Colette de Phelps has asked me to speak to you about “Living the Holistic High-Life: Self-Sufficiency on a Small Family Farm.” At first, when she suggested that title to me, I thought that it was rather ambitious, even hyperbolic; but actually, I now think the title is well-chosen. The term holistic refers to the notion that reality is made up of organic or unified wholes that are greater than the simple sum of their parts. A self-sufficient, biodynamic farm is an excellent example of such an organic whole. And what is “high life?”

To me it means, first of all, health in its broadest sense: healthy people, healthy animals, healthy soils, a healthy environment and a healthy community. “High life” also stands for meaningful work that is its own reward because it is interesting, complex and challenging, all of which a small, integrated farm offers. And, finally, “high life” means that you can pay your bills, i.e. that your self-sufficient farm is economically viable and can support yourself and your family.

Let me start with a general description of what we do on this farm, how and why. S&S Homestead Farm on Lopez Island off the northwestern coast of Washington State, is a small family farm (fifteen acres owned, thirty-five leased) where we raise our own food and food for others in the island community, in accordance with biodynamic processes. We believe that:

• Everyone should be able to eat healthy foods produced on local farms,
• Our environment can be strengthened by sound agricultural practices,
• People should be aware of how and where the food they put in their bodies is raised, and
• Young people should learn to produce food and live sustainably.

Our farm satisfies most of its own needs. Sheep, cows, pigs and chickens produce the manure that fertilizes the gardens and orchard; in turn, crops from gardens and fields are fed back to the animals. We use rotational grazing, which means that our cows and sheep are eating high protein and enzyme-rich grasses and legumes from fields they fertilize as they graze. We move the animals often from pasture to pasture, so that they do not suffer from parasites. Living on the same farm all their lives, they have developed natural immunities and don’t need medication.

In nature, different kinds of plants grow in the same space, to their mutual benefit. Following that model, we interplant fruit, berries, vegetables, herbs and flowers so that pollinators come and pests stay away. We keep gardens and fields fertile with composts and cover crops, to make the micro-life of the soil as lively and varied as the plants that grow in it, and our vegetables, fruits and animal products nutritionally whole, and delicious. We do not use any herbicides or pesticides, and our fertilizers are produced on the farm.

We think that our farm:
• Is sustainable: it will be able to produce food forever,
• Is self-sufficient: we produce beef, lamb, pork, chicken, eggs, and dairy products as well as fruits and vegetables, using fertilizers and other inputs produced on the farm,
• Is economically viable: sales of meat, eggs, dairy products and vegetables produce enough income to provide for farm expenses, and infrastructure,
• Is ecologically responsible: the sun is the source of energy harvested through plants, animals, and an intricate solar-powered rainwater irrigation system.

Let me continue by exploring two related topics, holistic health and holistic economics, and then end by putting out some ideas on a holistic future for S&S Homestead Farm and farming in America in general.

Holistic health
Everything my wife, Elizabeth, and I produce on our farm is grown organically and, in the last few years, biodynamically. Needless to say, organic farming was around long before it came to be called that. In fact, until the 1860s when German chemist, Baron Justus von Liebig, laid the groundwork for artificial fertilizers by identifying the importance of nitrogen and carbon dioxide of the air to plant growth – until then, all of agriculture was organic and mostly depended on animal manures and humus as sources of soil fertility. In some parts of the world, as in Japan and China, mulching and recycling animal and human manures had kept the same fields fertile for over forty centuries. What Liebig and his successors did not understand, of course, was that while the application of chemical fertilizers produces bumper crops in the short run, in the long term water-soluble chemicals kill the micro-life in the soil, thereby destroying its life-giving vitality. By the 1920s, about the same time when chemical agriculture became widespread in the U.S., soils in some parts of Europe were already showing signs of accelerating erosion and falling productivity due to the application of chemical fertilizers. Farmers in eastern Germany turned to the scientist and philosopher, Rudolf Steiner, who created the biodynamic method of gardening and farming to restore soil health by improving the humus content.

