Reclaiming the Roots of Organics[1]

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Today's organic, sustainable, and local agri-food movements are not new. They are simply names for the more recent efforts to create a "permanent agriculture" that began in the U.S. more than 100 years ago and much earlier elsewhere. Between 1902 and 1904, Franklin Hiram King, while working for the U.S. Bureau of Soils, visited Japan, China, and Korea to try to learn how people in these ancient cultures had been able to sustain the productivity of their farmland for thousands of years—in spite of population densities far greater than in the U.S. King later returned to the University of Wisconsin to document his experiences in his classic book, *Farmers of Forty Centuries, or Permanent Agriculture in China, Korea, and Japan.* He wrote, upon arriving in China from the U.S, "We had gone from practices by which three generations had exhausted strong virgin fields and were coming to others still fertile after thirty centuries of cropping."[1] His classic book was published in 1911, shortly after his death. King's focus on *permanence* in agriculture helped lay the foundation for the modern *sustainable* agriculture movement.

Liberty Hyde Bailey, then Dean of the College of Agriculture of Cornell University, wrote in the foreword of King's book, "We in North America are wont to think that we may instruct all the world in agriculture because our agricultural wealth is great and our exports to less favored peoples have been heavy but this wealth is great because our soil is fertile and new and in large acreage for every person We have really only begun to farm well. The first condition of farming is to maintain fertility."[2] The common practice in the U.S. at that time was to farm virgin soils until their productivity declined or was depleted and then to move on to new virgin lands of the westward frontier.

The key to the permanent agriculture of the Far East had been to return all organic waste, including human waste, to the soil and use legume crops to capture and store atmospheric nitrogen in the soil. The challenge for Bailey and others agricultural scientists was to find ways to integrate the Eastern principles of permanent agriculture into farming practices that would be acceptable within Western cultures. They knew Americans would not accept the labor intensive farming systems of the East or tolerate the composting of human wastes in the streets of their cities. American agricultural scientists of the early 1900s focused their research on using animal manure and crop rotations to restore and maintain soil fertility. They had no way of knowing their efforts to learn how to "farm well" would be subverted by the emergence of a mechanized, chemically-dependent, industrial agriculture following World War II.

Prior to World War II, Rudolph Steiner, of Germany, was advocating "biodynamic farming." In his landmark 1924 series of lectures, Steiner wrote, "Central to bio-dynamics is the concept

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that a farm is healthy only as much as it becomes an organism in itself – an individualized, diverse ecosystem guided by the farmer, standing in living interaction with the larger ecological, social, economic, and spiritual realities of which it is part." [3] He was laying the philosophical foundation for the modern *organic* farming movement. The term *organic* referred to the organization of the farm as a living *organism*—of which the farmers is a part. In addition, biodynamic farming was clearly spiritual as well as biological. Steiner was concerned that food grown on increasingly impoverished soil not only could not provide the nutrition needed for physical health but also could not provide the inner sustenance needed for spiritual health.

In Great Britain, Sir Albert Howard built upon the work of F. H. King to provide the social and ethical foundation for sustainable, organic farming. He began his 1940 classic book, *An Agricultural Testament*, with the assertion, "The maintenance of the fertility of the soil is the first condition of any permanent system of agriculture. In the ordinary processes of crop production fertility is steadily lost: its continuous restoration by means of manuring and soil management is therefore imperative." [4] Howard believed the creation of a permanent agriculture was a moral responsibility not only to one's nation but also to humanity.

He contrasted the regenerative agriculture of the Orient at the time with the agricultural decline that accompanied the fall of the Roman Empire. He wrote, "The agriculture of ancient Rome failed because it was unable to maintain the soil in a fertile condition." He concluded, "The farmers of the West are repeating the mistakes made by Imperial Rome." He asked, "How long will the supremacy of the West endure? The answer depends on the wisdom and courage of the population in dealing with the things that matter. Can mankind regulate its affairs so that its chief possession—the fertility of the soil—is preserved? On the answer to this question the future of civilization depends."

