

ADDENDUM
AUNT LUCY'S TIPS FOR HELPING THE EARTH
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Now that you've finished this book, you should consider this a *beginning*. Although Balance Point paints a disturbing picture, you are not powerless to act. You can continue your education, for example, by reading through this addendum. Also, keep one eye on the news articles about global climate change, ecological degradation, pollution levels, and consumption habits. Let them be a constant reminder to you that time is running out. What can one person do? A lot. And when that one person inspires another, there are now two, then four, then thousands. Exponential growth can be a disaster, but it can also save us. The world will not change if we do not want it to. As Melissa Berger stated, "Start right here, right now. Life is short and then you die. You must act now if you're going to make any difference in this fragile world."

Consider your efforts to be a shot in the arm for the Earth, and a meaningful spiritual exercise for your soul. Remember that a spiritual act is one that brings you toward a closer harmony with the greater Being, that *totality of existence* that Eduardo referred to as the Earth mother or the Great Mystery, and Lucy referred to as the Eco. So in addition to whatever religious practices you are accustomed to, add some natural spirituality to your life. One simple exercise would be to take an hour a month and contact one of the resource organizations listed at the end of this addendum. Do it with your friends, church members, or school. Be bold: pick up a phone and call them, or email them, or write to them, and then learn from them, and act on what you learn. Or get your hands on one of the books listed at the end of this addendum. Then *read* it. And please don't forget to enjoy yourself. With one chance at life, we may as well be happy!

SOME BASIC PRINCIPLES OF SYMBIOTIC LIVING

We humans need clean air, clean water, fertile land, fresh, nutritious food, practical clothing, resource and energy-efficient shelter, valuable work, caring relationships, spiritual growth, and fun. When we achieve balance, our lives become clearer and less complicated. Practice an exercise used by a Buddhist teacher. Holding up a piece of newsprint, he asks the students to *see* the clouds and forest in the paper, and move their minds into the process of *becoming* the paper: Where did you come from? How many rainstorms did you endure in your lifetime? When we start to think in this manner, we begin to understand our place here on Earth.

Practice the Four Rs — reduce, reuse, recycle, and refuse:

REDUCE — In an ecological household, reducing consumption, conserving water, reducing energy use, and reducing waste is the standard, not the exception. Although American consumption has risen 45% in the past two decades, our quality of life (as measured by the Index of Social Health) has declined by 51%. We have more stuff, but less satisfaction.

Buy in bulk or concentrated form in family-sized containers. Avoid single-use disposable products. Use fewer products. Examine your true needs. Rent or share certain items that you only need to use occasionally (garden

tools, sewing machine). Before buying, ask yourself: do I really need this product? Is it safe to use? Is it practical, durable, well-made, of good quality, with a timeless design? Is the product made from renewable or recycled materials taken in a sustainable manner? Is there any information about the manufacturing process? How will I eventually dispose of the product, and what environmental impact will that have? What kind of package does it have? Is it excessive? How far has the product been shipped? Is there another brand that is more environmentally friendly? If there is, buy that one.

REUSE — For every pound of garbage we throw away, we generate twenty-five pounds of waste. Many resources are required to produce a product; its manufacture produces additional waste. Increasing the lifetime of a product is far more effective than recycling, because it doesn't require the product's refabrication. Doubling the lifetime of any product will halve the energy consumption, the waste and pollution, and the ultimate depletion of all the materials used to make it.

RECYCLE — If we would recycle or reuse all of our paper and paperboard (40%), metals (9%), plastic (8%) and glass (7%), we would reduce our garbage by 64%. If we reclaimed our wood (4%), rubber (3%) and textiles (2%), we would be down to only 27% of our current garbage. By composting yard debris (18%) and food scraps (7%), we're left with only sending about 2% solid waste to a landfill. The products that are most recyclable are aluminum, steel, cloth, glass, motor oil, and paper. Plastic, despite its promotion by the plastics industry as being recyclable, is not easily or readily recycled. Plastics that *are* recycled are processed under conditions that endanger workers and the surrounding environment.

REFUSE — Don't buy it at all.

SOME THINGS TO THINK ABOUT

SUSTAINABLE AND SOCIALLY RESPONSIBLE BUSINESSES — Corporations, as defined, are only responsible to their shareholders. In legal terms, they must act primarily in the stockholders' economic interests. This serves to reinforce the idea that they exist purely for profit, at the expense of society and our environment. The alternative to large publicly or privately-held corporations are family-owned businesses and workers' cooperatives. By frequenting locally-owned businesses, money is kept circulating within your community. Small local businesses and worker cooperatives can help build local, sustainable economies and can be easily monitored, held accountable, and truly be "socially responsible."

BUYING GREEN — A popular misconception is that buying green means fewer greenbacks in your pocketbook. Yet, a 1991 study showed that a family who "went green" spent about \$155 more per year on environmental products. The few extra dollars spent translates into savings in energy, disposal costs, and pollution cleanup costs. A common product like toilet paper appears to be fairly benign. However, standard toilet paper is made from virgin paper bleached with chlorine to make it look whiter. It is also often dyed with harsh

petrochemical dyes. Using virgin paper means using more trees. Chlorine bleaching, and then dyeing, pumps a variety of cancer-causing byproducts into our air and water. Environmentally friendly toilet paper is made with recycled paper, often post-consumer, without chlorine or dyes.

FOOD — Eating reestablishes our connection to people, to land, water, and soil, to the future, and to other species. Our present system of agriculture is among the most unsustainable aspects of our society. Massive inputs of energy are required for food production and transport, nutrients are often not returned to the soil, farming often requires irrigation, and soils are contaminated with pesticides. Increased attention to personal health, as well as the environmental and social impacts of food production and processing are important considerations when eating “green.” *Organically grown* means the food has been grown, packaged, stored, and transported without the use of synthetic fertilizers, insecticides, herbicides, fungicides, fumigants, preservatives, hormones, coloring or wax. Certified organically grown products mean that the farm has been inspected and tested by an independent, third-party agency.

Many people are adopting a more healthful lifestyle, which includes adopting a diet low in fat and rich in vegetables and fruit. But despite the nutritional value, most of the produce bought at your local supermarket has tremendous environmental and health implications. It is estimated that over 1.5 billion pounds of pesticides are sprayed on our food crops each year. The EPA has declared pesticide pollution one of our country's worst environmental and health problems.

Besides the higher nutritional content and the fact that you are not exposing yourself or your family to harmful chemicals, by buying organic you are contributing toward the transition to sustainable food production, conserving energy (especially if you're buying locally-grown organic goods), and helping to minimize the dependence on petrochemical based fertilizers and pesticides. More than 200 million tons of pesticides containing more than 100 active ingredients are used annually on food croplands in California alone. Although the EPA regulates pesticides and herbicides, many pesticides were granted tolerances before safety tests were required. Of the 600 principal ingredients in pesticides, only about 120 have been tested by the EPA for their acute and chronic health effects. Pesticides carried by the wind and groundwater become widely dispersed, impacting many other ecosystems.

GROW YOUR OWN — Gardening is one of the best things you can do for the environment, if it's done in concert with nature. Because of the intensive effort that can be concentrated in a small area, the home gardener is by far the most efficient and productive of all food producers. In fact, all the fruits and vegetables for a family can be grown in one-sixth to one-half of an acre. If all US lawns, golf courses, and cemeteries were converted to gardens, they could supply 203 million people with food. Currently, lawns alone consume more fertilizer, more human input, more fossil fuels and more machinery than farming.

COMMUNITY GARDENS — For city dwellers, community gardens are another option for farm-fresh food. It's been estimated that having market gardens

located throughout suburbs and cities could cut the dollar cost of food by 70%. Shanghai, which has a population of 11 million, produces 100% of its fresh vegetables. Contrast this to Massachusetts, which imports 85% of its food, a tenth of it from 3000 miles away. Where could these gardens grow? On all derelict and unused land in cities, and on the flat rooftops.

