role in initiating a broad movement for social reconstruction, ultimately we will not achieve an ecologically viable relationship with the natural world without an ecological society. Modern capitalism is inherently anti-ecological: the nuclear relationship from which it is constituted—the buyer-seller relationship—pits individual against individual and, on the larger scale, humanity against nature. Capital's law of life of infinite expansion, of "production for the sake of production" and "consumption for the sake of consumption," turns the domination and exploitation of nature into the "highest good" of social life and human self-realization. Even Marx succumbs to this inherently bourgeois mentality when he accords to capitalism a "great civilizing influence" for reducing nature "for the first time simply [to] an object for mankind, purely a matter of utility...." Nature "ceases to be recognized as a power in its own right; and the theoretical knowledge of its independent laws appears only as a stratagem designed to subdue it to human requirements...." **6**

In contrast to this tradition, radical agriculture is essentially libertarian in its emphasis on community and mutualism, rather than on competition, an emphasis that derives from the writings of Peter Kropotkin **7** and William Morris. This emphasis could justly be called ecological before the word "ecology" became fashionable, indeed, before it was coined by Ernst Haeckel a century ago. The notion of blending town with country, of rotating specifically urban with agricultural tasks, had been raised by so-called utopian socialists such as Charles Fourier during the Industrial Revolution. variety and diversity in one's workaday activities—the Hellenic ideal of the rounded individual in a rounded society—found its physical counterpart in varied surroundings that were neither strictly urban nor rural, but a synthesis of both. Ecology validated this ideal by revealing that it formed the precondition not only for

more simplified an ecosystem—and, in agriculture, the more limited the variety of domesticated stocks involved—the more likely is the ecosystem to break down. The more complex the food webs, the more stable the biotic structure. This insight, which we have gained at so costly an expense to the biosphere and to ourselves, merely reflects the age-old thrust of evolution. The advance of the biotic world consists primarily of the differentiation, colonization and growing web of interdependence of life-forms on an inorganic planet—a long process that has remade the atmosphere and landscape along lines that are hospitable for complex and increasingly intelligent organisms. The most disastrous aspect of prevailing agricultural methodologies, with their emphasis on monoculture, crop hybrids, and chemicals, has been the simplification they have introduced into food cultivation—a simplification that occurs on such a global scale that it may well throw back the planet to an evolutionary stage where it could support only simpler forms of life.

Radical agriculture's respect for variety implies a respect for the complexity of a balanced agricultural situation: the innumerable factors that influence plant nutrition and well-being; the diversified soil relations that exist from area to area; the complex interplay between climatic, geological and biotic factors that make for the differences between one tract of land and another; and the variety of ways in which human cultures react to these differences. Accordingly, the radical agriculturist sees agriculture not only as science but also as art. The food cultivator must live on intimate terms with a given area of land and develop a sensitivity for its special needs—needs that no textbook approach can possibly encompass. The food cultivator must be part of a "soil community" in the very meaningful sense that she or he belongs to a unique biotic system, as well as to a given social system.

Yet to deal with these issues merely in terms of technique would be a scant improvement over the approach that prevails today in agriculture. To be a technical connoisseur of an "organic" approach to agriculture is no better than to be a mere practitioner of a chemical approach. We do not become "organic farmers" merely by culling the latest magazines and manuals in this area, any more than we become healthy by consuming "organic" foods acquired from the newest suburban supermarket. What basically separates the organic approach from the synthetic is the overall attitude and praxis the food cultivator brings to the natural world as a whole. At a time when organic foods and environmentalism have become highly fashionable, it may be well to distinguish the ecological outlook of radical agriculture from the crude "environmentalism" that is currently so widespread. Environmentalism sees the natural world merely as a habitat that must be engineered with minimal pollution to suit society's

seal a bargain with a drink or celebrate an important event with a feast. To fell a tree or kill an animal required appeasing rites, which acknowledged that life inhered in these beings and that this life partook of a sacred constellation of phenomena.

Naive as the myths and many of these practices may seem to the modern mind, they reflect a truth about the agricultural situation. After having lost contact with this "prescientific" sensibility—at great cost to the fertility of the land and to its ecological balance—we now know that soil is very much alive; that it has its health, its dynamic equilibrium, and a complexity comparable to that of any living community. Not that the details that enter into this knowledge are new; rather, we are *aware* of them in a new and holistic way. As recently as the early 1960s, American agronomy generally viewed soil as a medium in which living organisms were largely extraneous to the chemical management of food cultivation. Having saturated the soil with nitrates, insecticides, herbicides, and an appalling variety of toxic compounds, we have become the victims of a new type of pollution that could well be called "soil pollution." These toxins are the hidden additives to the dinner table, the unseen spectres that return to us as the residual products of our exploitative attitude toward the natural world. No less significantly, we have gravely damaged soil in vast areas of the earth and reduced it to the simplified image of the modern scientific viewpoint. The animal and plant life so essential to the development of a nutritive, friable soil is diminished, and in many places approaches the sterility of impoverished, desertlike sand.

