From Production to Disposal: The Interaction of Food and Society in Utopias

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In the 1950s, the Dutch sociologist F. L. Polak argued that our images of the future help create the actual future, writing, "We will view human society and culture as being magnetically pulled towards a future fulfillment of their own preceding and prevailing, idealistic images of the future, as well as being pushed from behind by their own realistic past" (1960: I, 15). And in the second volume of his magnum opus, *The Image of the Future*, published in Dutch in 1955 and in English in 1961, he attempted to demonstrate that history proved him correct. His examples are at a high level of generalisation, such as culture, economic systems, religion, and the like, and, to me, the advantage of utopias is that they present the way social changes actually affect people in their daily lives, and even those that are pitched at Polak's level of generalisation often use examples from daily life to make their point.

Many utopias are primarily concerned, as was Polak, with the "big" questions of economic, political, or social systems rather than "little" questions like how food is produced, consumed, and so forth. But there are many utopias that are concerned with such questions and with antecedent questions about how changes for the better are brought about and maintained once achieved, with education and law being the most common ways of doing so. And at least some utopias seem to be far ahead of their time. For example, in a serial published in 1911-1912, there is an illustration depicting a solar array that is very similar to the ones we see all around us (Gernsback 2000: 127).

Therefore, I use food, which is central to any life, let alone the good life the authors of utopias purport to depict, to look at Polak's argument. In doing so, I discuss the role of food in utopias from its production to the disposal of waste and how these changes drive changes in society and/or changes in society drive changes in the utopias.

Utopianism says that things do not have to be like this or, possibly more optimistically, utopias reflect what Ernst Bloch characterised as the "Not Yet." While some authors believe that the eutopias they describe are possible, for many readers it is the critical function that is most important. Utopias derive from dissatisfaction, and they respond to it by depicting an alternative to what gave rise to that dissatisfaction. In doing so, utopias make connections that demonstrate the interdependence of social institutions. We now have just over five hundred years

of examples of the genre of utopian literature and many more centuries of the social dreaming I call utopianism. The literature has gone in many directions since More published his *Utopia* in 1516, with significant differences in time periods, countries, even regions within countries. And, in addition, there are differences based on class, ethnicity, gender, race, religion, and so forth, as well as the varied political beliefs of the authors.

For example, and something I will return to, throughout the history of the literature, food is deeply interconnected with gender relations and relationships of power more generally. So, what I have tried to do is to use food to look at how some authors of utopias thought that such things could be a feature of a better life. And one of the scholars who has looked at utopian literature and food, Warren Belasco, argued in his 2006 *Meals to Come: A History of the Future of Food* that "the fantasies of utopian and dystopian fiction have served to both reflect and shape the policy debate over the future of food. Speculative stories have also given greater voice to those who are not well represented by mainstream policy analysis – especially radical environmentalists, socialists, and feminists" (2006: xi).

Here I examine the way food is produced, distributed, prepared, and served, what foods we eat, how we clean up after the meal, and how we deal with the waste products. Of course, these practices reflect the belief system of the society and the economic, political and social institutions that belief system has brought about, and all the practices are interrelated, so the picture is quite complex. After all, we are talking about human beings, with their myriad ways of thinking and acting. To me, a major advantage of utopias is that they reflect this complexity and, as a result, I consider a range of answers to each question.

I only discuss positive utopias because, while it is important to point out what is wrong, as the dystopias do, the eutopias do that and suggest improvements. One of the points that I hope comes across is that eutopias are in dialogue with the society in which they are created, and as that society changes so do the eutopias. Not a particularly profound thought, but some students of utopias have tended to look at individual authors, and often only one book by an author, or a specific time period and, as a result, miss the changing interaction with society.