Biodynamics is thus the oldest form of what is now known as organic farming, and in Europe it is still the dominant mode of organic food production. Biodynamics goes beyond organic, however, by involving an etheric element that cannot be measured by mechanistic science but is essential to the vitality of soils and therefore to human health. The US Department of Agriculture today defines organics mostly by requiring that substances used to fertilize crops or fight plant disease must be of organic rather than synthetic origin. Biodynamics, on the other hand, considers soil substances agents of vital life force or energy comparable to what in Polynesian tradition is known as mana, in India as prana, and in China as chi. In the eyes of Rudolf Steiner, the presence of this all-important life force means that farmers and gardeners are not merely producers of food and fiber but have responsibilities as stewards of the earth, and of the health of plants, animals and humans. It follows that biodynamic farming does not consider the soil and everything that grows in it as exploitable resources, but rather as living organisms whose life force must be nourished and strengthened. It also follows in Steiner’s philosophy that, in contrast to conventionally or even organically produced and processed foods, biodynamic foods are said to be rich in vital energy and not just in chemically identifiable nutrients. The ideal unit in which to practice biodynamics is a garden or small farm, where plant and animal organisms above and below ground support each other as in a self-renewing and self-regulating whole. Such a unit most likely produces more than it needs to sustain itself and so is able to feed the local community and beyond.

In developing biodynamics, Steiner combined unconventional (non-Cartesian) metaphysics with traditional European knowledge. Here I want to tell you about a personal experience that helped me understand biodynamic thought.
and practice long after the event. I was a child during World War Two in Germany, and in 1945 my mother’s parents came to live with us, escaping the bombing in nearby Dresden. My grandfather, a physician, was a kindly man who always had time for the nine children in the house, but he had a peculiar dietary habit that fascinated me much as a child (I was eight years old then), but that I didn’t understand until much later. At mealtime, Opi (as we called him) would carefully nurse a residual morsel consisting of all the best on the plate, say meat, potatoes and vegetables. This he called “der Machtbissen” (the power bite), suggesting that the nourishing energy of the whole meal was somehow vested in that last bite. Many years later, when I was a student at the University of Oslo, learning about pre-industrial belief systems and material culture in northern Europe, I was surprised to encounter the same notion of the “power bite.” It was even called by the same term in Norwegian, “maktbiten,” and “makte” translated to mean “force of nature.” In oral traditions and customs shaping work practices on the farm and at sea, this force was sometimes represented as energies of human thought or feeling (called hug), at other times as multifarious nature beings upon which a farm’s success or failure, health or disease, and the general prosperity of individuals and the whole community depended. Looking back on my childhood experience I came to realize that my grandfather’s mealtime custom reflected an ancient holistic perception of the vital, life-giving energies of the food as represented by that last “powerful” bite (pars-pro-toto), a concept that survives today in ethno-medicine throughout the world, and in the practice of homeopathy, as well as in the biodynamic practice of applying minute doses of fermented herbal preparations to the soil to aid in the humus-forming process.

I do not know, of course, whether my grandfather’s food custom was seriously meant or merely intended to tease out his grandchildren’s imaginations. It certainly worked on my imagination in thinking about the biodynamic concept of that vital life force coursing through the sun and the earth, plants, animals and humans, and how that energy is carried in feed for animals and in food for people. I have lately been fascinated to read about how medical scientists and nutritionists look at the vital energy in foods that are particularly rich in enzymes. Dr. Edward Howell, based on pioneer research he did in this field from the 1930s–1980s, came to the conclusion that enzymes are not merely protein catalysts without which no metabolic process in the body would be possible, but carriers of vital energy: “Enzymes are much more than catalysts. . . (Rather, they) are charged with energy factors just as a battery consists of metallic plates charged with electrical energy” (Food Enzymes. Health and Longevity, 2nd ed., 1994, 17).