BIOREGIONALISM & SMALL FARMS — Bioregionalism is usually defined by a watershed area, by plant and animal species ranges, and by human cultures, not by arbitrary political boundaries or borders. Acquaint yourself with your bioregion by examining how past peoples used the land. Food that is imported from outside the bioregion comes with many hidden costs. Despite dwindling supplies of US fossil fuels, four calories of fuel are used to produce one calorie of food that is then transported an average of 1300 miles. Small, local organic farms can produce five times as much per unit of energy than conventional farms. Because local produce is also fresher, it is also more nutritious.

COMMUNITY SUPPORTED AGRICULTURE — Local farmers' markets are usually a good example of bioregionalism, if indeed, the farmers are truly local. Community Supported Agriculture (CSA) is a major breakthrough in bioregionalism. In this revolutionary model of agriculture, farmers and consumers join to provide security for the farmer. In return, the farmer supplies his customers with wholesome, local food. By paying a predetermined price for weekly supplies of vegetable produce, fruit, eggs, meat, milk, and/or fiber products (whatever the farmer can produce that is of interest to the shareholders), customers help support the farm's viability. Today, there are about 500 CSAs in the United States.

FOREST GARDENS — Forest gardens are immensely productive and offer many benefits. These systems incorporate an upper story of trees for timber, fruits, and nuts, a middle story of bushes producing fruits and spices, and an understory of maize, beans, and root crops. A community that relies on forest gardens as opposed to tillage systems uses far less energy, reduces soil erosion significantly, and supports more stable and diverse ecosystems.

PERMACULTURE — Permaculture is a design system for creating sustainable human environments. The word itself refers to systems of permanent agriculture and to permanent cultures. Permaculture works with plants, animals, buildings, and infrastructures such as water, energy, and communications, and is concerned with the relationships we create between these elements.

MILK AND EGGS — Buy milk in waxed cardboard boxes, unless your area recycles HDPE plastic. Steer clear from milk and cheeses containing BGH (bovine growth hormone). It can cause cows to develop udder infections, which are then treated with antibiotics, leading to increased levels of antibiotic residue in the dairy products we consume. Buy organic milks and cheeses, or choose a milk alternative: organic soy, almond, and rice milks. Avoid products packaged in aseptic containers made of paperboard, polyethylene plastic, and aluminum foil, as they aren't recyclable. Consider powdered products packaged in recyclable cardboard containers. Purchase eggs in cardboard containers, not foam. Buy organic eggs.

WATER — Bottled water causes extensive energy use and pollution in transport and packaging. Have your tap water tested. If it's substandard, invest in a countertop water filter or use a home delivery service that will bring refillable containers to your home and carry away the empties on a regular schedule.

MEAT — Today in America, there are 7.5 million vegetarians. If you do eat meat, consider reducing your intake. If Americans reduced their red meat intake by only 10 percent, the savings of grains and soybeans could feed all the people who starve to death in the world.

Each year, the US imports over 120 million pounds of beef from Central American countries. Two-thirds of these countries' forests have been cleared to raise cattle. The typical four-ounce hamburger represents about 55 square feet of tropical forest, which could have contained any of 20 different tree species, thousands of insect species, and a section of the feeding zone of dozens of rare birds, reptiles, and mammals. Buy your meat locally from an organic grower.

CONDIMENTS — Examine the packaging. Traditional glass jars and bottles are easy to recycle and less polluting to manufacture. If you must rely on plastic squeezable bottles, don't throw them away. Buy the biggest glass container possible and refill your plastic squeezable.

PRODUCTS TO AVOID — Here's a simple rule of thumb: if there are numbers in the ingredients, don't buy it. Most artificial additives are made from derivatives of crude oil. Some artificial additives to avoid are: artificial colors (also listed as FD&C colors) these are made from coal tar; artificial flavors — also made from coal tar; BHA and BHT — made from coal tar; EDTA — made from minerals, irritating to the skin, can cause allergic reactions and kidney damage; MSG (monosodium glutamate) — derived from glutamic acid, on the FDA list of additives that need further study for mutagenic and reproductive effects; artificial sweeteners (saccharin, aspartame — a.k.a. NutraSweet or Equal); Nitrates and Nitrites — made from mineral salts, can form carcinogenic nitrosamines when combined with amines in food, added to most processed meats and some cheeses; Sulfites — can cause severe allergic reactions, found in many processed foods and in commercially produced wine. Also avoid irradiated foods. Foods that are irradiated are stamped with a "radura" symbol, a benign-looking flower in a circle. Don't be fooled. Certified organic foods are never irradiated.

STORING FOOD — Glass is best; save and reuse jars from food purchases and refill. Plastic bags should be rinsed and reused. A plastic sandwich bag can be used dozens of times.

TRASH BAGS — The increasing volume of trash entering landfills each year produces a massive pollution problem. Although many companies claim that their trash bags "biodegrade," the plastic actually only disintegrates into pieces too small to be seen by the naked eye. The plastic remains in its same chemical composition because living things lack the enzymes necessary to break down these products. The manufacturing of plastics constitutes a major environmental threat, releasing toxic chemicals into the air, which generates

acid rain, which then pollutes our water supply. Instead of plastic bags, reuse your paper bags from the grocery store to collect garbage in. Consider not lining your garbage cans. If you've already separated out your food and yard scraps for composting, recycled your plastics, aluminum, and glass, you really should have nothing in your trash to cause odors, anyway. As a last resort, if you must use plastic, buy recycled plastic trash bags. They aren't as energy-intensive to manufacture and don't use as much petroleum.

COMPOSTING — One of the most unsustainable aspects of our society is the almost complete failure to recycle organic materials. The growing of annual crops removes millions of tons of nutrients from the soil each year and transports these nutrients to cities, where they are used and then discarded into landfills or down drains. It would be more appropriate to call this type of agriculture “soil mining.” Our survival depends upon the fertility of our soils. One way to accomplish this is to reclaim and recycle organic nutrients through composting. Compost is the result of degradation of organic materials by micro- (bacteria and fungi) and macro-organisms (earthworms and insects). Besides enriching soil with valuable nutrients, compost helps hold water and warm the soil, degrades toxic chemicals, destroys pathogens, restores the land, and saves money. It also keeps yard debris and food scraps out of landfills, where buried, they would not degrade for many decades. In fact, if everyone in America composted, 15 to 20% of our landfill space would be saved annually.

WOOD PRODUCTS — The term “sustainably harvested” can be applied to any renewable resource, but it usually refers to forest products. In the United States, over 17 billion cubic feet of timber are harvested annually. Of this, 63% goes toward producing paper and pulp; the rest is used for lumber.

Although only about 5% of our primary forests remain, the US is still considered to be “rich” in forest resources. Worldwide, each year, over 35 million acres of tropical forest (an area the size of Florida) are permanently destroyed. Over half of the Earth's species inhabit these forests, which only comprise 6% of its surface. Over 25% of these forests are destroyed by commercial logging operations. Thousands of acres are also cleared for cattle ranching. The destruction of our tropical rainforests are increasing global warming, obliterating thousands of species, and decimating many indigenous cultures.

Although wood is a renewable resource, it is only sustainable if it is managed to ensure that no more trees are cut than the forest can regenerate. Most wood sold in lumberyards is harvested by the clearcut-replant method whereby a large section of forest is cut and then replanted with same-age, same species trees. Clearcutting destroys the protective layer of forest floor vegetation, causes erosion, a loss of soil fertility, a severe decline in biodiversity, and also is a source of pollution, as herbicides are often applied around the replanted trees to discourage competition from other species. Sustainable forestry, in contrast, involves a forest of mixed species and ages, selective cutting, sustainable yields, soil conservation, ecosystem preservation, and appropriate technology.