Farms and Farming

While many people have found, and others now find, farming a fulfilling way of life, it seems unlikely that the life of any farmer can ever be called utopian. Farming is hard, dangerous work with unforgiving hours, and it is dependent on the weather, which rarely does what is wanted. And while at least some of the authors had no idea about what farming is like, utopias reflect nostalgia for the "simple agricultural life," with examples from 1606 to 2013.[1] Arguing that "For centuries, farm work has been considered the natural avocation of the ignorant and the illiterate!", one author (Drayton 1900: 75) goes on to say that, on the contrary, the best thinkers "come from the people of the soil"(*idem*: 79). And another author wrote that in his eutopia "Man has been restored to his heritage, living close to the soil, on holdings from two to ten acres of land" (Clough 1923: 43), and yet another argued that "Divorced from the soil, they [nations and people] begin to die", and so proposes a utopia in which every family will have "a free home upon the soil" (J. L. Rogers 1898: 285-6).[2]

Although many also say that people need to be educated about agriculture and farming, it is not unusual to find that in utopia everyone is a farmer (Drayton 1900: 82). For example, in William Tuckwell's *The New Utopia* from 1885, there is a Government Agricultural College, in which "every one must be trained who proposed to gain his living by the land" (6), in D. L. Stump's 1896 *From World to World*, farmers are trained just like lawyers and doctors (30) and Alexander Craig's *Ionia* of 1898 stresses the importance of the school of agriculture (228). Tuckwell, published in England, predates the first government agriculture school, although a private one had been founded in 1845 (Cheesbrough 1966: 183); Stump and Craig, from the United States, predate the establishment of the first U. S. agricultural college.

But the central concern about farming in the utopia has been to organise agriculture in a way that improves the lives of farmers, improves the quality of the food produced, improves the efficiency of food production, and produces more food. Recently a concern with improving the quality of life of animals used for food and, in a growing number of instances, improving the land and the environment have been added.

Probably the most common way of improving the lives of farmers is by extending and formalising the cooperation that has historically existed among farmers (Murphy 1894: 177), ranging from making the traditional sharing of expensive machinery a standard practice, the formation of producer and consumer cooperatives and, in some cases, the establishment of cooperative housing, all of which have been done with many successes and some failures. One motivation behind cooperative housing found in quite a few utopias is to combat the feeling of isolation that farm life can produce and give farmers more access to cultural and other advantages of people living in greater proximity. Milan C. Edson's 1900 *Solaris Farm* makes this explicit in noting the poor lives led by farmers and seeing the solution in a cooperative farm, with the goal of making "farming the most charming and healthful and most and most desirable of all vocations." (81).

Of course, there are differences in how cooperatives operate. For example, in one utopia, also from 1900, the cooperative is designed to fit in with "the present commercial and industrial conditions." In part, this would be done to help the cooperative gain acceptance, but the author goes on to suggest a farm of "five thousand acres of land [later he says 6400 acres], to more readily enable it to dominate the township, as the lowest political unit of the republic and also to give room for the planting of suitable forests" (Drayton 1900: 84), which shows an intent to be politically active for the cooperative's benefit.

Production

How, more specifically, is food produced? More's *Utopia* (1516) is authoritarian, hierarchical, and patriarchal, and the only place in which he is not overtly patriarchal is when he says that everyone, men and women alike, are engaged in agriculture and taught it from childhood (More 1965:125). In Utopia, farm houses are inhabited by citizens who come in rotation to live there. "No rural household numbers less than forty men and women, besides two serfs attached to the soil. Over them are set a master and a mistress, serious in mind and ripe in years. Over every group of thirty households rules a phylarch" or lower official (*idem*: 115). The rotation ensures that all are well trained or have experienced overseers training them. And "When the time of harvest is at hand, the agricultural phylarchs inform the municipal officials what number of citizens they require to be sent. The crowd of harvesters, coming promptly at the appointed time, dispatch the whole task of harvesting almost in a single day of fine weather" (*idem*: 117).

In contrast to More's highly structured, community-based system, many utopias are centred on the family farm. For example, in Craig's *Ionia*, which has farms of 25 to 100 acres (the text says 25 to 75 in one place and 40 to 100 in another) that are operated with no hired labour (1898: 81, 185 for the larger number); in Stump's *World to World*, farms are from 10 to 40 acres with each farm the responsibility of an individual farmer (1896: 26). And in contrast to More's patriarchy, in her 1911 *Moving the Mountain*, Charlotte Perkins Gilman says that agriculture began with women in that they "gave the world its first start in agriculture and the care of animals; they clothed it and fed it and ornamented it and kept it warm; their ceaseless industry made rich the simple early cultures" (189-90).