Now, the term energy comes form the Greek energetie and simply means work. So, in physics energy is the capacity to do work or produce change. Heat, light, sound, electricity and chemical energy are all forms of energy. But let’s think about this for a moment in terms of dynamic processes on the farm. When I pour diesel into the tank of my tractor and turn the ignition, the heat of exploding carbon molecules drives the pistons that drive the wheels that pull the plow. Or, when the sun hits the solar panels on my rainwater irrigation pump, excited electrons in the panels and the wires drive the motor that moves the water out of the pond to the field. That’s the energy of the sun at work in the diesel fuel and the electricity. But when the sun hits the blades of grass and leaves of clover, solar energy is converted in the leafy chlorophyll into sugars that nourish the forage plant, the soil organisms living at the plant roots, as well as the dairy cow who ingests the grass and clover and turns the energy into delicious milk rich in protein, vitamins and enzymes to nourish her calf and the lucky people who drink her milk. In addition, when the sun shines on the cow, her skin converts the solar energy into essential vitamin D. In these instances solar energy is converted to plant, animal and human use through biochemical processes. But in all instances we are talking about energies of the sun. The point worth making is that normally we understand the life-giving energy of the sun solely in terms of physical and chemical, i.e. material, manifestations, which is the subject matter of science. What we usually don’t think about is solar energy in metaphysical terms, i.e. beyond its myriad physical manifestations. That is, I believe, what the Chinese mean when they talk about the life-giving energy flows they call the chi, and it is what Rudolf Steiner refers to when he talks about the ethereal energies flowing behind and through the entire cosmos, the sun, the earth, plants, animals and humans.

I am quite aware that most people are made uncomfortable when a farmer talks about metaphysics or spirituality in relation to human health, food production, soil management or animal husbandry. For the last 2,000 years Judeo-Christian tradition has drawn a separation between matter and spirit, and in the seventeenth century Sir Isaac Newton and René Descartes established the concept of the physical world in purely mechanistic terms without which Western science and technology would be unthinkable. This division, however, has never been operative in Eastern tradition (or, for that matter, in pre-scientific folk cultures of the West), leading to the puzzling situation today where, for example, tai chi and acupuncture are now widely practiced in Western countries (and even supported by health care plans), in spite of the fact that modern science is incapable of understanding what chi is or describing the
meridians by which this mysterious energy is said to flow through the body. In Rudolf Steiner’s holistic perception health is fundamentally based in spirit. American biologist and writer, Barbara Kingsolver, makes the same connection while acknowledging that it is mostly ignored in contemporary culture: “Modern American culture is fairly empty of any suggestion that one’s relationship to the land, to consumption and food, is a religious matter. But it’s true: the decision to attend to the health of one’s habitat and food chain is a spiritual choice. It is also a political choice, and scientific one, a personal and convivial one” (“A Good Farmer,” The Nation, November 3, 2003).

Of course, it finally doesn’t matter whether a farmer accepts Dr. Steiner’s philosophy, but the practice of the holistic principles of agriculture espoused in biodynamics clearly leads to healthier soils, animals, foods and people. So what does this mean in terms of holistic health and, quite specifically, how we grow and process our food, and take care of plants, animals, soils, and the environment on our farm? Everybody would probably agree that there is something fundamentally wrong with our current industrialized food system dominated by a handful of international corporations. The newspapers are full of concerned reports about the obesity epidemic and about skyrocketing rates of cancer, cardiovascular disease, childhood diabetes, attention deficiency disorder in school children, and on and on. The other day I was talking to the Director of Quality Assurance and Food Safety for the Seattle office of Food Services of America. To him food safety meant sanitary standards in food production and distribution making it possible to ship foodstuffs globally so that folks could enjoy Kobe beef from Japan, strawberries from Chile, and lettuce from Arizona at any time of the day or the year. Quality meant that the apples from New Zealand had no spots on them, that the tomatoes from Israel were deep red in color, and the pork chops from Iowa were all of the same size. In other words, safety is defined in terms of pathogen control and apparent perfection foodstuffs offered by the industrialized food system cannot nourish us because they are lacking in life-giving quality. Nutritional wholeness is sacrificed on the altar of a low price, convenience and universal choice.

