Farming Without Farmers: J.I. Rodale and the American Organic Farming Movement

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Introduction

Just days before suffering a fatal heart attack on the set of the Dick Cavett Show, J.I Rodale stumped before an audience in Allentown, Pennsylvania. The gray-haired contrarian leader of the organic movement boasted to his followers, “My friends, my time has come. Years ago they heaped violence and poured ridicule on my head. I was called a cultist and a crackpot…but now I am suddenly becoming a prophet here on earth, a prophet with profits.” Rodale’s talents as spokesman for organic farming lifted him from a childhood of immigrant poverty to become the head of the multi-billion dollar Rodale Press by the end of his life. The traditional narrative of organic farming offered by historians like Joseph Heckman follows the same progressive line, describing decades of obscurity for the organic movement until the 1990 Organic Foods Production Act (OFPA), which finally recognized the environmental, social, and economic potential of organic farming.[1]

In recent years, historians and sociologists blemished the narrative by launching a fierce critique of the OFPA. Political scientist Julia Guthman expounded on how organic labeling acted as a kind of product differentiation that enabled agribusiness to benefit from the profit potential of health foods on the mass market, while squeezing out smaller organic farms from highly competitive marketing and distribution systems. Journalist Michael Pollan popularized this critique with the paradox of “Industrial Organic.”[2] These writers suggest that the contemporary “organic sector” differs from the small farmer who once played the movement’s archetype, inspiring the question of how the organic movement evolved to the point of advocating for a federal organic labeling program.

Organic farming in America developed within the activities of a range of characters with diverse farming practices, political views and spiritual perceptions. J.I. Rodale made the greatest effort to define the movement as a single message. After failing to reach farmers, Rodale directed the movement toward a new constituency with a health based appeal to the general public, synthesizing the goal of establishing scientific legitimacy for organic farming with the mythology of the individual struggling for personal health autonomy against the deceptive forces of the medical and scientific establishments. In the 1970’s, the organic farming movement sprouted a social theory aimed at putting the farmer and urban-dweller back into a relationship with one another. These two strands of the movement would play through the 1980s and 1990’s legislative debates, refuting the traditional narrative that the organic movement entered the period unified behind a specific policy agenda. Ultimately, Rodale’s attempts to define organic farming along the lines of two strategies would be wildly successful; ironically, it was this success that would enable the passage of the OFPA to a dead end for the organic movement.

Organic Roots:

All histories of organic farming begin with a chemist. In 1843, German chemist Justus von Liebig published his monograph *Chemistry in its Application to Agriculture and Physiology*, a report for the British Association that described the foundations of agricultural chemistry, particularly in regards to the study of fertilizers and manures. He identified three major chemicals plants needed to grow: nitrogen, phosphorus, and potassium (NPK). Liebig’s report quickly displaced the predominant view at the time, which held that plants drew carbon and other elements directly from the humus in the soil. Liebig proposed a metric by which crops rose and fell in productivity according to the amount of mineral substances given to the soil in manure.[3] After the birth of the organic movement, the use of Liebig’s chemical formula in farming would become known as “conventional farming.”

Sir Albert Howard, pioneer of the organic movement, was a British chemist who had grown up with practical experience on a farm. In 1905, he moved to India as a colonial administrator, where he would later claim, the peasants divulged to him time-tested methods to produce pest-free crops. As a result of his discoveries, Howard developed a belief that fertile soil held the key to increased crop yield.[4] Howard coined the term “organic” agriculture in 1941, when he published his book *An Agricultural Testament* in which he described studies he had conducted in India. In the preface, Howard portrayed a worldwide disaster in soil fertility resulting from the heavy application of Liebig's methods. "The consequences have been disastrous," he wrote. "Agriculture has become unbalanced: the land is in revolt: diseases of all kinds are on the increase: in many parts of the world Nature is removing the worn-out soil by means of erosion."[5]

Howard condemned the marriage of convenience between the desire to advance food production and the accessibility of chemical knowledge, which aimed to master the land and mine the soil with as little human labor as possible. A reductive science of agriculture was being taught at universities that boiled down all understanding of soil life to the indispensibility of synthetic compounds NPK. At stake was the life of the soil and the fungus and bacterial organisms of which humus is the habitat, a delicate balance that could not survive the abuse of intense chemical application. The increase in disease and soil erosion could be traced back to the effects of chemicals in soil, which wreaked havoc on earthworms and bacteria. As a guiding tenet, Howard posited the "Law of Return," the natural law of organic farming: an adequate amount of fresh humus made in the form of compost from vegetable and animal wastes on the farm should be returned to the soil.

Howard introduced "Health" as a normative concept in the book, *The Soil and Health*, to describe the delicate evolution of plants, animals, and humans that tied them to the soil in an interdependent web. According to Howard, the simplification of food production and the introduction of synthetic pesticides and fertilizers into the mixture posed a major threat to the future of human health. As evidence, Howard cited observations he had made in India that animals fed with crops grown with humus-rich organic soil could be exposed to diseased animals without becoming infected. Health also described the intrinsic condition of the "organic whole," which entailed a philosophical stance by which Howard suggested a remedy to "the disease of civilization – fragmentation." Symptoms of industrial civilization, such as specialization in the fields of agriculture, chemistry, and nutrition, meant that "everywhere knowledge increases at the expense of understanding."[6] Health would describe the ideal condition and epistemology in which crop production, animal husbandry and health, as well as human nutrition and health were all related to a single principle of health in the soil.

Robert McCarrison provided a second inspiration for the organic movement. He began to concentrate on health as a positive quality rather than as just an absence of disease after studying the Hunza tribesmen in India. McCarrison was a distinguished scientist in Britain whose main contribution to the organic movement was to conduct experiments on nutrition in the 1920's that seemed to provide evidence in support of Howard's claims about the healthiness of organic foods.[7] In 1936 McCarrison delivered the "Nutrition and National Health" Cantor Lectures before the Royal Society of Arts, in which he laid out the results of his findings and his ideas on nutrition. According to McCarrison, nutrition was a process, or act, whereby the body is nourished. For example, one of the main processes inherent in "nutrition" was the way in which the body would split, by digestion, foodstuffs, "in such a way that the essential nutrients are readily absorbed and made available to the cells in forms best suited to their use."[8] Nutrition described the way the human body had evolved in tune with the specific characteristics of natural foods, providing according to McCarrison, a scientific basis to Howard's statements about Health.

The American chapter of organic farming opened in the 1930's and 1940's, as Howard's ideas spread across the Atlantic to a small group of farmers and writers. One interested reader was Jerome Irving Rodale, a young electrical engineer who read Howard's work and subsequently purchased a farm in Emmaus Pennsylvania, near Allentown, and began experimenting with composting and organic farming techniques. He soon set up the Rodale Press and began publishing a magazine, *Organic Farming and Gardening* in 1942. In the early publications, Rodale parroted many of Howard's ideas. In his essays, Rodale frequently invested the soil with a spiritual quality: "What a marvelously integrated system God through Nature has wrought in this subterranean would of microscopic, specky beings."[9] Rodale held scorn for the "conveyor belt method" of industrial farming that threatened to alienate the farmer from the product of his labor and cripple the delicate balance of human, animal, and soil health. The

American movement in its early stages functioned primarily as a sponge for British ideas, but garnered enthusiasm from abroad. After meeting Rodale in 1944, Howard became a frequent contributor to early editions Rodale's magazine, publishing articles on "Farming and Gardening for Health or Disease," and "The Purpose of Disease."

From the start, Rodale found the contingencies for organic farming in the United States to be somewhat limited by a small audience of farmers and a less than congenial Department of Agriculture. Rodale took issue with the United States Department of Agriculture (USDA) land-grant colleges because of their practice of funding research into chemical-based conventional farming practices, while refusing to acknowledge organic farming as an alternative by initiating side-by-side experimental comparisons of the two methods. In 1948 J.I. sent over 10,000 copies of *Organic Farming and Gardening* to farmers for a dollar each. He got ten dollars back.[10] Rodale determined to target gardeners as a more welcoming constituency for his magazine; which would culminate in the symbolic dropping of "Farming" all together from the *Organic Gardening Magazine* in 1963. Rather than examine such precedents as the Country Life Movement for a movement aimed at rejuvenating rural areas based on scientific farming practices, Rodale quickly abandoned his outreach to farmers after they acted coldly toward his "organic" magazine.[11]

The organic farming movement took public stage for the first time when Congressman James Delaney of Queens, New York became perhaps the first elected national official to mention organic farming in the context of federal policy. After one congressman was exposed to DDT poison in fish at his lakefront property in upstate New York, the Congress decided to investigate the issue of food safety. Delaney was appointed to head the "Select Committee to Investigate Chemicals in Food Production" to investigate FDA policy on chemical additives to processed foods. The congressman faced a great deal of opposition from chemical companies in the hearings, but held firm in his attempt to expand the authority of the FDA to test all chemicals involved in food production, including farming. While all of the bills Delaney introduced to amend the Federal Food, Drug, and Cosmetic Act of 1938 (FFDC) failed, by leading a groundbreaking investigation into the system of chemical-use in food production, Delaney excited organic farmers as unlikely friends to his cause.[12]

An examination of letters written to Congressman Delaney during the early 1950's reveals the extent to which early organic farmers identified him as a public official who might represent their interests. While the Select Committee formally examined the FDA's policy on food additives, "chemicals and cosmetics," some farmers and citizens made the link to USDA policy in their correspondence with Delaney. In a letter from May 25, 1953, David Larson of Hillsdale, Illinois wrote to Delaney under the letterhead "Normal Soil Association," a group he claimed to have founded with the purpose of examining the quality of "Normal" soil that was untarnished by chemicals. Howard's ideas reverberate in the letter, which exclaims "Yet, animal nutritionists apparently have failed to take a leaf out of Nature's own notebook. They persist in feeding raw materials instead of giving it to live-stock through hay, grass, and grain!" Larson goes on to suggest that the USDA had agreed to "make a test of Normal Soil, on a small scale, to determine its efficacy."[13] While there remains no evidence of such a test ever occurring, the proposal points to the burgeoning hope among farmers that they might gain support and recognition from the government. This letter, among others in Delaney's collection on the subject of insecticides, pesticides, poisonous sprays, and fertilizers, show how Delaney's crusade against food toxins had opened the door to a much larger inquiry into the health of the soil.