There is one farming utopia from the last quarter of the twentieth century that is worth looking at more closely. "Outside the Solar Village: One Utopian Farm" (1980 with a slightly revised 1985 version) was written by Wes Jackson, a plant geneticist, one of the recipients of the so-called MacArthur "genius" fellowships, and the founder of The Land Institute.[3]

The utopia describes a sustainable family farm of 160 acres which he locates in Kansas in 2030, saying that with really good soil, ten acres could support a family, but that further west from his Kansas location it could take from 320 acres to two square miles to support a family (Jackson 1980: 138 / 1985:119).[4] Twentieth-century farming practices, particularly the heavy use of chemical fertiliser, had badly damaged the land in his future Kansas, and a radical reduction in the use of such fertiliser was part of the attempt to re-achieve sustainability (*idem* 1980: 145/ 1985:128). Jackson says that instituting these practices will reduce soil loss, encourage the return of water from springs, consume much less energy, and reduce the pathogens and insects that he says are at "ep*idem*ic proportions" (*idem* 1980: 146/ 1985:129).

On the farm, there are solar pig and chicken houses on wheels so they can be moved around the farm, and livestock is also moved to help the soil (*idem* 1980: 132, 147/ 1985:122-3, 130). And there is considerable use of draught animals to replace machinery, and while some tools and equipment is owned by individual farms, much is rented as needed (*idem* 1980: 144-45/ 1985:128).

The land is held by a Land Trust so, while not owned by individuals, it can be passed down to the next generation. The house on the farm is partly underground and has "both passive and active solar installations for hot water and space heating" (*idem* 1980: 141/ 1985:122). Wind power provides electricity; in the first edition, but dropped from the revised edition, fuel comes from alcohol produced from crops grown on the farm. There is a toned-down comment on fuel from alcohol in the revised edition (*idem* 1985: 126), and it worth noting that some food shortages in the U.S.A. are blamed on the heavy subsidies that farmers receive for growing corn for fuel rather than food. Many states in the U.S.A. mandate that fuel for cars have some percentage derived from corn, and in "The Soil Merchant" (2018), the protagonist says that the degradation of the soil in the U.S.A. is due to the overplanting of corn.[5]

Jackson's farm also raises the question of what size a farm should be to efficiently produce food. Here, there are significant differences. As seen, in *Ionia* and *World to World* the farms are small, but in Thomson's *A Prospectus of Socialism*, they should be from ten to fifty thousand acres (1894: 114-115), and in Bert Wellman's *The Legal Revolution of 1902* (1898), whole U.S. states have been turned into a single farm growing wheat (1898: 273). In *Hopetown* from 1905, they are 3500 acres and run by the municipality.[6] Today, agri-business has produced many farms that are immense, and obstacles (such as trees) to the efficient, i.e. least expensive, use of farm equipment have been removed.

The most common approaches to improving production are education and the application of science to agriculture.[7] In *Etymonia*, there is a detailed system of reporting on the agricultural situation and, based on these reports, a central determination of what each area should produce, and every district has an agricultural chemist (1875: 136-140).

I'm not quite sure what to make of it because to me it seems much too early, but More says that in Utopia, eggs are hatched under heat and the chickens follow humans (1965: 115). Leaving Utopian eggs aside, quite a number of utopias stress the need for irrigation, which, given the growing shortage of water and the conflict between rural and urban areas over water, is going to be more difficult in our future.[8]

Quite a few authors discuss the use of advanced machinery, with ploughing, harrowing, and reaping all done by automatic machinery in Craig's *Ionia* (1898: 185). In Edward Bellamy's *Equality* of 1897, Edith Leete, who, in *Looking Backward* appears to have nothing to do but look after the protagonist, is a farmer who does all her farming sitting miles away running the machines on the farm (1897: 298-99).[9] While farming is not yet being done quite so remotely, robots are in use and being developed for more and more uses.[10] Some mention using artificial fertiliser, although that comes and goes,[11] and, as Jackson noted, has caused as many or even more problems than it solved. To some degree, most of the advances in science have been used, and even the remote farming found in Bellamy is being developed. One such advance, namely the overuse of antibiotics in treating farm animals, has added significantly to reducing the effectiveness of antibiotics in treating humans. Furthermore, the U.S. Environmental Protection Agency, acting against the advice of the Federal Drug Administration and the Centers for Disease Control and Prevention, has recently approved the use of antibiotics in oranges and grapefruit.