A holistic view of health clearly requires a different approach, starting with the soil. At our biodynamic farm:

- We treat the soil with minute homeopathic preparations made from fermented herbs grown on the farm to sustain the soil microorganisms enabling the transfer of soil nutrients to the plants,
- We compost all farm wastes and treat composts with the same biodynamic preparations to fix nutrients and prevent their loss to leaching,
- We minimize tilling the soil because a soil already enlivened with microorganisms, bacteria, fungi, earthworms and other soil inhabitants is naturally friable and capable of holding air, water and nutrients,
- We control pests and plant disease by keeping the soils healthy instead of suppressing symptoms through synthetic chemicals,
- We keep farm animals healthy and productive by feeding them nutritionally whole forages, grains and vegetables grown on the farm,
- We feed ruminant animals such as sheep, beef and dairy cattle as nature intended them to be fed, i.e. by maximizing green forages and minimizing grains to produce dairy and meat proteins that are high in omega-3 acids and cancer-fighting conjugated linoleic acid, and vitamin D, and to reduce the levels of E-coli bedeviling meat and dairy animals raised on grain-based diets in industry feedlots,
- We eat the vegetables, fruits, grains, meats and dairy products as close to their natural state as possible, preserving the full complement of vitamins, minerals, proteins, phyto-chemicals, and enzymes,
- We do not pasteurize our milk in order to preserve its enzymes, vitamins, and healthful bacteria, nor do we homogenize it since homogenization interferes with absorption of milk calcium by the body,
- We learn from the food wisdom of traditional cultures to enhance the enzyme content of food by fermenting: e.g. milk into butter, cheese, yogurt and whey, and by using the whey to ferment vegetables and pickles, as well as cure meats and fish to increase their enzyme content and enhance their flavor.
- Last, but not least, we supply neighbors and customers with as many of these foods as we can because, as the term implies, holistic health means the well-being of the
whole community in which we live, and not just the health of our own families and the immediate farm environment.

**Holistic economics**

My wife and I are often asked two questions, “Can you make a living running a small, highly diversified and self-sufficient farm like yours?” and “Can your model be replicated by others?” I believe that the answer to both of these questions is yes.

At a recent seminar on “Agricultural Systems and Nutrition” held at the University of Washington Medical Center, an agricultural consultant for the food industry made the blank assertion that American agriculture will survive only as long as it is profitable. Of course, everyone agrees, but what does profitability mean? For food giants like Phillip Morris, Walmart or Archer Daniel Midlands, profitability no doubt implies seven to ten figure salaries for CEOs and commensurate returns for shareholders, but it surely does not mean equal returns for farmers, farm workers, or for the communities from which the profits are extracted. For a small, self-sufficient farm, on the other hand, profitability means something entirely different. By USDA standards S&S Homestead Farm is not even a commercial farm because the total economic value of our production is less than $50,000. In a typical year we produce about $15,000 in fresh and processed vegetables and fruit, a portion of which is marketed through a CSA; $12,000 in beef, pork and lamb sold on a custom basis; and $3,500 in dairy marketed through cow shares, for a total of a little more than $30,000. About sixty percent of total production is converted to cash, the remaining forty percent consumed by the farm household and three or four interns. After deducting fixed production costs (such as depreciation for buildings, machinery, fences and water systems) and variable or direct production costs such as seeds, machine hire, and fuel, as well as supplies, utilities, taxes, insurance, etc., and after factoring in the cost of our internship program, we are left with about twenty-four percent in net profit, or about $7,500.

By industry standards, the profit percentage is high, but the net profit is low, but so are our living costs. Because S&S Homestead Farm produces its own food and sells more than half of it, the household nets a surplus of more than $15,000 in the food category. Because all members of the household live where they work (and admittedly we rarely leave the island), we have minimal transportation costs, about one-seventh of the national average. Similarly, because we live on the farm, and used our own labor to build our house long ago (and have stayed in place), our housing costs are a fraction of the national average. In fact, average price increases in housing since we built our home in 1970 net us a substantial annual gain in equity.