Some letters sent to Delaney reflect a significant group self-identification among farmers practicing organic methods, as well as an explicit rejection of government policy perceived to favor conventional farming practices. On June 7, 1954, W.C. Kinney of Vita-Green Farms sent a letter to Delaney and to the USDA in regards to "bio-organically grown food products." Kinney expressed anxiety over the "Date Marketing Order" the USDA was planning to mandate that would require a "chemical mold inhibitor" or a "spoilage inhibitor" to be put on organically produced dates. Kinney also discussed at length the damage that the "bio-organically grown" date farmers would incur were they put into direct competition with those companies which relied heavily on pesticides and synthetic fertilizers.[14] This conflict appeared elsewhere in a letter from Lee Anderson of the Covelda Date Company published in *Organic Farming and Gardening* magazine in June 1955. That farmers attempted to engage Delaney in their political dispute with the USDA despite his total lack of authority in Congress on agricultural matters suggest the degree to which organic farmers had fastened hold to him as a possible champion of their cause.[15]

Perhaps most surprising for the small but growing cadre of organic farmers, Delaney invited J.I. Rodale to testify in the closing hours of the hearings in 1951. Rodale arrived on the committee floor as a relative unknown to public officials who were well-versed in health and agricultural policy, many grumbled at his arrival, and they categorically adopted a tone of skepticism in their questioning of Rodale about his seemingly obscure and retrograde farming practices. For his part, Rodale brought to bear many of the central principles of organic farming and the critique of industrial agriculture that he had inherited from Howard and was just beginning to apply to the American context. Rodale spoke of organic farming "not in a technical sense, but a broad sense," evoking Howard's visionary thinking about the organic whole, and defined the Law of Return for the committee in patently clear imagery. "You take a plant, a shoe factory; it may have leather dust in tremendous quantities. That is an organic fertilizer."[16]

Rodale instructed the committee on the basic principles of soil biology. He explained that bacteria in the soil generate organic matter: "But by using organic matter nitrogen is not the factor, because the organic matter in the soil multiplies the bacteria, a farm that has a large amount of organic matter has these bacteria in the soil working throughout the day, getting nitrogen from the air."[17] When challenged as to the scientific basis of these claims, Rodale responded with a critique of the agricultural establishment at land-grant universities who refused to undertake such a test: "My purpose is to suggest a series of tests. There would be no basis for any legislation until every agricultural college and every agricultural station has tried the organic method of farming as against the use of chemical fertilizers."[18] Rodale assigned authority over the farm to the farmer by virtue of his eye for the natural growth patterns and the exigencies of the soil, an authority that would supercede any chemical formula. While the committee associated this view with a romantic tradition of farming, Rodale parried their questions with insistence on the empirical basis of this and all organic claims: “Good farming methods can keep the weeds under control.”[19] Rodale’s emphasis on the “processes” of farming challenged one of the central assumptions of conventional farming practice, which claimed the advantages of a recipe of chemical inputs.

The question of positioning organic farming in relation to modernity indeed posed the greatest challenge for Rodale. The reflexive and biting rebukes of the committee members frequently betrayed their suspicions of organic farming as an attempt to derail the agricultural institutions and the scientific progress of the American twentieth century. A notable exchange occurred when the committee chairman Mr. Abernathy questioned Rodale’s patriotism: “Would you say the Chinese are healthier than the American People?” In response, Rodale argued that the use of “mortality statistics” to assess national health conflated medical success with nutritional health. These statistics were erroneously used to neutralize any suggestion that the quality of food and the health of the people might be inferior in America even to places like China. Rodale went on to make a case for the national health, which, as McCarrison had argued, depended on food quality, citing the statistic that over twice as many men were rejected from service in the Korean War as in the First World War.[20]

Rodale’s advocated before the committee for a preventative national health policy that addressed as its first item the health of the soil. In order to emphasize his point, Rodale chose the unlikely candidate of the earthworm as an emblem of the organic argument. The earthworm could be considered as an index for soil health. When the soil is soaked with chemicals, the earthworm population withers, and the natural processes of soil aeration and turnover are arrested. The effect of fertilizers on the earthworm is to weaken them to the point of not being able to perform their function in the soil. In this way, earthworms are comparable to people: “In my opinion, in some cases they may not kill them; they do the same thing to the earthworm that chemical fertilizer is doing to people. You see, in people, the mere absence of disease may not be an indication of health.”[21] Couching his case for national health in the metaphor of the earthworm, Rodale broadcasted Howard’s principle of Health to an audience of American policy-makers.

Rodale began to differentiate himself from his British brethren when he exalted the ordinary person as an ideal type for the organic movement. Rodale shared with the committee Howard’s critique of specialization as a modern disease of sorts. The “expert” class, Rodale argued, arose within the land-grant institutional structure as a result of the need for the technical knowledge to apply pesticides and fertilizers to the soil, a practice that obscured knowledge of the organic whole.[22] Rodale took Howard’s argument a step further, however, by projecting a democratic ideal of experimental farming that would become accessible to an imagined American individual. A mere electrical engineer with no formal training in agriculture, Rodale argued in favor of an everyman farmer. After weathering some gentle mockery from the committee, Rodale proclaimed himself to be a “man of general intelligence,” who set forth a model for others to take an interest in organic farming.[23]

The American Organic Movement

As a political movement, organic farming gained popularity in Britain among groups engaged in a power struggle with the liberal-industrial state model and the policies of industrial agriculture of the early twentieth century. In the 1920’s, socialist and anarchist groups who regretted the demise of the guild system and the harmful effect of free trade and finance on rural life began to refer to Howard’s “organic” farming as a basis for rural reconstruction. Montague Fordham established the Rural Reconstruction Association in 1926, based on his 1907 work, *Mother Earth: A Proposal for the Permanent Reconstruction of our Country Life*.[24] In the 1930’s, an active member of the British Union of Fascists, Jorian Jenks, merged organic husbandry and Fascism. Jenks was the Soil Association’s editorial secretary after 1946 and a president of the Rural Reconstruction Association.[25] According to Jenks, a sound government policy would act “in terms of human welfare rather than in terms of sound finance and good economics,” in observance of the laws of Nature and the soil that preceded the “artificial” systems of the modern state. Organic farming, whether advocated by the left or the right as a political movement in Britain was understood as part of national identity and the basis for proposing many land reform policies.

Even among the more moderate disciples of Howard, the discussion of organic practices always implied a social project. A 1937 lecture by Howard called "The Restoration and Maintenance of Fertility" stirred the so-called "Great Hummus Controversy" between Howard and orthodox farmers.[26] Howard argued that the spread of plant and animal disease would force humanity to return to creating humus-rich soils, according to the Law of Return. One of his disciples, Roy Wilson, published a book *I Believe* that developed even further the ills of industrial civilization: the misuse of money and exploitation of the soil, the loss of farmer craftsmanship, cultural degeneration and the resulting imbalance between urban and rural settings.[27] Wilson's political pamphlets demanded social policies to rectify the crisis. Sir Bernard Greenwell, made similar claims in his book *Soil Fertility – the Farm's Capital*. For most involved in the British organic movement, the health of the soil and the social health of the nation were bound together for reform.

By contrast, the American organic movement sprung up in an apolitical form. In 1945, Rodale published his own treatise on organic farming, called *Pay Dirt*. This book called for "a revolution in farming and gardening," but unlike many British publications on the organic movement, Rodale did not bother with the social relations underlying specific farming practices or engage in any open confrontation with capitalism.[28] Rather, Rodale proposed organic farming in rebut of the institutions such as agricultural colleges and the USDA, whom he accused of thwarting the spread of organic farming by denying its scientific legitimacy.