Distribution

The next problem is how to distribute the food. The issues in the literature concerned with the distribution of food focus on getting food to those in need, hygiene, and efficiency. A standard practice, found as early as More's *Utopia*, is a local market where, in this and many other cases, food and other goods are brought to the market and people simply take what they need (More 1966: 137). In Dr W. S. Mayo's 1849 utopia, which throughout stresses health and hygiene, markets are all marble or granite so that they can be easily kept clean (461).

Markets can also exist in residential buildings, which would radically improve access for those living in the building, and sometimes for those living nearby. In William Thomson's 1894 *A Prospectus of Socialism*, people live in a State Communal Palace and, as long as they work, they are entitled "to all Food which they or their families may require" (60-61). There are food stores in each of the Palaces, and food can be ordered in advance to one of the twelve dining rooms that every Palace has (*idem*: 29-33).

An alternative distribution system is based at least in part on private homes and, in one case, on a recently developed technology. In Stump's *From World to World*, food is prepared in central kitchens and sent to homes and hotels by pneumatic tube, based on individual orders (1896: 80-84). In Gilman's *Moving the Mountain*, food is distributed to homes, but without Stump's technology. In Gilman's utopia, you order your food in advance, but for no extra charge you can modify your order up to midnight of the day before you want the food. You can also order or change your order during the day the food is to be delivered, but you are charged extra for it (1911: 93).

This process is coming widely into practice. Many people who are confined to their homes have their food delivered from a supermarket chain; a recent neighbour regularly had food packages arrive from a national corporation, and I could have food delivered from a local supermarket. On a different level, more and more people, particularly in large cities, order complete meals to be delivered from restaurants, and not just the traditional pizza and Chinese or Indian takeaway. Many mid-range and high-end restaurants now provide this service.

This practice reflects an issue that utopias frequently struggle with, which is community on the one hand and individuality, privacy, and the traditional family on the other. One utopia written by a married couple directly addresses this issue by describing a building that they say was "planned for the relief of women" (Fitch and Fitch 1891: 195). Anyone living in one of the one hundred-fifty suites in the building can eat in one of the dining rooms or can use their own facilities, which include "a cooking closet with gas range, hot water, and steam pipes, porcelain-lined sinks, and pneumatic tubes for carrying away garbage" (*idem*: 193-195). This utopia is one of many reflecting the cooperative housekeeping movement that flourished in the 1880s and '90s; it produced many experiments and was still being referred to in utopias in the 1970s. [12]

On a different note, but reflecting what is now, a standard practice in many places, in the 1896 *A Christmas Mystery* by Charles O. Boring, churches provide free food and lodging for all who need it (23-24). Of course, there is a long history of convents and monasteries providing food and lodging, and during bad economic times, many churches have done the same, but today, with the explosion of homelessness and the general failure of governments to respond, many churches provide food directly or through supporting an organisation established for that purpose. Lodging is less often provided directly, but churches often support or advocate for housing for the homeless.

Preparation

And then there is the question of how food is prepared. Where the preparation of food is discussed, the authors of utopias are particularly concerned with health and hygiene and in one utopia from 1912 there is a Federal Bureau of Health that is responsible for teaching what and how to eat, as well as for the quality of the food eaten, and, of course, such bureaus now exist in most countries (Brinsmade 1912: 14-15, 17, 19).

Preparation can be divided into two parts, for the kitchen and in kitchens, and kitchen work can also be divided into the part that is creative, primarily cooking and presentation, and the part that is drudgery, primarily cleaning up after the meal. Until the early twentieth century the simple message was that abattoirs and the like should be kept at a distance. In W. S. Mayo's and Benjamin Ward Richardson's utopias, slaughterhouses are relegated to a separate area.[13] And in *The Inhabitants of Mars* from 1895, all food preparation takes place a mile outside the city (Mitchell 1895:23). Also, many of the comments suggest that butchering was degrading to the people doing it, and Thomas More makes this point explicitly by saying that butchering is done by slaves because of the Utopians' belief that it would harm the citizens to participate in such activities. (1966: 139).