Consider using reclaimed wood, such as lumber from salvaged buildings. If virgin timber is needed, look to local sawmills. Inquire about their forest

management practices. If you don't live in a forested area and need to import wood, consider choosing wood that has been certified from an independent agency as sustainably harvested.

PAPER PRODUCTS — Every day in the US, we use 187,000 tons of paper, or 3,179,000 trees, annually clearcutting an area equivalent to the size of Rhode Island. Each year, the paper industry in America releases tons of toxins into our air and water. Paper also generates more solid waste than any other material in America. Buying recycled paper (with as much post-consumer content in it as possible) is vitally important in protecting our remaining forests. Buy unbleached or chlorine-free products. The most sustainable recycled paper is unbleached, non-deinked, 100% recycled paper with a high percentage of post-consumer material. Tree-free papers are also available. In one year, an acre of kenaf produces seven to eleven tons of usable fiber. In contrast, an acre of forest produces only four to five tons of usable fiber and requires 20 to 30 years to produce it. Bring your own bag when you shop. For every 700 grocery bags not used, one 15 to 20 year-old tree will be left standing. Minimize the use of disposable paper products like paper towels and paper cups.

SHELTER — Over 30% of total US energy usage, 60% of the country's electricity, 60% of its financial resources, and 26% of the contents of its landfills are linked to buildings. Environmentally sensitive design can significantly improve the comfort, aesthetics, and value of properties while mitigating pollution and saving money. The most appropriate materials for building are local materials requiring minimal processing. The most appropriate building style and size should be dictated not by fads, trends, or egos, but by natural factors such as climate and locale. In the 1940s, the average size of a house was about 1100 square feet. In the 1990s, although the median family size had decreased, the average home size had ballooned to over 2000 square feet. Downsizing a house translates into reduced heating and cooling expenses and, of course, less cleaning and work!

ENERGY EFFICIENCY — In our homes, most energy use is devoted to space heating and cooling, water heating, and refrigeration. These tasks account for about 81% of energy use. Lighting, cooking, clothes drying, and other appliances comprise the remaining 19% of home energy consumption. Conservation is the first step in energy efficiency. Turn off your lights. Turn up your thermostat in the summertime (or turn your cooling system off) and lower it in the wintertime. Insulation is the most important product you can buy to reduce home energy use. It can save you up to 40% of your total energy use and usually has a very short-term payback (within one to two years). About one-third of a home's heat loss occurs through windows and doors. Windows can be sealed with weather-stripping, and, during the winter, covered with insulated drapes. Otherwise, consider replacing your windows with energy-efficient ones. Weatherize your home, use energy-efficient appliances and lights, and shade windows with vegetation or awnings or arbors. Insulate your water heater with a prefabricated blanket. Lower the thermostat on your heater to 120 degrees Fahrenheit. If every household in America lowered their regular temperature by four degrees, 380,000 barrels of oil would be saved each day.

LIGHTING — Use more compact fluorescent bulbs instead of incandescent. And don't let the price tag scare you — they should last about ten times longer than incandescents and use about one-quarter of the energy. Or use halogen bulbs, which last almost three times longer than incandescents. Use natural lighting whenever possible. A three by five-foot window lets in more light than 100 standard 60-watt bulbs. When you leave a room, flip the switch off.

RENEWABLE ENERGY — Renewable energy sources include solar power (photovoltaic cells and passive solar design), biomass (crop residues and animal manures used to make fuel), hydroelectric power, and wind. Studies by the US Department of Energy have shown that we could fulfill almost three-quarters of our energy needs from the sun, wind, water, geothermal, and biomass.

WATER — Although most of our planet is water, the amount of potable (drinkable) water on Earth is in short supply. It is estimated that we will exceed our drinking water capacity within one or two decades. Not only is the *quantity* of available drinking water a serious issue, but so is the *quality* of water. Our waterways receive chemical contamination from industry, and fecal contamination from livestock, and septic and wastewater treatment facilities. Protection and conservation of our water systems is critical to our survival.

Agriculture uses more water than households do: 75% is used for agriculture (25% for produce and 50% for livestock). It takes about three gallons of water to produce one serving of tomatoes, 22 gallons for one serving of oranges, 136 gallons for two eggs, 408 gallons for one serving of chicken, and a whopping 2607 gallons of water to produce one serving of steak.

In the home, the average American uses between 58 and 90 gallons of water per day. The toilet is the largest water user in the household, accounting for anywhere between 25 to 35% of all household water use. The best water saving toilet, of course, is a composting toilet. The low-flush toilet (1.6 gallons/flush) is another option for those who can't make the transition to a waterless toilet. Installing faucet aerators and low-flow showerheads also saves water (and water bills). A low-flow showerhead (2.5 gallons per minute) will save about 30 gallons of water during an average ten-minute shower. Outside the home, if you need to water your garden, do so early or late in the day to avoid excessive evaporation. Apply water slowly to prevent runoff. Water deeply but thoroughly to help your plants develop a deep root system for dry summer months, and use mulch. Mulch protects the soil from erosion, inhibits weeds, and retains moisture.

In many parts of the world, especially in arid areas, water collection is a necessity. Households may collect rainwater in underground or aboveground cisterns, barrels, or tanks. Water recycling is yet another water conservation tool. Rich in nutrients, graywater (water generated from sinks, showers, and tubs and laundry) can be used to water landscapes and even gardens if used properly. A drain is not a waste disposal site. Everything that we pour down our drains goes directly into the environment. Give careful consideration to what you put down your drains. "Living machines" incorporate communities of organisms to purify sewerage.

REDUCING TOXIC WASTE IN THE HOME — Many of us sleep on permanent-press cotton sheets which have been saturated with formaldehyde, on mattresses fabricated from synthetic petrochemicals and treated with polyurethane-based flame retardants, and in rooms where the walls are coated with paints, and the floors are covered with plastic-based carpets. Indoor pollution is one of the most common problems in industrialized nations. We are more likely to breathe in a stew of chemicals from pesticides, aerosol sprays, paints, and cleaners in our own homes than in the air outside. Our first step, of course, is to reduce our exposure to these chemicals by eliminating their use in our homes.

“PEST” CONTROL — Americans douse their homes with over 300 million pounds of carcinogenic insecticides a year. Simple alternatives do exist. First of all, eliminate the source of the problem. Store food in glass jars with tight lids instead of in plastic bags. Most insects are really not harmful, but can be annoying. Fleas can be controlled by pyrethrum powders or soaps or with dips and sprays derived from d-limonene (a citrus extract). Cockroaches can be deterred by scattering bay leaves in their habitat. Garlic mixed with soapy water in a blender can be sprayed in infested areas. Cedar shavings work well to thwart moths.

CLEANING PRODUCTS FOR THE HOME — Over 1000 synthetic chemicals are introduced into our environment each year. Already, about 70,000 human-made chemicals are in use. Many of these chemicals go into everyday products we see on the shelves in our stores. The assumption that because they're on the shelves, they're safe, is a mistake many people make. In fact, almost every product on the market might have some component that could be harmful to one's health or to the environment, and many products utilize toxic substances in their manufacture or packaging. Using simple ingredients to clean your home or for personal care is not only wise from a health and ecological standpoint, but also far less expensive than buying commercial cleaners.

Acute toxicity refers to poisoning as the result of a one-time exposure to a relatively large amount of a chemical. Every year, 5 to 10 million household poisonings occur as a result of accidental exposure to toxic products in the home. Chronic toxicity refers to illness that results after repeated exposures to chemicals over a long period of time. Toxic chemicals are found in nature (deadly nightshade, for instance) and synthesized in laboratories (benzene). The difference is that we don't normally encounter natural toxins in our everyday environment. Yet, we expose ourselves to hundreds of human-made toxins every day. Most commercial products today are made from petrochemical derivatives. Synthetics don't break down in the environment readily or at all, and tend to accumulate up the food chain. At our position at the top of the food chain, we are one of the most bioaccumulative organisms, storing higher levels of chemicals in our fat than that are actually in the environment.