In the thankless first years of publishing *Organic Gardening*, Rodale faced fierce opposition to his organic ideas in popular media and from chemical companies who derided his focus on science by making it the basis of their attacks on organic farming. In October 1952, R.I. Throckmorton wrote a belittling piece in *Reader's Digest* called "Organic Farming-Bunk,' which propounded the thesis that anti-chemical "doctrine" played on the words "natural" and "unnatural" as rhetorical devices with no science to back up the distinction.[29] A second article, "The Great Organic Myth" by Harland Manchester stressed the lack of difference between organic and conventional foods from a nutritional point of view, while pointing out the increased cost of organics and the necessity of chemical fertilizers to supply the world's population. In the early 1950's, Woolfolk Chemical Works, Ltd, of Fort Valley Georgia launched an effort to discredit Rodale in public statements. "I do not think organic farming as Mr. Rodale advocates is practical. There has never been any scientific justification for it on a quality, nutritional, or health basis."[30] The Monsanto Company distributed a speaker's kit called "Plain Talk, Pesticides and the Environment." Included in the kit were excerpts from various science journals and magazines that portrayed chemicals in a favorable light. It also contained photographs of corn grown on "Nature's Acre" and corn grown on "Today's Acre," which was said to yield four times as many bushels as the former.[31] The chemical company cultivated a perception of Rodale as out of touch.

Rather than contest Monsanto or Woolfold Chemical Works based on their manipulation of market forces, Rodale responded to the accusations that organic farming was "unscientific," by confirming to himself that the primary objective for the organic movement should be to gain scientific legitimacy. In 1947 Rodale established the Soil and Health Foundation to run an experimental laboratory for organic farming. In 1950, the University of Missouri accepted a grant to study rock fertilizers.[32]

The American organic movement truly took off in Pittsburgh, 1948, when Rodale attended a lecture by McCarrison before the Society for Biological Sciences on the subject of the Hunzas. The remarkable health and longevity of the Hunzas inspired Rodale to write a full-length book on the subject. After learning of J.I.'s plans, Howard sent him a letter of support. "Everything written about the Hunzas has been based on McCarrison's observations made incidentally many years ago, and what we really want now is a first class investigation followed by a book."[33] Rodale used a wide range of anthropological and biological sources, ratifying Howard's proscription for an in-depth study. More importantly, the book gave Rodale the opportunity to lay out a new strategy and direction for the organic farming movement in America.

In *The Healthy Hunzas*, Rodale announced a new strategy for the organic movement; where farmers had coldly rebuffed him, Rodale shifted gears to package organic farming in a health-based appeal to the public. To begin the book, Rodale defended that while *Pay Dirt* had not been "overly technical," he wrote, "it seems to have a specialized appeal, enjoying as it does a fair distribution and acceptance among people who are farmers and gardeners." Rodale wrote *The Healthy Hunzas*, "with an eye to interesting the general public in the important questions which I hope to provoke."[34] The Hunzas captivated Rodale. Their society beheld an "idyllic vision of delight" as much for its "unusually fertile and long-lived" people, "endowed with nervous systems of notable stability" as for its exotic setting. Rodale questioned, "why it is that a people who seem to be less "civilized than we, can yet eclipse us so dramatically in the pursuit of health and happiness."[35] In a mockery of the medical field for its reluctance to consider the value of organic farming, as well as an attempt at narrative intrigue, Rodale wrote "twenty five years have elapsed since that lecture in smoky Pittsburgh, but as yet no medical expedition has set forth to ascertain the cause of the Hunzas' dynamic health." He continued,

> "The doctor is too much involved in the morasses of disease and physic, to be able to give much time to the question of health. And the general public either doesn't give a hoot or is too poorly organized to demand its right to be shown how to acquire a healthy body. Consequently, except for the occasional and morbid valetudinarians in our midst, chronics obsessed by the drive to describe and compare systems even over the dinner tables, most of us, ostrich-like, ignore the subject of health completely."[36]

Organic farming, believed Rodale, contained the potential to free individuals from their "ostrich-like" dependency on doctors. In the following decades, in his new magazine *Prevention* and myriad other sources, Rodale would hone a message for organic farming that appealed to individuals, later articulated as consumers, with the power to control their own health and nutrition; this message would complement the push for scientific legitimacy for organic farming practices; both flanks of the organic movement would be fused in the imagery of the "ordinary person" in a struggle for health autonomy against the medical and agricultural specialists, universities, Big Business, and government bureaucracies encroaching on his freedom.

Rodale's inclination to pursue organic farming from the perspective of personal health followed from his life-long pre-occupation with his own poor health. Jacob Issac Rodale was born in August 1898 in a little flat on the East Side of New York. His aunt early changed his name to "Jerome Irving," and in later years he referred to himself simply as "J.I." In his autobiography Rodale recounted an urban childhood filled with longing for open spaces and natural landscape. "On Sundays we would travel up to the wilds of Van Cortlandt Park at 240th street, where there seemed to be hundreds of acres of raw land, in a state of nature untamed."[37] This thirst for nature stood in stark contrast with the reality of life in an immigrant Jewish family, as well as with a sense of himself as physically weak and chronically ill, which he developed at an early age. By the age of 22, when J.I. moved to Pittsburgh to begin a career as a tax accountant, he suffered from a heart murmur and other chronic illnesses which frequently sent him to doctors. Hoping to improve his condition he took up vegetarianism, but remarked, "My headaches and colds continued to come, as well as toothaches, and cavities."[38]

Rodale's insecurities about his health and virility tended to interfere with his personal ambition, which was always pronounced. Working for the staff of Robertson, Furman and Murphy, income tax accountants with offices in Pittsburgh, Rodale remarked that he "hob-knobbed with the millionaire presidents of very large companies to get information on which we could base our refund claims, which were in the millions of dollars."[39] But as a result of what Rodale diagnosed as an "inferiority complex" he became highly concerned that his voice had not sufficiently lowered, and reached a point of paralysis in public speaking around business officials he meant to impress. While he credited a Pittsburgh Osteopath with aging his voice ten years and affording him a "confidence with in my general intercourse with all and sundry," the anxieties continued to unfold, and Rodale increasingly grew angry with doctors and with the lack of independence he felt to affect his own health.[40]

Robert Rodale liked to recount the way his father experienced the moment of picking up the *Agricultural Testament* as like “being hit by a ton of bricks.” In a chapter devoted to Howard in his *Autobiography* J.I. recalls the moment with religious intensity, saying, “I obtained a copy and read it with great enthusiasm. It fanned the fires! The impact on me was terrific! It changed my whole way of life. I decided we must get a farm at once and raise as much of our family’s food by the organic method as possible.”[41] While this conversion narrative conveys Rodale’s quest for transcendence, it fails to capture exactly the way that organic farming appealed to Rodale as the answer to his endless struggles with illness and perceived dependency. For Howard, Health was a unifying concept that explained the interrelation of people to laws of the soil. Similarly for McCarrison, nutrition presented a scientific way of explaining how human life processes were carefully interwoven with the nuances of the earth’s fecundity. For Rodale, organic farming was itself a message, one he believed to contain a means for individuals to achieve independence and control of their physical health. Organic farming satisfied Rodale’s longing for nature, his wish to be master his own health, and eventually to attain enormous heights of business success that would catapult him from his humble beginnings in an East Side tenement.

Rodale trumpeted a new direction for the organic movement when he began publishing *Prevention* in 1950. In an early edition of *Prevention*, Rodale told the story of the man with wealth who died from poor nutrition: “Yet with all his money and power he could have had food brimming with so many natural vitamins and minerals that he still could have been among the living.”[42] With Prevention, Rodale aspired to eliminate such an injustice by lighting the way to a new kind of healthy living, largely based on organic foods. In his *Autobiography* Rodale recounts, “The main purpose for starting *Prevention* was to alert the big-city dweller to the possibilities of obtaining wholesome food either through selective buying or through finding a minute plot on which to grow a few vegetables.”[43] As well as alerting the public to health issues, the magazine also advocated that organic eating be drawn into the calculus of health advice by doctors and scientists, particularly in light of the potential organic foods held to diminish the occurrence of cancer, heart disease, and other illnesses. Rodale called *Prevention* "a medical journal for the people, over 90% of the material being excerpted from medical journals and other orthodox medical sources…"[44] Rodale's synthesis of consumer health appeal and scientific recognition embodied in the pages of Prevention would carry the organic movement into the 1960's and beyond.

"A Prophet with Profits"

In the late 1960's, Rodale made enormous inroads into the discourse on health and farming with the success of his various publications. Subscriptions to *Organic Gardening* reached a record high of 300,000 in 1965, and then more than doubled to 700,000 regular readers by 1971.[45] Rodale held particular esteem for the new generation he sensed was fueling this popularity. He expanded the subscriber demographic from primarily small-town and suburban gardeners to a large number of educated, urban youth. Historian Warren Belasco examines the way in which the counterculture project of decentralization attached itself to organic farming and reframed it as politically radical. Because of the perception that organic methods could prosper on small farms, "Organic" began to appear in underground magazines like *Mother Earth News* and *Grow Your Own*, both of which challenged the "bigger is better" attitude in regards to farming practices.[46] The movement also propped up small-scale local suppliers and encouraged the mythology of the "Mama-Papa grocer," helping to lay the groundwork for a social movement that came of age among organic leaders in the next decade.[47]

In addition to fringe publications, Rodale began to appear in mainstream media, who seem to have selected him as a subject worthy of examination for providing clues into the popularity of new-age practices like organic eating. Rodale rejoiced at the attention, interpreting it as a vindication of his earlier rejection by the public, and embraced the counter-culture halo thrust upon him. A *New York Times Magazine* piece titled "Guru of the Organic Food Cult" profiled Rodale in 1971, opening with the now-clichéd portrayal of him as "superstitious, faddish, and unscientific," and obsessed with "an idea whose time had passed, long ago, like the horse drawn plow."[48] The author of the piece reclaimed Rodale as a representative of an assortment of counterculture identities: "food cultists, from old line vegetarians to youthful Orient-oriented 'macrobiotic' dieters, with their whole grains, plus the reactionary's yearning to turn back all clocks." Though Rodale never articulated all of these ideas with much clarity, he did fan the flames of the counterculture movement, calling *Organic Gardening* "the most subversive publication in the country." The author of the *Times* piece concluded of the movement, "Beneath its homely surface one can read an invitation to anarchy and parsimony, a disdain for big institutions and the products of technology," words Rodale might easily have applied to himself.