In the U.S., organic pioneer, publisher, author, and founder of Rodale Press, J. I. Rodale, was inspired by the ideas of Howard and other early organic advocates. He began publishing *Organic Farming and Gardening* magazine in 1942. The magazine became the organic farming *bible* for many during the early days of the modern U.S. organic farming movement. Rodale also believe that organic farming was an ethical and moral responsibility. He wrote, "The *organiculturist* farmer must realize that in him is placed a sacred trust, the task of producing food that will impart health to the people who consume it. As a patriotic duty, he assumes an obligation to preserve the fertility of the soil, a precious heritage that he must pass on, undefiled and even enriched, to subsequent generations."[5] To many American organic pioneers, organic farming was not just an occupation, it was a calling, a life's mission, a sacred trust.

All of these organic visionaries wrote about the possibilities of creating a permanent agriculture: an agriculture that could not only meet the needs of the present but do so without diminishing the agricultural opportunities of future generations. Organic farming was a means of creating a sustainable organic agriculture. These early visionaries laid the foundation for the modern organic farming movement in the U.S., which began in the 1960s with the "back to the earth" people who decided to drop out of the American mainstream.

The modern organic movement emerged as the *natural* food movement of the early 1960s. It was a clear rejection of the industrialization of American agriculture. Following World War II,

the mechanical and chemical technologies developed to support industrial warfare were adapted to support industrial agriculture. Affordable and effective chemical fertilizers and pesticides were byproducts of warfare that posed risks to human health and the natural environment. The "back to the earth" people were not willing to take those risks by eating foods produced with poisons. They responded by creating their own food systems. They produced their own food, bought food from each other, and formed the first cooperative food buying clubs and natural food stores.

Concerns about the health and environmental risks of industrial agriculture were important, but were not the only reasons they chose to grow foods organically. They shared Steiner's view of the earth as a living organism of which humans were a part. The back to the earth people were nurturing their sense of integral connectedness and a commitment to taking care of each other and caring for the earth. The *philosophy* of organic farming was deeply embedded in their communities. To these food and farming pioneers, organic was as much a way of life as a way to produce food. Their farms were intensively managed organic systems, with complex crop rotations and considerable hand labor, and their farms were accordingly small, by necessity.

Organic farming and food production remained on the fringes of American society until the environmental movement emerged from relative obscurity in the 1980s and expanded into mainstream society. By the 1990s, the organic food movement had spread far beyond the "hippie" communities of the 1960s. Most of the early market growth in organic foods was for vegetables, fruits, grains, and soy products, reflecting continuing environmental and health concerns linked to use of agricultural chemicals. Persistent concerns about the nutrient deficiency of industrial food products only recently have gained scientific credibility, expanding the organic markets with growing concerns for industrial agriculture.

Animal products, led by organic milk, began to break into organic markets in the late 1980s. Widespread use of antibiotics and growth hormones in industrial livestock operations seemed to be the major concerns for consumers of meat, milk, and cheese. The inhumane treatment of animals in large-scale confinement animal feeding operations (CAFOs) helped fuel demand for free range, pasture based, and naturally raised meat and dairy products. Concerns for the exploitation of family farmers and farm workers also grew as agricultural operations became larger and more geographically concentrated. The organic food movement was an expression of deeply held social and ethical values that were being compromised by the industrial food system.

However, to those in the industrial food system the only value in organics was economics – just another opportunity to make money. The late '80s and early '90s brought dramatic changes in organic food retailing. By the late '80s, several of the early natural foods cooperatives, such as Whole Foods, had expanded into small chain store operations, operating from three to 20 stores, when it initiated a major consolidation process that ultimately would reshape natural foods retailing.[6] Wild Oats soon followed their lead.[7] During the '90s, prospect for large profits from the rapidly growing organic food market eventually attracted the attention of the large industrial food corporations. Mainstream supermarkets, including Kroger, Safeway, and even Walmart, added lines of organic foods and began promoting organic foods in their ads.

The large corporate food retailers and processors found it difficult to deal with large numbers of small farms and with the diversity of organic standards and certification programs that existed

in different regions of the country. They encouraged organic farmers to adopt uniform standards for national organic certification to allow them to buy "generic organic" crops and livestock from anyone anywhere. In 2002, the USDA responded by launching a National Organic Program (NOP) of uniform national standards for certification of organic foods. Uniform national standards facilitated the ongoing industrialization of organics through ever-greater specialization, standardization, and consolidation of control. National organic standards opened the door to corporate consolidation of control of organic production and distribution. [8, 9]