“Signal words,” related to a product's potential acute (but not chronic) toxicity, can be found on any product's label. Assume that products marked DANGER/POISON are highly toxic; WARNING, moderately toxic; and CAUTION, slightly toxic.

“FRESHENERS” — Room “fresheners” don't really make a room smell better. In fact, they work by coating your nasal passages and deadening the nerves to diminish your sense of smell. Houseplants act as natural air filters. If you like to scent your home, use essential oils: pure plant oils that can be heated in a candle burner. Candles are wonderful, but be aware that most candles are manufactured with artificial, toxic fragrances and petrochemical waxes. Instead, burn beeswax candles scented with essential oils or herbs.

ANTIPERSPIRANTS AND DEODORANTS — Antiperspirants work by causing the skin to swell and closing off the sweat pores. Although *deodorants* don't inhibit the body's releasing of wastes, they are also made from petrochemicals that are nonrenewable and potentially cancer-causing. It is advisable to shun antiperspirants. If you must buy deodorants, shop for products containing natural ingredients (in packaging that can be recycled or refilled).

SHAMPOOS AND CONDITIONERS — Shampoos and conditioners often come in nonrecyclable containers and contain ingredients that pollute our water supplies. Common shampoos and conditioners can contain petrochemicals, formaldehyde derivatives (like quaternium-15), artificial colors (derived from coal tar), and petrochemically-derived fragrances. Hair colorants and dyes are also a product of the petrochemical industry. Like most commercial brands of shampoos and conditioners, hair dyes are often inhumanely tested on animals. Natural dyes, such as henna (a plant product) are available for darkening hair. For blondes, chamomile tea and lemon juice can lighten hair.

Similarly, most hair sprays, gels, and mousses have a harsh effect on the environment and on your health. Their containers are energy-intensive to manufacture and often are not recyclable. Most rely on synthetic chemicals and resins to hold your hair in a certain position, and their manufacture depletes our supply of nonrenewable fossil fuels and contributes to air, soil, and water pollution. Most people don't realize that hair sprays and gels are mostly plastics (resins) that are micronized. Whenever you spray, you are actually inhaling small plastic particulates.

TOOTHPASTES — As with most commercial personal products, many toothpastes are also derived from petrochemicals and are packaged in nonrecyclable containers made of plastic. They usually contain artificial colors and flavors. Tom's of Maine, for example, is a company that produces toothpastes without artificial flavors or colors, and in tubes made with recycled content.

LOTIONS AND CREAMS — Most commercial brand lotions come from products derived from petroleum (the ingredients may read “petrolatum” or “mineral oil”). They are also packed with harmful chemicals, artificial colors, and artificial fragrances. Avoid companies that don't disclose their animal testing procedures.

PERFUMES AND FRAGRANCES — Major brand perfumes and fragrances are often derived from petroleum-based products and coal-tar derivatives. Animals are often trapped and killed for certain parts of their bodies to enhance the scent of these products (musk, for instance, is taken from a musk deer's naval; civet is taken from the anal glands of a civet cat).

Essential oils, on the other hand, are natural oils expressed from plant parts, such as the flowers, roots, or bark. They are not the same as “fragrance oils,” which are synthesized in a laboratory. To produce one pound of essential rose oil, 5000 pounds of fresh petals are needed. Therefore, essential oils always vary in their price: rose oil and jasmine, which require large amounts of materials to produce a small amount of oil, are normally quite expensive, while lemon and orange oils are relatively inexpensive. The best oils are, of course, organically grown, and cold-pressed or expeller-pressed. Avoid oils that are extracted with solvents, because the solvent may be highly toxic and may remain as a residue in the oil.

RAZORS — Americans throw away two billion disposable razors and blades each year. The plastic is not biodegradable and their manufacture consumes high quantities of energy and requires the use of toxic chemicals. Instead of shaving with disposable equipment, use long-lasting metal razors and blades or buy an electric razor. Or don't shave at all.

HARD AS NAILS — Nail polishes and hardeners depend on harsh chemicals to work. They are dangerous to inhale and contain carcinogenic substances, such as xylene and toluene. The bottles are not recyclable, and, once crushed in a landfill, seep toxins into the ground. Red henna is one of the only natural alternatives to nail polish.

CLOTHING — Buy secondhand clothes. Nearly every community has a thrift shop or clothing consignment shop. Donate clothes to your local thrift shop — keep them out of the landfills, where they certainly don't belong. If you must buy new, look for clothing made from natural materials that were grown organically: cotton, linens, hemp, wool, or silks, and which are unbleached or dyed with low-impact dyes.

Although cotton is a natural fiber material derived from plants, it is one of the most chemically intensive crops grown throughout the world. In America, over half of all pesticides produced are applied to cotton alone. Currently, there are some farms cultivating organic cotton, and a few farms experimenting with naturally-colored cottons. Although not organic, “green” cotton is cotton that is minimally processed; it contains no dyes, bleaches, or formaldehyde finishes. Clothing made from synthetic materials are derived from fossil fuels, and are nonrecyclable and nonbiodegradable. Their manufacture is energy intensive and polluting.

CLEANING CLOTHES — Most commercial laundry detergents contain a bevy of synthetic, harsh chemicals, such as brighteners, artificial colors, and artificial fragrances. Until the late 1980s, most detergents also contained phosphates, which contributed to the pollution of many water systems. Many manufacturers still test their products on animals.

Washing soda, an alternative to detergents, is usually available at most grocery and department stores. Add one-third cup washing soda to water before adding clothes to the washer and add pure soap flakes or powder instead of commercial detergents. When switching from a detergent to a soap, wash items once with washing soda only, as the detergent may react with the soap and cause the fabric to yellow. If soap flakes aren't available in your area,

look for detergents on the market that contain no phosphates, no artificial colors or fragrances, and which are biodegradable. Read the labels.

Chlorine is one of the most polluting and toxic chemicals in our environment and still commonly used in American households. Instead of using chlorine bleach, add one-half cup of Borax to whiten whites and brighten colors. Non-chlorine bleaches, made with hydrogen peroxide, are now available in most areas, and are far less polluting and hazardous than chlorine.

Fabric softeners are full of petrochemicals, artificial colors, and fragrances. They are also expensive, when much cheaper and safer alternatives exist. Adding one cup of vinegar or one-fourth cup of baking soda during the final rinse serves the same purpose.

BATTERIES — Use rechargeable batteries instead of alkaline ones. Although initially more expensive than alkaline batteries, they pay for themselves quickly. Although rechargeable batteries still contain mercury and cadmium, they last far longer. At the end of a battery's life, seek out a center that recycles them. In a landfill, the toxic metals contaminate the soil and pollute ground water. If incinerated, they release toxins into the air.

PAINT — Each year, Americans buy more than a half-billion gallons of paint. Most of this paint is petroleum-based and contains volatile organic compounds (VOCs) which mix with nitrous oxides (a pollutant from car exhaust, power plants, and refineries) to form ground level ozone, or smog.

Natural paints, which are usually vegetable-based and contain mineral pigments, are available, although they are considerably more expensive.

If you have to use paint, do not pour the leftover paint or rinse out pans and brushes in your sink. Recycle it, or combine it with other leftovers to make a gray or beige primer paint. Donate extra cans to a community organization. Take it to a hazardous waste collection site. Check with your local recycling center or refuse collector to see if such programs are available.

TRANSPORTATION — Automobiles are one of the major polluters in the world today. When purchasing a used or new car, buy a fuel-efficient model. A car driven an average of 20,000 miles a year that gets 40 miles per gallon compared to one that gets 25 miles per gallon will cut your annual CO₂ emissions by 6,600 pounds a year, and will significantly reduce your fuel costs.

