Stratford Library Book Talk

by Elizabeth Barker

The Stratford Library consists of approximately 1,500 books ranging from Farmer Jeff's dissertation to children's board books. The focus of the collection (in accordance with Stratford's mission) is on children's education, ecology, farming, and gardening. Classics (Eulle Gibbons, Gene Logdson) arcane details (earthworm dissection, farm machinery) and older agricultural techniques still have value and have generally been displaced. They may be on the shelves at Stratford.

Most of the books are arranged in Dewey (standard public library classification) order. The Herb Group books have their own shelf with related materials. Field guides, picture books, and most education materials are also in a separate area. There is a magazine collection arranged by title and date which includes a large number of Mother Earth News copies. Dept. of Agriculture year books and some other series are on the upper shelves as are some really large books.

Books can be checked out by someone at the front desk. There is a computer database of the collection, searchable by author, title, and subject. Unfortunately the database does not have non-active access. A printout, and possibly, web access to at least a title listing should be feasible in the near future. Appropriate book donations are welcome. Some duplicates are available for purchase.

When the library was suggested as a topic I was puzzled about presentation. That problem was easily solved by asking staff to select books they felt were of particular value. Farmer Jeff had no problem selecting half a dozen and offered more when I rather proudly mentioned that I had already used three of them in previous talks. (Small is Beautiful, Scott and Helen Nearing, and David Kline's Great Possessions). April Hoy quickly pulled out two children's books. Emily Rudy selected a book on where various house plants would be happy in her new home.

Three of Jeff's books are ecological classics, illustrative of not just the earth related more physical aspects, but of the human (most accurately described as) spiritual aspects. New Roots for Agriculture by Wes Jackson (1980) begins with the now ever increasing awareness that expanding human civilization has destroyed so much of the environment during a short enough time period that no natural adaptation is possible. Cultural emphasis on the special creation of man and the idea that he was given dominion over other animals has dominated much of western agricultural practice. Post WWII US capitalization of land favored mechanization and speculation. Current agriculture is primarily based on monocultures and annuals. Our methods of agriculture consume the land and the water and are dependent upon human intervention through fossil based fuel and chemical input.

The idea that moving from a hunter-gatherer stage to agriculture was an improvement has become more questionable. Possibly the main "advantage" was the increase in human population. Jackson cites the !Kung Bushmen. Only 2/3 of them were needed 2-3 days a week to provide food for all. We have set ourselves, and our food supply, apart from the natural context. Agriculture needs to be less human dependent and more self-renewing. No land ethic was necessary as long as the energy (solar) put into an area was sufficient for the people of that area. An agriculture based on more perennial crops and restoring the soil will help us move toward a sustainable land ethic. Land is the birthright of the people. Control and ownership should be widely dispersed to diffuse power and economics. Many practical alternatives are presented. The book concludes with a detailed, illustrated vision of the utopian farm outside the solar village.

Holistic Management by Allan Savory (1999)

Allan Savory spent his early years in South Africa as a park ranger and tracker. He and his wife, Jody Butterfield, are the co-founders of the Center for Holistic Management in Albuquerque. The book is an intensive introduction to holistic decision making and its application to grass land management. It's an intimidating combination. The ecological applications serve to provide real life illustrations for the holistic management. Perhaps less obvious is that the concept of holistic decision making is so ingrained in Savory's grass land management that one needs to understand the former in order to practice the latter. This is a true stewardship of the land which takes into account all the environmental, social, and economic results and their consequences. Ecologically, everything is connected to everything else. Savory's approach is to start with a manageable portion and work up to a broader view.

A basic concept involved in holistic decision making is that of paradigms. (def: a mode of viewing the world which underlies the theories and methodology of science in a period of history.) An example would be one I encountered in an earlier book talk which also illustrates how holistic management incorporates seemingly opposed views and goals in decision making. Park rangers and cattlemen working from shared desirable results found that managed grazing promotes more revitalization of desertifying areas than rest. The result was a revised, more equitable and more effective public land policy. The beneficial role of cattle is a key element in much of Savory's range management. The soil in desertifying areas becomes capped and impervious to seedling growth. Milling, crowded ruminant behavior (buffalo, cattle) both breaks up the top soil layer and tamps seeds, enabling them to take advantage of any rainfall. Savory also questions the value of saving endangered species vs. wider habitat preservation.

I took 6 pages of notes. I don't feel competent to summarize so I'll quote some highlights. The resource base for decision making is all the people who will or can be influenced by the decision but won't have the power to veto or alter the choice. Across most cultures there is a greater

similarity in the values underlying the quality of life desired than in anything else. Concentrating on resolving conflicts generally only exacerbates conflict and leads to deadlock.