With the industrialization of organics, the share of the organic market held by *independent* natural foods and health foods stores fell dramatically, from 62% in 1998 to 31% in 2003.[10]By 2006, the Whole Foods chain had grown to 186 stores in North America and the UK. Wild Oats was operating 110 stores in the U.S. and Canada. Whole Foods acquired Wild Oats In 2007 and continued adding stores to more than 450 stores by 2015.[11] Mainstream corporate supermarkets had gained 47% of the organic foods market by 2007. Natural foods stores and specialty retail chains accounted for another 46%.[12] This left direct sales at farmers markets and other direct markets with just 7% percent of the organic market. With expansion into mainstream markets, organic food sales grew at a rate of 20%-plus per year from the early 1990s until it slowed to growth rates of 8% to 10% per year following the recession of 2008. The organic food market reached $45.2 billion in sales in 2017 – more than 5% of total food sales.[13] In 2016, the Organic Trade Association estimated that 93% of organic sales going through mainstream markets.[14]

Organic farming advocates of the '60s, '70s, and '80s clearly understood that authentic organic farming requires ecological, social, and economic integrity. This historical requisite was written into official definitions of organic farming. The Organic Farming Research Foundation in the U.S. (OFRF) defined organic farming as "a modern, sustainable farming system which maintains the long-term fertility of the soil and uses less of the Earth's finite resources to produce high quality, nutritious food."[15] The International Federation of Organic Agriculture Movements (IFOAM) goes further in defining organic agriculture as an "agricultural production system that promotes environmentally, socially and economically sound production of food and fibres…."[16] Unfortunately, in establishing national and international standards for organic production, the emphasis shifted from the historical values of organic farming to the specific inputs, materials, practices, and methods that tended to characterize organic farms.

Except for restrictions on use of synthetic agrochemicals and food additives, the organic food movement eventually began to seem more and more like other sectors of the industrial food system. Consumers who were concerned about the environmental and social consequences of industrial agriculture then began looking to local farmers to ensure the integrity of their foods. Many organic farmers who marketed locally continued to use organic production practices but no longer bothered with organic certification. Their customers knew them personally and trusted them. The number of farmers markets tripled between 1994 and 2009, increasing from 1,755 to 5,274. Community supported farming operations or CSAs also grew rapidly from virtually none in the 1980s to 12,000 in the 2012.[17] The 2012 USDA Census of Agriculture also estimated the number of farmers selling direct to consumers by all means at 50,000.

During the 1990s, the organic and local food system had followed very similar trends. However, when the organic markets faltered following the recession of 2008, the number of

farmers markets continued to grow, increasing another 50% between 2009 and 2012, up to 7,864. It appeared that organic and local foods might have evolved into two different movements. However, in spite of the continued growth in farmers markets, USDA reported a slowing in sales of local foods, as well as organic foods, following the recession of 2008.[18] According to USDA estimates, "local food sales totaled $6.1 billion in 2012," which was less than earlier industry estimates.[19] The growth in farmers markets also slowed after 2012 and increased only 2.5% between 2015 and 2017[20]--after increasing 8% per year between 1994 and 2015. Some local food advocates think the number of CSAs in the U.S. also may have peaked in at around 12,000.

But then, local food sales rebounded to $9 billion in sales by 2015—an increase of 50% in 3 years—in spite of slower growth in farmers markets and CSAs.[21] In contrast, growth in organic sales had slowed to 6% by 2017. There was virtually no growth in sales of organic eggs or dairy products, both of which been exposed publicly as being produced mostly in large "industrial organic" or factory farming operations.[22] Organic vegetables sales grew by only 6%. With USDA approving certification of hydroponic, or "soilless" *organic* production, the organic vegetable, berry, and fruit markets could be next to suffer from the industrialization of organics.

Some critics believe local foods are saturating their small niche market and will be just another passing food fad. However, there are clear indications that the local food movement is simply going through an economic and structural transition and could be poised for further market innovation and growth. One important development in the local food movement that seems to point to a more positive future, and more opportunities for small farms in particular, has been the multiple-farm local food networks, collaborative, or alliances.