Go electric — or gas-hybrid. Electric and hybrid cars emit fewer pollutants than standard gasoline powered cars.

Carpool. According to the Union of Concerned Scientists, over 80% of commuter trips in the US have only one person in the car. The best way to cut down the over 200 million gallons of gasoline Americans consume every day is to carpool. Use public transportation. For every 1000 people riding to work by bus or rail, 5 tons of hydrocarbons, 31 tons of carbon monoxide, and 2.5 tons of nitrogen oxide are saved. Bicycling is environmentally friendly and wonderful exercise. Encourage your community to become more bike friendly, to include bike lanes and keep the roadsides clear of obstacles. Walk more.

HEALTH — "Personal" health is a misnomer as there are really no true physical boundaries between ourselves and our environment. Consider that each year 98% of the atoms in your body is replaced by other atoms in the environ-

ment. At the end of five years, every single atom has been replaced. The body you now have did not exist five years ago. Likewise, the process of human consciousness is unbounded and not restricted to our idea of self or Ego, but inextricably linked to the Eco, a unified whole. In caring for ourselves, we must accept that the Earth is inseparable from our Selves.

Unlike conventional medicine, natural healing employees naturally-occurring defenses. Health, environmental conservation, and spirituality cannot be separated from each other. The healing of our world, and of ourselves, cannot be accomplished through ever finer analysis, scientific rigor, and technological interventions — although proper scientific work and technology are indispensable to the process — but through the integration of our selves with the World. Natural health care involves educating and empowering ourselves, and being conscious and knowledgeable about how our bodies function. Numerous resources, including books, magazines, and websites are available to help us achieve our independence from the multi-billion dollar health and pharmaceuticals industry.

PLANTS AS MEDICINE — Herbs are the oldest form of medicine as well as the basis for modern pharmacology. Herbs and medicinal plants can be taken in many forms: tinctures (in an alcohol base), teas, capsules, and ointments. Eating fresh, organically grown food, grown in fertile soil, provides the best nutrition for our bodies.

CHILD BIRTH — Although childbirth is a natural process, conventional medicine tends to view birth as a medical emergency. Midwifery acts to support the natural birth process and to address any problems with the least possible amount of interference. Midwives understand the need for women to feel physically and emotionally secure and empowered. Breastfeed your baby.

EDUCATION — Many education systems promote hierarchy, obedience, conformity, competition, and regimentation. The need for educational reform is obvious in our society today — violence in the classroom, boredom among students, vandalism, staff unrest. Problems in schooling are a reflection of societal problems: inadequate parenting, devalued family life, social inequality. Technological developments such as the TV undermine the ability of children to learn to concentrate, or to think for themselves. Technology, as used in the school system, does not teach children how to socialize, cooperate, listen, be creative, or be assertive. Intuition, sensitivity, creativity, and a capacity to understand things holistically are often not fostered in a technologically-based, industrial educational system.

Empowering individuals with creative and practical skills and independent minds is critical to establishing self-sufficient, sustainable communities. Fundamentals and life skills should be integrated to reinforce a holistic way of thinking and to encourage our understanding of our ecological role on Earth.

COMMUNITY — In most industrial societies, the majority of its citizens dedicate their best hours and best years to making an income to exchange for material goods. In the meantime, many of us have lost sight of the fact that our life is more than our work, and our work is more than our job. The com-

mute to and from work and school has undermined community cohesiveness. Today, Traditional Neighborhood Developments (TNDs) are cropping up, especially in large cities. These developments cluster small businesses, private homes, and green spaces harmoniously, and encourage a pedestrian society, which fosters interaction and community.

Living in groups is also a viable solution to problems such as the affordable housing shortage, the dispersal of kin-groups, the disintegration of nuclear families, and the harsh reality of trying to be financially independent. Cohousing is a system of housing similar to the TND, whereby housing is clustered and green space is preserved. In contrast to TNDs, cohousing endeavors are focused on creating “intentional” communities. Groups usually work together to plan, finance, and build the type of cluster they want, although each unit in the cluster may be privately owned. Normally, a common house is also included in the development. This form of housing drastically reduces duplication of resources — commonly used items are shared by community members.

EcoVillages, an expansion of the cohousing philosophy, commit themselves not only to developing a strong, cohesive community, but ascribe to an environmental ethic as well. In many ecovillage communities, housing is confined to 8 to 15% of the total land area, leaving most of the land free for small-scale food production and for the preservation of habitat and biotic diversity. Built structures within ecovillages are designed with resource and energy efficiency at the forefront. Many ecovillages provide their energy locally with the use of renewable energy sources.

ECONOMICS — Our present economic system operates on the premise that growth is infinitely possible. However, on a finite planet, we know this is not feasible. Consider the following : over a 30-year period (1940 through 1970), while the US Gross National Product per person doubled, no increase in the frequency with which people responded positively to quality of life questions was reported. In fact, Americans reported feeling “significantly less well-off.” The range of serious social problems over the last few decades has also broadened — homelessness, poverty, unemployment, mental and social breakdown, suicide, vandalism, and crime all have escalated.

BEYOND BARTERING: KEEPING CASH IN COMMUNITY — The key to environmentally-compatible economics is the development of many small-scale local and regional economies that are largely self-sufficient. Communities can create money substitutes for themselves. In a local exchange trading system (LETS), members agree to trade goods and services among themselves. Instead of paying cash, they keep a record of accounts, which enables them to trade, produce, work and receive goods without money. This method of exchange keeps currency within the community and supports community members and local businesses. Establishment of cottage industries, cohousing communities, local recycling and composting centers, and community supported agriculture are all endeavors that favor sound economic and environmental policy.

Eventually, we must get to the situation where producing and consuming have become trivial elements in our personal and social lives, where only a small amount of time and effort goes into providing ourselves with the

things we need, where few have any interest in the Gross National Product, and where we can all get on with far more important things such as science, art, communication with each other and with nature, personal development, and play.

SPEAK OUT — Economic growth at the expense of planetary health is not sustainable; we cannot separate ourselves from nature. But we *can* make informed purchasing and investing choices, and favor products and companies that operate in an environmentally ethical and socially responsible manner. Most importantly, we can wean ourselves from the dependence in believing that we “need” certain convenience products.

Write letters to your local newspaper editor to complain about wasteful business practices in your community, or to applaud symbiotic ones. Write to companies that produce wasteful products, such as over-packaged food items, and tell them why you no longer buy their products. Boycott groups with anti-environmental agendas. Exercise your citizenship. Use the Freedom of Information Act to gain access to important information from the government, and know your statutes and rights.

PLEASE CONTACT THESE PEOPLE:

Agroforestry Research Trust, 46 Hunters Moon, Dartington, Totnes, Devon, TQ9 6JT, U.K. www.agroforestry.co.uk. The Agroforestry Research Trust is a non-profit charity registered in England, which researches temperate agroforestry and all aspects of plant cropping and uses, with a focus on tree, shrub and perennial crops.

Alliance to Save Energy, 1200 18th Street, NW, Suite 900, Washington, DC 20036. 202-857-0666; Fax 202-331-9588; www.ase.org; info@ase.org.

Alternative Education Resource Organization, 417 Roslyn Rd., Roslyn Hts., NY 11577. 800-769-4171; Fax 516-625-3257; www.edrev.org; JerryAERO@aol.com. AERO helps people who want to change education to a more empowering and holistic form. It helps individuals and groups of people who want to start new community schools, public and private, or change existing schools. It also provides information to people interested in homeschooling their children, or finding private or public alternative schools.

Alternative Farming Systems Information Center, NAL, ARS, USDA, 10301 Baltimore Ave., Room 304, Beltsville, MD 20705-2351; 301-504-6559; Fax 301-504-6409; www.nal.usda.gov/afsic/; afsic@nal.usda.gov. Provides a listing of Community Supported Agriculture groups.