In the home, both in practice and as reported in most utopias, preparation is done by women. In More's *Utopia*, cooking is done by the women taking turns, which assumes that any woman can cook to a decent standard (*idem*: 131). In Craig's *Ionia* every young woman receives training in cooking and then joins a household where she is considered a member of the family, not a servant, except that she cooks and serve the food and only then does she sit down to eat it with the family, and she does this until she marries (1898: 60-61, 87-89).

In contrast, in Stump's *From World to World* and many others, cooking is done by trained professionals. Stump also says that cooking is now considered a science and that both men and women cook. (1896: 34). [14] One author notes that "The cook demanded better wages than the senator. Anybody, after a fashion, might perform the functions of the latter; the skill of the former was exceptional and essential" (Russell 1893:247).

Serving

The young woman in Craig's utopia is his solution to getting food from the kitchen to the table, but others take different approaches. Where there is a central kitchen but individual homes, the food gets to the house by some form of delivery service from pneumatic tube to truck, or, today, by delivery services run by companies like Deliveroo or Uber Eats. In the home, it is still usually served by the women of the household, but if there is a system of restaurants, as in Edward Bellamy's *Looking Backward*, serving the food is a respected occupation (temporary for those just joining the workforce in Bellamy's case) (1967:194). In *Etymonia*, the food is served by "youths" and "maidens" supervised by "matrons" (1875: 97). In *Rational Communism* (1885) by Alonzo Van Deusen, both cooking and serving is "performed by the wives and daughters of the household, assisted by the younger male portion, who served by turns at the tables" (339). In the 1943 *Erōne* by Chalmers Wells, "each group of apartment buildings had its own restaurant where residents [or anyone else] could have all or any of their meals" (69-70), and some of the restaurants are self-service while some have servers.

One of the advantages of the public or common dining arrangements is that the people working there are considered equal to those eating there. As Stump puts it, the people working there are considered peers and not servants and anyone who would be haughty or disrespectful is "very liable to be politely but firmly told to wait upon himself--and he generally has to do so" (1896: 87).

Eating/Meals

What we eat and how we eat are the centre of the food continuum. Some authors have said that in the future food will come as liquids or pellets, with one, at least, saying that the taste of the liquids will be exquisite,[15] but most food requires more from the consumer than swallowing.[16]

Meals may be eaten alone at home, in a restaurant, or, these days, in a car, with family or friends, or as a community. More's *Utopia* describes the common meal in Utopia at considerable length, and, except for including women and children, he could be describing meals in a monastery. It takes place in halls designed to hold about thirty families, and More describes the seating arrangement, which is based on age, gender, and status, in detail. Meals begin "with some reading which is conducive to morality, but which is brief so as not to be tiresome" and are accompanied by music (1965: 141-5).

In *The Pure Causeway* (1899), most people eat their breakfast at home and the other two meals in the community dining hall (Roberts 1899: 209). But reflecting the issue of privacy in a community-based utopia, the dining halls in some utopias make private rooms available to families.[17] Whether small children eat with or separately from the adults is sometimes an issue, as it is in More's *Utopia*. In *Etymonia*, children ate after the adults (1875:106); and in B. F. Skinner's *Walden Two*, "from three through six, the children ate in a small dining room of their own. The older children took their meals at specified times in the adult quarters. At thirteen all supervision was abandoned, and the young member was free to eat when and where he pleased" (1948: 96). Of course, such arrangements give priority to the community over the family.

The most frequently proposed change in our eating habits is vegetarianism, usually for reasons of health, although concern for the welfare of animals grows over time.[18] One utopia from 1900 says that no leather is used (Drayton 1900: 106), and another, from 1904, uses the phrase "the rights of animals" (Dixie 1906: 427). [19] Just what is included within vegetarianism seems to be an open question in that some allow, and others prohibit, milk and cheese, and in a few cases, even fish, while for others, only fruit and vegetables are permitted. [20] A subset of those advocating vegetarianism say that the food should not be cooked.[21] Beyond vegetarianism, the range of proposals is immense, although a concern with health and hygiene regularly recurs.