These collaborations have taken on a variety of forms. Three with which I am personally familiar are *Peoples' Food Coop*,[23] *Good Natured Family Farms*[24], and *the Oklahoma Food Cooperative.*[25] The Peoples' Food Coop is a retail food store in La Crosse Wisconsin that gives priority to procuring food from local, organic and sustainable farmers. Good Natured Family Farms is an alliance of farmers in the Kansas City area that market products collectively under their GNFF brand through locally-owned Ball's Food Stores and other local market outlets. The Oklahoma Food Cooperative is a statewide organization that provides an internet platform for farmers to list products available for purchase by local customers, which are then aggregated and distributed to local pick-up sites. These marketing collaboratives range in size from a couple dozen to more than a hundred farmers.

Perhaps the most important current trend in local foods is on-line or internet marketing, which Joel Salatin refers to as electronic aggregation. [26] Local producers of a wide range of products post products they currently have available on "on-line farmers market" website. Products ordered online can then be picked up at local sites or home delivered. These on-line markets are feasible for small groups of farmer. However, *Riverford Organics*[27] in the United Kingdom uses an internet platform to market, aggregate, and distribute 47,000 boxes of food a week that is produced on farms in different regions of the UK and delivered to local customers in their regions. *Lulus Local Foods*[28] is an internet-based software platform that facilitates the establishment of online farmers markets and food hubs where customers can choose from products currently available from local producers. The *National Good Food Network* lists more than 300 "food hubs" in the U.S. [29] – although I cannot vouch for their success or authenticity.

The local food movement is so decentralized and dispersed that it is impossible to accurately estimate the size or importance of the movement. USDA estimates of local food sales have not included "intermediated sales" to local restaurants, retail markets, or public institutions. Local food advocates claim USDA data "grossly underestimates" the importance of "food hubs" that provide locally grown foods to local food coops, schools, and public institutions.[30] Virtually everywhere I go, I discover new local foods initiatives—many of which likely never show up in any data base. Hopefully, the 2017 Census of Agriculture will provide useful local food data.

The local food movement is also so diverse that it is difficult to distinguish between those who are committed to ecological and social integrity and those who simply see local foods as another opportunity for profits. Some food hubs aggregate production from multiple local growers to sell to mainstream retailers who simply want to advertise that they sell "locally grown" foods. Admittedly, the future of the local food movement depends on being able to "scale up" to serve increasing numbers of consumers. However, if farmers compromise their ecological and social integrity in the process of scaling up, they will be little different from industrial farmers who are producing foods many of their customers are attempting to avoid.

Some experts may question the importance of social, ecological, and other *unselfish* economic motives for buying local. However, the fact that the local food movement has diverged from the organic movement in response to the industrialization of organics suggests otherwise. Americans are trying to restore trust and confidence in "their food system" by "buying local." For this reason and others, farmers motivated primarily by profits or who join alliances for economic reasons are unlikely to be successful in local markets. Eventually, their customers will see their foods as being little different from industrial foods and will value them accordingly.

The success or failure of the local food movement will depend on whether it maintains its authenticity, particularly its ecological and social integrity. It must remain true to the principles of a permanent, organic agriculture envisioned by King, Howard, and Rodale. However, the organic principles driving the local food movement are even more consistent with those biodynamics. Steiner envisioned farms, farmers, and their local communities as inseparable parts of the same whole—integrally connected local agri-food systems. However, sustainable farmers of the 21st century need not rely solely on the philosophy of Steiner or other organic pioneers. The philosophy of a permanent, integral agriculture has evolved into the science of agroecology.

Agroecology integrates the science of ecology with the realities of agriculture.[31] The first principle of ecology is that "everything is interconnected." A common phrase in ecology relates directly to agroecology: "You can't do just one thing." The relationships in agroecosystems, among soils, plants, animals, and the people who farm, live in rural communities, and eat food are incredibly complex. Everything is related, somehow and in some way, to everything else. Any individual action a farmer may take affects everything else on the farm—some in small ways and others in important ways. When farmers do one thing, they need to be aware of all of the other things that may be affected on their farms as wholes. They also need to be aware of the impacts of their actions on their neighbors, communities, and larger societies. Unintended consequences of their actions may appear either quickly or at some time in the distant future. Ecology addresses temporal as well as functional and spatial relationships in agri-food systems.

Agroecology respects the fact that the natural ecosystems and societies which sustain individual farming systems are inherently diverse and unique. Sometimes the differences are insignificant and sometimes they are critical to the sustainability of the farming system as a whole. A specific set of farming methods and practices that are successful for one farmer on one farm may or may not work for another farmer or another farm—even though nature functions by the same ecological principles on every farm. The farmer is treated as a member of a farm's agroecosystem and the relationship between a specific farm and specific farmer is critical to the farm's success or failure. As a result, traditional approaches to agricultural research are not be adequate for agroecological research. This also casts serious doubts on the ability to *standardize* organic farming practices. Agroecology respects the "natural ecology of place."