American College of Nurse Midwives, 818 Connecticut Ave. NW, Ste. 900, Washington, DC 20006. 888-643-9433; 202-728-9860; www.midwife.org. Free midwife locator service.

American Community Gardening Assn, 100 N. 20th Street, 5th Floor, Philadelphia, PA 19103. 215-988-8785; Fax 215-988-8810; <http://communitygarden.org>; smccabe@pennhort.org. Community gardening improves the quality of life.

American Council for an Energy-Efficient Economy, 1001 Connecticut Ave NW, Ste 801, Washington, DC 20036. 202-429-8873; <http://aceee.org/>. Publishes booklets on energy efficient appliances for the home, and on energy efficient construction.

American Council for an Energy-Efficient Economy's Greener Cars, 1001 Connecticut Avenue, NW, Suite 801, Washington, D.C. 20036. Publications: 202-429-0063; www.greencars.org/indexplus.html. Publishes the Green Book: The Environmental Guide to Cars and Trucks (also online).

American Herbalists Guild, P.O. Box 70, Roosevelt, UT 84066. 435-722-8434; Fax 435-722-8452; ahgoffice@earthlink.net

American Holistic Medical Association, 6728 Old McLain Village Dr., McLain, VA 22101. 703-556-9728; www.holisticmedicine.org. Publishes a referral directory.

American News Service, 289 Fox Farm Rd., Brattleboro, VT 05301. 800.654.NEWS; www.americannews.com; info@americannews.com. Has been exploring and reporting on America's Search for Solutions.

American Solar Energy Society, 2400 Central Avenue, Suite G-1, Boulder, CO 80301. 303-443-3130; Fax 303-443-3212; www.ases.org; ases@ases.org. Dedicated to advancing the use of solar energy.

Association of Labor Assistants and Childbirth Educators (ALACE), POB 382724, Cambridge, MA 02238-2724. 888-222-5223 or 617-441-2500; Fax 617-441-3167; www.alace.org; alacehq@aol.com. Helps women reclaim trust in their ability to give birth.

BioDynamic Farming and Gardening Association, Biodynamic Farming and Gardening, Building 1002B, Thoreau Center, The Presidio, P.O. Box 29135, San Francisco, CA 94129-0135; 888-516-7797; Fax 415-561-7796; www.biodynamics.com; biodynamic@aol.com. Biodynamic method of agriculture.

Bio-Integral Resource Center, PO Box 7414, Berkeley, CA 94707. 510-524-2567; Fax 510-524-1758; www.igc.org/birc/; birc@igc.apc.org. Provides practical information on the least toxic methods for managing pests.

Bountiful Gardens, 18001 Shafer Ranch Road, Willits, CA 95490-9626; 707-459-6410; Fx: 459-1925; www.bountifulgardens.org. Sells untreated, open-pollinated seed.

California Certified Organic Farmers, 1115 Mission St., Santa Cruz, CA 95060. 831-423-2263; 813-423-4528; www.ccof.org. Promotes healthful, ecological, and permanent agriculture. Develops standards and certification programs for organic growers.

Center for a New American Dream, 6930 Carroll Ave., Ste. 900, Takoma Park, MD 20912. 301-891-ENUF (3683); 877-68-DREAM (toll-free); Fax 301-891-3684; www.newdream.org; newdream@newdream.org. The CNAD promotes an environmental ethic and voluntary simplicity.

Center for Resourceful Building Technology, PO Box 100, Missoula, MT 59806. 406-549-7678; Fax 406-549-4100; www.crbt.org; crbt@ncat.org. Publishes the guide to resource-efficient building elements, with an emphasis on products made from recycled materials.

City Farmer, Canada's Office of Urban Agriculture, #801-318 Homer St., Vancouver, B.C. V6B 2V3. 604-685-5832; Fax 604-685-0431; www.cityfarmer.org; cityfarm@interchange.ubc.ca. A wonderful resource on composting and urban agriculture.

Coalition for Environmentally Responsible Economies (CERES), 11 Arlington St., 6th Floor, Boston, MA 02116-3411. 617-247-0700; Fax 617-267-5400; www.ceres.org; muzila@ceres.org. CERES dedicates its economic clout to influence corporate behavior.

Companies can use the CERES principles as guidelines for developing more environmentally responsible business practices.

CoHousing Network, P. O. Box 2584, Berkeley, CA 94702. 510-486-2656; www.cohousing.org/. Promotes and encourages the cohousing concept.

Compost Resource Page, www.oldgrowth.org/compost.

Co-Op America, 1612 K St. NW, Ste. Suite 600, Washington, DC 20006; 800-58-GREEN / 202-872-5307; Fax 202-331-8166; www.coopamerica.org and www.socialinvest.org. Publish the National Green Pages, a guide to environmentally and socially responsible businesses in the United States.

Co-Op America Green Pages online, www.greenpages.org; greenpages@coopamerica.org. A directory listing over 2000 socially and environmentally responsible businesses.

Cornell University Resource Center, Business & Technology Park, Ithaca, NY 14850. 607-255-2090; Fax 607-255-9946; www.cfe.cornell.edu/compost/Composting_homepage.html

Cultural Survival, 215 Prospect St., Cambridge, MA 02139. 617-441-5400; Fax 617-441-5417; www.cs.org. Advocates the rights, voice, and vision of indigenous peoples.

Dr. Duke's Phytochemical and Ethnobotanical Databases, www.ars-grin.gov/duke/. Provides a vast amount of information concerning the chemical constituents of plants, the ethnobotanical uses of those plants, and the biological activity of the chemicals.

EarthSave, 706 Frederick Street, Santa Cruz, CA 95062. 408-423-4069 or 800-362-3648; www.earthsave.org; erthsave@aol.com. Committed to reducing both diet-related disease and diet-related environmental degradation. EarthSave provides educational programs, materials, and support for people wishing to make healthier food choices.

Ecological Transportation: www.knowledgehound.com/topics/ecotrans.htm. Offers a variety of links to sites on Alternative Fuels, Carpooling, and Bicycling.

EcoMall, PO Box 20553, Cherokee Station, New York, NY 10021; 212-535-1876; www.ecomall.com; ecomall@ecomall.com. The oldest, largest online green shopping center.

EcoVillage Network of the Americas Central Office, 64001 County Road DD, Moffat, CO 81143. Tel/Fax 719-256-4221; www.gaia.org; ena@ecovillage.org. Grassroots non-profit organization that links together ecovillages and related projects around the world.

EF Schumacher Society, 140 Jug End Road, Great Barrington, MA 01230. 413-528-1737; www.schumachersociety.org; efssociety@aol.com. The Society initiates practical measures that lead to community revitalization and further the transition toward an economically and ecologically sustainable society.

Electric Vehicle Association of the Americas, 701 Pennsylvania Ave NW, 4th Floor, Washington, DC 20004. 202-508-5995; Fax 202-508-5924; www.evaa.org. EVAA is the industry association working to advance electric vehicles and supporting infrastructure.

Environmental Hazards Management Institute, 10 Newmarket Rd., PO Box 932, Durham NH 03824; 800-558-3464; 603-868-1496; www.ehmi.org; ehmiorg@aol.com. Publishes the "Recycling Wheel," and the "Household Product Management Wheel."

Environmental Research Foundation, PO Box 5036, Annapolis, MD 21403. 888-272-2435 or 410-263-1584; www.rachel.org; erf@rachel.org. Provides technical information on toxic substances.

Fairness and Accuracy in Reporting (FAIR), 130 W. 25th St., Eighth Floor, New York, NY 10011. 212-633-6700; www.fair.org; fair@fair.org. Works to provide accurate, unbiased information to the public. Addresses the pro-government, pro-industry stance of the mass media.