Samuel Butler, in his 1901 revision of *Erewhon*, added two chapters, "The Views of an Erewhonian Prophet Concerning the Rights of Animals" and "The Views of an Erewhonian Philosopher Concerning the Rights of Vegetables." In the first chapter, the prophet convinces the Erewhonians that they should not eat meat. In the second chapter, he describes a period in which there was a movement for giving rights to vegetables, but this was dropped because it would have interfered with a reasonable diet (1901: 255-98). At the other extreme, a special issue of *Utopian Studies* on "Utopia and Food" included an essay on the Paleo Diet, which, according to the article, "rejects agricultural products such as cereals and sugars for foods that could have been hunted or gathered – mostly high-fat, high-fiber meats and plants" and "An estimated three million Americans currently follow some version" of this diet (Johnson 2015: 101-124).

Still, there are some very common prohibitions, with alcohol the most usual one, but in quite a few cases the intelligent people in utopia have managed to produce a drink, or in some cases, a gas, that produces the pleasurable effects of alcohol without the hangover or the possibility of addiction.[22] Coffee and tea are also often prohibited. For example, in Marge Piercy's, *Woman on the Edge of Time* (1976), as a result of the desire to live locally, coffee, tea, and sugar have become scarce and are little used (187). While not a food, when coffee and tea are mentioned, tobacco is almost always included in the list.[23] There is one utopia, though, that includes cigars as one of the "essentials of existence" (Freeman 1941:13).

Also, the cost of food is a concern for many authors, with a number suggesting that food, and often other essentials, such as housing, should be free.[24] In his non-fiction utopia, *Folding the Red into the Black or Developing a Viable UNtopia for Human Survival in the 21st Century* (2016), Walter Mosley, well-known for his mystery novels, suggests that the "Federal government should subsidize nine of ten basic foods" (97), and others suggest a fixed price for some foods, something that has been successfully tried until the price is raised.[25]

I'm pleased to say, though, that, although there are exceptions, quite a few utopias are aware of eating as a pleasurable activity both in the simple enjoyment of the food being consumed and in sharing a meal with others. In Piercy's *Woman on the Edge of Time*, the "The 'fooder' is a home for all of us. A warm spot" (69).[26]

Cleaning-Up

Whatever and wherever food is eaten, cleaning-up after the meal can be tedious, and one fairly early utopia, "Crumble-Hall" from 1751 by Mary Leapor, who had herself been a servant, makes a point about providing better conditions for kitchen workers (1751: 118). At the end of the meal, something must be done with the leftovers, the dirty dishes, and so forth and somebody has to do it. In *Rational Communism*, the author provided a picture of an average day in his New Republic that pointed to one inequality between men and women in his supposedly equal future. Both men and women work the same hours, but after dinner the women clear the tables and do the dishes while the men wander off to relax (Van Deusen 1885:334). Indeed, this is the way the issue was dealt with for centuries and still is in many households.

Technology, as mentioned earlier, is a common solution and in one case mentioned earlier, pneumatic tubes are used to send everything back to where it came from. As one female author wrote in a description of plans for an intentional community that was created, but not as she depicted it, "The central kitchens will remove the hatefully monotonous drudgery of cooking three meals a day, three hundred and sixty-five days a year, and washing the dishes" (Austin 1917: 14). Another, male, author said that if dishwashers were not yet invented, mothers would do the washing up working together (Thomson 1894: 33-34). In *Solaris Farm*, dishwashing has been mostly mechanised with pots and pans designed for electric cooking and easy cleaning, but it is clear that women do most of the kitchen work (Edson 1900: 259-61). Cheap paper or plastic dishes can be used and thrown away, as in the 1905 *As It May Be* and *You'll See* (29) from 1957;[27] the dishes, including pots and pans, can be recycled, as in Bellamy's *Equality* (1897: 51-52), or they can be compostable, as in Graham Purchase's 1994 *My Journey With Aristotle to the Anarchist Utopia* (59-60).