Rodale appeared confident that the counterculture audience would usher in new permanency for the organic message. In his interview with *Penthouse* he notes, "Suddenly these hippies and dropouts who had been making a lot of noise read my writings and found something real." He said, "They are buying land and growing food organically. Of course, when they taste the difference in the products they never want to go back."[49] In the *New York Times* article, Rodale praised the intangible qualities of the organic lifestyle: "It's made me so much happier…In the old days, I used to get such clobbering and insulting, you know, and if I wasn't so well nourished, it would have affected me, but I stood up under it, because I had plenty of vitamin B, which is the nerve vitamin."[50]Portraying organic living as a lifestyle in the mode of the "hippy" or any alternative-de-jour, Rodale roped the organic health message around the counterculture movement, which in turn continued to drive the success of his publications by promoting interest in health foods and cultural criticism.

Throughout his public statements at the time, Rodale projected a firm belief that the newfound success of his magazines guaranteed that the organic message had "reached" swaths of new people. J.I. gave a speech in Allentown on the eve of his appearance in the *New York Times Magazine*. Calling the *New York Times* the domain of millionaires, he proclaimed, "These are the people who have been attacking us for thirty years, claiming we were crackpots. But no longer, now even the chemical people have become respectful towards me and my manure ideology. I am suddenly becoming a prophet here on earth, and a prophet with profits."[51] Truly he had achieved great wealth; for all its supposed parsimony, in 1971 Rodale publications grossed more than nine million dollars. Believing the organic movement to be so intertwined with his own fate, Rodale judged the popularity of his magazines and public persona to signify the widespread acceptance of the organic message and an apotheosis for the organic movement.

While Rodale extolled the power of the organic movement, however, much of the mainstream media portrayed Rodale's story as a business initiative keenly positioned for the swell in consumer health awareness. Several claims seem to belie the notion that people were adopting Rodale's message in full. In the very early 1970's, as *Prevention* prospered, Rodale's story began appearing in business magazines and newspapers. *Barron's National Business and Financial Weekly* published the American success story, called "Nature's Bounty," and a similar article appeared in *The Bulletin* called "A son of the Ghetto becomes Patriarch of Health Foods."[52] After the *National Observer* published an article "The Nation Gobbles Organic Food. C.M. Wells, president of the California Food Retailers Association, declared that whether or not one agreed with Rodale's organic "philosophy," there was indisputable benefit and appeal in health foods. Wells wrote of Rodale, "The fact remains that he was directly responsible for introducing food nutrition to thousands of people and therefore was directly responsible for the tremendous growth of the health food industry."[53] The rise of the health food industry suggested to many that there were profits to be had in organic foods. Their understanding of Rodale's success had more to do with his ability to promote this health awareness and benefit from it financially than with his talents as a prophet of organic farming.

The "Organic Society"

In the 1970's a group of writers and social theorists deeply involved with organic farming began to ponder the radical potential of the organic movement at a moment of historic fluidity in American society. These writers borrowed Rodale's publications, in particular *Organic*

Gardening, as a forum for their discussion. While J.I. Rodale celebrated the counterculture moment as an affirmation of the organic message, these writers hoped to construe organic farming's new popularity into a self-conscious political movement. Their discourse integrated Howard's devotion to the health of the soil and the "organic whole" with the 1960's spirit of renewal to advocate for a new "organic society." Without ever proposing a specific policy agenda, these authors politicized organic farming by defining the organic movement as a change in the social relations of farmer and city-dweller.

Writers like Jerome Goldstein identified the social potential of organic farming as lying in its ability to reconnect the farmer to the consumer. Goldstein was an editor at *Organic Gardening* and author of several books on stopping pollution through re-use. In 1973 he published *The New Food Chain: An organic link between farm and city*, a compendium of essays on the subject of organic farming, urban development and land reform. "Food is the great link between problems in the city and problems on the farm. Therefore food becomes the great force to communicate between the people who consumer the foods and the people who grow the foods."[54] According to Goldstein, organic foods formed a social web of farmers and consumers by bringing them into proximity, plugging the urbanite back into a relation with the growing process. Echoing some of the back-to-the-land discourse on decentralization, Goldstein wrote, "Bigness in food production methods and marketing have come to mean anonymity," the "smallness" of organic food production signifies a "personal identity" and a new communication.

Many of the writers associated with the "organic society" movement concerned themselves with what they described as a central cultural problem of the era, identified as an overemphasis on modern, urban life as culturally self-sustaining at the expense of rural society. Gene Logsdon was an essayist, cultural and economic critic and farmer. His popular book *At Nature's Pace, Farming and the American Dream*, told of his experiences moving out of the city and back to a farm. In the book, he vehemently defended rural life as the fertile ground for the entire nation's cultural development, saying, "The 'cultural advantages of the city' is another side of the prejudice against farmers. Why does no one speak of the cultural advantages of the country?"[55] In an essay titled "American Farmer, Folk Hero of the 21st Century," Logsdon argued that throughout history "The farm depends of the city for existence," since proximity to the city provide the farmer his only chance to distribute and profit from the fruits of his labor. In the post-war era, however, suburbanization of areas around cities formed a insurmountable barrier between the urban and rural environment, threatening these local relationships.[56]

Many writers exposed the cultural divide between city and farm as a grave symptom of the politics of post-war suburban development. Those most attracted to organic farming along the heated fault lines of the debate over urban planning were those loyal to the Jane Jacobs theory of the organic natural city. Jacobs was a critic of urban development policies that favored road and suburban development over the essential bond between city and country. In an essay called "Importance of Cities to Rural Living" she weighed into the discussion, saying, "Just as no real separation exists in the actual world between city-created work and rural work, so there is no real separation between 'city consumption' and 'rural production.'"[57] By 1977, Author and Professor of Literature and Kentucky farmer Wendell Berry had written many articles for Organic Gardening. In his book *The Unsettling of America*, he described the political crisis precipitated by urban development policies that had pushed farm and city further and further apart. He promoted a political solution that stressed the interconnected realities of urban and rural people: "We must stop using city people as a scapegoat for urban problems."[58] According to Jacobs and Berry, the development policies of the post-war period had caused a severe dissonance in the rhythms or urban and rural life, at the political expense of both.

While many contributors to *Organic Gardening* discussed the politics of urban development, however, they never proposed any major policy initiatives; rather, they aspired to shift the ethical framework of society by eliciting new cultural exchange between farm and city. Wayne H. Davis, a professor of Biology at the University of Kentucky, sought to apply Aldo Leopold's land ethic to a kind of agricultural web: "we are all dependent upon the same life support system of Earth and must protect it if we are to survive."[59] When organic farmers talked about philosophy, or "a new philosophy of life," they were not reflecting on some personal or mystical tie to the earth but were projecting a social vision for the nation that balanced urban and rural life. Goldstein interpreted the "more organic society" as a more perfect union: "more personal, without the loss of jobs, with less starvation and malnutrition than we are now plagued with."

Leaders of the movement imagined organic farming opening up new space for an agricultural market that opposed the mass market. Goldstein argued, "The counterpart of the family farm in urban areas is the family store." He based this claim on the assumption that "the 'natural food concept' is a small idea better suited to personal marketing methods."[60] Organic farms were assumed to be small farms that upended the assumptions and power of "mechanization, bigness, and so-called efficiency." With many others, Goldstein contended that the personal communication inherent in the organic model ensured that the exchange would be immune to commodification:

> "The word organic is becoming a linking symbol upon which a consumer can relate to a producer. It is a substitute for national brand advertising via television, newspapers or magazine; the word organic when truly defined cannot have a national brand name because its essence is its localization and personalization."[61]

Within ten years organic marketing firms would be established; within twenty the federal government would create a policy for labeling organic goods designed to ensure their success as commodities within the same production system as conventional agriculture. The alternative, personal exchange that the organic movement referred to would continue, however, in the "farmer's market" that emerged as the main alternative to mass-market distribution.

Perhaps experiencing anxiety about the direction that "consumer rights" was taking as a form of political resistance, Wendell Berry defined the consumer so as to preserve his radical potential for the organic movement. Berry believed that "consumer rights" activism was leading to an idea of the consumer as an individual possessing rights but lacking responsibilities to the social fabric. To inveigh against this trend, he wrote, "what has not been often said, because it did not need to be said until fairly recent times, is that the responsible consumer must also be in some way a producer."[62] The belief that the organic consumer could somehow participate in the processes of agricultural production by entering into a new relationship with the farmer and the soil was the cornerstone of the organic movement's social vision in the 1970's.