FedCo Seeds, PO Box 520-A, Waterville, ME 04903. www.fedcoseeds.com. One of the few seed companies in the United States organized as a cooperative.

Food & Water, RR1, Box 68D, Walden, Vermont 05873. 802-563-3300, or 800-EAT SAFE. Works to educate the public on irradiated foods and other food and water-related issues.

Greywater: www.greywater.com

Health Resource Newsletter, 933 Faulkner St., Conway, AR 72032. 501-329-5272. 501-329-9489. www.thehealthresource.com. moreinfo@thehealthresource.com. A medical information service with an individualized comprehensive research report on your specific medical problem.

HealthWorld Online: www.healthy.net. A comprehensive site addressing both traditional and conventional medicine.

Institute for Earth Education, Cedar Cove, Greenville, West Virginia 24945. 304-832-6404; Fax 304-832-6077; www.eartheducation.org; iee1@aol.com; Dedicated to developing a serious educational response to the environmental degradation of the Earth.

Institute for Global Communications/PeaceNet: www.igc.org: Helps peace, human rights, and social justice organizations communicate and cooperate more effectively.

Institute for Local Self-Reliance, 2425 18th St. NW, Washington, DC 20009. 202-232-4108; Fax: 202-332-0463; www.ilsr.org. ilsr@igc.apc.org. Supports small-scale economic and environmentally-sound development.

International Centre for Research in Agroforestry, PO Box 30677, Nairobi, Kenya. +254 2 521450 or +1 650 833 6645; Fax: +254 2 521001 or +1650 833 6646; www.cgiar.org/icraf/about/about.htm; ICRAF@cgiar.org. ICRAF conducts strategic and applied research in partnership with national agricultural research systems, for more sustainable and productive land use.

International Childbirth Education Association, PO Box 20048, Minneapolis, MN 55420. 612-854-8660; www.icea.org; info@icea.org. Information and referral center for birth information of all kinds.

LaLeche League International, 1400 N. Meachem Rd., Schaumburg, IL 60174. 847-519-0035; Fax 847-519-7730; www.lalecheleague.org. Free referrals to local LaLeche leaders. Call 1-800-LaLeche to connect directly to a breastfeeding counselor.

League of Conservation Voters, 1920 L St NW, Washington DC 20036. 202-785-

8683; Fax: 202-835-0491; www.lcv.org; lcv@lcv.org. A national, nonpartisan arm of the environmental movement. Puts together the Environmental Scorecard, an annual rating of members of Congress on environmental issues.

Local Exchange Trading System, Landsman Community Services, Ltd, 1660 Embleton Crescent, Courtenay, BC V9N 6N8. 604-338-0213; Fax 604-338-7242.

National Association of Housing Co-ops, 1401 New York Ave NW, Ste. 1100, Washington, DC 20005. 202-737-0797; Fax 202-787-7869; www.coophousing.org; coop-housing@usa.net. Promote the interests of cooperative housing communities.

National Center for Appropriate Technology (NCAT), 3040 Continental Drive Butte, Montana 59702. 406-494-4572 or 800-275-6228 (ASK-NCAT); Fax 406-494-2905; www.ncat.org; info@ncat.org. NCAT's mission is to promote sustainable technologies and community based approaches that protect natural resources and assist people.

National Center for Food and Agricultural Policy, 1616 P St. NW, First Floor, Washington, DC 20036. 202-328-5048; www.ncfap.org. National pesticide database providing estimates on the number of acres treated in each state and the total pounds of active ingredient used by each state and each crop.

National Center for Homeopathy, 801 N. Fairfax St., Ste. 306, Alexandria, VA 22314. 877-624-0613; Fax 703-548-7792; www.homeopathic.org; info@homeopathic.org

National Coalition Against the Misuse of Pesticides, 701 E St SE, Ste 200, Washington DC 20003. 202-543-5450; www.beyondpesticides.org; info@beyondpesticides.org. Information on pesticides, least toxic pest control, database of directories.

National Coalition Building Institute, 1120 Connecticut Ave. NW, Ste. 450, Washington, DC 20036. 202-785-9400; Fax 202-785-3385; www.ncbi.org; ncbiinc@aol.com. Trains individuals to become leaders in building alliances among people of different races, sexes, classes, ages and religions.

National Pesticides Communication Network, OSU, 333 Weniger, Corvallis, OR 97331. 800-858-7378; www.nptn.orst.edu; nptn@ace.orst.edu. Provides an unbiased, scientific information hotline to field questions on the ecological and health effects of pesticides.

National Recycling Coalition, 1727 King Street, Suite 105, Alexandria, Virginia 22314-2720. 703-683-9025; Fax: 703-683-9026; www.nrc-recycle.org. Fact sheets, reports, and directories related to recycling.

New Road Map Foundation, PO Box 15981, Seattle, WA 98115. www.newroadmap.org. Dedicated to lowering consumption in North America. Publishes "How Earth-Friendly Are You? A Lifestyle Self-Assessment Questionnaire" which may be reproduced free of charge and distributed.

Northeast Organic Farmers Association, c/o Hawson Kittredge, NOFA/Mass, 411 Sheldon Rd., Barre, MA 01106. 978-355-2853. Promotes organic agriculture. Provides a map of organic growers in MA, NH, VT, CT, RI, NY, NJ and Ontario and a listing of organic CSAs. An independent certification agency for organic growers.

Ocean Arks International, 176 Battery St., 3rd Floor, Burlington, VT 05401. 802-860-0011; www.oceanarks.org; info@oceanarks.org Information about living machines.

OMB (Office of Management and Budget) Watch, 1742 Connecticut Ave. NW, Washington, DC 20009. 202-234-8494; Fax: 202-234-8584; www.ombwatch.org; omb-

watch@ombwatch.org. Free database that you can search to check on corporate activities.

Organic Fiber Council, 5801 Sierra Ave., Richmond, CA 94805. 510-215-8841; Fax 510-215-7253; www.ota.com/ofc.htm; ofc@igc.org. Promotes awareness and understanding of organically grown agricultural fibers by educating consumers and the apparel and textile industry

Organic Trade Association, 74 Fairview Street, P.O. Box 547, Greenfield, MA. 01302. 413-774 7511; Fax 413-774- 6432; www.ota.com; info@ota.com. Publishes the Organic Pages, a directory of organic growers, and the Organic Fiber Directory, devoted strictly to organic fiber producers, manufacturers, and retailers.

Permaculture Activist, PO Box 1209W, Black Mountain, NC 28711. 828-669-6336; Fax 828-669-5068; <http://metalab.unc.edu/pc-activist/>; pcactiv@metalab.unc.edu. A monthly magazine discussing permaculture design techniques and implementation strategies.

Permaculture Network: www.permaculture.net

Pesticide Action Network North America, 49 Powell St., Suite 500, San Francisco, CA 94102. 415- 981-1771; Fax 415-981-1991; www.panna.org; panna@panna.org. PANNA links over 100 affiliated health, consumer, labor, environment, progressive agriculture and public interest groups in North America with thousands of supporters worldwide to promote healthier, more effective pest management.

Planet Drum Foundation, Raise the Stakes, Box 31251, San Francisco, CA 94131. 415-285-6556; Fax 415-285-6563; www.planetdrum.org; planetdrum@igc.org. One of the best organizations providing information about bioregionalism.

Public Citizen, Critical Mass, 215 Pennsylvania Ave. SE, Washington, DC 20003. 202-546-4996; www.citizen.org; Founded by consumer-advocate Ralph Nader, this organization addresses consumer, environmental, corporate responsibility, and indigenous peoples' issues.

Real Goods Trading Company, 966 Mazzoni St., Ukiah, CA 95482. (707) 468-9214 or 800-762-7325; www.realgoods.com. A mail-order catalog services that supplies energy-efficient appliances, solar power goods, and other recycled and environmental goods.