The comparison of health costs is particularly instructive. Just about a year ago the New York Times (January, 2004) reported that for the first time in history Americans are spending more on health care than on food, forty-five percent of which is paid by public spending, the rest by personal insurance or out-of-pocket, about $5,984 per household nationally. By contrast, our household spends minimally for medical and dental check-ups and minor medical consultations per year, and zero for drugs, medicines, food supplements or other health aids, largely due (I am sure) to the quality of the food we eat and the exercise we get in producing it.

Even our entertainment budget for which the typical American household spends about 5.5 percent of income, is only about one-tenth of the national average. Of course, to a degree this difference reflects personal choice, but I have often wondered why we feel less in need of entertainment. Is it not possible that life on a small farm is so interesting, challenging and inherently satisfying that less entertainment (or “getting away from it all”) is needed? What could be more entertaining than watching spring lambs perform their games as the sun sets, or more compelling than the drama of a calf being born, or of new life held dormant in the seed breaking forth into tender shoots in the garden or on the apple tree?

But back to numbers: In sum, what do these statistics tell us? After providing for food, housing, transportation, health care and entertainment, which amounts to seventy-five percent of average household spending, S&S Homestead Farm shows a surplus of $7,500 which is almost exactly the same amount calculated by the U.S. Department of Labor as required to pay for the remaining twenty-five percent of typical household spending, including utilities, household supplies, clothing, personal care products, education, charity, tobacco, insurance, and pension. In other words, by these standards the farmers on S&S Homestead do make a living.

Now, I am the first to admit that most agricultural economists would not accept the above calculations as proof of economic viability. They would argue that my wife and I are exploiting ourselves and our investments in the farm, and in a sense they are right. It is common practice in calculating profit to provide for an opportunity cost on your capital. Opportunity cost simply means the monetary return you could earn with the equity currently tied up in an asset if it were invested “for best use” (i.e. the highest possible return). Our equity in the farm is now at least $500,000 and probably more. The usual formula used to calculate opportunity cost is equity $\times 2 \times$ T-Bond rate,
which means that the farm would have to return at least $50,000 above cost to be profitable. Furthermore, my wife and I are not paying ourselves wages, which if calculated at twenty dollars per hour for one FTE at 1,800 hours per year would amount to $36,000 (for the farmer), and for another half-FTE to $18,000 (for the farmer’s wife), for a total of $54,000 in labor costs. In sum, our farm income would have to exceed $100,000 to be considered profitable.

So, is the farm economically viable? Obviously, that depends on how you look at it. What if my wife and I had kept our university jobs and were now making $100,000 per year or so? We could have saved our money until retirement and then bought ourselves a farm to make just enough to live on and stay out of debt, which is actually what we did except that we didn’t wait until retirement. The whole argument reminds me of a passage in Walden where Thoreau defines “the cost of a thing” as “the amount of what I will call life which is required to be exchanged for it, immediately or in the long run.” Thoreau observes that “spending...the best part of one’s life earning money in order to enjoy questionable liberty during the least valuable part of it [meaning during retirement], reminds [him] of the Englishman who went to India to make a fortune first, in order that he might return to England and live the life of a poet. He should have gone up [to the] garret at once.” Unlike the Englishman who went to make his fortune first, in order that he might return to England and live the life of a poet. He should have gone up [to the] garret at once.”

A couple of years after I started growing our food on the farm I made a deal (you might call it an associative contract) with my neighbor that I would help him with the hay-making for his cattle in exchange for running a cow of our own with his herd. Whenever he brought in a bull, we would make a calf to slaughter a couple of summers later. All of this part-time food production not only provided us with vital and flavorful food year round, but it made a huge difference in our household budget. In 1994, after my youngest graduated from high school, my wife and I quit our positions at the university, I to become a full-time farmer and she to take a half-time position at the local school. My wife and I held full-time jobs at the University of Washington until 1994, but for almost a quarter-century our quarter-acre garden provided the family with a bounty of fresh and frozen vegetables, fruit, eggs, chicken and rabbit meat.

This brings me to the second question, how our model of home-based food self-sufficiency and economic viability can be replicated. There are of course many ways of doing it, not necessarily the way we have done it.