Robert Rodale and the rise of "Nutritionism"

Robert Rodale was born in 1930 and moved with his father and mother to the farm at Emmaus when only five months old. He grew up immersed in the designs of his father, who trained him as a student of organic growing and even picked his wife for him, as Robert recounted with little irony. Robert was full of praise for his father, whose "purest" thinking he believed to have appeared in an article in *Fact Digest* where J.I. introduced organic farming to Americans from a health perspective, enumerating the dangers of pesticides and processed foods. Rodale believed that his father had ultimately "succeeded at illuminating the connection between health and organics," and in gaining scientific recognition for organic farming, a claim he supported by pointing to the recent accreditation of the Rodale Institute as a public charity.

In 1989 Robert gave an interview to the Alternative Farming Information Center, during which he responded to questions about the importance of the farmer to the organic movement by separating the goal of reaching farmers from the better-known gardening and health activities of the Rodale Institute. While conceding that the farmer never stood at the center of the organic movement, Robert suggested that his father had no choice but to evolve his strategy when *Organic Farming and Gardening* magazine received only ten subscriptions from farmers. "He regrouped and changed it to gardening," and rode the success of the Victory Gardening movement, but never abandoned the desire to convince farmers to change to an organic system. Appealing to consumer health in *Prevention* was also a necessity, Robert contended. J.I. began the magazine as a means to save the press, and implicitly the movement: "It would have gone down the tubes," and "in the history of the Rodale Press, the move to health was important." As for his own efforts, Robert could boast having started *The New Farm,* which was an alternative to *Organic Gardening* designed for farmers. It was published for about a year before being scratched by the Press.

More than simply a museum keeper to his father's legacy, Robert formed his own vision for organic farming that attempted to update the corpus of ideas to a new context. One of the major criticisms of organic farming was called the "natural famine," the belief that natural farming could no longer sustain the world's population. Robert flippantly dismissed this theory in his book *Our Next Frontier,* where he wrote, "Natural Famine is hogwash."[63] Robert adapted his father's push for scientific recognition to conceive a new epistemology, which he referred to as the "lessons of nature in evaluation of the blessings of science and technology."[64] Organic farmers continued to face disadvantages because of the research disparity with chemical-based farming methods: "while the organic method is well-shaped as an idea, it remains to be fleshed out as a technology…organic farm technology has been able to feed only on the scraps and remnants of conventional science."[65] Robert was optimistic that new land-grant supported research and USDA policies could result in a new ecologically-based system of agriculture.[66] Robert Rodale also participated in the discussions over social policy that touched the movement in the 1970's. He singled out technological remedies that land-grant universities had condoned "without trying to foresee the outcomes of those remedies…the singular goal of advancing technology to replace human hands…but at the same time much displacement of people to the cities, high costs of welfare, other social disruption, and often sad environmental consequences."[67] Rodale also lamented the disappearance of the farmer from the American landscape saying, while the rural lands have traditionally been a "refuge" for those "seeking new opportunities...the present system of farming, oriented to big business, has effectively closed off that alternative for millions of people."[68]

Yet as much as he strived to engage with the social discourse infusing the pages of *Organic Gardening* in the 1970s, Robert remained his father's son, and never veered away from J.I.'s optimism about the worthiness of the organic message or the success of the movement based on a healthy living appeal. In an essay he charged the public to "stop treating a genuine consumer demand for quality food as fraudulent – or a genuine back-to-the-land movement by people of all ages as merely a fad."[69] In the 1970's, Robert, pushed organic farming further ahead with a full-fledged marketing strategy that tapped into the rising interest in nutrition and the environment. Despite Robert's professed interest in the social consequences of organic farming, and his genuinely innovative ideas about farming, his marketing strategy continued to direct the movement away from Howard's foundational devotion to the health of the soil and the organic whole.

Several publications in the 1970's, in addition to *Prevention* and *Organic Gardening*, tell a story of continued focus on the individual's struggle for control over personal health, now facilitated by a new focus on the science of nutrition. In a speech at Tulsa Oklahoma on December 6, 1963, Rodale told the audience, "Vitamin C before a Kiss Prevents Mononucleosis."[70] Rodale believed that vitamins offered a way of scientifically explaining the health value of organic foods, and thus offended the scientific establishment, which confirmed in Rodale's imagination the epic nature of the struggle for health. In the July 1970 issue of the *Organic Growers Report*, Rodale wrote, "Nothing, absolutely nothing, is achieved in a positive or corrective way, except by do-it-yourself individuals and a few dedicated physicians. During this same period the Food and Drug Administration, AMA and the various Heart associations have increased their efforts to discredit and ridicule vitamin E therapy and even prevent its sale and use."[71] From the Rodalean perspective, nutrition science armed the consumer with another weapon in his epic struggle against the medical establishment.

The very same Liebig who enunciated the formula for conventional farming attempted to solve the mystery of animal nutrition by breaking down food nutrients into protein and carbohydrates. In the twentieth century, doctors revised the equation; many pointed to something in fresh plant foods that cured sick soldiers. In 1912, Polish Biochemist Casimir Funk coined the term "vitamins."[72] Michael Pollen argues the vitamin vogue began in the 1920's among the middle class, but it wasn't until the post-war period, especially the 1970's, that vitamins came to dominate conceptions of food. In response to an increase of concern about diseases related to diet such as heart disease and cancer, South Dakota Senator and chair of the Senate Select Committee on Nutrition and Human Needs George McGovern held hearings on the matter. They produced the *Dietary Goals for the United States,* which pointed to the connection between low rates of chronic diseases in more plant-based societies. They also highlighted the "lipid Hypothesis" issue by the American Heart Association and the fact that heart disease had decreased during the war years when meat and dairy products were rationed. But rather than encourage the public to "reduce the consumption of red meat," for example, the committee bowed to the red meat and dairy industries and instead enjoined, "choose meats, poultry and fish that will reduce saturated fat intake."[73] The report highlighted the benefit of good foods through their nutrient content, such as "foods that contain Vitamin C" rather than oranges or broccoli. According to Pollan, this study initiated a new pattern of government policy that would "Speak no more of food, only nutrients." A kind of scientific reductionism won out in the government's proscription for healthy eating.

The Rodale Press exploited the new discourse of nutrition despite how little this may have contributed to promotion of organic foods. As Pollan argues, the scientific reductionism of "nutritionism" erased distinctions between the qualities of whole foods, encouraging people to look beyond a diet based on diverse organic produce to the vitamin cabinet, or to processed food injected with vitamins. Rather, "nutritionism" fulfilled the Rodale propensity for promoting individual consumer health-awareness, fueling subscriptions to magazines like *Prevention*. This devotion to a strategy led the organic movement astray from its earliest incarnation, in Howard's writings, and from the many political perspectives it invited in the 1970's. Increasingly, "soil" would disappear from Rodale's discussion of health all together; McCarrison's idea of nutrition as a human process interwoven with natural growing was replaced by nutrition as a set of edible inputs that promised a way for the individual to master his own health. Similarly the farmer, who for writers like Wendell Berry mediated the relationship of the people to the soil, would surrender his place according to the 1970's understanding of nutrition, gradually watching his knowledge of the earth be supplanted by a newly codified method for breaking down foods - not unlike the NPK formula.

In some organic circles the leaders upheld the broad meaning of Howard's Health against the onslaught of modern nutrition. Lady Eve Balfour was a fellow pioneer of the organic movement in England, and a close friend of Howard's. In 1939 she launched the Haughley Experiment, which was an attempt at a side-by-side comparison of conventional and organic farming practices. She subsequently published *The Living Soil* and became the president of the Soil Association in Britain.[74] Balfour appeared at the Organic and Nutrition Club of Oakland California, in 1969 to give a speech that was reproduced in *Herald of Health* magazine. She said, "The most important, single factor in the good life is positive health…right nutrition is a qualitative, not a quantitative thing…healthy soil produces disease-resistant plants…life is a product of life…health and the whole go together…the whole is a part of creation, we humans are a part of the whole, all species have a right to existence."[75] While Rodale would dream always of absolute mastery of his own health, Balfour evoked the basic principle in Howard's philosophy of relinquishing control in the bond of "health and the whole."

In contrast to Balfour's injunction for a qualitative health, the Rodale Press delved deeper into a strategy of nutrition-based health, marketing the organic farming message in ways that would appeal to popular anxieties about physical appearance, aging, and death. Organic-Ville, a health-foods supermarket in Los Angeles, published the *Organic Growers Report* as a weekly two-page compilation of quotes and ideas on the subject of organic farming. The Rodale Institute, now the de facto voice of the movement, submitted a weekly piece designed to forward the organic message. An October 1970 piece called "youth the E'z Way" which details the way Vitamin E can help slow down aging: "People who have been taking vitamin E in hopes it would slow down aging may be on the right track."[76] One sensational piece called, "You Haven't a Fat Chance," relies on a statistic by an unnamed source claiming that only 10% of executives earning $25,000 to $50,000 were more than 10 pounds overweight, proving that "Companies prefer the athletic, fit look for their top executive positions."[77] This and other articles appealing to individual anxieties appeared in Prevention. The June 1970 issue celebrated the magazine's twentieth anniversary with a special supplement on the "Health Issues of the 1970's." Some of the titles included "Brain Power should increase with age," "We Should Live to be 150!" on calcium deficiency, and "Suddenly you're Young!" None of these articles on health make any mention of the soil.