Agroecology also respects the "social ecology of place." Agroecology recognizes that farms are integrally connected with the specific communities and societies within which they function. The economic sustainability of a farm obviously is interdependent with the willingness and ability of people in its local community, or the larger society, to buy its agricultural products. Less appreciated, the quality of life of farmers and farm families are critically affected by their personal relationships with others in their communities—their customers, their neighbors, and people they meet in town through churches, schools, or participation in public service. These relationships may affect the farmer's sense of acceptance, belonging, and self-esteem. The quality of personal relationships affect the quality of farm life, which may also affect the economic success or failure of the farm.

The failure of industrial agriculture and the potential of agroecology is supported by highly reputable research conducted around the world. A 2016 independent study by an International Panel of Experts in Sustainability (IPES) cited more than 350 scientific sources and described the evidence supporting the indictment of industrial agriculture as "overwhelming."[32] The IPES members are from highly respected academic institutions and international organizations. They concluded: "Today's food and farming systems have succeeded in supplying large volumes of foods to global markets, but are generating negative outcomes on multiple fronts: widespread degradation of land, water and ecosystems; high GHG emissions; biodiversity losses; persistent hunger and micro-nutrient deficiencies alongside the rapid rise of obesity and diet-related diseases; and livelihood stresses for farmers around the world."[33]

The report concludes: "What is required is a fundamentally different model of agriculture based on diversifying farms and farming landscapes, replacing chemical inputs, optimizing biodiversity and stimulating interactions between different species, as part of holistic strategies to build long-term fertility, healthy agro-ecosystems and secure livelihoods. Data shows that these systems can compete with industrial agriculture in terms of total outputs, performing particularly strongly under environmental stress, and delivering production increases in the places where additional food is desperately needed. Diversified agroecological systems can also pave the way for diverse diets and improved health."

A local food movement, based on the principles of agroecology, not only represents a rejection of the industrial agri-food system but also represents an emerging vision of a fundamentally better farms and food systems in the future. I foresee a time when virtually every

community will have its own local, community-based food system. These communities will not be "self-sufficient" in food production, but will give priority to buying as much of their foods as possible from local farmers who give priority to producing good food for local customers. They will give priority to farmers who maintain personal relationships with their customers through face-to-face contacts at farmers markets, on-farm sales, regular farm visits, or local food festivals that punctuate less-personal economic transactions. The primary objective of such community-based food systems will be to provide local assurance of food quality and integrity, rooted in shared social and ethical values. I believe this vision of a new and better food system is best exemplified by local food networks – alliances, collaboratives, cooperatives, personally-connected food hubs and other innovative relationship markets. These community-based food systems could form alliances with other like-minded communities to create bioregional, national, and even global food networks.

The local foods movement is the latest attempt to reclaim the philosophical roots of organics. In 1977, Lady Balfour, another organic farming pioneer wrote "I am sure that the techniques of organic farming cannot be imprisoned in a rigid set of rules. They depend essentially on the outlook of the farmer."[34] Her statement is still true today. Many people want more than industry assurance or government certification that their food is organic; they want to buy their food from people they know and trust. They are placing their trust in the "outlook of their local farmers." Many local food advocates are not particularly concerned about whether their foods are certified organic, as long as they know they are produced with ecological, social, and economic integrity. Perhaps someday the local foods movement will suffer the same fate as the natural and organic foods before it and be co-opted and controlled by the corporate industrial food system. If so, another food movement will arise to carry forward the ecological, social, and economic values that spawned the natural and organic food movements–the true values of authentic organics.

Eventually, by one movement or another, the global food system will be transformed from the extractive, exploitative systems of industrialization to an efficient, resilient, regenerative systems of sustainability. That's what the natural and organic foods movements were about in the past and that's what the local foods movement is about today. To ensure the permanence, sustainability, and ecological and social integrity of agriculture and of humanity, we must have a food system that reflects the philosophy of the organic pioneers and the science of agroecology – regardless of what we call it. To sustain human life on earth, we must reclaim the philosophical roots of organics.

End Notes:

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