Waste/Sewage

Having dealt with the dishes, it is still necessary to do something with the food and human waste that is produced. In *A Strange Voyage* of 1891, leftover food is burned and used for power (Allen 1891: 152-53); and in Fay Weldon's *Darcy's Utopia* (1990), there will be "recycling stations on every street corner" (152). For those utopias published before the twentieth century, the establishment of good sewer systems was essential. As Miriam Eliav-Feldon says in her study of Renaissance utopias, "A New Jerusalem cannot be built without an effective sewage system" (1982: 31). As Stump put it, "Every town or city has a complete sewerage system; but its refuse is not allowed to be washed into the streams to contaminate the water, but it is conducted to a large reservoir where by chemical treatment it is converted into a fertilizer for the land, with the conversion of waste into fertiliser very common" (1896: 43).[28]

In the twentieth century, the way utopias deal with waste products becomes considerably more sophisticated. In Daniel P. Fischer's 1992 *Anthropolis*, there are compost toilets, an elaborate three-tier grey water system, and everything that can be reused, is (56). In Jacque Fresco's 2007 *Designing the Future*, all waste is recycled or used to produce power, as in *A Strange Voyage*, but Fresco's approach is very different. He writes that currents provide us with enormous potential sources of electric power.

> Energy "crops" can be farmed from biomass by converting waste organic materials into gaseous or liquid fuels. Additional energy can be obtained from fermentation. Imagine a pile of decaying food and other organic matter. This pile of biomass gives off heat and gasses. This potential source of energy can be harnessed and used with proper technology (Fresco 2007: 52).

Conclusion

A recent issue of the journal *Communities* included an article about an experiment, Soul Fire Farm, in New York State where a family farm is transitioning to such a community.[29] The farm was created on degraded land, like that described by Jackson, that was thought to be beyond restoration, and they have published a book that gives detailed instructions on how to restore such land.[30] Their approach resonates with Gilman's statement in *Moving the Mountain* (1911) that "The exquisite agriculture which made millions of acres from raw farms and ranches into rich gardens, the forestry which had changed our straggling woodlands into great tree-farms, yielding their steady crops of cut boughs, thinned underbrush, and full-grown trunks, all this one could see" (191).

Laura Penniman, one of the founders of Soul Fire Farm, argues that food that is both adequate and culturally appropriate should be considered a human right. And she says that in addition to food deserts, there is food apartheid. The land the farm is on was, as she puts it quite accurately, "stolen" from the Native Americans who lived on and used it without any sense of ownership, and the farm is now involving the descendants of those Native Americans, new Asian settlers, and African Americans from the area. It is providing training for adults, teenagers, and children from all those groups in how to grow the food they need and want. And they are reaching outside the area and the country to Haiti and various places in Africa to reinvigorate traditional practices and foods. I'm sure that Soul Fire Farm has its faults, but it illustrates what is possible with a vision of a better life.

Except for some of the science fictional technological extremes, just about everything suggested has been tried, and in many cases, worked, and some are still being used. Particularly regarding the production of food, some practices have been undermined by corporate or government policies, even where we know that the practice is better than the policy, and even when, as with pest control and chemical fertiliser, the mandated practice is demonstrably dangerous.

Unlike Upton Sinclair's, *The Jungle,* which directly changed laws in the U.S.A. covering slaughterhouses, it is unlikely that the utopias I have discussed have themselves made a difference, but they reflected an emerging concern with food that has developed dramatically during the period in which they were published, and frequently changed in ways that the utopias advocated. Therefore, I think it is fair to say that they contributed to positive change and, particularly in the world we now inhabit, we need more positive utopias to continue to do just that.