Part II

In the traditional narrative of the history of organic farming, the period between 1978 and 1990 is characterized as the era of "Accommodation for Organic Agriculture."[78] This language is meant to convey the tension between two primary actors: the organic movement struggling for recognition so that they can be rescued from the doldrums of obscurity, and the government resisting but finally willing to recognize the practical elements of organic farming. These categories suggest a complementary cohesion both inside the movement and the within the federal government that never existed. In 1980, some elements of the USDA and members of Congress were highly enthusiastic about the future of organic farming, while the new Administration was not. The organic movement entered the 1980's with a general consensus on the positive benefit of any scientific research into organic methods, but otherwise it upheld diverse farming practices and social attitudes. Those involved in the movement's social project believed that they were honoring Howard's ideal of the organic whole by fighting for the broadest possible meaning of organic farming. JI. Rodale believed himself to be the standard-bearer of Howard's legacy by advocating for organics as a "science" and working to spread the organic message of personal health autonomy. The question for the 1980's would not be whether organic farming could win "accommodation," but rather what sort of government recognition, and what the full realization of Rodale's strategies would mean for the movement.

In 1990, Congress passed the Federal Organic Foods Production Act (OFPA) that established the National Organic Program (NOP). The final legislation endorsed a USDA written definition "organic agriculture" as:

> Is produced by farmers who emphasize the use of renewable resources and the conservation of soil and water to enhance environmental quality for future generations. Organic meat, poultry, eggs, and dairy products come from animals that are given no antibiotics or growth hormones. Organic food is produced without using most conventional pesticides; fertilizers made with synthetic ingredients or sewage sludge; bioengineering; or ionizing radiation. Before a product can be labeled "organic," a Government-approved certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too.[79]

As of 2008, this definition continues to be the final word on the meaning of "organic farming" for all USDA policy. After 1990 the USDA abandoned its earlier hostility to organic farming to begin publishing annual reports on advancement in organic research and holding monthly meetings of the National Organic Standards Board (NOSB).

The evolution in many ways realized JI Rodale's major efforts to win scientific recognition for organic farming and to enmesh organic farming with health-consciousness in the mind of the public. Yet the 1990 USDA definition of organic farming stripped away many other strands in the history of organic movement, especially its attempts to place the farmer at the helm of a new social relation with organic buyers based on his intimacy with the life of the soil. The late 1970's, Ray Wolf, a frequent contributor to the dialogue in Rodale Publications, published what might be considered an "internal" definition of organic farming for the movement in which he attempted to capture the diverse viewpoints of those involved:

> Organic farming is using the very latest in technology, applied to current research, to fulfill the principles of good soil husbandry our forefathers adhered to . . . Organic farmers not only wish to avoid the use of chemical fertilizers and pesticides that can cause damage to soil and wildlife, and create toxic side effects in a variety of ways but they also are very much concerned about the prevention of erosion, the adding of humus and other organic matter to soil to improve fertility, the preservation of small family farms, localized marketing of food, energy conservation, and proper nutrition.[80]

Wolf's definition pays respect to many of the voices emanating through the history of the organic farming movement. His focus on "good soil husbandry" holds true to a tradition of soil health as the basis for agricultural practice. The farmer's purpose resides in his relation to the soil, and his knowledge of this relationship inherited from his "forefathers." The exclusion of pesticides and fertilizers does not form the basis of the definition, but rather this restriction is in keeping with an organic farming practiced according to the Law of Return, in which organic material from the farm are returned to the soil in order to uphold soil fertility. Other social meanings for organic farming derive from this essential focus on the soil, including small farms and local marketing key to the social vision and human health that depends on the vitality of the interconnected web of animals, plants and soil.

Traditional history of the era between 1978 and 1990 treats the 1990 OFPA as the culmination of decades of bureaucratic struggle, as well as a plum legislative achievement for the organic farming movement that was finally relieved from a half-century of obscurity. One such history was published in the *Journal of Agricultural and Food Information*. The authors Bernholz and Delserone, both Government Documents Librarians, claim total objectivity in the narrative construction despite the linear structuring of their interpretation that begins with a "pre-history" and concludes in a 1990 climax for organic farming. The period before 1990 is understood as the "legislative and regulatory activities that resulted in the establishment of the National Organic Program (NOP) and the (NOSB)."[81] According to the narrative, the 1990 definition synthesized the various interests involved in promoting organic farming, including farmers, consumers, and scientists, with a strict definition of organic farming that could satisfy all of these groups. Earlier attempts at legislation were fatally flawed either because the politics had not yet aligned with the health interest of consumers to promote organic farming, as happened in 1980 when the administration eliminated the organic farming coordinator, or because the "philosophical" hang-ups of the organic movement slowed the evolution of the organic definition into a scientifically viable formulation. The 1990 USDA definition resolved these political struggles by referring to a purely “scientific” basis for research and policy, the highest stage of organic farming that would also enable a government labeling program that was necessary for the organic sector to thrive as a market.

In fact, several serious alternatives to the final 1990 legislation were proposed during the period, and all of these proposals carried with them elements of the organic movement that would eventually be excluded from the OFPA of 1990. The 1980 *Report and Recommendations on Organic Farming* included a definition of organic farming that explored the complexities of a movement based on diverse farming practices, each developed through a personal relation of the farmer to the soil. Congressman Jim Weaver and others relied on the *Report* to shape policy proposals for the 1982 Organic Farming Act, which suggested initiating research proposals for organic farming in a way that required input from farmers. Ultimately, these avenues were closed by a dialectical stripping away of the meaning of organic farming, led by the USDA and the Congress at different moments. In the 1980’s, a highly restrictive definition of organic farming gained footing as the USDA maneuvered to centralize research into organic farming by angling for a controlled field of study that could be integrated into the land grant infrastructure. In the late 1980’s the definition of organic farming was further restricted by an alliance of the new “organic sector “ of agribusiness who wanted organic foods to compete as commodities in the national food market, and Congress who recognized the political benefits to be had from creating a national policy that would verify the pure “organic” authenticity of products for the health minded consumer. Both swipes at the organic farming definition represented themselves through the stated goal of J.I. Rodale’s organic farming movement. Rodale’s encapsulation of organic farming as foremost a scientific phenomenon greased the wheels of USDA plan in the 1980’s to divide the “scientific” from the “philosophical” elements in the movement and argue that they were not compatible. Rodale’s success at stirring rage in the public about health concerns as the basis for participation in the organic movement paved the way for the new organic industry to construct an organic consumer in his relation to the organic label, capturing the commodity value of organic farming within the same production system that had previously excluded it. Ironically, it was the ultimate success of the Rodale enterprise that undermined the broader purpose of the organic movement.

1980 was an exciting moment for the organic movement. Secretary of Agriculture Bob Berglund assembled a team that produced the *Report and Recommendations on Organic Farming*. Their stated purpose was "increasing communication between organic farmers and the U.S. Department of Agriculture."[82] Approaching the issue with a relatively open-mind, the team engaged the Rodale Press as one of the main contributors to the report. The report relied heavily on a survey taken of farmers in *The New Farm* magazine; at this moment, the organic movement helped to shape the USDA's conception of organic farming.

The initial section of the report offered a broad assessment of the complexity of the organic farming movement and the difficulty of pinning down a strict definition for a phenomenon that relies so heavily on the relationship between the individual farmer and the soil. Recalling Howard, the *Report* stated, "The concept of the soil as a living system which must be fed in a way that does not restrict the activities of beneficial organisms necessary for recycling nutrients and producing humus is central to the definition."[83] By conveying the soil as a complex organism, the definition precluded any reduction of farming practice to the mere presence or lack of certain chemicals.

The study provided a broad explanation of organic practices, but most significantly, in light of a multiplicity of understandings about organic farming's "meaning" and of the experimental nature of its approach, the report conferred the authority on farmers to determine the practices that comprise the organic approach. "The study team found that the organic movement represents a spectrum of practices, attitudes and philosophies…on the one hand are those organic practitioners who would not use chemical fertilizers or pesticides under any circumstances….At the other end of the spectrum, organic farmers espouse a more flexible approach…Failure to recognize that the organic farming movement is distributed over a spectrum can often lead to serious misconceptions."[84] The 1980 study opened a window for organic farmers to define for themselves what sort of movement they would like to be, and what sort of legislation they would like to promote. By leaving the definition of organic farming somewhat open, the report suggested that a more full-fledged understanding of practices could be produced from a coalition of farmers and from the movement itself, rather than from the top of the farming bureaucracy as the USDA would later advocate. Organic farming could have gone in any number of directions, reflecting the varied goals of the movement; the movement enjoyed a freedom derived from not yet being accepted into the mainstream of agricultural policy.