By contrast, early agriculture, despite its imaginary aspects, defined humanity's relationship to nature within sound ecological parameters. As Edward Hyams observes, the attitude of people and their culture is as much a part of their technical equipment as are the implements they employ. If the "axe was only the physical tool which ancient man used to cut down trees" and the "intellectual tool enabled him to swing his axe" effectively, "what of the spiritual tool?" This "tool" is the "member of the trinity of tools which enables people to control and check their actions by reference to the 'feeling' which they possess for the consequences of the changes they make in their environments." Accordingly, tree-felling would have been limited by their state of mind as early people "believed that trees had souls and were worshipful, and they associated certain gods with certain trees. Osiris with acacia; Apollo with oak and apple. The temples of many primitive peoples were groves...." If the mythical aspects of this mentality are evident enough, the fact remains that the mentality as such "was immensely valuable to the soil community and therefore, in the long run, to man. It meant that no trees would be wantonly felled, but only when it was absolutely

necessary, and then to the accompaniment of propritiatory rites which, if they did nothing else, served constantly to remind tree-fellers that they were doing dangerous and important work...." **3** One may add that, if culture be regarded as a "tool," a mere shift in emphasis would easily make it possible to regard tools as of culture. This different emphasis comes closer to what Hyams is trying to say than does his own formulation. In fact, what uniquely marks the bourgeois mentality is the debasement of art, values, and rationality to mere tools—a mentality that has even infiltrated the radical critique of capitalism if one is to judge from the tenor of the Marxian literature that abounds today.

A radical approach to agriculture seeks to transcend the prevailing instrumentalist approach that views food cultivation merely as a "human technique" opposed to "natural resources." This radical approach is literally ecological, in the strict sense that the land is viewed as an *oikos*—a *home.* Land is neither a "resource" nor a "tool," but the *oikos* of myriad kinds of bacteria, fungi, insects, earthworms, and small mammals. If hunting leaves this *oikos* essentially undisturbed, agriculture by contrast affects it profoundly and makes humanity an integral part of it. Human beings no longer indirectly affect the soil; they intervene into its food webs and biogeochemical cycles directly and immediately.

Conversely, it becomes very difficult to understand human social institutions without referring to the prevailing agricultural practices of a historical period and, ultimately, to the soil situation to which they apply. Hyams's description of every human community as a "soil community" is unerring; historically, soil types and agrarian technological changes played a major, often decisive, role in determining whether the land would be worked co-operatively or individualistically—whether in a conciliatory manner or an exploitative one—and this, in turn, profoundly affected the prevailing system of social relations. The highly centralized empires of the ancient world were clearly fostered by the irrigation works required for arid regions of the Near East; the cooperative medieval village, by the openfield strip system and the mouldboard plough. Lynn White, Jr., in fact, roots the Western coercive attitude towards nature as far back as Carolingian times, with the ascendancy of the heavy European plough and the consequent tendency to allot land to peasants not according to their family subsistence needs but "in proportion to their contribution to the ploughteam." **4** He finds this changing attitude reflected in Charlemagne's efforts to rename the months according to labour responsibilities, thereby revealing an emphasis on work rather than on nature or deities. "The old Roman calendars had occasionally shown genre scenes in human activity, but the dominant tradition (which continued in Byzantium) was to depict the months as passive personifications bearing symbols of attributes. The new Carolingian calendars, which set the pattern for the Middle Ages, are very different: they show a coercive attitude towards natural resources. They are definitely northern in origin; for the olive, which loomed so large in the Roman cycles, has now vanished. The pictures change to scenes of ploughing, harvesting, wood-chopping, people knocking down acorns for the pigs, pig-slaughtering. Man and nature are now two things, and man is master." **5**

Yet not until we come to the modern capitalist era do humanity and nature separate as almost complete foes, and the "mastery" by human over the natural world assumes the form of harsh domination, not merely hierarchical classification. The rupture of the most vestigial corporate ties that once united clansfolk, guildsmen, and the fraternity of the *polis* into a nexus of mutual aid; the reduction of everyone to an antagonistic buyer or seller; the rule of competition and egotism in every arena of economic and social life—all of this completely dissolves any sense of community whether with nature or in society. The traditional assumption that community is the authentic locus of life fades so completely from human consciousness that it ceases to exercise any relevance to the human condition. The new starting point for forming a conception of society or of the psyche is the isolated, atomized man fending for himself in a competitive jungle. The disastrous consequences of this outlook toward nature and society are evident enough in a world burdened by explosive social antagonisms, ecological simplification, and widespread pollution.

Radical agriculture seeks to restore humanity's sense of community: first, by giving full recognition to the soil as an ecosystem, a biotic community; and second, by viewing agriculture as the activity of a natural human community, a rural society and culture. Indeed, agriculture becomes the practical, day-to-day interface of soil and human communities, the means by which both meet and blend. Such a meeting and blending involves several key presuppositions. The most obvious of these is that humanity is part of the natural world, not above it as "master" or "lord." Undeniably, human consciousness is unique in its scope and insight, but uniqueness is no warrant for domination and exploitation. Radical agriculture, in this respect, accepts the ecological precept that variety does not have to be structured along hierarchical lines as we tend to do under the influence of hierarchical society. Things and relations that patently benefit the biosphere must be valued for patently benefit the biosphere must be valued for their own sake, each unique in its own way and contributory to the whole—not one above or below the other and fair game for domination.

Variety, in both society and agriculture, far from being constrained, must be promoted as a positive value. We are now only too familiar with the fact that the