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Notes

1. See, for example, (Brenton 1606); (A.M., David Everett 1799); (A.M., H Peckwater 1881); (Baker 1936); (Wellock 1943); (Roy1972); and (Hydrick, Richard E. 2013).
2. Originally published serially as "Looking Forward, or Life Among the Lowly. A Tale of the Times" in *The Kansas Commoner* (1889). Also published as *The Graftons; or, Looking Forward. A Story of Pioneer Life* (1893).
3. The Land Institute is a research, education, and policy nonprofit organisation that has developed what they call an intermediate perennial wheat grass that currently lasts two to three years rather than the current one-year standard.
4. Wes Jackson, "Outside the Solar Village: One Utopian Farm." Illus. In his *New Roots for Agriculture* (San Francisco, CA: Friends of the Earth Published in Cooperative with The Land Institute, Salina, Kansas, 1980). Rev. in new ed. Lincoln, University of Nebraska Press, 1985.
5. See Eichenlaub, Anthony W. (2018), "The Soil Merchant", in *Little Blue Marble 2018: Stories of Our Changing Climate*, ed. Katrina Archer, Np, Ganache Media epub, originally published online in *Little Blue Marble*, eBook.
6. See Brockhouse, H. (1905), *Hopetown. An industrial town, as it is, and as it might be*, West Bromwich, Eng, J.B. Round.
7. See *Looking Landwards: Stories Commemorating the 75th Anniversary of the Institute of Agricultural Engineers* (2013), ed. Ian Whates. [Weston], Eng. NewCon Press in Association with The Institute of Agricultural Engineers.
8. See, for example, (Craig 1898:184); (Wellman 1898: 258, 274-79); (Murphy 1894: 115); (Gilman 1913: 171); (Macnie 1883: 88).
9. The same method is used in (Wellman 1898: 273).
10. See (Seabrook 2019: 48-57) on the development of a robot designed to pick strawberries.
11. See (Agricola 1908: 128-140); (Chambless 1910: 98); and (Gernsback 2000: 127).
12. For a study of cooperative housekeeping in the U.S., see (Hayden: 1982).
13. See (Mayo 1849: 461); (Richardson 1876: 42).
14. Repeated in (Stump 1913:179).
15. For the exquisitely tasting liquids, see (Crawford 1894: 179-81). In (Clough 1923: 19) refers to liquid food without mentioning its taste. (Bird 1899: 184) refers to pellet food but later says that a range of food will be available (217-24). In (Bowman 1887: 30) some food will come as liquids and others as pellets. (Lehrburger 1957: 32) refers to tablet food.
16. One popular health campaigner, Horace Fletcher (1849-1919), known as the "The Great Masticator," argued that all food should be chewed one hundred times before swallowing. See his *Fletcherism: What It Is and How I Became Young at Sixty* (1913), New York, Frederick A. Stokes.
17. See, for example, (Bellamy 1967: 183); and Fry (1905: 171-72).
18. In (Aldiss 1979: 10), he says that the people's "rapport with the animal kingdom was so close that they hesitated to slaughter anything for fear of the pain it brought them". Originally published in *Cosmos Science Fiction and Fantasy Magazine* 1.3 (September 1977): 48-50.
19. Originally published serially in *Agnostic Journal and Eclectic Review* (1904).
20. In (Rogers 1905: 22), it is said that "We eat no fish, meat, or anything that has animal life."
21. See, for example, (Beresford 1941: 126).
22. See (Worley 1890: 92).
23. (Olerich 1893: 85) and (Fowler and Fowler 1921: 49) ban all four. (Fitzporter 1891: 10, 19**)** bans coffee, and tea and intoxicants. (Griffith 1836: 81) and (Peck 1900: 146) ban alcohol and tobacco. (Tuckwell 1885: 10), (Boring 1896: 9) and (Rogers 1905: 50-51) ban alcohol.
24. See, for example, (Richardson 1925: 35); (Herrick 1933: 24); (Kearney 1945:73).
25. See, for example, (Mackmurdo 1944: 6).
26. Others stressing the social pleasures of dining are (*Etymonia* 1875:197); (Russell 1893:30-33); and (Howells 1894: 197).
27. See (Rogers 1905: 29); and (Lehrburger 1957: 27).
28. Others saying the same thing include (Craig 1898: 184); (Mayo 1849: 460-61); (Richardson 1925: 42); (Thomson 1894: 33); (Edgar Chambless 1910: 159); (Murphy 1894: 31); (Berwick 1890: 571); and (Gilman 1915:184).
29. See (Penniman 2019: 10-18).
30. Leah Penniman (2018), *Farming While Black: Soul Fire Farm's Practical Guide to Liberation on the Land*, White River Junction, VT, Chelsea Green Publishing.