In 1980, the Rodales could still claim that organic farming posed a threat to the establishment. The arrival of the Reagan administration spelled doom for Berglund, who was promptly let go. Newly appointed Secretary of Agriculture Earl Butz famously asked, "Which half of the world will starve if we switch to organic farming?" The administration also eliminated the recently formed position of Organic Resources Coordinator, held by Garth Youngberg, a political scientist who had been a member of the USDA Study Team for Organic Farming. Youngberg stayed on with the USDA for three years and promoted the *Report*, explaining to Rep. Jim Weaver in 1982 that they had distributed 39,000 copies of the report and that Youngberg was personally attempting to respond to requests for more, along with a committee of ten called the Organic Farming Coordinating Committee.[85]

The political stir surrounding the Berglund firing led the USDA to pivot in its approach to organic farming, turning towards a new direction: to consolidate research around a highly manageable definition of the movement, which depended on depoliticization of organic farming by inventing a conflict between the social and scientific. In 1983, the USDA let Youngberg go.[86] This move might have been largely symbolic, since Youngberg was a political scientist rather than a scientist or agricultural professor linked to a land grant university. As Delserone and Bernholz would surmise, "The hiring choice suggested that ARS viewed organic farming as less than a "real science."[87] This attitude played out concretely in 1982 when the USDA declined to support the Organic Farming Act of 1982 proposed by Rep. Weaver because they wanted to centralize research in the field.

The 1982 Organic Farming Act provides an alternative to the 1990 OFPA, since the 1982 bill pledged to initiate a program of scientific research for organic farming without first creating a restrictive definition of organic farming practices. The Act was the first major piece of federal legislation in support of organic farming, proposing the initiation of research projects with pilot farms and the formation of a network of volunteers who had first-hand knowledge in organic farming to staff the nations Cooperative Extension Offices, which provided information to interested growers. The bill referred heavily to the 1980 definition of organic farming, which found "there is a spectrum within the organic community – a spectrum of allowable practices and so on."[88] The bill detailed issues that had been addressed in 1980, beginning with soil erosion, loss of soil, and organic matter and decline in soil productivity and linking the health of the soil with social issue such as the "the demise of the family farm and localized marketing systems."[89] Rather than restrict the potential impact of organic farming, as the 1990 bill would, the 1982 Act can be understood in a continuity with Howard's vision of the soil and the American organic social critics of the 1970's, who discussed organic farming in the broad terms of social relations. The research initiative proposed in the 1982 Act was a policy that would recognize the need for research on organic practices in a way that would encourage the development of new networks of organic farmers, with the potential to open up alternative market systems of production and distribution. In the Act's abstract, the committee summarized,

> "H.R. 5618, a bill to require the Secretary of Agriculture to establish a network of volunteers to assist in making available information and advice on organic agriculture for family farms and other agricultural enterprises, to establish pilot projects to carry out research and education activities involving organic farming, and to perform certain other functions relating to organic farming, with a special emphasis on family farms."[90]

It was significant that the Congress proposed a network of non-specialist "volunteers" to take the helm of the research dissemination. These volunteers would work with the Cooperative Extension Services of the USDA, whose fundamental obligation as a Department was to disseminate information to small farmers wishing to try organic farming. The legislation was the closest that the Congress ever came to formulating a policy that would promote the growth of organic farming as an alternative or unique production system. The law was clearly in the spirit of the social visionaries like Wendell Berry who had invested organic farming with the potential to form new social relations among farmers.

The "pilot projects" proposed in the bill explored the possibility of a dynamic relationship between the land-grant research university and the farmer, whose own knowledge of the soil and the farm contributed to the dialectics of organic research. One of those invited to testify at the Hearings was Earl Lawrence of the Virginia Association of Biological Farmers. Lawrence made a case before the committee for the superior insight of the farmer to the land-grant scientist when it came to replicating good organic methods. He drew attention to the organic tomato, which may have developed qualities necessary for survival that are impossible to create in a laboratory: "The ones that you get out of a greenhouse are attacked by insects and the ones right beside it may not be."[91] Lawrence went on to say, "One of the basic concepts of organic farming is a the holistic system. By taking one isolated element out of it and trying to analyze it and look at it, I think it avoids the basic issue that we in organic farming try to create. That is a natural system that is self-sustaining." Those in the USDA and Extension service may "not understand what we are talking about when you say organic farming…" Weaver responded to this testimony with exuberance. He proposed a committee of organic farmers to stand on equal footing with the fifteen land-grant universities to lead the pilot projects.[92] This idea, as well as the volunteer network, comprised a bill that treated organic farming seriously as a way to bring small farmers back into the forefront of the national agriculture.

Traditional history of the death of the 1982 Act credits the USDA with purely scientific motives for opposing the bill. According to the Delserone and Bernholz narrative, the lack of a scientific-enough definition characterized the underlying inadequacy of all legislation created during this period. "Within the USDA-ARS, and the other USDA branches of Science and Education and the Cooperative State Research Service, "organic" as applied to agriculture had no clear scientific definition between 1970 and 1980."[93] In refuting the bill, the USDA was responsibly checking the power of a politician who had wielded too much power by trying to establish his own definition for organic farming. A "problem of semantics" resulted, in which "politicians created their own definitions of organic farming."[94] If anyone was to blame, it was "The quasi-religious stance taken by some organic farmers, {which} likely slowed recognition of the need for research into the validity of organic methods."[95] This is a clear jab at those farmers who testified in support of the Howard tradition at the 1982 hearings. The highly defensive tone of this assessment suggests the desire to justify the USDA block of the 1982 bill as necessary and to characterize the bill as an untenable alternative to the ultimate 1990 legislation.

In fact, the USDA undermined the Act because it clashed with their desire to consolidate authority over organic research under the authority of the land grant structure already in place. The Act provoked the USDA by electing to promote organic farming just as the Department had withdrawn support for it. The Act would establish a "permanent organic resources coordinator and multi-disciplinary advisory committee on organic agriculture,"[96] resurrecting the position that Berglund had held and tacking on a larger support team to complement this job. During the Hearings, Weaver uncovered Youngberg's mild resentment at being the only official directly in charge of organic farming. Other members of the committee attempted to expose the Department for its antipathy towards organic farming, as when Mr. Weaver confronted Mr. Kinney with a report from the *Des Moines Register* that the USDA had "quietly quashed plans initiated during the Carter administration to step up research on organic farming," which Kinney vehemently denied. By thrusting organic farming back into the national agricultural agenda, Congress prodded the USDA to change their research direction. Yet by proposing that the USDA act primarily just as a means of disseminating information to farmers, the Department's stature as a coordinator of research institutions would be reduced.

Not surprisingly, USDA responded to the Bill by insisting on the superiority of their own studies already underway to those proposed by Weaver and the Congress. Secretary John R. Block explained in a letter withholding support for the bill, the "Department has several ongoing programs that relate to the needs of organic systems."[97] This position gave leverage to the opposition to the bill in the House. In a written statement of dissent, several members of Congress endorsed the depoliticized narrative, arguing research into organic farming should proceed only under the authority of the USDA and in accordance with a scientific method. The USDA was undertaking a "comprehensive search of written materials," they wrote, "Once these materials are collected and reviewed, it would be proper to go forward in some form in regard to research on less chemically intensive agriculture methods."[98]

The USDA did not present the findings of their studies until 1985 through 1986. The resulting compilation of "written materials" included a series of bibliographies from a wide range of publications. The most significant was the USDA's Current Research Information Service (CRIS) authored by three agriculture professors at Iowa State University who reviewed mostly land grant research projects. Their findings were published in the *Conventional and Organic-Related Farming Systems Research: An Assessment of the USDA and State Research Projects* in 1986. The study team looked to and expanded upon the 1980 Report in forming their definition of organic farming. Counter to the 1990 definition of organic farming based entirely on forbidding chemical inputs, the study presented the wide scope of farming methods that characterized the organic movement: "Organic farming systems are not exclusively definable," and pointed to the specific farming practices: "those that stress maximum dependence on sources of plant nutrients and manures and other wastes, legumes, and plant residues, and on pest control from tillage, rotations, or bio-control mechanisms."[99]

The testimony from the leaders of the study during hearings for the Agricultural Productivity Act of 1983 does not mesh with the traditional narrative explanation for the fatal flaws of the 1982 Organic Farming Act. The Delserone and Bernholz history would argue that The 1980 report was too broad to have been viable as a basis for research and that a more strict definition was historically necessary for the progress of recognition for organic farming. "Clearly, this absence of a consistent, mutually acceptable definition of organic farming negatively affected any discussion that occurred because no one was speaking the same language, and this probably hampered the opportunities for research into organic methods in this time period."[100] In their testimony, the CRIS team did acknowledge the specific challenges of studying organic farming within the land-grant institutional framework, when the practices that defined it were so varied. They wrote that research could be "difficult and costly if data of acceptable precision are to be obtained." Nevertheless, they confirmed that "useful research can be conducted" into organic farming, and found that the Cooperative Extension Service had functioned well in its limited capacity as an appendage of the Department reaching out to interested farmers.[101] Their overall praise for the work of Youngberg at the USDA suggested that the USDA could perhaps function best as a tool for information distribution, and that research proposals on organic farming would be most effective by coordinating land-grant efforts with established organic farmers who had personal knowledge of the diverse practices of the movement. However, by this point Weaver's Act was long dead, and the USDA had set on centralizing research and promoting a highly restrictive and "scientific" definition for organic farming.