Rocky Mountain Institute, 1739 Snowmass Creek Rd., Snowmass, CO 81654. 970-927-3851; www.rmi.org; outreach@rmi.org. Provides consulting and educational information about water, climate, buildings, transportation and other issues.

Rodale Institute, Box 323, RD 1, Kutztown, PA. 610-683-1400; www.rodaleinstitute.org; info@rodaleinst.org. Promotes a regenerative food system that supports human and environmental health. Publishes *Organic Gardening Magazine*, and also publishes a wide array of books on organic farming. An excellent clearinghouse of information.

School of Living, 432 Leaman Rd., Cochranville, PA, 19330. 610-593-2346; www.s-o-l.org; SOL@s-o-l.org. Dedicated to learning and teaching the philosophy, practices and principles of living that are self-empowering for individuals within the general aim of establishing decentralized, ecologically-sound, self-governed and humane communities.

Scientific Certification Systems, 1939 Harrison St. Suite 400, Oakland, CA 94612; 510-832-1415; Fax 510-832-0359; www.scs1.com; gmcpartland@scs1.com. Established in 1984 as the nation's first third-party certifier for testing pesticide residues in fresh produce. In the past 15 years, the company has evolved to become a certifier of multiple

facets of the food industry and of the environmentally sound management of forests, marine habitats and a wide variety of businesses

Seeds of Change, 888-762-7333; www.seedsofchange.com. Sells seeds and seedlings that are certified organic, open-pollinated (self-reproducing, non-hybrids), GMO-Free (no Genetically Modified Organisms), chemical-free (no chemicals used to grow or treat), and grown by Seeds of Change and their network of certified organic family farms and nurseries.

Seed Savers Exchange, 3076 North Winn Rd., Decorah, IA 52101. Publishes the "bible" on heirloom and antique seeds.

Simmons Natural Bodycare, Hwy 36, Bridgeville, CA 95526. //home.pon.net/simmonsnaturals/catalog.html. Supplier of some of the purest natural bodycare products.

Sustainability Source, Inc. 11504 SW Woodlee Hts., Portland, OR 97219; 503-244-5808; Fax 650-373-7430; www.sustainabilitysource.com/home; info@sustainabilitysource.com. Sponsors the Sustainability Screen, a listing of manufacturer's environmental and social practices, and provides a listing of green businesses and products.

Sustainable Cotton Project, www.sustainablecotton.org; info@sustainablecotton.org

Time Dollar Network, PO Box 42514, Washington, DC 20015. 202-868-5200; www.timedollar.org; info@timedollar.org. Time Dollars are a tax-exempt currency that people can earn by using their time, energy and skills to help others.

US Composting Council, PO Box 407, Amherst, OH 44001-0407. 440-989-2748; Fax 440-989-1553; www.compostingcouncil.org; info@compostingcouncil.org.

Vegetarian Resource Center (VRC), P.O. Box 38-1068, Cambridge, MA 02238-1068. 617-625-3790; Fax 617-357-2596; www.tiac.net/users/vrc/vrc.html; info@vegetarian.org. Provides the names of local vegetarians in any area in North America. Provides referrals to lists and internet resources for vegetarian questions.

Washington Toxics Coalition, 4649 Sunnyside Ave N, Suite 540E, Seattle WA 98103. 206-632-1545; www.watoxics.org; info@watoxics.org. An information clearing-house providing education on toxins and their alternatives.

Waterwiser, 6666 West Quincy Avenue, Denver, CO 80235. 800-559-9855; Fax 303-794-6303; www.waterwiser.org; bewiser@waterwiser.org. A branch of American Waterworks Association, Waterwiser promotes water conservation strategies. An excellent resource with articles and links to water conservation, recycling, and reuse issues.

A SHORT LIST OF READING MATERIAL

Balch, James F. and Phyllis A. Balch. 1997. **Prescription for Nutritional Healing**. New York: Avery Publishing Group. A comprehensive resource guide for natural healing. Offers advice on healing from using the least interfering methodologies to the most invasive procedures.

Berthold-Bond, Annie. 1994. **Clean and Green**. Woodstock, NY: Ceres Press. An excellent resource for natural cleaning products. Full of easy to use do-it-yourself recipes that work well. For \$10, it's well worth the money.

Campbell, Stu. 1983. **The Home Water Supply: How to Find, Filter, Store, and Conserve It**. Pownal, VT: Storey Books. A well written guide for homeowners.

Chelsea Green Publishing, PO Box 428, White River Junction, VT 05001. 800-639-4099; www.chelseagreen.com. A variety of do-it-yourself books on homebuilding

issues, from passive solar design to mortgage-free strategies.

Elkington, John, Hailes, Julia, and Joel Makower. 1988. **The Green Consumer**. London: Penguin Books. Contains a fairly comprehensive listing of "cruelty-free" and environmentally friendly personal care products.

Jenkins, Joseph. 1999. **The Humanure Handbook**, second edition. Jenkins Publishing (www.jenkinspublishing.com). Composter's bible, includes worldwide list of compost toilet sources. 800-639-4099.

Kimbrell, Andrew C. and Edward Lee Rogers. **The Environment, The Law, and You**. In Rifkin, Jeremy, ed. 1990. **The Green Lifestyle Handbook**. New York: Henry Holt and Company. p. 156.

Mander, Jerry. 1991. **In the Absence of the Sacred**. San Francisco: Sierra Books. An excellent treatise on the failures of technology and the survival of indigenous cultures.

Mollison, Bill. 1988. **Permaculture: A Designer's Manual**. Tyalgum, NSW, Australia: Tagari Publications. In bookstores, or on the web.

The Nation, 72 Fifth Ave., New York, NY 10011. Reports on government and corporate involvement in all major current issues.

Schaeffer, John, and Douglas Pratt. 1999. **The Solar Living Sourcebook**, tenth edition. White River Junction, VT: Chelsea Green Publishing. A sourcebook for ecological living technologies and strategies.

Winter, Ruth. 1999. **A Consumer's Dictionary of Cosmetic Ingredients**. Three Rivers Press.

Winter, Ruth. 1999. **A Consumer's Guide to Food Additives**. Three Rivers Press.

GOVERNMENT CONTACTS

Toxic Release Inventory and Emergency Planning and Community Right to Know Act (EPCRA). Free information from the US Environmental Protection Agency. 800-535-0202.

Hazardous Waste is regulated under the **Resource Conservation and Recovery Act**, 800-424-9346.

For information about drinking water contamination, call EPA's **Safe Drinking Water Hotline**, 800-426-4791.

To find more information regarding the health effects of environmental contaminants, call **EPA's Pollution Prevention Clearinghouse**, 202-260-1023. The website for the EPA is: www.epa.gov.

Resource Conservation & Recovery Act (RCRA-7002 (42 USC-6972)

Addresses hazardous and non-hazardous wastes. Directed toward companies who transport, store, treat or dispose of waste and violates the Act or fails to perform cleanup responsibilities.

Comprehensive Environmental Response, Compensation, and Liability Act CERCLA or Superfund-310 (42 USC-9659) Addresses hazardous substances or pollutants. Directed toward suppliers or operators of underground injection wells who fail to maintain drinking water standards or violate orders under the act.

Safe Drinking Water Act (SDWA-1449 42 USC-300j-8) Addresses public water systems or underground sources of drinking water. Directed toward anyone who violates permits issued for discharge of pollutants into surface waters.

Clean Water Act (CWA-505 33 USC-1365) Addresses surface and groundwater. Directed toward anyone who violates a permit condition.

Surface Mining Control and Reclamation Act (SMCRA)-520 30 USC-1270.

Addresses coal mining during both mining and post-mining restoration of sites. Directed toward anyone who violates a regulation under the act regarding the safe manufacture, use, disposal, and processing of chemicals, including PCBs.