Plants established through stolons or runners lack genetic diversity because they are all clones. Mineral dollars are the money derived from human creativity, labor and raw resources. Solar dollars are non-cyclable but inexhaustible. Only solar dollars combined with resource enhancing mineral dollars will enable you to produce the biological capital that will be sustainable both long and short term. Management must be an original product of human imagination that evolves as situations change. Holistic management depends entirely on one's ability to think and be creative. The most vital responsibility is to create an environment that nurtures creativity. Top down management is why it took the British navy 200 years to abolish scurvy. Guided by a holistic goal and steps toward it accounts for human nature and requires an attitude bent on success. It's easy to allow expenses to rise to meet projected profits. Look twice at ridiculous ideas and wealth generating expenses. Financial award needs to be fair to everyone and not destroy trust. The finest fertilizer is a farmer's footsteps. Planning is a process that incorporates modification based on constant feedback. Planning according to a tested procedure gives a peace of mind that enables one to concentrate on single aspects when problems arise. It is the only way to produce desired results in a complex situation.

The Way of Ignorance and Other Essays by Wendell Berry (2005)
Part I is several short, rather political philosophy oriented pieces plus a description of a man who logs with horses - and loving care. Part II is a broader examination of man's place within the living world. Berry looks at the place he calls home and what it means to him. He examines the often self-centered view humankind takes toward the wider world. He chides our lack of humility and recommends recognizing how much we don't - and can't - know. He wonders whether we can change the way we live and work to establish a harmony between the given and the made world. Global economics and specialties seem to be dominant forces. Yet can we really continue to mine both land and labor and also save wilderness or people in communities? Can productivity or longevity be of more value than quality? Husbandry, the practices that connect us to the living network that sustains us, is discussed. How is it affected by increasingly mechanical connections? Are we winning in our efforts to control nature or is there a better approach? What a lot to think about, even some things about Biblical interpretation. Part III has a letter to congressman about party stances - and his response. There is also an essay by Courtney White on range management echoing Savory's approach.

Tree Crops: a Permanent Agriculture by J. Russell Smith c1929
The book is dedicated to three provosts whose "sympathetic understanding and practical aid" enabled the author's research. Similar persons haven't been as available for its implementation.

Politicians and bureaucracy (and maybe paradigms?) are the major problems. The book is primarily a compilation of information about varieties, production, and cultivation of tree products. The basic premise is that perennial trees are a much neglected aspect of agriculture and that their cultivation would be advantageous to the development of a more sustainable approach.

Trees are perennials. They prevent rather than cause erosion and are less susceptible to variations in the weather. Little selective breeding has been attempted and has great potential as does grafting. Stock foraging is a more reliable market than human food choices. Farming should fit the land. The best way is to look at how nature uses the land. The potential for two story culture with annuals grown underneath and for mixed plantings is discussed. The majority of the trees discussed are not cultivated. Page 203 has a table of food value comparison of various nuts with milk. The comment "we like what we eat after we get used to it" follows.

Honey locust provides both long lasting posts and beans that are relished by cattle and horses - and possibly were eaten by John the Baptist. A method of growing transplantable trees is provided. Mulberries are cheap, easy to propagate, and have extended bearing periods. Chickens make a weight for weight gain as the berries are higher in carbohydrates than pumpkin and have the same dried food value as figs. Persimmons are touted. Chestnuts are discussed at length. (Progress still seems slow.) Acorns have been used by people and for stock foraging. The value of oaks for wildlife support is a current topic. Pecans and other hickories have a section. Miscellaneous trees include the Osage Orange whose fruit has a high starch content. The potential value of trees in flood control, etc. is also considered.

Research was done in many countries. The incidental formation on people, folklore, agricultural practices and trees of all kinds is worth the reading.

The Diversity of Life by Edward O. Wilson (1992)
This is another hard to summarize book. Details on the principles of diversity are defined. The development of diversity, why it is important, and how it affects the environment over time are basic topics. Together these weave a complex web that needs some serious study to appreciate or to appropriately sequence. It would be a very good text.

Western science is built on the obsessive search for the atomic units with which laws and principles are derived. It presupposes a level of organization which enables complex systems to be broken into simple components. Evolution, a product of populations and changes over time began with a simple form of life that developed into an array of life forms. The species concept is a by-product of evolution and is crucial to the study of biodiversity. Diversity refers to both genetic variety within a species and differences among species. Diversity makes resilience possible.

Environment is the theater and evolution is the play. If the phenotype changes favor reproduction and survival it increases. The speed of change depends on its dominance or recessiveness. We understand genetics much better than ecological influences and processes. We also find it very difficult to view evolutionary change as governed by random factors - not as another hierarchy directed toward some goal or more complexity. Each bacterial type can utilize up to 100 carbon sources and they evolve rapidly to exploit that. Bacteria readily exchange gene and have short generations.