For many years, my wife and I had two professional salaries to help pay for the purchase of land and development of the farm infrastructure. This is not unusual. I don’t think I know many (if any) farmers on Lopez Island who did not bring outside income, savings or earnings from a previous enterprise, or an inheritance, to establish themselves on the land. And this was true of most agriculture in the U.S. until the growth of large-scale and government subsidized industrial farming after World War Two. Except in places where people homesteaded in isolation, traditional family farms relied on outside income to provide cash for shoes, clothing, a kitchen stove, fencing materials, while the land, livestock and buildings were mostly inherited from parents who lived and died on the farm (much as the Amish still do today). A farmer would sell butter and eggs for ready cash. His daughter would teach school in town, his son would take a winter job in a local sawmill. But the main support of the family came from the farm. In our case, for twenty-five years our outside jobs supported the farm that produced much of our food. For the last eleven years the farm has supported itself.

To feed itself, a two-person family or household on Lopez Island would not need a complex, integrated farm like ours, nor would it need nearly as much land as we work now. In 1970, I started growing fruit and vegetables, chickens and rabbits on about one-quarter acre of the ten-acre piece I had bought on Lopez Island, which cost me one year’s salary before taxes. (By comparison, today the same piece, if you could find it, would cost my wife about four to five years of her current half-time teaching salary at the local school). My wife and I held full-time jobs at the University of Washington until 1994, but for almost a quarter-century our quarter-acre garden provided the family with a bounty of fresh and frozen vegetables, fruit, eggs, chicken and rabbit meat.

We follow a few simple rules to keep our farm economically sustainable:

- As mentioned, we follow a fifty-year farm plan that integrates holistic quality-of-life values with economic viability,
- We keep it small. My wife and I manage the animals, vegetables, greenhouse and orchard by ourselves,
- We feed ourselves first, and sell the excess to the community. Even our modest production nets a profit of several thousand dollars a year,
LIVING THE HOLISTIC HIGH-LIFE: SELF-SUFFICIENCY ON A SMALL FAMILY FARM (PART ONE)

• We incur no debt; we save money for water systems or outbuildings before building them,
• We maintain a self-sustaining system. We breed and raise our animals on the farm, feeding them what the farm produces, so that they gain natural immunities from living in one place, just like we do, and we minimize purchased inputs, fuels, fertilizers, or medications, thus maximizing the economic opportunities of self-sufficiency.

This brings to mind another anecdote. Last year, during a three-day workshop on biodynamics that we held on the farm, a woman participant approached Elizabeth and said that the most important thing she had learned was that two people could run a self-sufficient, sustainable farm. She said, “My husband and I want to do this, but have met with only discouragement from our friends and family who say we will go broke and work ourselves to death in the process. But here I see healthy animals, beautiful and productive gardens, and that you and your husband work without haste or stress and yet make this place run like a well-oiled machine. It gives me hope that we can do the same.”

Henning Sehmsdorf and his wife Elizabeth farm and teach at the S&S Center for Sustainable Agriculture and Homestead Farm on Lopez Island, Washington. They recently hosted a workshop entitled “Real Food On The Farm: A Workshop Presenting Nutritionally Vital Foods that Promote Health and Healing.” A report on the workshop, as well as part two of this article, will be published in our next issue. Photos are courtesy of and copyright by Henning Sehmsdorf.

Submissions Requested

In recent conversations, members have expressed interest in seeing articles on growing specific individual crops, the making and use of special equipment, work with interns, raising animals, associative economics, and more. We’d like to encourage readers to share your thoughts on these or other topics with your fellow members. Pulitzer-level writing is not required; interest and practical expertise are what we are looking for. If you have an idea for an article, please contact Bruce Bumbarger at BIODYNAMICS, PO Box 550, Kimberton PA 19442; (800)516-7797; <bbumbarg@haverford.edu>. Compensation for article length material is available.

Christy Korrow continues to work toward strengthening contacts with the various regional groups, CSAs, and other like-minded individuals and organizations. As you become aware of interesting work being done in your area, please contact Christy at 2000 Bullridge Road, Burksville KY 42717; (270)864-4167; <christy@accessky.net>.

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