Over the course of the 1980's, the USDA succeeded at creating a false conflict between the political and scientific motives of the organic movement in order to justify shaving down the definition to a "scientific" meaning that satisfied their centralizing zeal. They rhetorically discredited the social branch as being based on a "philosophical" or "quasi-religious" stance. The Delserone and Bernholz history shows how successful the USDA was at establishing the distinction. The history selectively quotes Rep. George E. Brown Jr. (D-Calif.) who said, "I think that is another evidence of the wisdom of the Founding Fathers who felt we should keep religion out of politics."[102] The history states, "The USDA's administrators and scientists, especially in the lean agricultural budget years of the early 1980s, were not interested in a philosophically driven research program." The fact that organic farming research commenced in 1990 plays well with the narrative that it was the only way that research could be accomplished. The 1982 Organic Farming Act proves otherwise, showing that scientific research could be coordinated with a social policy, and further, that the best scientific research into organic farming could *only* occur with the input of farmers. Since the 1990 bill satisfied the organic movement's stated aim to standardize research into organic farming practices, organic farmers were left little recourse to criticize the Act, whatever consequences it may have had for them and for the movement. In the history of the American organic movement, J.I. Rodale made scientific recognition one of the two main strategies, and this singular focus left on no room to ask what kind of scientific research, or led by whom, or at what cost to the rest of the movement and the promise of the organic whole.

1990: Constructing the organic consumer

As early as 1982, local distribution networks of small farmers called “farmers markets” popped up across the county. Rosemarie West, President of the National Nutritional Foods Association that represented 8,000 small organic producers testified at the 1982 *Organic Farming Act* hearings. She explained, “many organic farmers who grow organic produce sell directly to consumers through a variety of methods, including farm stands, farmers’ markets, pick-your-own concerns, neighborhood deliveries and local cooperatives. Others distribute their products more indirectly thought local or regional distributors. Many of our retailers obtain produce this way, while other buy direct from farmers.” The farmers’ markets manifest many of the ideas of the social critics of the 1970s by attempting to establish an alternative market for organic goods.[103]

At the same time, another trend spread though the organic community that would lead the movement in an opposite direction from the farmers’ market. In 1982, Joseph Dunsmore of Organic Farms, Inc, testified at the hearings. He called his organization an “organic marketing service,” which he described as an essential middleman in the relationship between farmers and consumers: “We at Organic Farms are the link between the organic grower and the educated health conscious consumer.”[104] In a few years, a multitude of organic marketing groups, trade association, and certification associations would appear on the scene, all playing technical roles in facilitating the absorption of organic farming into the structures of the agricultural mass-market.

The 1990 OFPA established the National Organic Program (NOP), with the purpose of certifying organic goods to carry USDA labels based on the restrictions of chemical inputs in accordance with the USDA definition of organic farming. *The Congressional Research Report* explains that the OFPA grew in response to requests and petitions from several organic industry groups as well as from the National Association of State Departments of Agriculture, the American Farm Bureau Federation, and the Center for Science in the Public Interest."[105] Traditional historiography has treated this law a boon for the organic movement. A more nuanced appraisal appears in work by Julie Guthman, who points out that the labeling program benefited a new organic sector comprised primarily of agribusiness firms intending to profit from the popularity of organic foods. She argues, "political construction of the meaning of "organic" and its "institutionalization in regulatory agencies had facilitated both the proliferation of agribusiness entrants and their adoption of questionably sustainable practices."[106] The 1990 definition of organic farming differed sharply from previous attempts to define organic farming because it was based entirely on control over farming inputs – the use of synthetic chemical and fertilizers – while ignoring cultivation practices all together. The law was victory for a sector that was organic in name but bore little relation to those small farmers identifying as "organic" and distributing their produce locally during the previous decades.

The OFPA passed through Congress on the back of widespread support for consumer health rights. Guthman points out the irony that the health food restaurants that were part of the counterculture movement were the "inadvertent instigators of broad social changes in organic foods provision," and launched what she calls the "gentrification" of organic foods in the 1980's. But one need not look beyond the organic movement to discover further ironies. Throughout the hearings, the prevailing view of the organic consumer defined him according to his relation to the organic commodity, as a passive recipient of marketing information and government sanctioning. All other versions of the organic consumer were purged from the definition, in particular Wendell Berry's organic consumer cum producer, who would take responsibility for his place in a web of dependency with the farmer and the soil, and who might participate in a farmer's market. Advocates for the 1990 OFPA simply called on the support of a body of people who filled their lives with the news of new nutritional studies, reading *Prevention* magazine on a regular basis. By creating a health-conscious community through the readership of his magazines, Rodale primed his organic followers to be herded into the arms of agribusiness producers

The issue before the Senate committee was always framed by a narrative of consumer demand for organics. Senator Alan Cranston of California, whose state would see by far the largest adaptation of organic practices to large-scale farms, presented the problem or crisis the Congress meant to resolve:

> "Mr. Chairman, there is an enormous potential for growth in the organic farming industry as consumers increasingly demand food free of heavy chemicals and farmers seek more sustainable agricultural practices. But at the same time there is enormous potential for abuse and confusion about what is 'organically produces' if we do not help to provide standards and enforcement on a national level."[107]

The Committee drafted legislation that would establish law and order in the organic farming sector; a progressive measure aimed at gaining clarity and rationality about the definition of organic farming.

Senator Leahy made a case for the law. Drawing inspiration from a Harris poll that showed one fourth of consumers having a desire for organic food, Leahy proposed that organic food should be a "right" of the consumer – one that was now being violated by the fact that 32 states held different regulations about organic foods. The primary goal, he argued, was to give peace of mind to the hypothetical consumer: "What it does mean is that those who want organic food will know what they are getting." The environmental impact of pesticides and their implication for human health are one and the same. Cranston explained that they were attempting to bring clarity to "real confusion" among "large and small farming operations, grocers, shippers and environmentalists." According to Leahy, "a wide range of interest groups" came together to push the legislation, and the Agriculture Committee gave it overwhelming support.[108]

By establishing organic standards as a "right" determined according to a strict definition meant to eliminate pesticides and fertilizers from food production that might be harmful to consumers, the committee made outlaws out of those farmers who do not comply with these standards: "But for those who are now cashing in on peoples' desires for organically grown food by falsely representing products as organic, the rug will be pulled out from under them."[109] The OFPA was a progressive measure that made explicit the multiple meanings of organic farming to a single and definite line of legality surrounding the labeling of organic foods for the market.

A multitude of trade and certification associations made appearances at the 1990 Hearings: The Organic Foods Production Association of America, Organic Farmers' Associations Council, Organic Food Alliance, and California Certified Organic Farmers. Frederick L. Kirschenmann appeared at the hearings to represent the Farm Verified Organic and Organic Foods Production Association of North America, and explained how the industry planned to construct the organic consumer. His organization supported the labeling program because it would verify organic standards for shoppers, "promote fair competition among consumers of organic foods," and "assure organically labeled food could move freely across state lines." These measures all treated the organic good as a commodity to compete with large conventional farms on the mass market.[110]

Leaders of public-interest advocacy groups spoke of organic farming in the language of consumer-rights. Ellen Haas, executive Director of Public Voice for Food and Health Policy, testified in favor of the consumer's "right" to be "protected against fraudulent promotion of food as organic." These rights coincided with the exigencies of the industry. She said, "organic agriculture is on the threshold of graduating from the status of an infant, very small, though by no means young, industry to a rapidly developing, mature agribusiness." [111] Together, the agribusiness producer and the health conscious consumer formed a near-invincible political alliance.

Not everyone agreed. Buried in several hundreds of pages of hearing was Kenneth R. Dawson, Board member of the Chapel Hill Farmers Market and the Carolina Farm Stewardship

Association. He described the scene of a vital farmers' market "alternative buying arrangement" conducive to the exchange of information between consumer and the original producer for the product." He went on to say,

> The market helps to bridge the ever-widening gap between farmers and town-dwelling consumers, thereby promoting greater understanding. We are finding a rapidly increasing demand for our products but most of the produce that we sell is marketed in our local areas, where there is a direct relationship between farmers and buyers, whether direct off the farm or in farmers' markets or to local stores and restaurants. The marketing relationship is based on a personal contact and the integrity for the producers.[112]

Clearly, the organic society was not dead, with Dawson as an eloquent spokesman for the continued relevance of such ideals. Dawson contributed an insightful critique of the 1990 bill, accusing it of favoring large farms that distribute to other states at the expense of the small farmer's "integrity" in relation to the consumer. He predicted that the Act would deter interested growers and thereby slow down the process of accumulating valuable information.

Perhaps most striking about the hearings on the 1990 OFAP is that despite staking out vastly different perspectives in the hearings, Kenneth Dawson, Ellen Hass, and Frederick Kirschenmann could all claim the mantle of the organic farming "movement." Kirschenmann could make a case that the Act accomplished all of the widely publicized goals for organic farming. The 1990 USDA definition of organic farming provided for a major institutional investment in organic farming research. The bill also equipped the common consumer to distinguish between organic foods and mere frauds, affording him fuller control of his own health. From this perspective, the bill was a full realization of J.I. Rodale's quest to win recognition for organic farming as a field of scientific research and to improve personal health. Having banished all principles and social visions as mere, "philosophy," however, the organic farming movement ceased to be a movement at all.

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