New species tend to compete with each other rather than complimenting the community. Species of limited distribution will be displaced by more "efficient" forms. Any kind of isolation of a small population will influence the succeeding adaptations. Adaptive radiation is spread of species into different niches. (Mammalian radiation requires a continent sized area.) Both Darwin's finches and Lake Victoria's numerous cichlids illustrate niche radiation in a small area. Settling down increases the probability of extinction. Adapting to habitat from which it is easy to disperse has the opposite effect. The ability to forage over a wide area helps. An elite group has influence beyond its numbers. Decimation of a dynasty by climate change opens the area. This is an example of ecological release. The rise of the Panama Isthmus allowed North and South American biological interaction.

Evolutionary convergence is the occupation of the same niche by different adaptive strategies. Alleles are different forms of the same gene. The constant of branching patterns to map evolutionary changes is cladistics. The survival of the clad has more significance than the survival of a given species. Predators can be less dangerous than competitors. Food chains in community are generally short, but each fits into other chains. Grass eats no one; the hawk isn't eaten. Analyze ecosystems from bottom up. Evolutionary goals are specialized forms of behavior which is a form of complexity.

As early life forms became more numerous they exerted increasing command of earth's environment. Oxygen was captured by ferrous iron which saturated early water with ferric oxide which settled to the ocean floor. Anaerobic microorganisms developed ways of utilizing the oxygen. Aerobic metabolism is more efficient. Photosynthesis utilized the sun's energy directly and increased the oxygen content of the atmosphere. Ediacaran fauna resembling jellyfish were the first animal. Large active animals need aerobic respiration and lots of oxygen.

The continental land mass has changed in a way which enhances species formation. Latitudinal diversity is gradual and there is an increase of species from pole to equator. More solar energy, a more stable climate, and a larger area all favor diversity as illustrated by the Amazon rain forest. Seasons favor wide range adaptations. Source areas send out colonials while sinks are those barely surviving. Proof of the value of a stable environment on diversity is the ocean floor. The smaller the size of the organism, the more niches there are in a given area - the

greater the diversity. Metamorphosis as transition allows penetration of more habitat and wings provide wider dispersal. Africa was a separate land mass (as were Australia and Madagascar) and different life sources, conditions, and chance contributed to the evolution of unique forms. One million years is an average life for most species. Island flora and fauna show a consistent relation between species and area.

Biodiversity is our least appreciated resource. Alteration of the physical environment to a state uncongenial to life greatly limits the ability of diverse life forms to sustain themselves. The spotted owl fight overlooked the probable mass extinction of habitat. Biological dynamics of rain forest fragments illustrate how degraded a small area becomes. Winds dry out the periphery. There are no peccaries, no wallows, no dung, nor carrion.

We need to draw more income from wilderness areas without destroying them. A quarter of all prescriptions come from plants, 13% from microorganisms. Turtles, iguanas, and carp are all good food sources. Agriculture has always been a tradeoff of desired traits for wild survival. The Green Revolution exaggerated the losses. Harvesting minor rain forest products produces more profit than clearing - and is sustainable. There are two competing guidelines of conservation: cost/benefit analysis and the safe minimum standard which treats each species as an irreplaceable resource. Saving the world's flora and fauna needs broad cooperation, not separate ways. We need to create biological wealth which isn't consumed but continually renewed by the sun's energy and nature. Promote sustainable development. Save what remains. Restore the wetlands.

Humanity is part of nature. The idea that people can flourish apart from the rest of the world is a delusion. The most favored living place is a prominence near water from which park land can be viewed. Those who feel that man was a special creation of a God who gave them dominion over the earth should recognize that we are destroying His creation. Give the hand of the free market a green thumb.

Everybody Needs a Rock and The Other Way To Listen are both written by Byrd Baylor and illustrated by Peter Parnall. The author has always lived in the Southwest and has close relationships with local indigenous people. The illustrator was raised in the Mojave Desert. Their intimate knowledge of and appreciation for the area fills these books. The simple line drawings and the poetic phrasing encourage a contemplative awareness of the books themselves and the encompassing world. Do you remember the pet rock fad? I look at my window sill which is filled with small rocks I'm apparently forced to collect. I think of the young girl who recently complained to a clothing company that girls also needed functional pockets for carrying rocks and other items. There are ten rules for finding a rock. It can be a friend and a way of holding close to nature. Having your own rock could be a step on the way to the other way of listening. A young girl knows an old man who can hear the corn singing and wildflowers

beginning to grow underground. Could she learn how to do it? It takes a lot of practice and a lot of time. She had the time. Do you?

The Facts of Light about Indoor Gardening

The book is part of a series written by the Ortho Books staff and was published in 1975. Packed in less than 100 pages is a comprehensive look at selection, placement and overall provisions for and care of house plants. There are detailed charts on the light requirements for plants and how to evaluate the light environment your home provides. Containers, watering techniques, propagation, and ways to modify conditions are examined. There are new varieties of plants and fancier equipment, and different ways of presenting the material than there were in 1975. How plants grow and the environment they need hasn't changed. This is a good example of the helpful information that sits on Stratford's library shelves - waiting to be discovered and used.